

**Specimen for
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**Enhancing interdisciplinary communication and
documentation in UX projects**

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**A human-centred approach to internal tool
development**

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Name and Surname: Jasmin Petrick

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First examiner: Prof. Dr. Simon Nestler

Second examiner: Prof. Dr. techn. Priv.-Doz. Andreas Riener

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Enhancing interdisciplinary communication and documentation in UX projects

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A human-centred approach to internal tool development

Abstract:

The present master's thesis investigates the idea of a tool focusing on the challenges of interdisciplinary work, including interdisciplinary communication, adaptation management in iterative work processes, and their documentation. The human-centred design process is used as the basis for planning and executing project activities. As a result, context of use interviews are conducted to build a basis for deriving needs and requirements. Wireframes are iteratively created and explored with the expert users of the practice partner (Die Plusbringer GmbH). The theoretical foundation mainly includes the aspects of the working areas of programming and design, as these disciplines are mainly involved in the UX (user experience) projects of Die Plusbringer GmbH. Since communication builds a foundation of interdisciplinary projects, underlying linguistic concepts are presented and considered within the derivation of a corresponding concept. An evaluation of the suitability of derived functions as well as their technical feasibility and a SWOT analysis conclude the thesis.

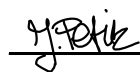
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**Specimen for declaration in
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Declaration

I hereby declare that this thesis is my own work, that I have not presented it elsewhere for examination purposes and that I have not used any sources or aids other than those stated. I have marked verbatim and indirect quotations as such.

Ingolstadt, 16.03.2023



Jasmin Petrick

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1 Introduction

Developing applications in a user-centred way requires expertise of a wide range of disciplines. In interdisciplinary teams, however, communication is often complicated due to different levels of knowledge about subject domains and their individual requirements. This is even more complicated when in the context of service activities, changing teams are working together, different working practices clash and different tools are used for documentation and exchanging information. This master's thesis deals with the topic of interdisciplinary cooperation within software projects in the form of a practical project for Die Plusbringer GmbH. The thesis mainly focuses on topics concerned with design and programming specialised software solutions. (Ferreira et al., 2011; Gross et al., 2022)

In the field of software development, conflicts in information exchange are increasingly concentrated in the areas of design and code development. The term design refers to various fields of work. At Die Plusbringer, designers work in the field of graphic design and also in the field of user research / requirements engineering. For this reason, the term design in the present thesis mainly refers to the activities of these areas. The implementation of software is mainly about the technical realisation (programming) of the aspects brought forth by the design. For this reason, there must be a constant exchange between design and programming: Developed applications should be characterised by their excellent user-friendliness, but it should also be possible to implement them in a targeted manner. (Interaction Design Foundation, 2023; Norman & Nielsen, 2023).

Based on those circumstances, Die Plusbringer intends to advance the development of an internal tool to simplify the documentation of connections between elicited requirements, design and technical conditions to facilitate the interdisciplinary communication and documentation.

Consequently, the underlying research questions derive as follows:

How can interdisciplinary information exchange between software design and software implementation and the documentation of iterative processes be supported by software?

The research question includes the following sub-questions:

- a. Which requirements arise from software design and software implementation regarding their interdisciplinary cooperation?
- b. How can the system be developed that considers the requirements of software design and software implementation?
- c. Which functions need to be included to meet the requirements that different disciplines place on the system?
- d. How can ideas developed by participating domains be verified at an early stage within iterative processes?

- e. How can a system be developed that meets the requirements of flexible documentation of a wide variety of information and still provide clarity and cross-domain understanding?

- f. To what extent can additional work in documentation and communication resulting from iterative processes be minimised?

Within the task areas of design and programming, not only do different people collaborate, but these people also have different professional backgrounds, which results in a different understanding of the task and different thought patterns or principles. Different requirements of those working areas lead thus to the fact that information can hardly be communicated at the right time and unambiguously, as required by an ideal mutual exchange. One reason can be found in language, e.g., the different meaning of synonymous terms. This is not only difficult for linguistic exchange and documentation but also for exchanging and finding information. There already exist applications dedicated to the problem of exchanging and managing large data structures, but also specialised applications in which individual specialised tasks, such as graphic design, are carried out. Chapter 2 therefore addresses these foundations of the project. In the further course, the master's thesis follows the structure of the Human-Centred Design Process, which will be discussed in more detail in Chapter 2.5. (Beyer & Gerlach, 2018; Chomsky, 2019; Ferreira et al., 2011)

Iterative procedures, which are becoming more and more common in design and agile software development, also make it time-consuming to keep all participants up to date and to balance efficiency and detailing of conceptual designs. However, this is essential to ensure the implementation of concepts. Often, this involves a trade-off between technical possibilities, or the effort involved and the actual added value for the user. Chapter 3 provides an insight into

the working methods of die Plusbringer, highlighting the associated challenges using current tools. (DIN EN ISO 9241-210, 2020; Geis & Polkehn, 2018; Raabe et al., 2012)

In the following, these discovered aspects are further analysed by identifying needs, requirements and important use cases (see Chapter 4) to be translated into first draft. Those in return build the basis for producing design solutions (see Chapter 5) to iteratively develop an initial concept (see Chapter 6), which will be presented and evaluated in Chapter 7. Finally, a conclusion is drawn using a SWOT analysis and expert evaluation of technical feasibility and an outlook is presented in Chapter 8.

2 Theoretical Foundation

The case study "User experience design and agile development: Managing cooperation through articulation work" by Ferreira et al. (2011) highlights the importance of coordination and interaction activities between user experience design and agile development in software development projects. The authors recommend three main aspects to be considered in the cooperation between these disciplines:

- Impartially bringing together the different ways of working and expectations of the disciplines,
- encouraging self-organisation in order to discuss implementation proposals constructively and
- valuing these discussions as a purposeful and necessary step in the work.

Consequently, the aim of the preceding desk research is an overview over existing working principles and tools to enable transfer of knowledge to the current research objective. Furthermore, research contributes to general understanding of aspects involved in cross-domain work and serves as guidance for the next steps of investigation. (Ferreira et al., 2011)

When operating in the area of cross-domain work, it is important to get acquainted with the working principles of involved disciplines. In this case, this concerns the principles of design and programming, pursuing to understand processes of a third parties' domain and integrating it into the solution to be developed. In this respect, design focuses primarily on the process of determining and integrating those business processes (see chapter 2.1), while software implementation concentrates primarily on the system-side translation of the determined principles (see Chapter 2.2). Hereby, programming principles commonly propose data structures (e.g., "classes" or "entities") for translating emergent concepts. Similar classification approaches can also be found in design, for example through suggestions from standards. Thus, communication is crucial since it allows for the establishment of shared objectives that are as distinct as the steps taken by different team members: Even if the principles presented in Chapter 2.1 and 2.2 differ, the intentions and contents must still be clearly understood by all project members (see Chapter 2.3). Different software solutions are currently used by Die Plusbringer for information exchange and are therefore examined in more detail in Chapter 2.4. Finally, a first conclusion is drawn and a specified research commission evolves (see Chapter 2.5).

2.1 Introducing Common Design Principles

User-friendly software development prerequisites awareness about the user and the usage environment of an interactive system. Different development approaches originating from design propose a number of application-oriented and field-tested methods in this respect. This involves the formation of a meaningful knowledge base about the context of use as well as the targeted transfer of the findings into proposed solutions in different ways. Those solutions in return need to be structured, especially when it comes to transferring them into first wireframes, which is addressed among others by part 161 of DIN EN ISO 9241. Since the application to be developed will be used in the context of user-friendly software development and will itself be developed according to human-centred principles, knowledge about these methods can be transferred to both – the research process and the research object itself. (DIN EN ISO 9241-161, 2016; Evans, 2004; Geis & Polkehn, 2018)

Different approaches have been devised in the field of user experience design. Common are e.g., the human-centred design process as proposed in DIN EN ISO 9241-210 and different design thinking approaches (e.g., The Double Diamond by British Design Council, Design Thinking according to the Hasso Plattner Institute Potsdam and Stanford or Design Thinking according to the Interaction Design Foundation). In general, design thinking is an approach that aims to solve problems by unconventional mindsets and creative methods. The main focus is on finding solutions that are user-friendly, market- and product-oriented. (Brown, 2008; Design Council, 2015; Hasso-Plattner-Institut, 2022; Interaction Design Foundation, 2022; Keuper et al., 2013; Stanford d.school, 2019)

Since design thinking (DT) is proposed by different originators, it shows a wide range of variants of approaches to structuring design projects, timing and selecting methods. *“DT is thus a method through which the scope for solutions can be increased. There is no ready-made algorithm, no regulated path of action on how to solve problems. Uncertainties must be endured.”*¹ (Keuper et al., 2013, p. 350)

¹ German original Quote: *„DT ist somit eine Methode, durch die der Lösungsspielraum vergrößert werden kann. Dafür existiert kein vorgefertigter Algorithmus, kein reglementierter Handlungspfad, wie Probleme zu lösen sein. Unsicherheiten sind auszuhalten.“* Keuper et al. (2013, p. 350)

Table 1 provides a comparison of four common approaches to design thinking. For this purpose it shows the proposed project phases (left column) and an excerpt of recommended methods or action instructions within these phases (right column).

Table 1: Overview of different design thinking approaches including proposed phases and methods (Design Council, 2015; Hasso-Plattner-Institut, 2022; Interaction Design Foundation, 2022; Stanford d.school, 2019)

The Double Diamond by Design Council (Design Council, 2015)	
Discover	Observation, quantitative surveys, secondary research
Define	Focus groups, assessment criteria, customer journey mapping
Develop	Character profiles, scenarios, role-playing, physical prototyping
Deliver	Final testing, evaluation, feedback loops
Design Thinking according to Hasso Plattner Institute Potsdam (Hasso-Plattner-Institut, 2022)	
Understand	Exploring current design challenge, secondary analysis
Observe	Qualitative research, secondary research, summarizing results in "insights"
Define the Point of View	Data synthesis, defining relevant social groups, personas
Ideate	Brainstorming, role plays, regroup and summarize ideas
Prototype	Physical and digital prototyping
Test	Testing iteratively
Design Thinking according to Hasso Plattner Institute Stanford (Stanford d.school, 2019)	
Define	Identify problems, tensions, insights
Ideate	Brainstorming
Prototype	Low-resolution designs, role play, rapid prototyping
Test	Testing with costumers, refining solutions
Assess	Guidelines to evaluate solutions, Feedback
Interaction Design Foundation (Interaction Design Foundation, 2022)	
Emphasise	Apply empathy to identify user needs and problems
Define	Problem statements, personas
Ideate	Challenge assumptions, create ideas, brainstorming
Prototype	Create solutions, paper prototypes
Emphasise	Apply empathy to identify user needs and problems

Another common approach is the human-centred design process from DIN EN ISO 9241-210, followed by the present thesis. By focussing on users, their needs, and requirements, as well as utilizing knowledge and techniques from the fields of usability and ergonomics, human-centred design creates useful and usable interactive systems. With this strategy, possible negative impacts on e.g., human health and performance that might arise from using the system, should be mitigated and effectiveness, efficiency, accessibility and sustainability increased. The main goal is to manage the processes involved in designing and redesigning hardware and software so that human-centred design activities can be defined and planned efficiently and on time. Thus, it expands upon the process methodologies created and verified in ISO 13407. To achieve above mentioned goals, the human-centred design process breaks down the work process into five sections: planning the human-centred design process, understanding and defining the context of use, defining the requirements of use, developing design solutions and evaluating the design. Furthermore, iterations between mentioned phases are recommended. In addition, the standard contains recommendations on contents and activities as well as criteria for the results of the different phases. (DIN EN ISO 13407, 2000; DIN EN ISO 9241-210, 2020; Geis & Polkehn, 2018)

Furthermore, usefulness of user interfaces depends crucially on consistent behaviour, functionality and replication of its components. For this reason, part 161 of DIN EN ISO 9241 provides a summary of visual user interface components. As it aims to support the creation of user interface specifications, design principles and visual concepts, it appears sensible to consider this proposal when attempting to develop a system that addresses those issues. The standard presents 51 elements via a description, associated components, possible states and describes when and how the respective element is to be used. The elements are presented in alphabetical order (according to English designation) and independent of design style and platform specifications. This is intended to create a uniform use and understanding of the usage and integration of those elements. In addition, DIN EN ISO 9241-161 provides decision support for the selection of visual user interface elements. An overview of explained elements can be found in Table 2. (DIN EN ISO 9241-161, 2016; Geis & Polkehn, 2018)

Table 2: Visual user interface elements proposed by DIN EN ISO 9241-161 (DIN EN ISO 9241-161, 2016)

1. Accordion	18. Implicit designator	35. Scroll bar
2. Analogue form element / slider	19. Instructive information	36. Scroll handle / elevator / scroll box / thumb
3. Carousel / Carrousel	20. Input tokenizer	37. Selection cursor
4. Check box / check button	21. Label	38. Selection indication
5. Collapsible container	22. Legend / chart key	39. Selection list / choice list
6. Colour picker	23. Link / hyperlink	40. Status information
7. Combination box / combo box	24. List box	41. Stepper / spin button
8. Cursor	25. List button / menu button	42. System message
9. Date picker	26. Menu / menu bar	43. Tab set
10. Dialogue box	27. Output pane	44. Table
11. Dropdown list box	28. Pointer	45. Text field
12. Entry field / input field	29. Pop-up menu / contextual menu	46. Time picker
13. Entry field with dialogue button	30. Progress indicator	47. Title
14. Geographical map	31. Prompt	48. Toggle button
15. Group / group box	32. Push button / command button	49. Tool bar
16. Handle	33. Radio button	50. Tool tip
17. Hierarchical list / tree view / tree lists	34. Read only field / protected field	51. Window

Since Die Plusbringer use and combine different design methods and activities according to the individual project basis, an overview of common approaches in design serves both – the research object itself and its development process. Considering the user-centred development approaches presented, the following characteristics can be roughly defined as convergence areas of user-centred design:

- The basis for development actions is built by understanding the most important stakeholders and their ambitions (e.g., needs, pains or goals).
- The solutions developed must be based on the requirements of the stakeholders and a compromise must be found between conflicting requirements.
- Potential solutions need to be reviewed especially with experts and/or (potential) users.
- Iterations are proposed to refine and validate concepts.

Development activities should consequently pay attention to those aspects. Determination and analysis of requirements should constitute an essential building block in both – the

present research process and in the concept to be developed. The emphasis on the importance of testing developed solutions against user requirements – in various modes such as expert panels or user testing – forms another consensus between presented approaches. In software development, this typically results in the development of prototypical representations that range from low to high fidelity and focus primarily on the possible core functions of a piece of software. Accordingly, this should be taken into account in the developed tool as well as in the development and research of it. After analysing common design methods, the following section will take a closer look at popular working principles of programming.

2.2 Introducing Common Programming Principles

Since several disciplines are typically involved in a Plusbringer-project it is crucial to consider not only one-sided proposals to achieve the project's goal but consider the perspectives of further involved disciplines. After discussing development approaches originating from design in chapter 2.1, user-friendly development is examined from a programming perspective in the following. Domain-driven design and object-oriented programming were introduced for this purpose, as object-oriented programming in particular has become a typical approach in agile software development. Furthermore, the investigation of the domain driven design approach seems sensible as this method pursues similar goals of user-friendliness as previously introduced design principles (see chapter 2.1). (Balzert, 1999; Evans, 2004)

In his book *Domain Driven Design*, Eric Evans describes an approach to modelling complex, domain-specific software.² He shaped term and approach with his eponymous book. Evans (2004) proposal is based on the conviction that deep understanding of domains' logics and working-wises among developers is necessary to achieve high software quality. Therefore, a domain-model that drives the design and ubiquitous languages to ease communication – both, among team members with different educational background and between the system to be developed and its future users – is said to be the centre of development activities. For this purpose, the system is structured into domain-relevant components, ideally applying day-to-day terminology correctly already in the code (e.g., class names, operations). (Evans, 2004)

² Addressing developers of object-oriented software, design is here meant as a development activity of programming.

To build software development on domain knowledge, a distinction of different software layers is first made: presentation layer (user interface), application layer, domain layer and infrastructure layer. The domain layer should be in the foreground and supported by the application layer to be presented on the UI (User Interface). Underlying infrastructure needs to be organized in a domain-driven way. It is particularly important to decouple domain objects from other functions of the system to avoid confusing domain concepts with concepts related to development issues or technology needs. Evans (2004, 2009) categorizes different objects, so called "blocks", to be used building an application. Hereby it can be distinguished between domain objects and life-cycle objects. Domain objects focus on the definition of objects capturing concepts of the application domain for which a specific application is to be developed. Life-Cycle objects relate to managing the life cycle of those objects within the system: From creation ("birth") going through different states until objects are deleted or archived ("death"). An overview of those objects can be found in Table 3. (Evans, 2004, 2009)

Table 3: Object classification in domain driven design (Evans, 2004, 2009)

Group	Components	Basic Definition	Example
Domain Object	Entities	Element defined by identities (stays same if attributes change)	An entity "Person", that changes hair colour has still the same Identity card.
	Value Objects	Element defined by fixed attributes, usable as template.	Buttons of a system having a certain size and colour but different functions.
	Services	Important domain operations, that don't belong to one object in particular but can be assigned to different objects giving them a certain behaviour.	Banking application exports transcription into spreadsheet (application service) vs. transferring funds between accounts (domain service)
	Modules	Grouping based on domain contexts (not technical needs).	The chapters of a book grouping information
Life-Cycle Objects	Factories	Mechanism encapsulating knowledge, responsible for creating other objects and connections.	A factory "Mechanic" who builds a "Car"
	Aggregates	Collection of related objects that are treated as a unit when exchanging data.	An aggregate "Car" containing a combination of four specific wheels and a specific motor
	Repositories	Represents group of objects of same type to answer client requesting certain criteria.	Return object matching (specific "Car") to request ("combination of four specific wheels and a specific motor").
Later add	Domain Events	Triggers domain-specific processes and state changes after a certain event. Domain events enable communication between subsystems and thus form the only connection points of the overall system.	/

In addition to the objects, different methods are proposed to:

- consider the applications' context with its boundaries and relations as a model of thinking and working (e.g., using a context map),
- achieve a supple design (e.g., creating side-effect free functions) and
- structure the design on a large-scale level.

The proposal of domain driven design rather focuses on structuring final solutions than on the process of gathering and structuring a first knowledge basis as it is included in design principles introduced in Chapter 2.1.

While Evans (2004) focuses at specifically incorporating domain knowledge into underlying software components to force domain understanding and achieve user-friendly surfaces, object-oriented methods are used to create comprehensible software structures underneath this surface. Thus, object-oriented methods support understanding of the developed software by structuring code and creating a structured behaviour and appearance of components. (Balzert, 1999; Evans, 2004)

Since the 1990s, object-oriented programming has been opposed to the less flexible structured, classical development. The approach to *object-oriented analysis and design* emerged as an object-oriented variant of requirements analysis (object-oriented analysis) and system design (object-oriented design) in the development process of a software system. Object-oriented techniques are ideally already used in the development phases analysis and design to facilitate the implementation in an object-oriented programming language. By applying the same object-based concept in all development phases – design, analysis and implementation – structural breaks are to be avoided. This promotes traceability of the developed program and facilitates change through uniform structures and work with references, groupings (such as packages) and functional units (such as classes). Therefore, analysis and design aim at the same content that is necessary for the implementation of the software. The focus is primarily on the definition of objects, their behaviour and interrelationships. (Balzert, 1999)

Analysis primarily aims at understanding: Software requirements are collected and described. While Evans (2004) focuses on the need for a uniform language to make the exchange of information effective and efficient, Balzert (1999) proposes templates for documentation to

promote understanding and reduce documentation effort through uniformity. This specification can already be created in the form of a graphical UI prototype to make decisions more obvious and / or in textual form (e.g., requirements specification).³ As a result of the object-oriented analysis, requirements claim to be described complete, free of contradictions, unambiguous, accurate and comprehensible. This again raises the awareness for a terminology that is equally understandable among team members, as already addressed by Evans (2004). (Balzert, 1999; Evans, 2004)

In a next phase of object-oriented design, the focus is on planning the system using different objects (see Table 4). These originate from the analysis and are adapted and supplemented if necessary. Balzert (1999) categorizes objects concerning three parts: Basic concept, static concept and dynamic concept. Regarding design, the topics of problem domain, communication, data management and task management are supported by the design of suitable components. In addition, methods for connecting objects and notes on creation are proposed. (Balzert, 1999)

Table 4: Elements of object oriented analysis and design used for object oriented programming as proposed by Balzert (1999)

Group	Components	Basic Definition
Basic Concepts	Objects	Element in a certain state, characterized by: <ul style="list-style-type: none"> • Attributes • Relations (to other objects) • Identity (unique identification, automatically generated by the system, exists only once) Behaviour
	Classes	Defines characteristics (see above) for a group of objects, includes a mechanism to instantiate objects.
	Attributes	Values or states that can be adopted by objects.
	Operations	Define automatic or manual operations of classes, objects, attributes
	Associations	Connections between objects

³ Aiming at the same goal, User Requirements Engineering uses various methods for the systematic analysis of the context in which an application is to be developed (e.g., context of use interviews). Geis and Polkehn (2018)

Static Concepts	Inheritance	Passing on class properties to another class without the need to define them again (extendable)
	Package	Summary of elements for system structuring
Dynamic Concepts	Business processes	Tasks that must be carried out to achieve the goal (consists of scenarios)
	Messages	Request from sender to receiver, which is interpreted and executed by the receiver.
	Scenarios	Process steps to achieve a main objective
	State machine	Characterises states and transition conditions between them.

According to object-oriented analysis and design, the aim of the design is to provide an ideal realisation template for the implementation by using these objects. The author provides checklists and templates to fill in as well as methodological description for handling collected data. Nevertheless, an approach to structuring software into pre-defined components should not restrict design activities and freedoms to create user-friendly software. For this reason, design and programming must be coordinated early on, which makes the importance of communication in interdisciplinary teams evident. For this reason, the next chapter will focus on communication issues. (Balzert, 1999)

2.3 Communication

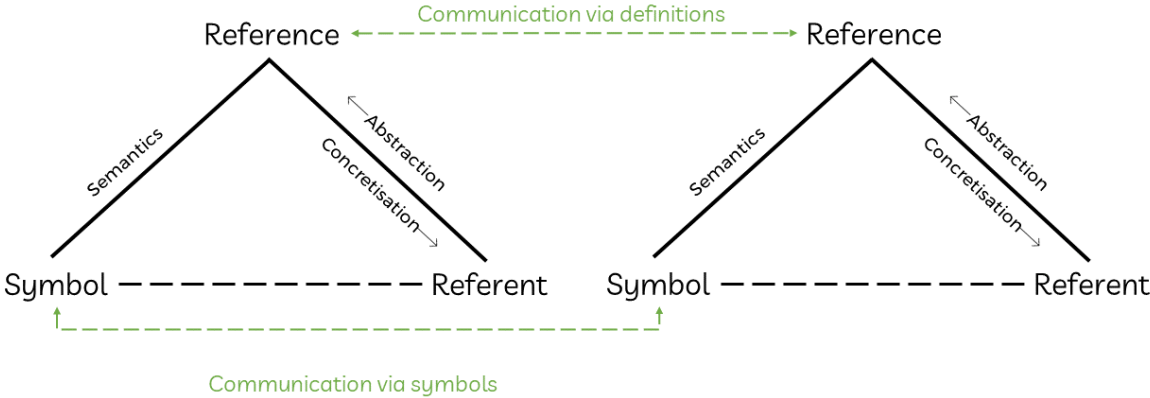
While approaches described in chapter 2.1 differ but strive for comprehension in their first project phases, Balzert (1999) required unambiguity in the requirements assessment and Evans (2004) already explicitly referred to the need for a ubiquitous team language. Chapters 2.1 and 2.2 show that already project related terms are understood differently within those domains. Thus, a consideration of underlying linguistic concepts is sensible to outline important aspects to consider when working interdisciplinary. (Balzert, 1999; Evans, 2004)

People use language to represent and exchange information. For this process to be effective, language must be interpreted largely in the same way by both, the sender and receiver of information. Even in a preliminary stage, language is seen as a central point in human thought and cognition. Bloom and Keil (2001) argue, that language is not only a means of communication, but also a means of organising and structuring thoughts, which makes language essential to our ability to think, solve problems and understand the world around us. Whether thinking is possible without language is scientifically disputed. It is likely that it

depends on the characteristics of the content in focus: Thinking appears to be feasible without language for parts requiring interaction with particular objects. Yet, it could be demonstrated that people performed substantially worse trying to solve a complex problem if they were not compelled to communicate internally. Language is thus closely related to mental models, which are considered representations or internal mappings of our understanding of the world. Mental models are of particular interest for the development of subject-specific software applications, since interdisciplinary teams try to integrate foreign knowledge into a work result and these disciplines consequently need to understand not only each other, but also the foreign discipline with its mental models and thought processes. (Beyer & Gerlach, 2018; Bloom & Keil, 2001; Geis & Polkehn, 2018; Knauff, 2021; Raabe et al., 2012)

Language reflects the linguistic representation of existing knowledge of an information sender and thus can only be understood by someone with a shared knowledge basis. Hereby, it can be observed that communication and language are mutually influential: Communication presupposes common understanding and promotes it at the same time. This is because verbal communication requires an understanding of language in order to convey meaning, while language is constantly evolving and developing as a result of communication. Within communication, different parts of the language can be distinguished, which, even within one conversation, can range from general to highly specialised. General language refers to the part of a language that is interpreted in a broadly similar way by the majority of those familiar with the language. It thus forms a consensual basis for (explicit) definitions. First introduced in 1923, the model of the semiotic triangle – or triangle of reference – serves to illustrate connections in linguistic understanding. The connection of semiotic triangles illustrates linguistic information exchange, as seen in Figure 1. (Ogden & Richards, 1989; Raabe et al., 2012)

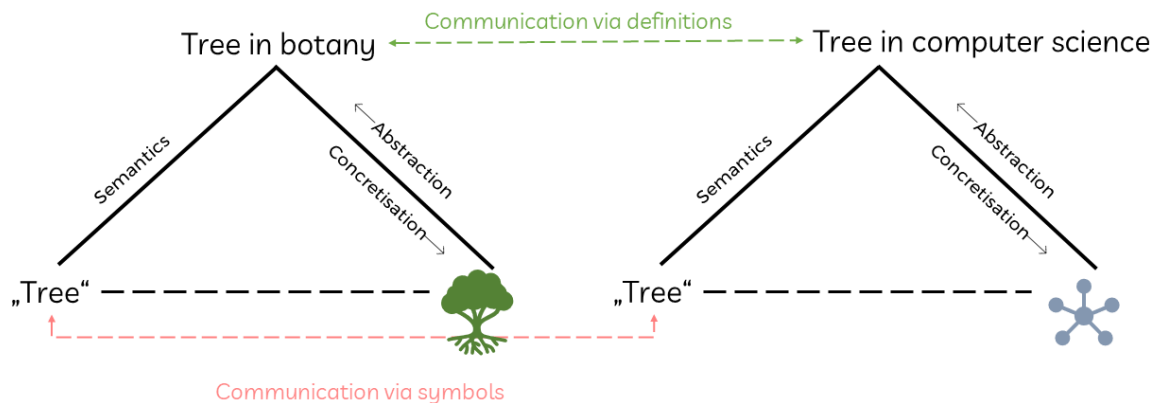
Figure 1: Introduction of the principle of semiotic triangles adapted by Raabe et al. (2012) and Ogden (1989)



The reference represents a kind of definition, which, according to the linguistic model, does not arise exclusively from explicit knowledge but also from implicit knowledge. Due to the recursive definition of a symbol, understanding cannot arise only from explicit explanation: A literal definition of a symbol itself consists of other symbols, and behind those symbols, references are used. An example can be found when imagining different languages of interlocutors: When one of the interlocutors does not understand Spanish, there is no need of a Spanish, explicit definition to an introduced symbol since the symbols included in the explanation will, again, not be understood. To exchange information, either a common vocabulary must be found, or implicit knowledge must be exchanged through showing and imitating. The communication via references is therefore less effective, which is why in general language but also within domain communication, one communicates largely via symbols. Within a domain, a specialised language is consequently developed and extends the general language of the domain experts using it. (Beyer & Gerlach, 2018; Raabe et al., 2012)

In cross-domain communication, information is exchanged between subject matter experts and laypersons (which in return are experts within another domain). Members of interdisciplinary teams have different educational background and therefore are not necessarily part of each other's general language extension. Partly different symbols, partly different references for the same verbal expression make cross-domain communication more difficult. Not least, the habit of communicating with experts within one's own domain contributes to this. Symbols cannot be defined exclusively due to the lack of intersections in the common vocabulary of team members. Thus, they can become obstacles in the purely linguistic exchange of information. As illustrated in Figure 2, not only non-understanding but also misunderstandings might arise, especially in the case of linguistic overlaps on symbol-level: Recipient and sender of a message associate different references with a symbol. Communication in interdisciplinary teams therefore in principle poses greater challenges than communication in teams of one specialist discipline. A common consensus must be found by means of general language but also by means of the exchange of implicit knowledge. (Beyer & Gerlach, 2018; Gross et al., 2022; Raabe et al., 2012)

Figure 2: Demonstration of communication barriers between different disciplines using a semiotic triangle adopted and translated from Raabe et al. (2012)



There are different approaches to how people learn a language. Chomsky (1980, 2019) assumes an existing universal grammar in the individual, which is supplemented by the respective explicitly learned language and used among individuals for communication. Piaget (1980) focuses on learning from other individuals and through experience in the adaptation process of the individual to society as the basic building block of language learning. Regardless of which of these offer a better explanation, it can be observed that communication partners (specialists and non-specialists) go through a learning process in equal measure. Consequently, supporting both sides of communicators has potential to ease information exchange. (Chomsky, 2019; Chomsky & Piaget, 1980; Raabe et al., 2012)

Thus, *“Finding and defining a common language between different disciplines or domains is the foundation for a robust exchange of information and knowledge.”* (Gross et al., 2022, p. 1). To enable people with different levels of knowledge about a subject-specific topic to communicate adequately, the following must be considered based on the model properties explained above:

- 1) Explicit definitions require the use of general language symbols to create understanding outside of a specialised area. For an explicit explanation of a symbol, sufficient symbols must be interpreted in the same way by both communication partners.

2) Since the reference behind a symbol can only be verbalised partly in a generally understandable way, understanding must be supplemented by implicit knowledge exchanges (showing, imitating).

(Gross et al., 2022; Raabe et al., 2012)

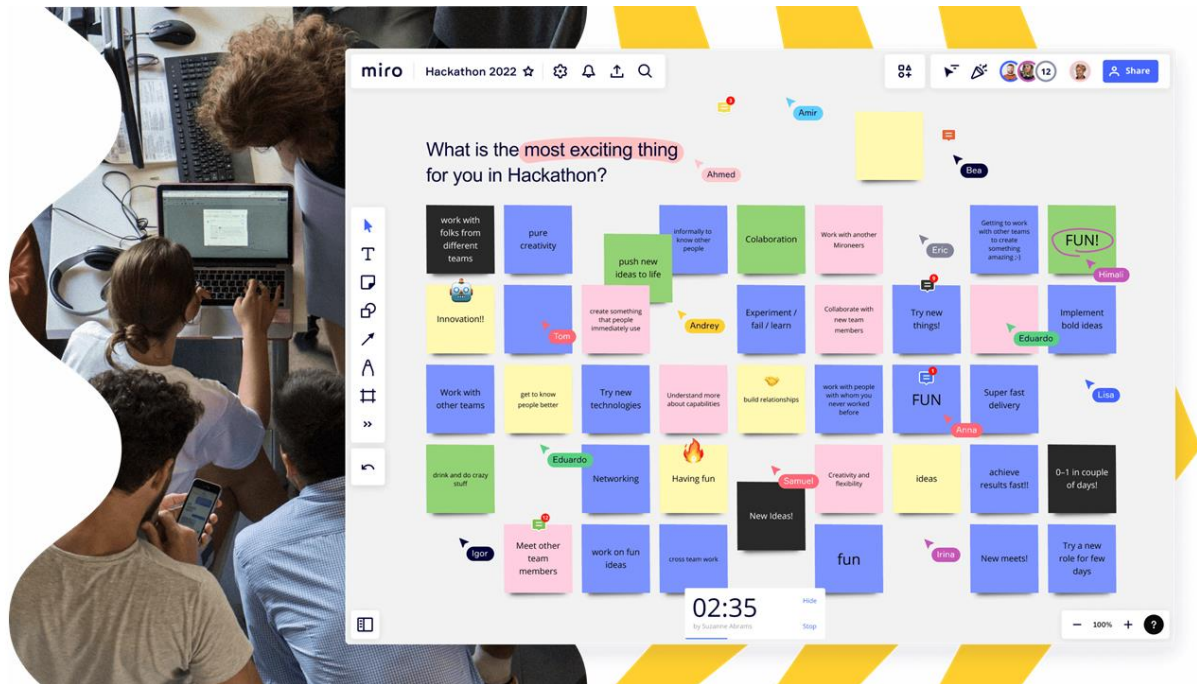
Various tools are available for sharing information across people, disciplines and departments. Chapter 2.4 introduces a collection of existing software solutions currently used at Die Plusbringer.

2.4 Existing tools for cross-domain documentation and communication

There exists already a wide variety of online tools that deal with communication, documentation, and visualisation of large amounts of data. In human-centred tool development, it is crucial to examine used working tools to comprehend users' judgements about their suitability. Consequently, the tools introduced in this chapter reflect the tools currently used by Die Plusbringer. This forms a basis for understanding user feedback, analysing which aspects need more focus and how added value can be generated for the companies' purpose during further concept development. Tools currently used by Die Plusbringer for the purpose of sharing information across disciplines are primarily Miro, Jira and Confluence. (Geis & Polkehn, 2018)

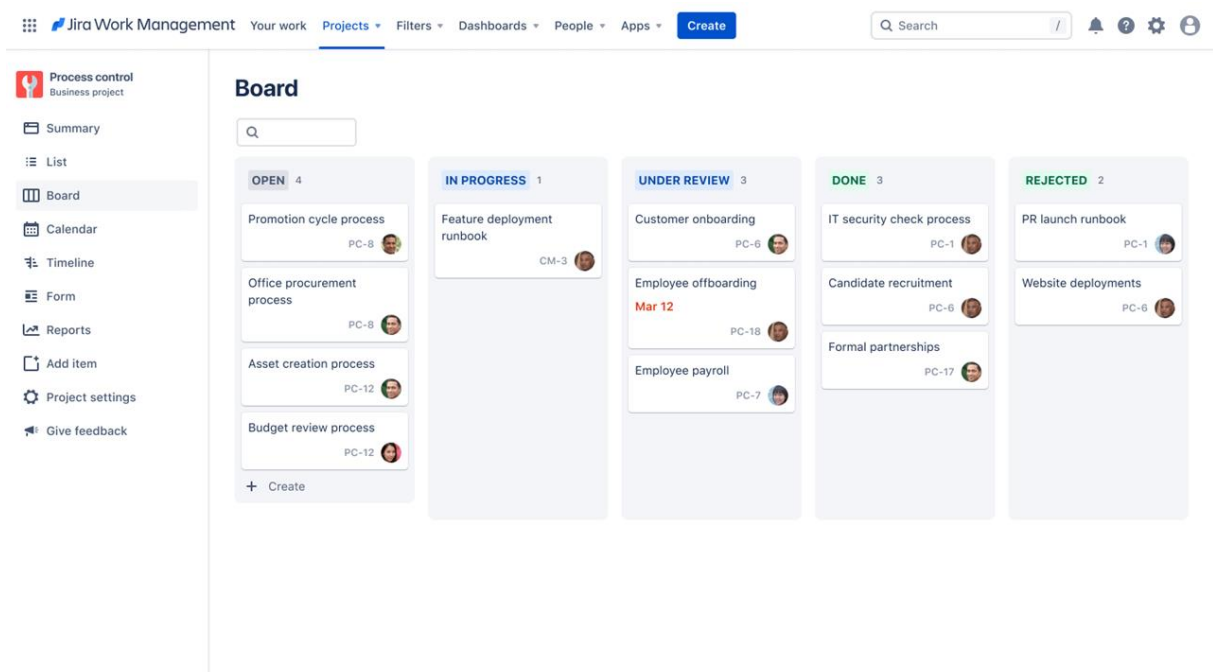
Miro is a visual collaborative online platform for creating whiteboards. In teams, various templates for data visualisation and idea collection can be used or freely created. Users can work collaboratively, meaning each team member can trace changes made by another member live and make additions independently. In addition, connections to other portals such as Slack can be created. Figure 3 shows an impression of a working space in miro. (Miro, 2022a)

Figure 3: Example of collaborative working on a Miro board (Miro, 2022b)



Atlassian developed Jira and Confluence as web tools for collaborative working. While Confluence is a wiki-software primarily used for documentation and knowledge sharing, Jira offers management functions. Typical use cases of Jira are task management, requirements management, help desks and workflow management like process management and process optimization. The landing page of Jira is a dashboard, as shown in Figure 4. (Atlassian, 2022a, 2022b)

Figure 4: Example of a dashboard in Jira (Atlassian, 2023)



Within Confluence, topics of a project ("Spaces") can be created individually, including a structure of superordinate and subordinate topics. Within the different spaces it is possible to document information, upload images and create links – to external websites or within the tool. Confluence also offers further data visualisation options, such as time-based representation in calendar form or as a Gantt chart. In Jira, tasks are essentially created and processed in the form of tickets ("Issues"). In their basic form, these consist of a summary title, a description, the assignment to an issue type, their status based on stored workflows, a priority and, if applicable, comments and attachments. As there are often several people or teams working on one issue, a basis of exchanging via Jira is recording each change made in the corresponding ticket (e.g., status). There are different options for creating, sorting and editing issues, for example Kanban and Scrum Boards. Jira also has configuration options for the following aspects: Ticket types, workflow, status, status-dependent views (screens), field types (custom fields), manual or automatic workflow transitions. Administratively, there are also configuration options in Confluence and Jira, e.g. regarding access, behaviour of fields or visibility of issues (respectively spaces). (Atlassian, 2022a, 2022b)

This brief introduction can be used as basis to discuss a suitable structure for the tool to be developed. All mentioned tools have in common that they are highly customisable and thus require team members to follow a common methodology. Therefore, the problems described in chapter 2.3 remain in structuring information and documentation. To apply a previously developed methodology, rules must be defined, learned, remembered and adhered to within the project team. The difficulty increases with each project (or project part) having a different procedure to be followed. Potential mis-entries or misapplications cannot be prevented. In addition, data structures that are excessively extensive tend to become confusing requiring data to be re-searched or administered comprehensively. Furthermore, direct user feedback about the current working situation with the theoretically analysed tools is essential to be considered and will be further addressed in the following chapter.

2.5 Summary and Resulting Research Commission

Considering common design and programming approaches and taking into account foundations in communication as well as already known tool concepts, five main findings can be derived.

- 1) Basic domain understanding to manage system complexity is necessary to develop software that serves in a specific context of use effectively, efficiently and purposefully.

A basic understanding of the applications' domain on the part of all team members is essential for the development of a system in this domain. In this context, a domain model can serve as the basis for the implementation of interrelationships and define the resulting software as far as possible. Consequently, elements should arise from user requirements and not be incorporated for reasons of easier implementation. Although this increases the complexity of the development process, it reduces complexity for the user as Tesler's Law states: Since every system is associated with a certain complexity, system complexity not considered in the development is reflected in its usage. To develop user-friendly, high-performance software, user interference must be avoided. An exemplary approach can be found in the domain-true naming of objects and classes proposed by Evans (2004), which helps to acquire knowledge from the foreign domain. (Balzert, 1999; Evans, 2004; Geis & Polkehn, 2018; Yablonski, 2022)

- 2) Purposeful communication needs a shared understanding of language.

A vocabulary that is clearly understood within the team is essential. In order for specialised language to be understood by non-specialist, explicit definitions must make use of a general language and be supplemented through implicit knowledge exchange. Requirements engineering and design thinking offer several methods for implicit knowledge exchange, such as context-of-use interviews, behavioural observations or setting up as-is scenarios. In most fields where programming and design services are in demand, knowledge of linguistic concepts and communication structures cannot be assumed across the board. This makes an awareness especially among designers all the more important to be able to overcome or circumvent communication obstacles in a targeted manner, both in researching the context of use and in evaluating potential solutions. To take this further, the approach proposed by Balzert (1999) can be used, which includes applying the same structuring in all project phases. This can be extended not only to the project structure but also to the structuring of objects and object information. (Balzert, 1999; Evans, 2004; Geis & Polkehn, 2018; Interaction Design Foundation, 2022; Raabe et al., 2012)

- 3) An Analysis should precede development activities, to start development activities in a targeted manner.

In the analysis, requirements need to be comprehensively identified and clearly described. Design and code development both introduce concepts to include and structure further external knowledge. Having the same goal, those concepts still differ especially in their focus: While concepts coming from the design discipline focus on the process of acquiring knowledge and transferring this into a user-friendly solution, software development methods are more concerned with translating domain knowledge into a system language by proposing different classification systems for components of a software to be developed. Therefore, it can be stated for the process that design and programming need to identify domain-requirements to enable a realisation template for implementation to be developed in a targeted, iterative manner. (Balzert, 1999; Evans, 2004; Geis & Polkehn, 2018)

- 4) Uniform and concise documentation can promote understanding and accelerate processes.

A concise documentation leads to faster and uniform understanding within the team and prevents overlooking and long searching for information. Influences from the development domains –such as design or programming – should provide the structure for illustrating the knowledge coming from the deployment domain. Prototypical representations can support the understanding of the included requirements at an early stage already and point out missing requirements. They should however not completely replace a comprehensive, structured documentation of requirements (e.g., behaviour of content). Based on desk research about common tools, it appears beneficial to group data in an “action” related way. An example can be found in the ticket system of Jira: Applying the same data structure through entry instructions and grouping them in a content-related way e.g., in a Kanban board creates uniformity and can facilitate orientation and understanding. (Atlassian, 2022a, 2022b; Balzert, 1999)

5) Ideally, attention is already paid to object orientation in early analysis and design.

If implementation via object-oriented programming is the aim, concerning objects and defining their behaviour early saves both – the effort of translating concepts into an object-oriented language and having to redefine the requirements for system elements and their properties continuously. Evans (2004) and Balzert (1999) have provided various elements that can serve as inspiration in the course of this project as well as the outlined elements of DIN EN ISO 9241-161. These structures can form a basis for the discussion of the structures / components to be addressed within the intended tool concept. Concepts originating from a programming side of computer science like the inheritance of properties support to determine a system logic, for example when it comes to a transfer of (visual) attributes to different representations. However, the specific suitability of predefined object categories for the day to day business of Plusbringer still needs to be estimated. Summarized results can hereby be used as basis to discuss a suitable method for structuring and documenting companies' projects (see chapter 6.2). (Balzert, 1999; DIN EN ISO 9241-161, 2016; Evans, 2004)

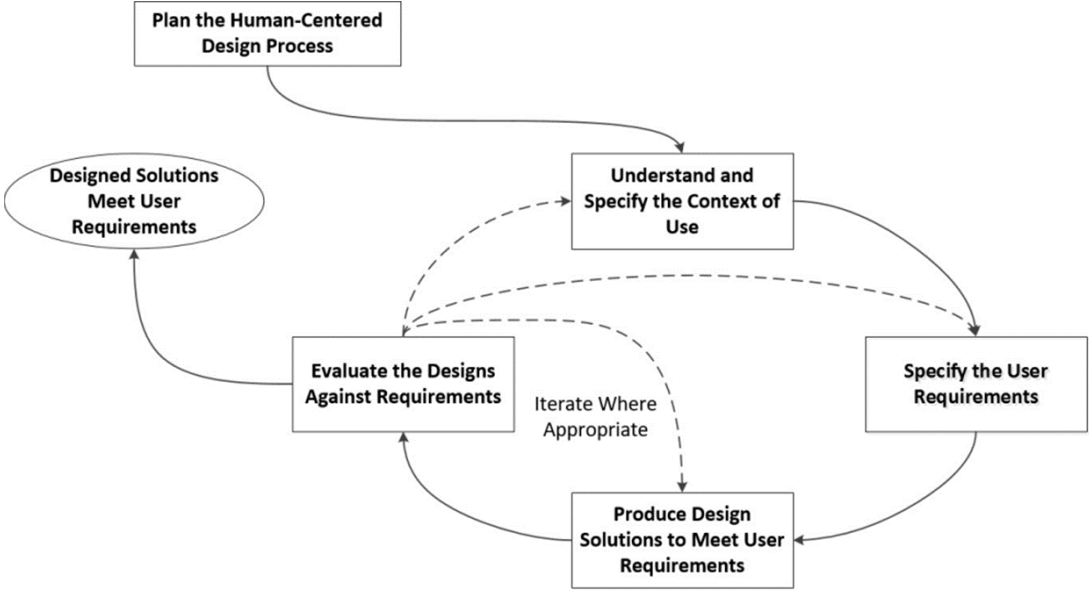
The research questions initially defined (see chapter 1) consequently result into the following research commission working blocks:

- Identification of user requirements for a cooperation and documentation tool on the part of the Die Plusbringer disciplines
- Translation of requirements into an initial visual and content concept
- Expert based iterative further development of the initial derivatives
- Assessments of the feasibility and economic viability of the initial developed concept

In order to be able to complete the research commission in an appropriate manner and on recommendation of Die Plusbringer, the human-centred design process was followed within the presented project. One reason for this is that human-centred design has a sharp emphasis on the essential concerns of the subject at hand since it concentrates on the user interface and associated problems. The process for human-centred design is more controlled and regulated than for design thinking because of its concise definition in DIN EN ISO 9241-210. In addition, human-centred design focuses on usability and user experience, which will be especially important in further iterations of the resulting initial concept. Geis and Polkehn have proposed a practice-oriented recommendation for action based on the activities described in DIN EN ISO 9241-210, which therefore serves as a basis for this thesis. Consequently, the following chapters

are structured according to the process steps of human-centred design from DIN EN ISO 9241-210, a schematic of which is shown in Figure 5. (Burmester, 2022; Geis & Polkehr, 2018)

Figure 5: The structure of the present thesis was mainly oriented towards the human-centred design process, as the comparison of the here displayed schematic and the table of contents reveals (Harte et al., 2017)



After Planning the human-centred design process, understanding and specifying the context of use started with context of use interviews as presented in the following chapter.

3 Understand and Specify the Context of Use

Contextual interviews were conducted to analyse the work processes of Die Plusbringer (see chapter 3.1). The results have been prepared in the form of task scenarios (see chapter 3.2) as proposed by Geis & Polkehn (2018) in preparation for the derivation of needs and requirements (see chapter 4.1 and 4.2). The main findings have been summarised (see chapter 3.3) to prepare further investigation (see Chapter 4).

3.1 Conducting Context of Use Interviews

Context of use interviews were conducted with the aim of familiarizing with the working principles and current cross-domain working structures of Die Plusbringer. In order to be able to determine requirements in this regard, one representative each from the areas of programming, design and user research including PMO (Project Management Office) activities was interviewed (N=3). Contextual interviews are characterised by the direct collection of context of use information in the context of use of the interactive system (Geis & Polkehn, 2018).

Since most of the employees of Die Plusbringer usually work in home office, the interviews conducted via MS teams correspond to an interview in the work environment.

During the interviews, as much time as possible was invested with each participant to explore the issues making the interview last between 35 minutes and 87 minutes each and were conducted between 18.10 - 21.10.2022. They were based on a guide (see Appendix 1: Interview Guide for Context of Use Interviews): After a brief introduction, this included questions on the topic of individual everyday work and interdisciplinary cooperation in the everyday working life:

- Reference to the topic
- Everyday work: tasks, procedures, programmes
- Everyday work: Communication
- Everyday work: Interdisciplinary cooperation

To ensure the greatest possible authenticity of the interviews, they were held in German, the corporate and native language of the participants (see Appendix 2: Transcription of Context of Use Interviews (German)). To ensure the transparency and comprehensibility of the present work, the transcripts were subsequently translated into English (see Appendix 3: Transcription

of Context of Use Interviews (English)). The corresponding task scenarios can be found in Chapter 3.2.

3.2 Deriving Task Scenarios

Task Scenarios are in contrary to transcriptions "stories", representing the explanations of interviewed users as transparently as possible. To ease the navigation through scenarios and make them comparable to the transcription the structure of the interview check list was kept. (Geis & Polkehn, 2018)

Three task scenarios were derived according to the procedure defined by Geis & Polkehn (2018) and can be found in Table 5 (design), Table 6 (user research and PMO) and Table 7 (programming). Personal data (e.g., names of participants) has been replaced by fictitious data, so that data presented is anonymised. The entries in the column ID_N (standing for "Identification Number of Need") are to be seen in connection with chapter 4.1 and chapter 4.2. They are not relevant for this first presentation of the task scenarios, but for connecting the analysed needs and derived requirements in Chapter 4.

Table 5: Task scenario of the context of use interview with a Designer from Die Plusbringer.

Interview checklist	Task Scenario	ID_N
Personal participant profile: Reference to the topic of interdisciplinary cooperation		
1 Area of responsibility with die Plusbringer	Mr Weber works as a design consultant primarily in the graphic arts sector.	-
2 Points of contact with other disciplines at work (internal/external)	In his job, he has contact points with the disciplines of user experience or design in the non-graphical sense, user research, programming and the technical experts of the various clients. More rarely, he also has contact with physical product developers.	N01
Everyday work: tasks, procedures, programmes		
3 What are your typical tasks at work?	His primary task is the graphic elaboration of various aspects, such as logo design, screen design, and, less frequently, the creation of images of physical products for superstructures. In addition, he participates in customer work in meetings and workshops and can contribute his ideas directly and experience discussions directly in order to implement feedback.	N01

<p>4 How do you proceed in carrying out the mentioned tasks?</p>	<p>Fundamental to his tasks is a comprehensive understanding of the environment of the aspects to be developed, which must be worked out.</p> <p>Mr Weber likes to take graphic and written notes by hand already in the meeting. Ideas are then derived, elaborated and discussed.</p>	<p>N02</p>
<p>4a Are those aspects dependent on the input of others (external partners / internal input)?</p>	<p>Mr Weber needs information from all stakeholders.</p> <p>It is important for Mr Weber to know which aspects are to be implemented. Therefore, he not only appreciates the exchange with customers, but equally the exchange with colleagues who focus on requirement elicitation.</p> <p>In addition, in projects where programming is involved, the feasibility of the design concept must be guaranteed and clarified on this side.</p>	<p>N01, N03</p>
<p>5 Which tasks are more demanding, which are easier than others?</p>	<p>Concepts are more time-consuming than creating individual elements, such as logos, because here the goal and scope aren't known precisely.</p> <p>Creating logos, pictograms and assembling concept elements in screen design are smaller tasks for Mr. Weber.</p>	<p>-</p> <p>-</p>
<p>6 What programs do you use at work?</p>	<p>Mr. Weber uses Adobe programs such as Illustrator and XD, and less frequently Photoshop, to create designs/illustrations and prototypes.</p> <p>The MS Office programs Word, Excel, PowerPoint are used for sharing aspects, because many clients are also good at these. In addition, MS Teams and other web meeting applications are primarily used for communication. Partial exchange also takes place via the Jira and Confluence portals.</p>	<p>N04, N05, N06, N07</p>
<p>6a Which aspects/functions make your work easier?</p>	<p>The cloud function is a relief because it means documents are always up to date and several people can work at the same time and follow each other's work.</p> <p>Adobe XD can also access source elements intelligently, which prevents errors, but must be maintained correctly.</p>	<p>N08, N09, N10</p>
<p>6b Which aspects/functions are more of a hindrance?</p>	<p>The exchange via customer-specific security servers - such as email addresses on the customer's system - slows down communication. In addition, communication can often only take place via a responsible person.</p>	<p>N07, N08, N11, N12, N13, N14</p>

	<p>A security request from customers is often also the exclusion of cloud use, which renders the aforementioned program benefits null and void.</p> <p>According to Mr Weber, working with components is complicated: Text jumps back to placeholder text when there is a change of state, there is no smart function to define distances and there is no individual decision to take over changes into a document. Consequently, changes can be transferred to a document completely or not at all, but are not always applicable in all representations.</p>	
6c Are there aspects/functions that are missing or would help you?	<p>In addition, Mr. Weber would like to have a better overview of editing processes.</p> <p>A kind of processing history, what has changed since the last opening and why would give him more security, as he works on different projects and therefore cannot always track every adjustment everywhere.</p> <p>Direct comments on where changes need to be made would also be a relief. This is currently being attempted in PowerPoint, but is not directly related to the graphics system. Direct labelling would be ideal: what needs to be done where and why.</p>	N15, N16, N17, N18, N19
Everyday work: Communication		
7 How is communication done internally and externally? (Tools, meetings; tasks, deadlines)	<p>External exchange takes place both via online meeting tools and via comments in documents such as PowerPoint presentations, which are exchanged by mail.</p> <p>Protocols are taken internally in Word, and also on physical paper, as it is easier to merge sketches with notes. Online meeting tools are also used for internal consultation.</p>	N06, N07
7a Which aspects are more difficult, which easier to agree on?	<p>Usually there is a secretary and the secretary documents during the meeting in a shared document visible to all participants. Mr Weber thinks it would be easier if everyone could comment there and formulate and address their professional comments.</p>	N20, N21
8 When are tasks considered "done" internally and externally?	<p>Everyone is responsible for his or her task to bring it to a presentable target state. Mr Weber likes to discuss this internally with his colleagues, but this is not always possible due to time constraints. Externally, there are schedules as well as software to visualise steps in the project and also to mark them as completed.</p>	N22, N23

8a Is anything documented on this?	The exchange of documents by e-mail can be considered as documentation. Internally, we work with a Kanban board.	-
Everyday work: Interdisciplinary communication		
9 Which aspects are easier and which are more time-consuming when implementing requirements?	Above all, it is time-consuming to meet all requirements with the design. The aspects must be integrated according to the customer's requirements, but the concept must still be feasible, for example for printing or programming. Mr Weber is sometimes annoyed when far-reaching adjustments to the design become necessary late in the process. This is time-consuming if a lot has to be revised and often happens when the programming cannot implement something as shown. Mr Weber is annoyed when he has to redisplay many screens that were actually already finished. But he also understands that programming has its challenges. Adapting file formats is an easier task.	N24, N03
10 What requirements does design place on the work results of user research and programming?	Mr Weber finds the requirements best already in the form of a rough template complete in a document. This can be sketches, word clouds or similar, which provides guidelines for the precise design. The programming should map the system according to the concept created and also transfer knowledge in the process, because not every single click can be shown in a prototype.	N25, N26, N27
10a How do you check if the requirements set by the design are met by user research and programming?	In most cases, a compromise between exact implementation of the concept and reasonable workload for programming is found within a vote.	N28, N29
10b How do you report back if your requirements are not met or adjustments or additional information is needed?	During the votes and meetings, questions can be asked, topics focused on and aspects requested.	-
11 What requirements do user research and programming place on work results from design?	The correct integration of requirements must become apparent. The programming would prefer to use as many existing standard elements as possible. Mr Weber is reluctant to do this because it restricts him in his work as a designer, but of course he tries to stay within the programmer's possibilities.	N23, N24

11a How are required adjustments ideally reported back to you?	Mr Weber prefers internal, direct consultation. Currently, comments are inserted into presentations and sent by the client or entered directly in workshops together.	N06, N07
11b Which requirements/adaptations are more difficult and which are easier to implement?	<i>Correspondingly 5.</i>	-
12 What requirements does the professional side place on the results of the design work?	The customer demands that his requirements be understood and implemented. In addition, a system should be created that fits the customer. This concerns the company mentality, the corporate identity, existing systems and the existing external appearance of the customer as well as the use cases in which a solution is to be used. In addition, the design should reflect a certain sophistication and enable easy operation.	N02, N30, N31
12a How is it checked whether the design meets the requirements of the professional side?	Feedback is received through workshops, voting or comments within emails and files.	-
12b Which requirements/adaptations required by the professional side are easier to implement and which are more difficult?	<i>Correspondingly 5.</i>	-
Further Comments		
13 Further comments	Mr Weber finds the topic exciting. He himself often notices that there is different vocabulary with different expertise. The deeper the communication within a foreign technical language, the more difficult it is for him to follow the processes and understand requirements.	-

Table 6: Task scenario of the context of use interview with a user researcher from Die Plusbringer.

Interview checklist	Task Scenario	ID_N
Personal participant profile: Reference to the topic of interdisciplinary cooperation		
1 Area of responsibility with die Plusbringer	Ms Smith's main task is requirement elicitation. She describes this as the comparison of the current state with a desired target state. Her task is to clarify goals and to formulate them in a way that is understandable for subsequent process steps. She also largely handles documentation and communication issues and acts as PMO. Communication internally, with various designers and externally with stakeholders such as clients is part of her remit.	-
2 Points of contact with other disciplines at work (internal/external)	Ms Smith works closely with design internally. Their working basis is provided by the respective client as the professional side. Programming is also often involved, but colleagues from programming are also informed to some extent by the wireframes that emerge from the design. Ms Smith also contributes the corresponding user stories.	N01
Everyday work: tasks, procedures, programmes		
3 What are your typical tasks at work?	Ms Smith's tasks depend on the stage of the project. She gathers customer requirements, communicates them with the design, checks their implementation and writes user stories.	-
4 How do you proceed in carrying out the mentioned tasks?	In order to be able to capture customer requirements as completely as possible in the first instance, Ms Smith attends as many meetings as possible, takes protocols and focuses on understanding the customer's issues. In debriefing sessions, data is prepared for communication with the design. Only when wireframes have reached a certain maturity and sufficient requirements have been collected are user stories written to record and discuss requirements in a way that is understandable for all project members. These must be formulated in a way that is understandable for both programming and the business side, as the business side must check the correctness and completeness of what the	N32, N33, N34

	<p>programmer ultimately implements. The user stories are not written directly because too many aspects change or are unclear at the beginning of the project.</p>	
4a Are those aspects dependent on the input of others (external partners / internal input)?	<p>Ms Smith relies on the technical input of clients as well as design and programming expertise.</p> <p>In addition, she must keep an eye on project management issues that affect schedule and budget.</p>	N01, N06, N07, N35
5 Which tasks are more demanding, which are easier than others?	<p>For Ms Smith, the effort depends more on the stakeholders than on the different tasks themselves. The clearer the stakeholder can communicate their requirements, the easier it is to comprehensively collect, understand and implement them.</p> <p>In principle, however, writing user stories is the most time-consuming, although this is relative to the necessary level of detail and scope of coordination. Here again, it depends on the stakeholders.</p>	N06, N07
6 What programs do you use at work?	<p>Ms Smith uses Word for protocols, Excel and PowerPoint as well as PDF formats, mainly for client communication.</p> <p>Confluence is used internally to keep track of deadlines and externally to communicate with all authorised stakeholders. Confluence is particularly relevant for implementation or late requirement gathering. Jira is used for both internal task distribution and external communication.</p>	N05, N06, N07
6a Which aspects/functions make your work easier?	<p>MS Office products are widely used by clients and are therefore an easy way to communicate data and make it available for editing. In Word it is easy to format and enter simple text and Excel allows tables. In addition, the creation of PDFs is important.</p> <p>Files can be stored in Confluence for exchange, and information can also be "posted" directly, as is familiar from social networks.</p> <p>Jira is an important ticket system for requirements that are raised, these are documented here and can be processed by programming as "to-dos".</p>	N05, N06, N07, N36
6b Which aspects/functions are more of a hindrance?	<p>Everything is documented and uploaded to Confluence, but the requirements must also be created as tickets in Jira. Therefore, Ms Smith must create additional tickets in Jira from the user stories in Confluence. To do this, the user</p>	N36, N37, N38

	<p>stories must first be transferred from PowerPoint to a Confluence table, from which a link can then be created to tickets in Jira.</p> <p>Ms Smith is annoyed that neither from PowerPoint to Confluence nor from Confluence to Jira can the data be transferred easily and completely. She must adjust the formatting again in each step, and even labels that exist in Confluence are not transferred to the tickets.</p> <p>In addition, it annoys her that although the tickets can be linked, they still have to be maintained individually in both places, tickets in Jira and tables in Confluence, when adjustments are made, as no automatic synchronisation takes place or can be triggered.</p> <p>Ms Smith also sees the fact that there is often no common knowledge among the stakeholders about the tools used as rather a hindrance. The clients usually prefer to work with MS Office documents, while the programming department cannot find the required functions there. This makes Ms Smith's work more difficult, as she must document the same information in several places and keeping it synchronised is very time-consuming.</p> <p>Jira and Confluence offer the possibility to export data, but these exports do not offer the editing possibilities desired by the customer.</p>	
<p>6c Are there aspects/functions that are missing or would help you?</p>	<p>Ms Smith would like to see communication between the systems used so that content only has to be adapted once. At least a format transfer with copy-paste should be possible. In addition, labels should be adopted for all tickets exported in one go or at least a multiple selection should be possible when labelling. This information is currently not taken over at all.</p>	<p>N37, N38</p>
<p>Everyday work: Communication</p>		
<p>7 How is communication done internally and externally? (Tools, meetings; tasks, deadlines)</p>	<p>Indirectly, communication takes place externally via Jira and Confluence by uploading information.</p> <p>Scheduled meetings, workshops and jour fixe appointments are used for direct external communication.</p> <p>Internally, tasks are also discussed via Jira and Confluence, as well as workshops.</p>	<p>N02, N06, N07, N39</p>

	Deadlines are documented in Confluence and only linked in Jira because there are better visualisation options here, such as tables.	
7a Which aspects are more difficult, which easier to agree on?	<p>In general, the less the stakeholder is aware of what they want, the more difficult aspects of external consultation are.</p> <p>In addition, a basis for communication must first be found that is understandable for all, and how difficult this is varies from client to client. The same applies to programming and internal communication.</p> <p>According to Ms Smith, programs also play a big role: Communication is easier if less programs are used and higher if there is shared knowledge of how to use them. Ms Smith thinks that if everyone worked exclusively with Jira or Confluence, it would save her a lot of work.</p>	N40
8 When are tasks considered "done" internally and externally?	<p>Ms Smith describes the process as follows:</p> <p>Requirements elicitation is done internally when requirements in wireframes are deemed to be fully implemented by the internal team.</p> <p>The client is presented with the progress and it is revised until the client is satisfied.</p> <p>This is followed by various phases of verification with other stakeholders until the final release for development. Then, the programmer also sets implementation requirements that must be fulfilled.</p> <p>Programming is then carried out according to the tickets set.</p> <p>The last step is quality assurance. Here, all participating disciplines (technical, design, programming, user research) check the implementation of their requirements. If all parties come to a positive conclusion, the roll-out and further phases begin.</p> <p>In general, Ms Smith says that the various parties relevant to the different phases always come together and after their criteria have been met, the next phase begins.</p>	N33, N34, N41, N42, N43
8a Is anything documented on this?	Fixed appointments are documented in a protocol or agreed verbally. The appointment for the next step formally concludes the previous one. There are also deadlines for	N06, N07, N32

further comments, which are then formally recorded in the document and the document is sent by e-mail. This only concerns the client side and the programming.

Later, the ticket creation takes place, which is used by the programming in the form of a scrum board.

For quality assurance, everything is documented in programs usually determined by the customer, e.g., Excel. The implementation must be checked against user stories and wireframes. It is documented whether aspects have been implemented correctly or not. A plausibility check is also carried out with regard to logics, function and technical input.

Everyday work: Interdisciplinary communication		
9 Which aspects are easier and which are more time-consuming when eliciting requirements?	Ms Smith says this too depends on the level of knowledge and communication with the client.	-
10 What requirements does user research have for the work results of design and programming?	In design and programming, the implementation should be done according to the elicited requirements. The client's requirements must be properly understood, designed and implemented. In the final inspection, the client must then also accept them.	N33, N34, N44
10a How do you check if the requirements of the user research are met by the design and programming?	Ms. Smith referred to the quality control and quality assurance process described in 7a. above.	-
10b How do you report back if your requirements are not met or adjustments or additional information is needed?	Feedback is given in written or verbal form, which is also recorded via protocols. Protocols are mainly used internally.	-
11 What requirements do design and programming place on work results from user research?	The topics must be formulated in a way that is fully comprehensive and understandable for all. There are differences in communication to design and programming. In design, it is important to check the wireframes against the requirements that have been collected. These should be able to be implemented and recognised by the programming. In addition, the programming needs more	N33, N34, N36, N44

	precise definitions, which it receives via the Jira tickets (user stories).	
11a How are required adjustments ideally reported back to you?	<p>For Ms Smith, it would be a great relief if all stakeholders could be kept up-to-date simultaneously. Ms Smith regrets that stakeholders consider the learning curve for current tools to be too high: They don't want to work with it, don't have the time or find it too cumbersome. In addition, access rights are difficult to manage.</p> <p>Ms Smith regrets that the current tools cannot meet all requirements.</p> <p>She believes that the use of MS Office cannot be completely bypassed as it is prevalent in companies and in the knowledge base.</p>	N01, N05
11b Which requirements/adaptations are more difficult and which are easier to implement?	<i>Correspondingly 7a.</i>	-
12 What requirements does the professional side place on the results of the requirements user research?	The requirements should be properly and comprehensively understood and implemented.	N44
12a How is it checked that the identified requirements reflect the requirements of the professional side?	According to Ms Smith, a review does not take place explicitly, but in the workshops anyway, as here it is seen in the wireframes and user stories whether everything has been understood correctly.	N33, N34
12b Which requirements/adaptations required by the professional side are easier to implement and which are more difficult?	<p>Ms Smith finds it easier to check for accuracy, completeness and logic. Here too, the more generally comprehensible the wording, the easier it is.</p> <p>In addition, the division into work packages makes it easier to keep track of everything. A later connection is often easier than trying to keep track of everything at the beginning.</p>	N33, N34, N45
Further Comments		
13 Further comments	Ms Smith says that through her involvement in many parts of the project, she has found that the better the communication, the better the project. This applies not only to communication in meetings, but also to documentation, diversity and synchronicity.	-

Table 7: Task scenario of the context of use interview with a programmer from Die Plusbringer.

Interview checklist	Task Scenario	ID_N
Personal participant profile: Reference to the topic of interdisciplinary cooperation		
1 Area of responsibility with die Plusbringer	Mr Mayer is responsible for guiding and directing the departments responsible for implementing software.	-
2 Points of contact with other disciplines at work (internal/external)	Mr Mayer is in contact with the internal departments of design and user research as well as with various specialist sites and other programmers on the client side.	N01
Everyday work: tasks, procedures, programmes		
3 What are your typical tasks at work?	<p>Mr Mayer's principle task is to guide and direct the development of software.</p> <p>This also includes defining project parameters, task distribution, initial inspection of the implementation of requirements and independent participation in the implementation.</p> <p>In addition, Mr. Mayer's tasks include external procurement processes, which concern, for example, scope estimation before placing an order.</p>	-
4 How do you proceed in carrying out the mentioned tasks?	<p>When setting the project parameters, Mr Mayer first decides in which development environment the corresponding software will be implemented. Various parameters must be clarified with the customer, such as whether the application should be available as a mobile app.</p> <p>The distribution of tasks is based on skills, available capacities and the urgency of the task.</p> <p>During the initial inspection, Mr Mayer pays particular attention to the occurrence of bugs, such as inputs that the system does not process according to the specifications, display errors and crashes.</p> <p>Independent implementation is very individual. In principle, the requirements must be understood and subsequently every consequence in the implementation must be taken into account and adapted.</p>	N46, N47, N48, N49, N50, N51
4a Are those aspects dependent on the input of others (external partners / internal input)?	<p>Mr Mayer relies on the input of various internal and external partners.</p> <p>Requirements are documented in various places. This annoys Mr Mayer because it means he must search for information,</p>	N01, N06, N07, N52

	since no tool has yet been found that combines the required information in the required form.	
5 Which tasks are more demanding, which are easier than others?	<p>Easy task in implementation are purely logical links that are clearly defined.</p> <p>More difficult are the sub-areas of data access and data integrity, as well as the implementation of the UI.</p> <p>It is time-consuming to keep track of all the requirements when they are documented in different sources at different times.</p>	N53
6 What programs do you use at work?	<p>Development platforms used in the implementation are the development platforms of MS (Xamarin), development platforms of Google (Flutter, Dart) and the lowcode software of Scopeland.</p> <p>Tools/programs used by Mr Mayer for task clarification and communication are mainly Confluence, Jira, Trello, Outlook, MS Teams and other webmeeting programs.</p>	N01, N06, N07
6a Which aspects/functions make your work easier?	<p>If it is possible to work with frameworks such as JSON and standardised interfaces, this makes implementation easier.</p> <p>Mr Mayer is also happy that documents are mostly kept up to date by colleagues in the requirement gathering department and that old documents are nevertheless available in the archive. He appreciates the possibility of being able to call colleagues to request information directly.</p>	N54
6b Which aspects/functions are more of a hindrance?	<p>Standardised frameworks are not customisable and if they do not fit exactly, everything must be programmed completely independently. Individual aspects cannot be exchanged.</p>	-
6c Are there aspects/functions that are missing or would help you?	<p>Mr Mayer would often like to see more consideration given to programming effort when developing implementation templates. However, he understands that this is not always possible for achieving an optimal user experience.</p>	N03
Everyday work: Communication		
7 How is communication done internally and externally? (Tools, meetings; tasks, deadlines)	<p>Within the company, a short, regular communication in the form of dailies is conducted online via MS Teams. This usually deals with topics such as who needs what from whom and by when. Individual appointments are made for further arrangements.</p>	N01, N06, N07

	<p>External appointments are planned in advance on a regular basis in order to make preparations for upcoming topics and to have the necessary capacities and resources available.</p> <p>Tools used internally and externally are also Outlook, Jira and Confluence.</p>	
7a Which aspects are more difficult, which easier to agree on?	<p>Mr Mayer finds that the more complex and specialised topics are, the more difficult the exchange is.</p> <p>For Mr Mayer, exchange is also made more difficult when information is documented in different places, especially if they are not linked.</p>	N52, N53
8 When are tasks considered "done" internally and externally?	<p>In the tools used internally and externally, tickets can be adjusted in status or moved in categories.</p> <p>Documents such as Excel, Word and PowerPoint are also used in some projects.</p> <p>Before communicating to a client, Mr Mayer usually checks the results and communicates adjustments verbally by phone call.</p> <p>Externally, quality checks are more formal, but the form they take depends on the client.</p>	N05, N43, N55
8a Is anything documented on this?	<p>Depending on the project, documentation takes place in protocols or tools used.</p> <p>In addition, according to Mr Mayer, the exchange by e-mail or within the tickets can be considered as documentation.</p>	N06, N07
Everyday work: Interdisciplinary communication		
9 Which aspects are easier and which are more time-consuming in the implementation of design templates and requirements?	<p>For Mr Mayer, requirements are easiest to implement when they are fully known. However, he understands that this is not possible with an iterative approach.</p> <p>For Mr Mayer, it is more difficult to implement a design that is very individual. Here, the consideration of, for example, accessibility and corporate identity also plays a role.</p> <p>Mr Mayer feels that implementation requirements are only partially understood and taken into account in the design.</p> <p>However, he agrees that the client's requirements have priority.</p>	N28, N29, N51
10 What requirements does programming have for work results of design and user research?	<p>Mr Mayer expects the design to produce a programmable template with reasonable programming effort. Framework conditions of the development environment, such as grids, should be taken into account.</p>	N03, N33

	The requirements should be as complete and comprehensible as possible.	
10a How do you check if the requirements set by programming are met by design and user research?	Mr Mayer inspects the wireframes and the elements they contain for feasibility. In individual cases, the benefit must be compared to the effort and adjustments are made. The requirements are thought through by Mr Mayer and queries are raised if necessary. However, questions often only arise during implementation, which means that requirements have to be defined more precisely. This interrupts the workflow.	N28, N29, N56, N57
10b How do you report back if your requirements are not met or adjustments or additional information is needed?	Mr Mayer can provide feedback by e-mail or in a direct exchange.	N07
10c What information must absolutely be included in the work result of user research and design so that you can work ideally?	From the design, Mr Mayer needs all the elements and their behaviour as well as, states, exact colour codes and distances. Requirements should be described completely, comprehensibly and without contradictions.	N58, N59, N60
11 What requirements do design and user research place on the work results of programming?	The design wants the programming to look like the template and the requirements to be implemented completely.s	N51
11a How are required adjustments ideally reported back to you?	Adjustments are ideally reported back directly, without contradiction, completely and truthfully.	N61
11b Which requirements/adaptations are more difficult and which are easier to implement?	It is easiest for Mr Mayer if all the information needed for adaptation can be found directly where the adaption is to be made. Often, however, reference is made to other documents or information, or something is added, which Mr Mayer does not prefer, as it means more work for him. In addition, Mr Mayer finds transmission tasks to constellations that are not shown via prototypes more difficult.	N25, N61
12 What requirements does the professional side place	The professional side would like to find all requirements implemented in the programming.	N51

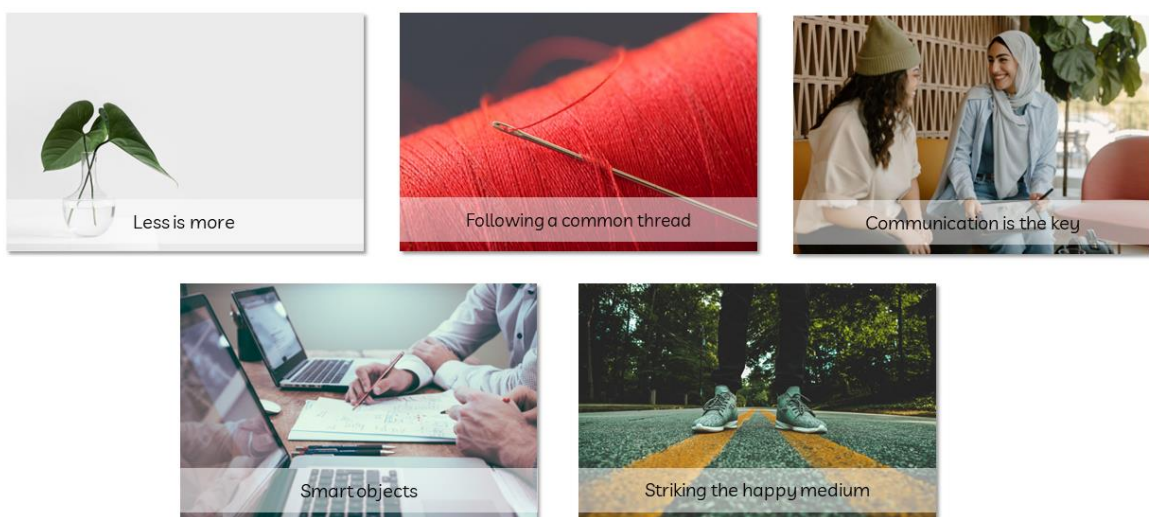
on the work results of programming?		
12a How is it checked that the programming meets the requirements of the professional side?	Usually, test procedures are defined in advance with the customer, these are then tested and the result is reported back.	-
12b Which requirements/adaptations required by the professional side are easier to implement and which are more difficult?	In the simplest case, Mr Mayer receives screenshots in which adjustments are directly outlined. This is often not the case. Adaptation requests are often communicated in writing. Mr Mayer does not like this, as they can rarely be implemented without further inquiries.	N61
Further Comments		
13 Further Comments	Mr Mayer has no further comments.	-

A Summary of the main findings of the context of use interviews can be found in Chapter 3.3.

3.3 Summarizing Main Findings

Five main aspects were revealed by the context of use interviews previously presented in the form of task scenarios (see Chapter 3.2). Those finding are summarised by key heading in Figure 6 and explained hereafter.

Figure 6: Overview of main findings of context of use interviews.



Less is more

Across interviewed disciplines, it was reported that the fewer exchange platforms are used, the more effective and efficient the exchange is. „(...) *the fewer different programmes you have or*

*the better the programmes you work with are understood by everyone, the easier it is to communicate.”*⁴ However, contact with the customer takes place via various channels due to various requirements from project partners / disciplines (also see below finding "striking the happy medium"): Via comments in documents or e-mails as well as online meetings. Ideas are discussed in workshops, coordinated and recorded with the various stakeholders. Furthermore, different project tools are necessary. „(...) *If it were really possible to work with fewer programmes than with more, and if these programmes really covered what you need for your daily work and did it efficiently, I think you could save a lot of working time. (...)*”⁵

Challenges here, apart from the question of format incompatibility of different tools, are above all the manual synchronisation of data. This is a challenge especially when adaptations need to be done. This does not only affect locally stored files, such as PowerPoint or Word documents, that need to be created on customer request. „(...) *Because, unfortunately, everyone has MS Office. And I don't know anyone who doesn't have it. So it's very, very easy. There's no need for training and nothing at all.*”⁶ Additionally, despite the linking options between the most commonly used systems - Jira and Confluence - the content is not synchronised. Open software where anyone can make comments can facilitate exchange. Furthermore, it was stated that the exchange with customers is made more difficult by internal customer security systems and restricted access rights.

Striking the Happy Medium

The effort required to familiarise oneself with existing tools such as Jira and Confluence is often considered too high by customers. For stakeholders in programming, however, these programmes are an essential basis for work, for example because of the ticket function. This results in an additional documentation effort, which is particularly noticeable in user research, because *“We have stakeholders who are not familiar with Jira and Confluence (...) so we practically have to (...) fall back on common programmes. That means Word, Excel, PowerPoint.*

⁴ Ms Smith at 00:49:00,000-00:50:21,110

⁵ Ms Smith at 01:24:38,500-01:26:16,080

⁶ Ms Smith at 01:23:12,390-01:24:05,180

*And that makes my life a lot harder because for the programming (...) I need the stuff on Confluence and Jira means I have a lot of effort because I have to keep documents in sync (...)."*⁷

When implementing requirements, the visual and functional result of the design, for example in the form of wireframes or functional prototypes, serves as a basis in addition to the textual description of requirements. One expectation of the design on the programming is that the concept is understood and also applied in a transferring way, because *"(...) we as designers give a certain (...) well defined idea or a guideline. (...). It's all down to the definition of colours, distances, sizes. (...) that's what I chose, (...) with sense and reason."*⁸ In programming, this is a challenge, especially when it comes to transferring the concept ideas to aspects that are not represented. Another conflict between design and programming can be found in the following aspirations: While programming is not averse to the use of standard elements, design often aims to create a concept that is as user-friendly and custom-fit as possible. Consequently, a compromise usually has to be found. In this example, between feasibility and design freedom, because according to the programming, although it is *„All well and good. (...). If that. Looks great. But in the end it also has to work and you have to find a bit of a balance."*⁹ Nevertheless, the design sees a need to adhere to the aspects created because when the design is told *"(...) please do everything like that. (...) that's not design. That is just pushing around what they've thrown at me, (...). But the client has booked a designer for a good reason."*¹⁰

Following a common thread

The interview participants agreed: Linking related information facilitates understanding. *"If the documents then arrive in different places via different channels. That makes the whole thing more complex. Especially with UI, there are visual and textual annotations. And they are not connected."*¹¹

⁷ Ms Smith at 00:36:51,840-00:39:02,060

⁸ Mr Weber at 01:04:12,440-01:05:47,020

⁹ Mr Mayer 00:23:01,900-00:23:50,170

¹⁰ Mr Weber 01:10:44,520-01:12:09,380

¹¹ Mr Mayer 00:16:57,220-00:17:48,520

Communication is the key

"So, the better the communication goes, the better the project goes. That's been my experience."¹²

Each discipline has its own individual challenges: In user research, the complexity of the main task is decisively influenced by the customer's ability to explain. Furthermore, his or her certainty regarding the expectations and wishes of the system to be developed are influential. There is also agreement that requirements must be captured as completely and correctly as possible to meet customer requirements with design and programming. Programming sees here above all the freedom from contradiction as an important factor, since requirements must not contrast with each other and their resulting logic. Comprehensibility is an additional factor. Especially requirements must be formulated in such a way that they correspond to the customer's business logic, reflect processes to be supported and yet are formulated in a way that is understandable for all stakeholders. For this reason, it is important that after documenting the requirements, they are jointly checked for completeness, correctness and comprehensibility. This happens partly automatically, as the results serve as a basis for customer meetings, partly it must be checked explicitly.

Requirements must be reflected in the design and programming. An implicit customer requirement for the design is to create a system that fits the customer. This concerns the company mentality, the corporate identity as well as the integration into existing systems and the existing external appearance of the customer as well as the use cases in which a solution is to be used. However, it also concerns the aspects of accessibility and data protection, which play a greater role especially in programming. In addition, the design should reflect a certain sophistication and enable easy operation. *"(...) the customer (...) wants something from me (...) he can't do himself, a certain refinement. Something appealing. And also to create something that fits in with the system (...). That is the more complex part."*¹³

Intelligent objects

Intelligent object links within design graphics programs avoid errors, but do not function without workarounds: Changes in documents can only be accepted in full or not at all, states

¹² Ms Smith 01:24:38,500-01:26:16,080

¹³ Mr Weber 01:00:43,720-01:01:05,500

reset text entries and spacing cannot be predefined. Here we can find parallels to the implementation of existing standard objects, which is often favoured by programmers (see above listed finding: Striking the happy medium).

In a next step, the context of use findings presented above form the basis to first identify needs and then derive requirements to verify and prioritise these in further steps described within the next chapter.

4 Specify the User Requirements

Needs and requirements were derived from the interviews in accordance with Geis and Polkehn (2018) (see Chapters 4.1 and 4.2). To determine the primary use cases, a focus group (see Chapter 4.3.1) was held using prompts based on the key results of the contextual interviews. In view of the derived requirements and focus group input, use cases were formulated. Those use cases were processed through another expert workshop, which prioritised the most important action points to be mapped in wireframes (see Chapter 4.3.2). (Geis & Polkehn, 2018)

4.1 Identifying Needs

(User) needs represent what is mandatory for a certain user or group of users to be able to achieve results sought within a specific context of use. Consequently, requirements often represent a deviation between the actual state and a desired state. Thus, they have the potential to open up aspects through which an emerging interactive system can ideally support the achievement of objectives in the corresponding context of use. (DIN EN ISO/IEC 25064:2017-09, 2017; UXQB e.V., 2023)

When deriving needs, different user groups were distinguished. Needs that relate to all the disciplines were assigned to the user group "the team member". Team members are designers, programmers, user researchers and clients who work together on a Plusbringer project. Needs that only refer to a certain discipline ("the designer", "the user researcher", "the programmer", "the head of programming", "the PMO") refer to the named discipline inside Die Plusbringer. Not all participant statements are suitable for deriving needs. Conversation shares that were, for example, purely informative were marked with "-" in the sense of "No specific requirement". In total, 61 needs could be extracted from the interviews. The analysed needs are to be seen in connection with the corresponding numbering in the task scenarios (see chapter 3.2) and can be found in Table 8. Hereby, needs were numbered consecutively starting with "N01" and referenced accordingly.

Table 8: Derived needs of the context of use interviews can be seen in relation to their origin (Table 5-Table 7) and further derived requirements (Table 9).

ID_N	Needs
N01	The team member needs to have contact possibilities with designers, user researchers, programmers and customers in order to be able to exchange ideas.
N02	The designer needs to know what aspects surround an application in order to be able to develop proposals.

N03	The designer needs to know what the framework conditions of the development environment are in order to create an implementable design concept.
N04	The designer needs to have access to the task-relevant creation functions in order to be able to create graphic elements with the correct functions.
N05	The team member needs to have the project files in the format required by the client in order to communicate with the client.
N06	The team member needs to have access to the information of the project in order to be able to take it into account in his or her work.
N07	The team member needs to have access to the project's information channels in order to share information.
N08	The designer needs to be able to work on a project with several team members at the same time in order to synchronise processes.
N09	The designer needs to have the possibility to use source elements to avoid errors in the presentation.
N10	The designer needs to be able to manage source elements in order to maintain them properly.
N11	The team member needs the possibility to exchange information directly in order to be able to communicate time-efficiently.
N12	The designer needs to know the distance between graphic elements in order to depict representations correctly.
N13	The designer needs to be able to apply changes to all component states so that they do not have to be entered individually.
N14	The designer needs to have the possibility to decide individually about change transfers on screen designs in order to be able to generate the correct representation.
N15	The designer needs to know what changes have occurred in the representation since his or her last opening of the graphic documents in order to continue to create representations correctly.
N16	The designer needs to know the reason why certain changes in the representation were made since his or her last opening of the graphic documents in order to decide whether further screens are correct or need adaption.
N17	The designer needs to know which changes are needed in the presentation in order to be able to implement adjustments ideally.
N18	The designer needs to know where changes are needed in order to be able to implement adjustments ideally.
N19	The designer needs to know the reason why changes in the presentation are needed in order to be able to implement adjustments ideally.
N20	The team member needs to know how a written comment is meant in order to process it correctly.
N21	The team member needs to know to whom a written comment is addressed in order to process it correctly.

N22	The team member needs to know what tasks he or she has to complete in order to bring them to a presentable target state.
N23	The team member needs to know by when he or she has to complete tasks in order to have them in a presentable target state in time.
N24	The designer needs to know which requirements the stakeholders have in order to meet all requirements with his design.
N25	The designer needs to have all the requirements available in one place to keep track of them.
N26	The designer needs to have related information available in one place in order to interpret it coherently.
N27	The programmer needs to be able to transfer the concept knowledge to implement according to the design template.
N28	The designer needs to be able to find a compromise between true-to-design implementation and programming effort in order to make programming possible.
N29	The programmer needs to be able to find a compromise between true-to-design implementation and programming effort in order to implement a design as accurately as possible.
N30	The designer needs to know what the framework conditions of a client company are to be able to develop a suitable proposal.
N31	The designer needs to have the freedom to bring a certain sophistication into his design in order to create added value for the client.
N32	The user researcher needs to have received all the information from meetings to gather requirements as completely as possible.
N33	The user researcher needs to be able to formulate requirements completely in order to ensure their incorporation into the application.
N34	The user researcher needs to be able to formulate requirements in an understandable way in order to receive meaningful feedback from the team members.
N35	The PMO needs to know how much time and budget is available to plan tasks.
N36	The user researcher needs to be able to provide information in different formats to meet different processing requirements.
N37	The user researcher needs to be able to project information from one location to others to minimise the effort required to synchronise data.
N38	The user researcher needs to be able to project requirements groupings once created onto all systems used so that groupings do not have to be created twice.
N39	The team member needs to have various visualisation options in order to be able to present data clearly.
N40	The user researcher needs to know how precisely the client can formulate his requirements and wishes in order to be able to estimate the effort of requirements elicitation.

N41	The user researcher needs to know whether requirements in wireframes are considered implemented by the internal team in order to decide whether the requirements elicitation is considered done internally.
N42	The PMO needs to know whether the client considers its requirements to be fully incorporated in order to proceed to the next phase.
N43	The programmer needs to be able to visibly record the implementation status of requirements in order to communicate this to team members.
N44	The user researcher needs to know what the requirements of a system are in order to be able to fully document them.
N45	The team member needs to know how a project is structured to have an overview of a project.
N46	The programmer needs to know which functions an application has to fulfil in order to decide in which development environment it is to be implemented.
N47	The head of programming needs to know how urgently a task needs to be done in order to be able to distribute tasks.
N48	The head of programming needs to know what skills are needed for a task to be done to distribute tasks in a target-oriented way.
N49	The head of programming needs to know what capacities are available to distribute tasks in a target-oriented manner.
N50	The programmer needs to know which requirements are placed on an application in order to decide whether the system processes input correctly.
N51	The programmer needs to know which requirements are placed on an application in order to take them into account in the implementation.
N52	The programmer needs to have coherent information available in one place in order to interpret it coherently.
N53	The programmer needs to have all requirements available in one place to have an overview.
N54	The programmer needs to be able to work with standardised interfaces in order to implement requirements efficiently.
N55	The head of programming needs to have the documents for review before a client appointment to be able to decide whether they are to be passed on to the client or need to be adapted.
N56	The programmer needs to be able to analyse the wireframes in order to decide on their feasibility.
N57	The programmer needs to be able to think through the requirements in order to decide whether he can start implementing them.
N58	The programmer needs to know which graphic aspects are to be integrated in order to implement the system correctly.
N59	The programmer needs to know which functional aspects are to be integrated in order to implement the application correctly.

N60	The user researcher needs to be able to formulate requirements without contradictions in order to ensure their incorporation into concepts.
N61	The programmer needs to know where changes are needed in order to implement adjustments ideally.

4.2 Deriving User Requirements

User Requirements are specifications of use that serve as a foundation for the design activities and assessment of a developed interactive system. They mainly serve the purpose to ensure that derived solutions satisfy identified user needs. Hence, they are precise criteria an interactive system must fulfil. To make this feasible, requirements are derived from needs. When transforming needs into requirements, it is essential to determine which actions of a user or a group of users must be enabled by the interactive system. In this context, this master's thesis deals exclusively with qualitative requirements. Since in user requirements tasks are described in concrete terms, an exact designation of the user group is often redundant. An exception are specific activities that must be reserved for a certain user group. For this reason, user group designations may differ between needs and requirements. However, the definitions from chapter 4.1 apply to named user groups. From 61 needs, 50 requirements could be derived. These can be found in Table 9 and are to be seen in connection with the task scenarios (Table 5-Table 7), as well as previously identified needs (Table 8). (DIN EN ISO/IEC 25064:2017-09, 2017; Geis & Polkehn, 2018; UXQB e.V., 2023)

Table 9: Derived user requirements of the derived needs (Table 8) can be seen in relation to the context of use interviews (Table 5-Table 7).

ID_N	ID_R	Requirement
N01	R01	The user must be able to pass on information to other users on the Interactive System.
N02	R02	The designer must be able to recognise from the interactive system which aspects surround an application to be developed.
N03	R03	The designer must be able to recognise from the interactive system which framework conditions the development environment places on the design.
N04		<i>Basic creation of graphics should not become part of the system, or the designer must have access to the required graphics systems.</i>
N05	R04	The user must be able to export information in different formats (e.g., MS Office formats, tickets) on the interactive system.
N06	R05	The user must have an overview over all information on the interactive system.

N07	R06 R07	The user must be able to enter information on the interactive system. The user must be able to upload documents on the interactive system.
N08	R08	The designer must be able to work on the interactive system with several people at the same time.
N09	R09	The designer must be able to select reference elements for multiple representations on the interactive system.
N10	R10	The designer must complete a component management training.
N11	-	R01
N12	R11	The designer must be able to recognise the needed space between elements on the Interactive System.
N13	R12	The designer must be able to transfer changes to all states of an element on the interactive system.
N14	R13	The designer must be able to select on the interactive system for which elements changes are to be applied.
N15	R14	The designer must be able to see on the interactive system what changes have already been made to the designs.
N16	R15	The designer must be able to recognise from the interactive system why there have been certain changes to the design.
N17	R16	The designer must be able to see from the interactive system which changes are needed.
N18	R17	The designer must be able to recognise on the interactive system where changes are needed in the design.
N19	R18	The designer must be able to recognise from the interactive system the reason why certain changes to the design are needed.
N20	R19	The user must be able to see on the interactive system which comments are relevant to them.
N21	R20	The user must be able to address comments to other users on the interactive system.
N22	R21	The user must be able to overview pending tasks on the interactive system.
N23	R22	The user must be able to recognise deadlines for pending tasks on the interactive system.
N24	R23	The user must be able to overview all requirements on the interactive system.
N25	-	R23
N26	-	R05
N27	R24	The programmer must complete training in transferring design concepts.
N28	R25	The designer must go through training on finding compromises.

N29	R26	The programmer must undergo training on finding compromises.
N30	-	R23
N31	-	R25 R26
N32	R27 R28	The user researcher must be able to recognise all information from meetings on the interactive system. The user must be able to enter all information from meetings into the interactive system.
N33	R29 R30	The user researcher must be able to document requirements on the interactive system. The user researcher must be able to link requirements on the interactive system. R27 R28
N34	R31	The user researcher must complete a training on formulating requirements.
N35	R32	The PMO must be able to see from the interactive system how much time and budget are currently available for a project.
N36	-	R04
N37	R33	The user researcher must be able to select information references for multiple display on the interactive system.
N38	-	R33
N39	R34	The user must be able to select different display options for information (e.g., tables, tickets) on the interactive system.
N40	-	<i>Not controllable within the system.</i>
N41	R35 R36	The designer must be able to select on the interactive system that requirements have been implemented. The user must be able to overview the implementation status of requirements on the interactive system.
N42	R37	The PMO must be able to see on the interactive system the completeness of the task as perceived by the client.
N43	R38	The programmer must be able to record the status of implementation on the interactive system.
N44	R39	The user researcher must be able to recognise from the interactive system whether requirements collected are complete from the customer's point of view.
N45	R40	The user must be able to overview the project structure on the interactive system.
N46	R41	The programmer must be able to recognise from the interactive system which general functions an application must fulfil (e.g. whether it is planned as a mobile application).
N47	-	R21, R22

N48	R42	The user must be able to keep track of upcoming tasks on the interactive system.
N49	R43	The Head of Programming must be able to identify available capacities on the interactive System.
N50	-	R23
N51	-	R23
N52	-	R05
N53	-	R23
N54	R44	The programmer must be able to recognise from the interactive system which standardised interfaces can be used.
N55	R45	The user must be able to see from the interactive system which tasks have already been completed.
N56	R46	The programmer must be able to recognise current wireframes on the interactive system.
N57	-	R23
N58	R47	The programmer must be able to recognise from the interactive system which graphic aspects he needs to create.
N59	R48	The programmer must be able to recognise from the interactive system which function certain elements must have.
N60	-	R31
N61	R49	The programmer must be able to recognise from the interactive system which changes in the developed application are needed.
	R50	The programmer must be able to recognise from the interactive system where changes in the developed application are needed.

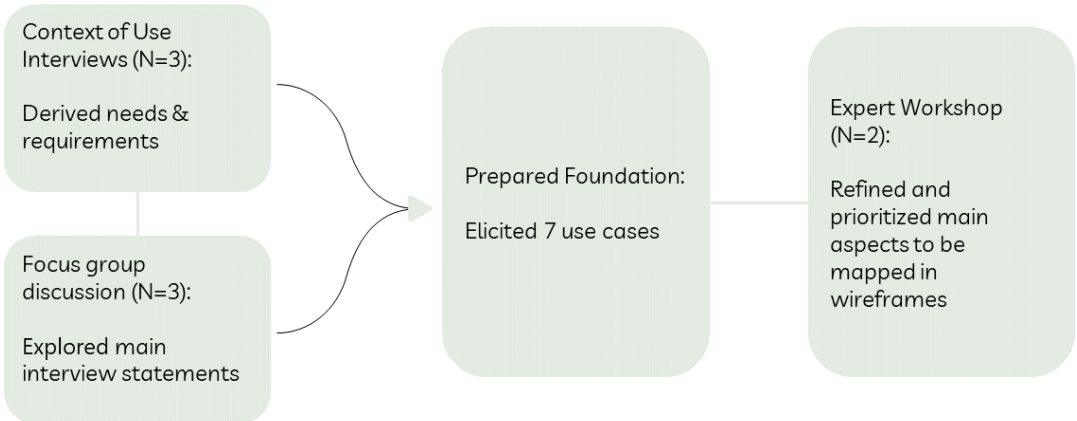
In a next step main uses cases were identified in two steps based on the requirements to build a foundation for further development activities (see Chapter 4.3).

4.3 Identifying Main Use Cases

The wireframes to be developed in connection with the tool concept are primarily intended to address issues that cannot be satisfactorily dealt with using the currently available tools. For this reason, the elicited user requirements must be in line with the relevant use cases from the user's perspective and be characterised by appropriateness, completeness and relevance. It inevitably follows from this that, on the one hand, not all the requirements identified necessarily bring an essential advantage for the majority of users, but on the other hand, other aspects

can be important in which no clear origin can be found in the contextual interviews. To make optimal use of development capacities so that neither complex functions with minimal added value are developed, nor essential user requirements are neglected, the requirements collected in the contextual interviews were discussed, expanded and prioritised with five further users in two sessions. Addressing these points, derived functions were evaluated in the later process in the form of a survey, which can be found in detail in chapter 7.3. In order to identify the main use cases to address within the first concept, a focus group discussion (N=3) was held based on the main findings of the interviews. The results of the focus group (see chapter 4.3.1) and the requirements derived from the interviews (see chapter 4.2) served as the basis for formulating seven use cases. These in turn build the foundation for a workshop (N=2) to refine and prioritize main aspects to be mapped in wireframes (see chapter 4.3.2). Figure 7 illustrated this process of consolidating user requirements. (Geis & Polkehn, 2018; UXQB e.V., 2023)

Figure 7: Based on context of use interviews and a focus group, use cases were derived and condensed within an expert workshop.



4.3.1 Focus Group Discussion

Within a focus group, different experts discuss a set of questions or statements on a specific topic guided by a moderator. In this master’s thesis, these statements were extracted from the main findings of the context of use interviews (see chapter 3.3). Focus groups are used to consider different perspectives and develop a deeper understanding of the problem space. Consequently, the objective was to integrate aspects of further experts (N=3) on the basis of the previously conducted interviews. One representative each from user research, design and programming/PMO attended the focus group. (Geis & Polkehn, 2018)

The 13 main statements correspond to a summary of the reported aspects and are therefore not direct quotations. An overview of these can be found in Table 10.

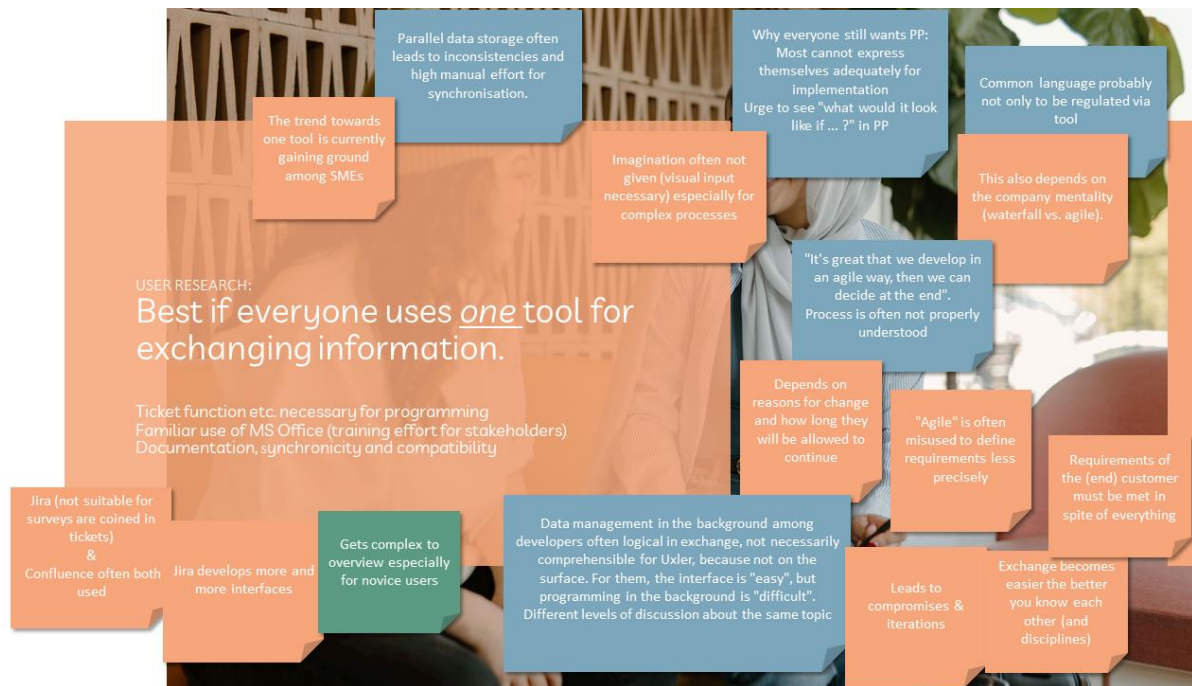
Table 10: Overview of main findings of context of use interviews in relation to statements the focus group was based on.

Less is more
Best if everyone uses one tool for exchanging information.
MS Office documents such as Word, Excel and PowerPoint will always be needed when communicating with clients.
Non-disclosure agreements slow down processes.
Open software where everyone can make comments could facilitate exchange.
Exchange takes place via comments in documents, emails and online tools. In addition, ideas are discussed in workshops and agreed with the different stakeholders.
Following a common thread
Requirements must be unambiguous and easy to find.
Communication is key
Design and programming must be able to implement elicited requirements.
Task complexity depends on the customer's explanation skills and how much clarity they already have about their expectations and wishes.
Smart objects
Intelligent element links avoid errors, but do not work without work-arounds.
An overview of editing processes in the form of an editing history as well as direct annotations in the graphics system would give more security in the work.
Especially the sub-areas around data access, data integrity and implementation of the UI are more extensive.
Striking the happy medium
Programmers want to use existing standard elements, but designers want to see their custom concept implemented.
A compromise must be found between individual design and programming effort.

The main statements were framed with further aspects for the discussion and were represented with a colour coding according to the discipline in which they originated. In this regard, orange was used for user research, green for design and blue for programming. The aspects mentioned by the participants were noted on a virtual post-it in a corresponding colour to their discipline (colour coding as described above). An example of a resulting slide can be seen in Figure 8 for the statement "Best if everyone uses one tool for exchanging

information" originating from the context of use interview with a user researcher (orange colour). The complete documents can be found in the Appendix 4: Formatted documents after focus group discussion.

Figure 8: Consulting two experts from Die Plusbringer, main interview statements were explored and supplemented.



Based on those results, the main use cases were derived and further discussed with experts (see chapter 4.3.2).

4.3.2 Prioritisation of Aspects to be Illustrated in Wireframes

In order to create wireframes that support the main use cases of Die Plusbringer projects, seven synthesised use cases were formulated based on the requirements derived from context of use interviews and the additional aspects to main statements collected in a focus group (see Chapter 4.3.1). In the workshop, one participant as a representative of the discipline design and user research and one participant as a representative of the discipline programming (N=2) took part. The workshop lasted about two hours. The resulting workshop documents can be found in the Appendix 5: Formatted documents after prioritisation workshop, where the presented use cases are described in more detail. For this purpose, the formulation notes from the research-based web design & usability guidelines were used to formulate the use cases from the point of view of concerned user groups (The Research-Based Web Design & Usability Guidelines, 2006). In the overview, the use case descriptions are listed in relation to the main statements of interviews and the derived requirements as well as the summarized aspects of

the focus group discussion and the respective disciplines as the following Figure 9 shows as an example for use case 2: "Managing requests of different working areas".

Figure 9: Exemplary use case derived from interviews, elicited user requirements and results from the focus group, including prioritized aspects to be mapped in wireframes.



An overview of the use cases and resulting prioritised aspects to be mapped in wireframes can be found in the following Table 11.

Table 11: Prioritized aspects to be mapped in wireframes in relation to belonging use cases.

Use Case 1: View domain-relevant information and take domain-relevant actions
(Different) domain-linked actions and views for (different) users in all aspects of the system: <ul style="list-style-type: none"> – Tool structure / navigation – Viewing overviews (for example tasks, deadlines, process)
Use Case 2: Managing requests of different working areas
Overview of requirements
View requirements in detail
See the connections between requirements and aspects dealt with, including graphical aspects.
Be able to recognise completeness of requirements elicitation
Use Case 3: Writing, assigning and viewing comments
Comment on project data in a targeted manner
Address comments according to responsibility
Recognise relevant comments
Use Case 4: Making adjustments
Being able to track reasons for changes and change requests
See exactly where changes are needed
Apply changes to selected (same) representations
Use Case 5: Managing object design
Set properties for objects (graphical/behavioural)
View the use of objects
Be able to edit object data (graphically/behaviourally) for project or sub-areas
Use Case 6: Exchanging project data
Upload and download documents
Integrate uploaded information into the system in a comprehensible way
Integrate system information to external systems
Use Case 7: Managing programming aspects
View object data in detail

View graphical aspects in detail

Overview: Graphical representation and data of used objects

Security regarding accessibility of implemented graphics / sizes / fonts

Based on the results of the workshop as shown in Table 11, a first rough graphic and content concept was developed as Chapter 5 illustrates.

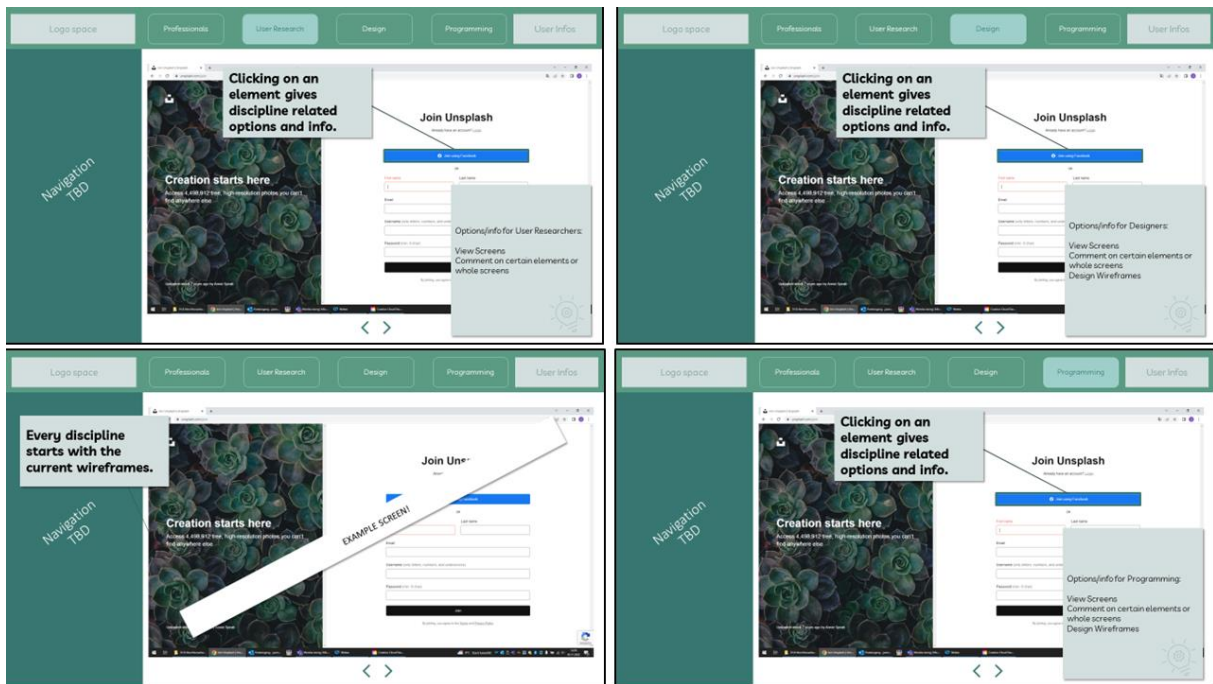
5 Produce Design Solutions to Meet User Requirements

According to the prioritisation of the aspects to be presented, a rough concept was developed, which was then iteratively refined with experts. In the process, user requirements that had been collected were also considered in terms of assignability. The first concept included the aspects:

- Division of the application into the areas:
 - Graphical elements (collective list)
 - Exemplary user interface presentations (e.g., wireframes)
 - Requirements
 - Information on implementation
- Identification of user groups via their discipline (multiple selections possible)
- Deposit of disciplines in the user data
- Division of relevant sub-items within the areas for different user groups
- Division of relevant actions for different user groups according to disciplines

A summary of the first rough sketches can be seen in Figure 10. The first step was to take a closer look at the sub-area for the design, showing wireframes or other exemplary user interfaces. In this area, most of the information must flow together: Graphical representations of the user interface, which contains various objects (graphical elements), must display a description with important data for programming (information on implementation). In addition, a link between requirements and the concerned objects or screens must be displayed and mapped in a meaningful way.

Figure 10: First rough sketches of the tool concept using a screenshot to illustrate representation of wireframes within the tool. (unsplash, 2023)



Based on the first rough graphical and content concept, expert rounds were conducted to iteratively evaluate the derived design against requirements, as Chapter 6 illustrates.

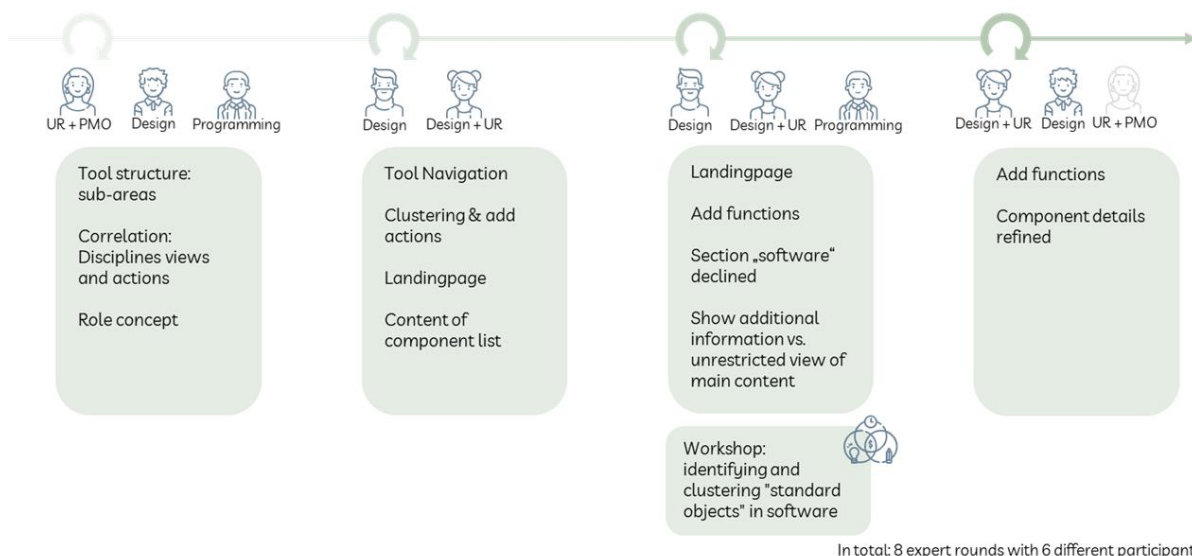
6 Evaluate the Design Against Requirements

Iteratively, the basic concept was further refined. Expert rounds were convened for this purpose to debate the state of the wireframes at the time. Between workshops, the topics discussed were expanded upon and provided for the subsequent expert round in the form of updated wireframes (see Chapter 6.1). Since further aspects emerged within the expert rounds, not all of them could be discussed within the timeframes. Therefore, a workshop was organised to further explore the topic of objects to be used in a system. Its proceedings and results are explained in more detail in Chapter 6.2.

6.1 Conducting Expert Rounds

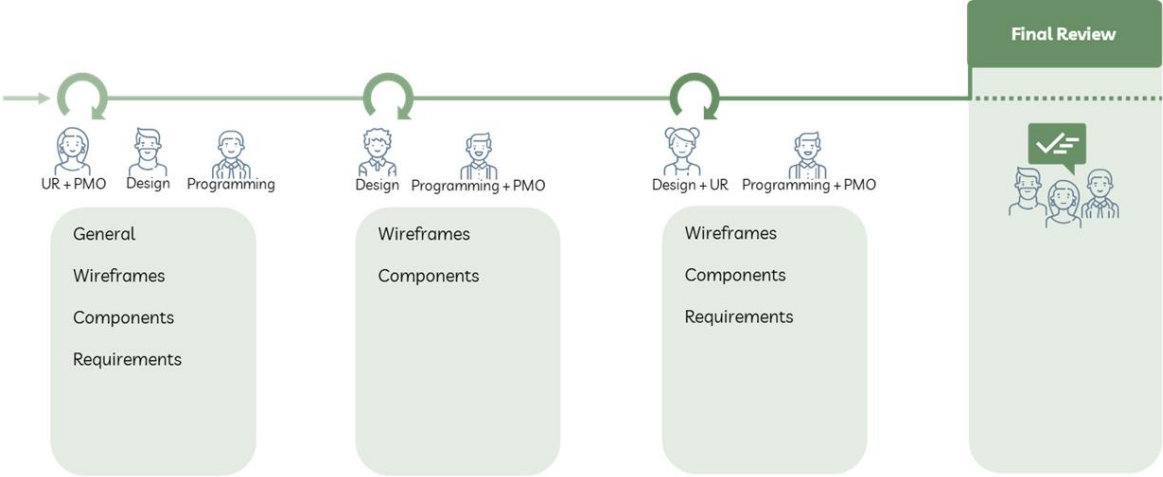
An initial rough concept was iteratively improved. For this purpose, expert rounds were held in which experts from the fields of design, programming, user research and PMO met in various constellations to discuss the current status of the wireframes. An overview of these expert rounds is shown in Figure 11 and Figure 12. These also show which experts met at what time and which aspects were discussed in the respective rounds and consequently revised. In total, six different participants took part in the eight expert rounds. The expert rounds took place between 09.12.2022 and 18.01.2023 and lasted approx. 1.5 hours each, excluding the time for the introduction to the topic, which varied according to the different levels of prior knowledge about the project.

Figure 11: Overview of content and participants of the first four expert rounds, whereby in the last round three experts were planned, but one was absent and a further workshop for identifying system components during the third round.



In the first four rounds, the tool was discussed in general, e.g., the tool navigation and a role concept according to the different disciplines were developed. During the workshops, existing representations were discussed and new ideas developed. Comments were added in yellow boxes on the corresponding representation and can be found with the documents of the different expert rounds in the Appendix 6: Formatted Documents of Expert Round Iterations of Wireframes . These comments were elaborated between the workshops and prepared for the following expert round in the form of revised wireframes. Initially, a rough representation was developed in PowerPoint, which was refined in Adobe XD from the fourth draft onwards. Chapter 5 explained that essential system information must flow together in the area of graphics. For this reason, the first illustrations concentrated primarily on the wireframes. This was also plausible since user research experts were more involved in the second part of the reviews, visible by comparing Figure 11 and Figure 12. Figure 11 also shows that during the third expert round a workshop on identifying standard objects in software was identified as necessary and initiated, the process and results of which are presented in detail in Chapter 6.1.

Figure 12: Overview of content and participants of the second four expert rounds. The supplements to the contents can be found in Table 12-14 and the last round represents a final review.



Through the expert rounds, the working definitions "General", "Wireframes", "Components" and "Requirements" were developed for the different areas of the software to be developed, which dealt with the following topics:

- **General:** Denotes several overview pages; the overall landing page of the software, as well as the overview pages for an entire project and for each of its sub-areas (so-called "working packages").

- **Wireframes:** Refers to the graphical representation of an exemplary user interface, often in the form of initial wireframes.
- **Components:** Refers to the aspect of the objects/components used within the user interface.
- **Requirements:** Refers to the sub-area of the requirements identified for the system to be developed.

These working definitions were retained as the focus was not on developing final graphical or verbal expression, but on developing a first concept of the idea.

Figure 12 shows the second half of the expert rounds, in which the tool was discussed in more detail in the sub-areas mentioned above. The aspects and changes discussed in each case were significantly influenced by the participants, as all aspects were always presented, but not all were commented on or discussed each time. This resulted in a sub-area distribution within the expert reviews as shown in Figure 12. A more detailed overview of the discussed contents and their resulting changes is shown in the following Table 12 - Table 14, the corresponding wireframes including short notes of important workshop comments (yellow boxes) can be found in the Appendix 6: Formatted Documents of Expert Round Iterations of Wireframes. It is important to note that the wireframes always show a role-agnostic view (e.g., an admin view), representing all disciplines (and discipline functions, which are described in Chapter 7.1).

Table 12: Discussed content and resulting changes of the fifth expert round divided by the subsections of the tool.

Subsection	Main aspects discussed	Main changes made
General	Landing pages: Last status, To Dos, News, Quick links within the projects	Aspects were added.
	Include action for phase management: Reference software Prince 2	Action "Phase Management" (icon) was added and shape inspired by the named software.
Wireframes	Adjust actions: Always visible to the user	All actions (icons) have different (visible) states. The green background shows which ones are currently active, greyed out shows which ones are currently not usable. Icons for actions were reworked to enable function.
	Decision: Collapse the first three functions	Discarded other mechanism option and integrated chosen one.

	Comments: "Done" action for comments that are not your own	Aspect was added (icon).
	Further Information: Enable further actions/information directly instead of pop-ups	Content from pop-ups was integrated directly onto the screen to promote uniformity and clarity.
	Decision: No query of change reasons, since time expenditure is greater than added value. Reason can be inferred by describing the change and the person who made the change.	Aspects to query reasons for changes were not integrated. These should first be closed by historizing comments / tracing changes and who made them. Integrated visibility of how many changes there were (according to the number of boxes), display "X/X changes" at "show recent changes"
	-	Included screens to show how links can work (toolbar, editing area)
Components	Layout: General table layout	Layout was reworked
	Actions: No direct actions within line entries	Click on line opens details, action-icons were deleted within lines and placed according to wireframe sub-section.
	Revision: Content of detail pop-up	Viewable details adjusted.
Requirements	Adapt actions: similar to section „wireframes“	Behaviour of functions was reworked similar to wireframes section.
	Add action: Edit requirement	Adding requirements possible via icon in detail view instead of direct interaction.
	Add information: Type of requirement	Information was integrated into title.

Table 13: Discussed content and resulting changes of the sixth expert round divided by the subsections of the tool.

Subsection	Main aspects discussed	Main changes made
Wireframes	Expand: Add further aspects according shown in previous screens but in the new style of info representation	Added aspects previously shown (individually extended and adapted as needed by concept).
	Out of focus: Develop required component data in later processes, initially no action / input	Kept placeholders.
Components	Decision: New object should be added according to proposal 3	Discarded other creation options and integrated chosen one.
	Layout: Layout of table	Refine spacing and displaying, so that different states of one object are closer listed than different objects.
	Add action: History inserted	Action (icon) for history was added in detail view. Further functions were added according to requirements.
	Revise action: Similar to other subsections of tool	Actions (especially icons) aligned.
	-	Content from Pop-ups merged and presented in full page view, like in requirements.

Table 14: Discussed content and resulting changes of the seventh expert round divided by the subsections of the tool.

Subsection	Main aspects discussed	Main changes made
Wireframes	Consistency: Synchronize within and with other sub-areas	Integration of processing statuses according to the "Requirements" into other sections. Green markers for changes according to "recent changes" (history)
	Definition of action: Changes can be applied not only to duplicates of a specific object but to all objects that belong to the same type and thus to the same category	Adapted for content concept.
	Adaption of functionality: Not only add new screens but add new reference to existing screen	Added option within action to add screen reference.

Components	Consistency: Synchronize within and with other sub-areas	Wording, status of icons, icon position, align history icon to other icons
	-	New presentation: First look of Process for depositing component data integrated
Requirements	Add action: Display tickets as programmer	New presentation: Further options as programmer integrated
	Add action: Be able to view capacities as a programmer (leader)	New presentation: Further options as programmer integrated
	Incorporate recognizability and distinctiveness: meaning of progress indicators	Icons were added to identify meaning of progress indicators.

6.2 Identifying Standard Objects of User Interfaces

Within the third round of experts presented in the previous sub-chapter, the need to define a register for objects whose use is typical in most software systems arose (see also Figure 11). With this goal in mind, a classification was made based on the various approaches to classifying system components presented in Chapter 2. For this purpose, system components were identified in the context of an expert workshop (N=3), which should be located within a catalogue database of the system to be developed. After analysing the already collected data on object classification (see Chapter 2), different application components were collected and supplemented with the experts. For verification and further additions, systems developed by Die Plusbringer were analysed verbally whether all objects can be classified with the developed guideline. Subsequently, the identified objects were classified into three main groups, where two of which contain (four resp. nine) sub-groups. An overview of the catalogue developed can be found in Table 15, which shows the jointly developed status of the work. Application components named are also seen in regard to the elements defined by DIN EN ISO 9241-161. (DIN EN ISO 9241-161, 2016)

Table 15: Work status of the component catalogue developed with Die Plusbringer, which divides system components into three top groups with associated subgroups. Objects were partly described within the workshop and partly seen as self-explanatory (e.g., in relation to DIN 9241-161).

I APPLICATION FRAME
Windows
Display Area

Navigation Area

Action selection Area

II APPLICATION COMPONENTS

Action Items

Pictograms

Buttons

- Push Button (with "normal" label which can only be pressed by clicking with the mouse or keyboard via Tab and Enter)
- Button with implicit Identifier (letter in button label underlined to indicate that pressing this letter key causes the button to be selected)
- Toggle Button

Clickable text

Selection Objects

Checkboxes

Radio Buttons

Dropdown (Requires list button, selection marker, possibly selection cursor if keyboard navigation is possible)

- Single selection
- Multiple selection

List box (Similar to dropdown, but the list is presented directly; requires selection marker, possibly selection cursor if keyboard navigation is possible)

- Single selection
- Multiple selections

Picker (Requires pictogram to open selection; e.g., date, time, colour, place)

Stepper (Step-by-step advancement of an input value via pictogram, e.g., arrows up and down)

Slider:

- For exactly one value (one "handle")
- For range of values (two "handles")

Carousel

Input Objects

Input field

- With specific syntax requirements
- Without specific syntax requirement

Input field with dialogue button (e.g., button/pictogram for search)

- With specific syntax requirements
- Without specific syntax requirements

Upload fields (to upload data files)

Drag and drop

File path

Mixed Form of Input and Selection Objects

Combined input/output field (combination of text field and list field; user enters text and receives suggestions below)

Input Tokenizer (input fields pointing to meta information; e.g., A person's name can be entered and the corresponding email address can be selected from a list)

Overarching Object Structures

Reduceable container (folding in and out of an information/action via reduce/expand means)

Accordion (summary of reducible containers)

Groupings (heading, objects grouped underneath)

Navigation or Structural Objects

Navigation bar:

- horizontal
- vertical

Tree view

Menu bar

Tab group

Overlays

Dialogue box

Pop-up

Status information

System message

Windows

Tooltip (hint for user interaction, e.g., hover)

Display Objects (directly displayed without new field, otherwise overlay)

Pictograms

Animations

Progress bar

Loading symbol

Other

Text

Images

Cursor (Displayed when entering text, to indicate current position)

Legends / Character keys

Pointer (Displayed to indicate mouse position)

Display field (Shows only an information and never becomes editable)

Labels (Descriptive hint that always belongs to another object e.g., labels on buttons)

Other Object Types

Scrollbar

Thumb / Scroll box / Horizontal scrollable

Prompt

Map

Handle

Tool Bar

Combination field (e.g., search field in Word: pictogram + text fields without specific syntax requirements + display object text)

III PROPERTIES ASSIGNABLE TO APPLICATION COMPONENTS

Editability:

Objects can be editable or not editable according to prerequisites and transition conditions (e.g., if an entry has been saved, it can no longer be changed).

Clickability:

Objects can be clickable or not clickable according to prerequisites (e.g., if no changes have been made, a save icon is not clickable, possibly greyed out).

Visibility:

Objects can be visible or not visible according to prerequisites (e.g., if no changes have been made, a save icon is not visible).

Hover:

Objects can convey further content by means of a hover (e.g., information texts).

Transition Conditions:

Are to be defined for the transition between mutually exclusive states or properties; e.g., if an object can be editable and non-editable)

Togetherness:

Objects can belong together with other objects in a user-relevant and/or system-relevant way. User relevant belonging needs to be made visible e.g., by applying Gestalt Laws.

Retractability:

Objects can be foldable or not foldable, either alone or as a group of objects

Selection mark (indicates currently selected item within selection objects)

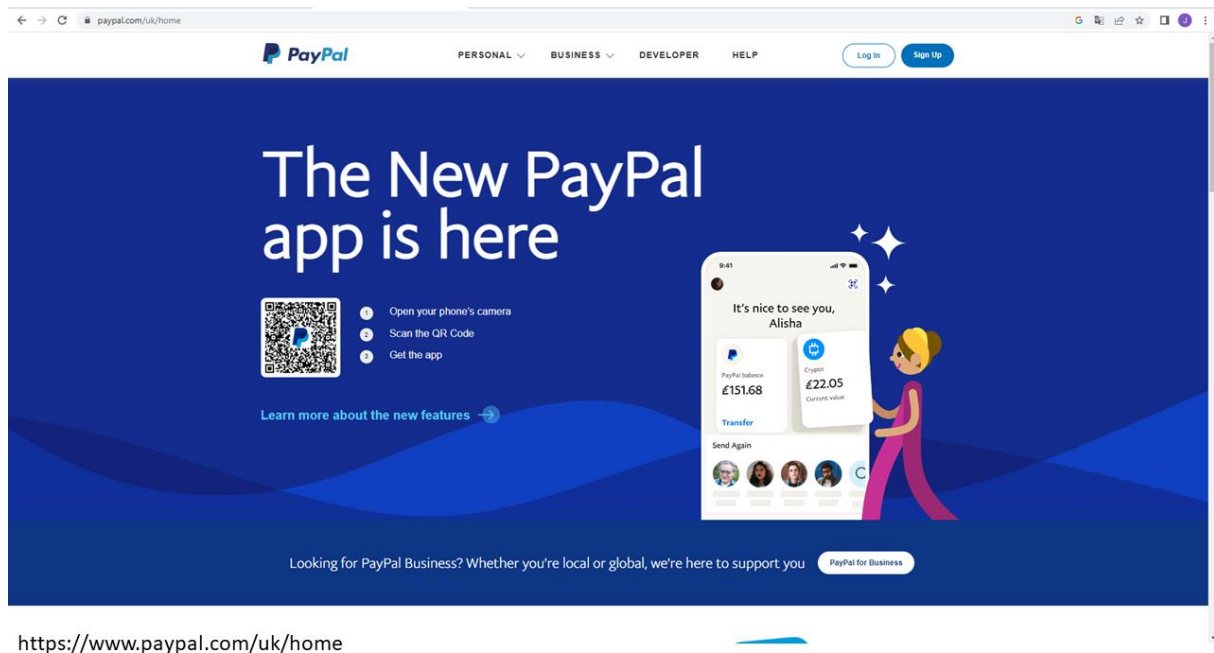
Selection cursor (indicates new selection of an item within selection objects)

The collection created in exchange with one expert from each of the areas design, design and user research, and programming is intended to represent a comprehensive proposal, but can also be supplemented for special cases. It serves as a structured representation of system components and is thus intended to support the understanding of a system that is to be developed. The practice of utilizing specified (standard) objects tries to lessen the extra work of having to repeatedly record the same facts within different working areas. It has the potential to reduce this additional effort not only within a project but also across projects: Defined standard objects can be provided with a standard definition and used across projects. For example, objects can have different states that appear in each system under the same general conditions from a user-friendliness perspective, such as:

- Active (e.g., clickable): An active object can be actuated.
- Passive (e.g., not clickable): A passive object cannot be actuated. An individual action prerequisite must be defined that sets the object to the active state.

Although the individual requirements for the transition from the passive to the active state cannot be defined in a meaningful general way, a reference to the fact that these are to be defined can provide documentary uniformity and thus promote understanding (cf. Chapter 2.3). In addition to extensibility, the multiple use of object types is also intended to provide flexibility and thus strengthen the usability of the tool. In a system, the same elements with different appearances can provide perception-based user instructions for system operation to guide user actions. Still, they fulfil the same function in principle. An example of this can be found on the landing page of PayPal, a service provider that enables making or receiving payments using an email address: In general, both buttons link the action labelled on them ("Log In" and "Sign Up"), but follow individual visual designs (see Figure 13). (Paypal, 2023)

Figure 13: Exemplary screen to illustrate functionally identical system components (buttons) in different designs (Paypal, 2023).



To ensure that a coherent and consistent design concept continues throughout the development, documentation of both types is important, not least to strengthen the programming team's understanding of the design concept that has been developed (Main Finding: Striking the Happy Medium). At best, a meaningful basis for discussion is created: By distinguishing even the same object types via non-general properties, it is clear that for a meaningful implementation of the design concept, the object is needed in different forms. Consequently, differentiation criteria must be developed that are both easy to implement and clearly recognisable for users.

In view of the classification systems presented in Chapter 2, it can be stated that the defined application components strongly resemble the objects and entities proposed by Evans as well as the objects known from object-oriented programming and contain elements presented from DIN EN ISO 9241-161. The grouping of these as well as the property affiliation is very similar to the "modules" and "packages" proposed by Evans, which also have characteristics of the "state machine" through the definition conditions of transition conditions. Attributes and services can be assigned as properties assignable to application components. Business processes and scenarios are handled by combining the components in wireframes, which are usually represented in the form of specific use cases. (Balzert, 1999; DIN EN ISO 9241-161, 2016; Evans, 2004)

After the expert rounds a first visual and content concept was introduced and evaluated, as the following Chapter 7 illustrates.

7 Results

At the end, a final state of wireframes can be presented, which illustrates the content concept by integrating requirements identified at the beginning of the project (see Chapter 7.1). Based on the context of use analysis at the beginning of project (see Chapter 3) and its further development, main functions for the tool could be derived (see Chapter 7.2). In order to be able to give a proposal for the optimised use of implementation resources in regards to developing the tool and its functions further, an online survey was carried out (see Chapter 7.3).

7.1 Introduction of First Final Visual and Content Concept

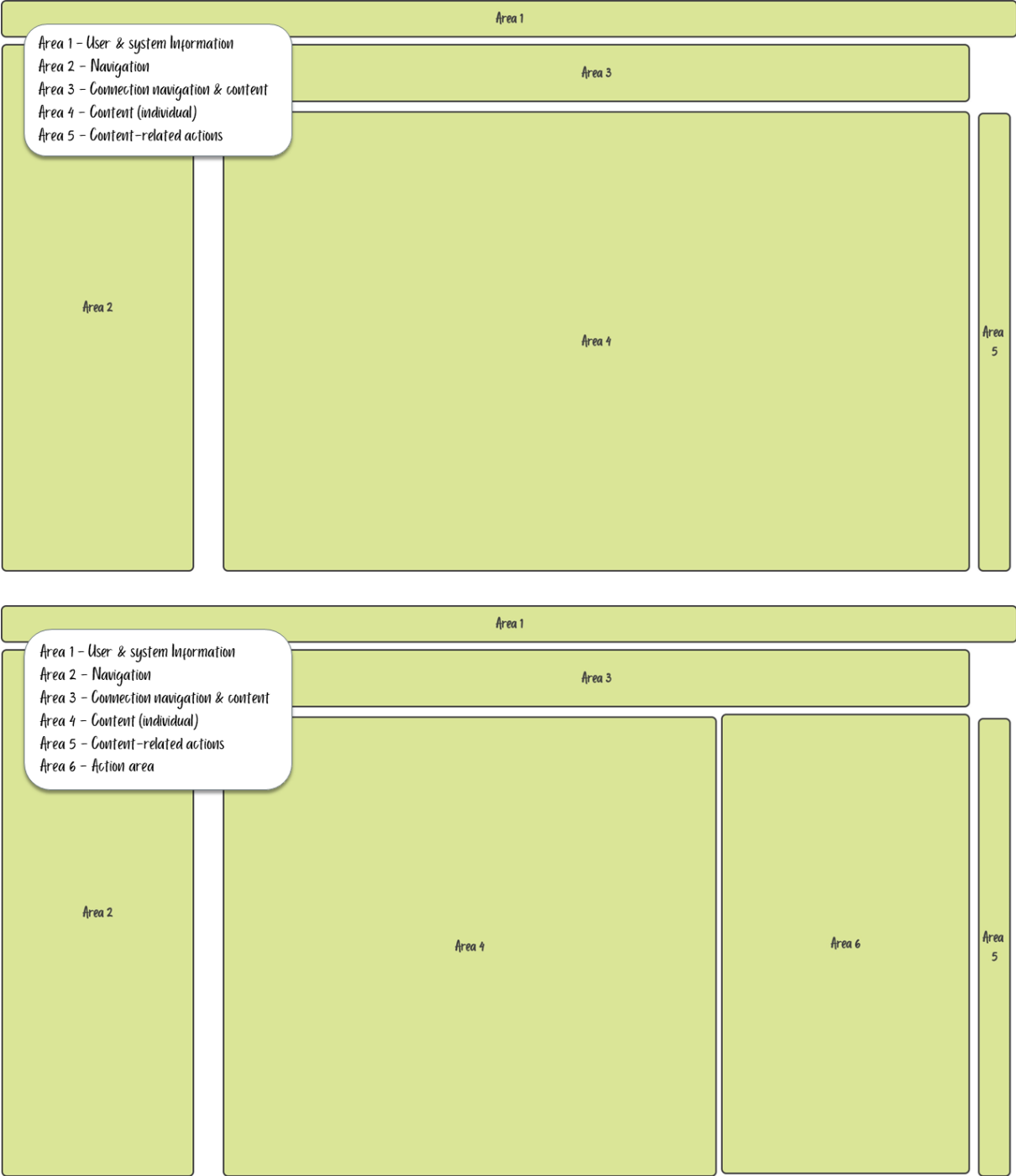
Within expert rounds, wireframes were iteratively developed until they were considered conceptually ready within a final review. In the creation of the wireframes, not only was direct feedback from expert reviews taken into account, but the findings collected in the context of use formed the basis. Consequently, high-level goals pursued by the application can be specified. These also represent significant differences to existing software solutions presented in Chapter 2.4. The content concept therefore consists of the following unique features:

- **Central source for information:** Communicate with existing specialised applications, without aiming to replace or imitate them.
- **Data interfaces:** Enable application-neutral work and administration through the flexibility of data import and export.
- **Administration of information changes:** Communicate with existing specialised applications (such as Adobe XD), without trying to imitate or replace them.
- **Facilitating documentation through automation:** Displaying connections and comments in a targeted manner, as well as automatically creating data histories and an up-to-date list of application components including important properties.
- **Making functions domain specific available:** Customize the actions for the user.
- **Merging content and graphical development aspects:** Facilitating communication, especially between programming and design, by merging developed aspects that need to be integrated into a software.

Within the different expert reviews (see chapter 6.1), an interactive application frame was developed as shown in Figure 14. It should be noted that after selecting a content-related action in area 5, area 6 is opened (and closed vice versa). This, and the fact that area 2 has a

fold-away mechanism, ensures that area 4, which displays the individual content, can be enlarged, thus creating space for overviewing content.

Figure 14: Application frame showing different areas of the developed tool.



In the first step, according to use case 1: View domain-relevant information and take domain-relevant actions (see Chapter 4.3.2), a division into workspaces and domain-specific functions resulted. A consistent navigation should be maintained in order to strengthen support and general understanding and to facilitate the assignment of dual roles (e.g., user researcher and designer). The tool is therefore divided into four areas, which were considered under the

working definitions "General", "Requirements", "Wireframes" and "Components" (see also explanation in this regard in chapter 6.1). The general page structure divides each wireframe into 5 or 6 areas. Figure 16 - Figure 19 show an exemplary overview of the resulting work areas, and identify the resulting role concept, which can also be found in the functional description in chapter 7.2, according to the legend in Figure 15.

Figure 15: Legend for the assignment of the role-specific actions marked in Figures 16-19. Non-marked actions are agnostic to any role and available to all users.



Figure 16: Assignment of the actions (area 3 according to Figure 14) of a "General" project page according to the legend in Figure 15.

Figure 17: Assignment of the actions (area 3 and 5 according to Figure 14) of a “Requirements” page with a working package of a project according to the legend in Figure 15.

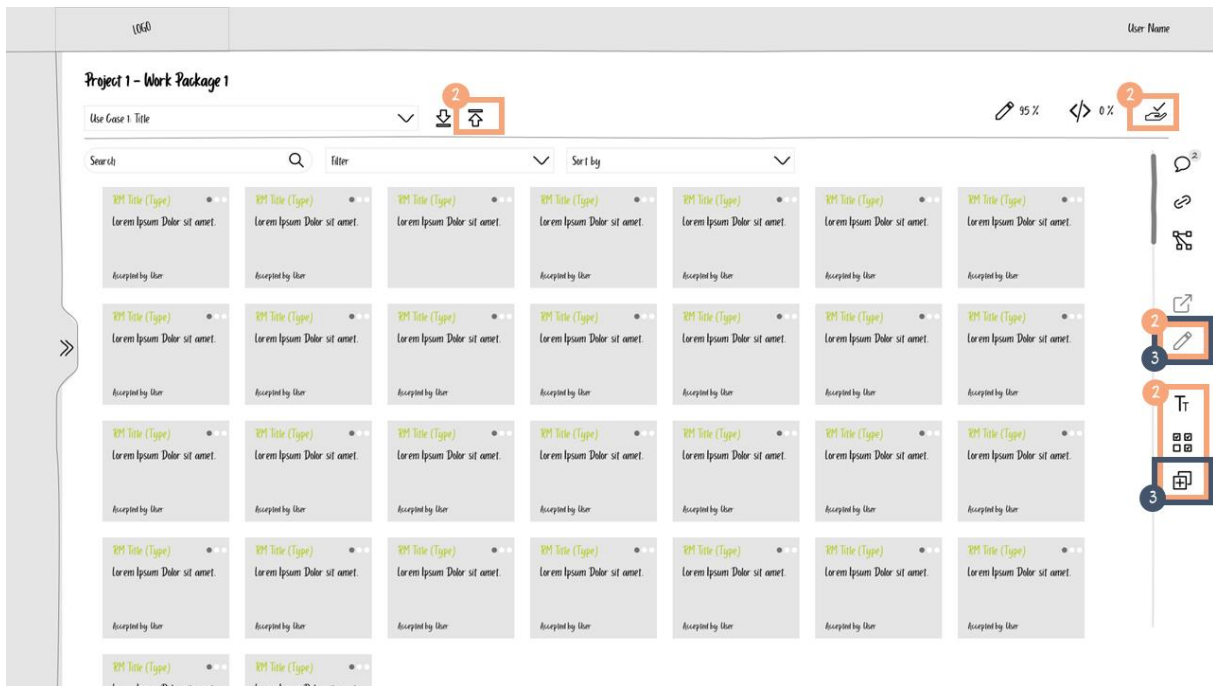


Figure 18: Assignment of the actions (area 3 and 5 according to Figure 14) of a “Wireframes” page with a working package of a project according to the legend in Figure 15.

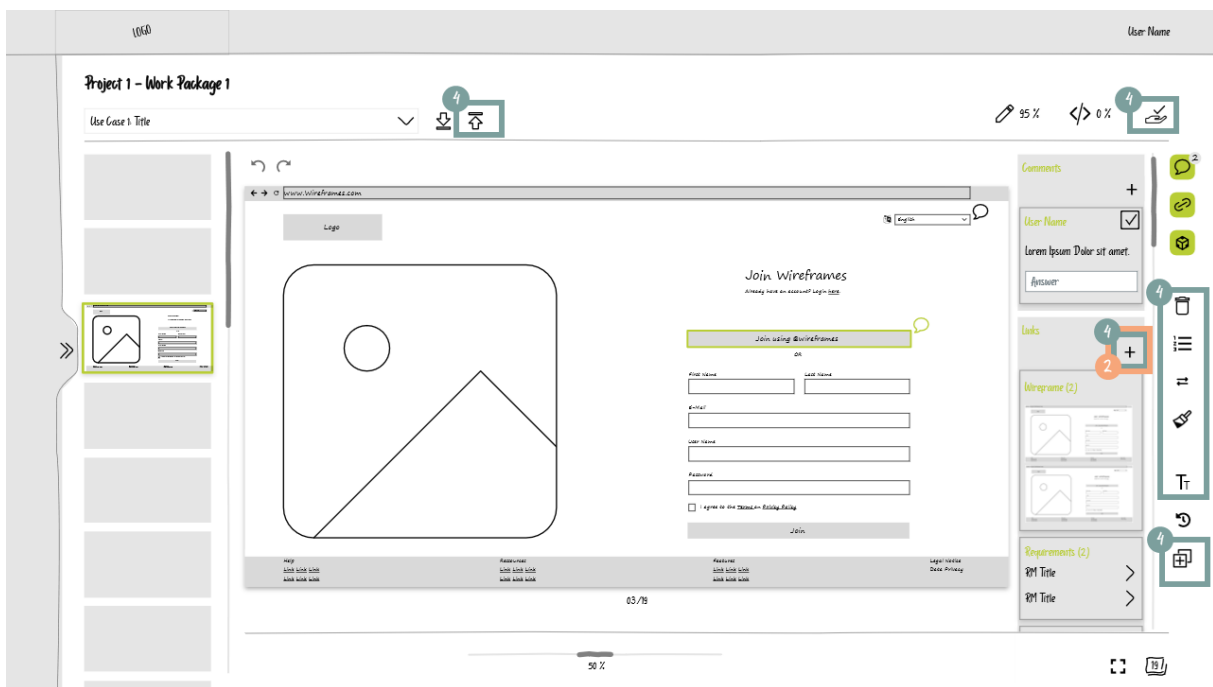
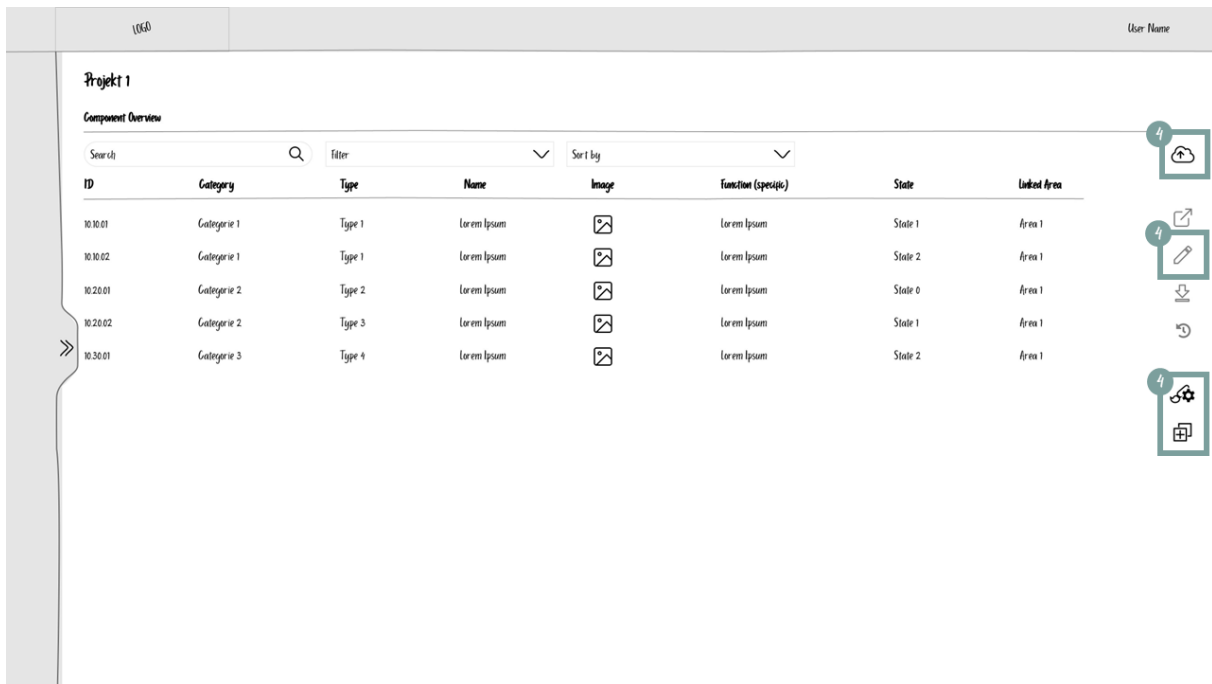


Figure 19: Assignment of the actions (area 3 according to Figure 14) of a “Components” page with a working package of a project according to the legend in Figure 15.



Subsequent analyses confirmed the findings from the interview that managing adjustments currently requires a great deal of effort (see Chapter 3.3). For this reason, the tool aims to support the implementation of changes to promote comprehensibility through uniformity, facilitate communication and minimise the administrative documentation effort (cf. Chapter 4.3.2, use case 4: Making adjustments). To serve this purpose, various discipline-oriented functions were integrated within the different work areas of the tool, which will be discussed in the following via the resulting wireframes. These are to be considered together with the descriptions of the individual functions grouped according to work packages in chapter 7.2 as well as the functional procedures in Appendix 7: Final Concept Wireframes.

The "General" area refers to overview pages with correspondingly overarching content, which can be found in different system levels: General overview page when the software is launched (see Figure 20), overview page for an entire project (see Figure 16) and the overview page within a sub-area (work package) of the project (see Figure 21).

Figure 20: Landing page of the developed tool concept including exemplary data concerning news, upcoming events and quick links as well as an overview of the tool's general navigation structure.

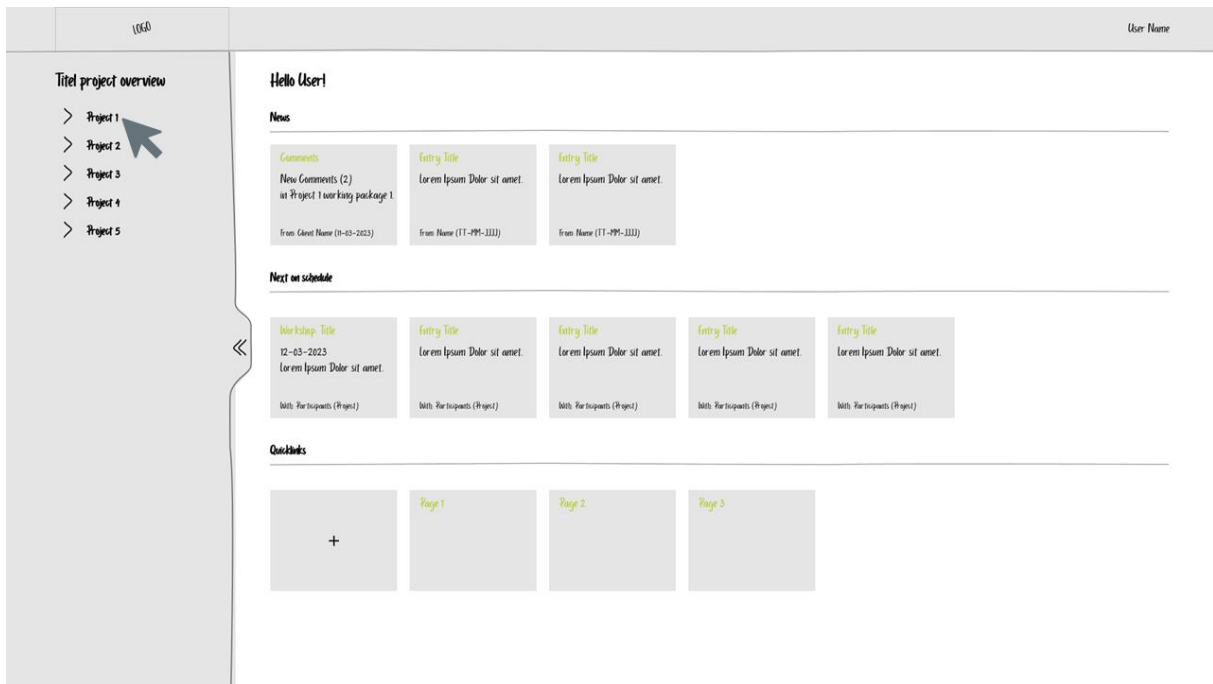
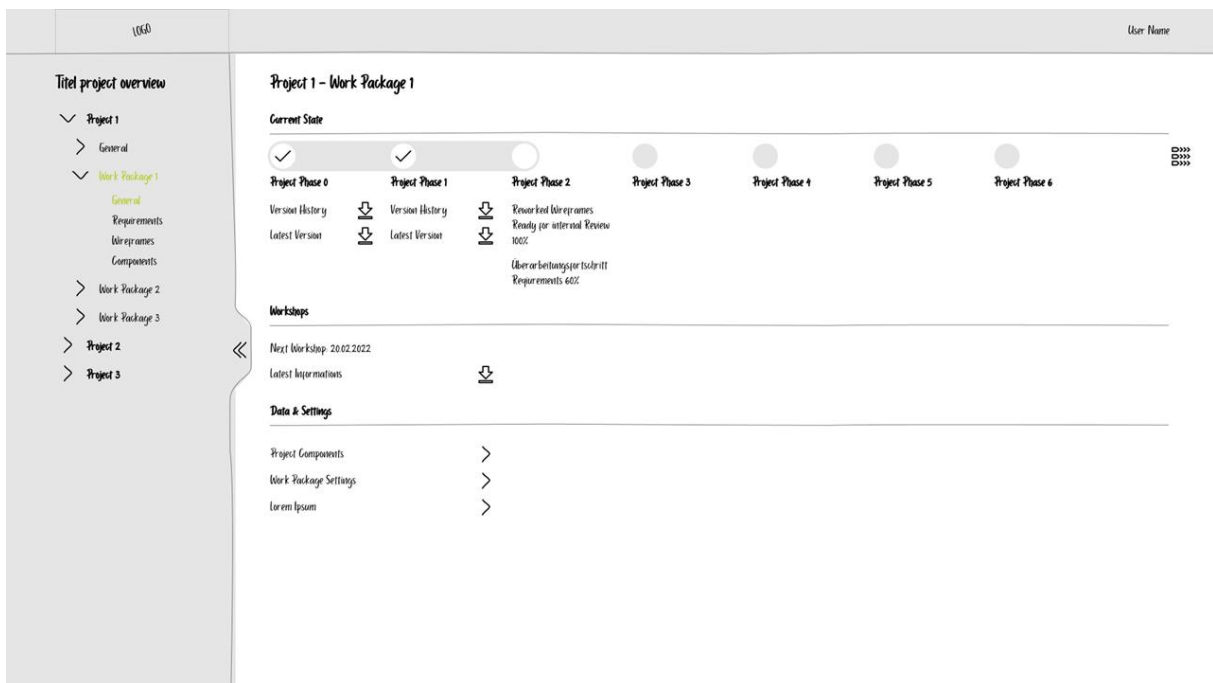


Figure 21: Starting page of a working package including a current status overview, upcoming events and an exemplary data and settings section quick as well as an overview of the tool's navigation structure within a project.



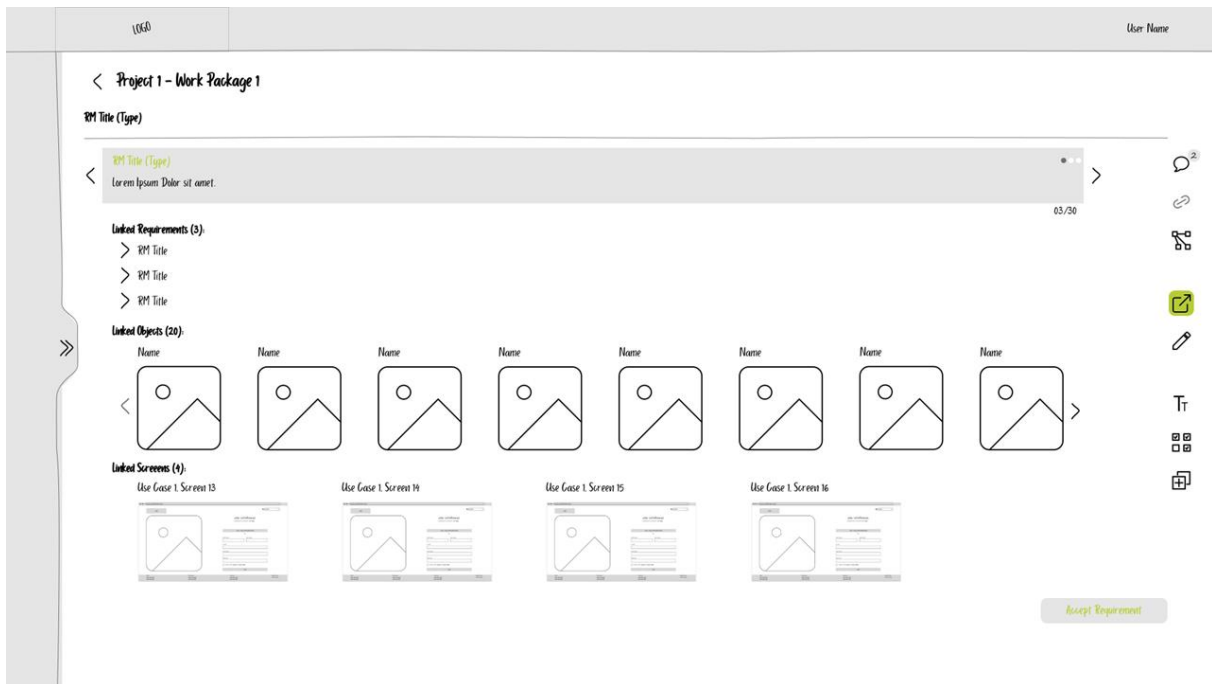
In addition, there is a PMO-specific function for managing the displayed information in the overview pages of a project or sub-projects (see Figure 16). This process structure can be significantly influenced by the individually applied design processes presented in chapter 2.1. It is conceivable to be able to choose between different project-specific approaches. On the

overview page for a sub-project, information on the revision progress of work areas "Wireframes" and "Requirements" is also given. This information should only be visible to internal Plusbringer users and should be linked to the display of the editing status and the "Review" function for designers within "Wireframes" or user researchers within "Requirements". Since requirements from the development environment, which are documented by programmers, usually do not go through any iterative processes, the review function is not reserved for this type of requirements but for the user requirements collected by user research.

In the user research / programming workspace, identified user/implementation requirements can be administered (see Figure 17).¹⁴ The concept first provides for a rough division of user requirements (to be administered by user research) and requirements on the part of the development environment / implementation (to be administered by programming), as both disciplines introduce the necessity of requirement definitions (see Chapter 2.1 and Chapter 2.2). A hint can be found in the title of the requirement. According to Figure 22, requirements can also be viewed in detail by all users. The included content shows a first proposal. In the content area, users with a customer-role can report requirements as accepted and thus correct via the button in Figure 22. Otherwise, if a requirements is incorrect or incomplete, comments can be added by customers and adaptations will be made by the responsible user researcher.

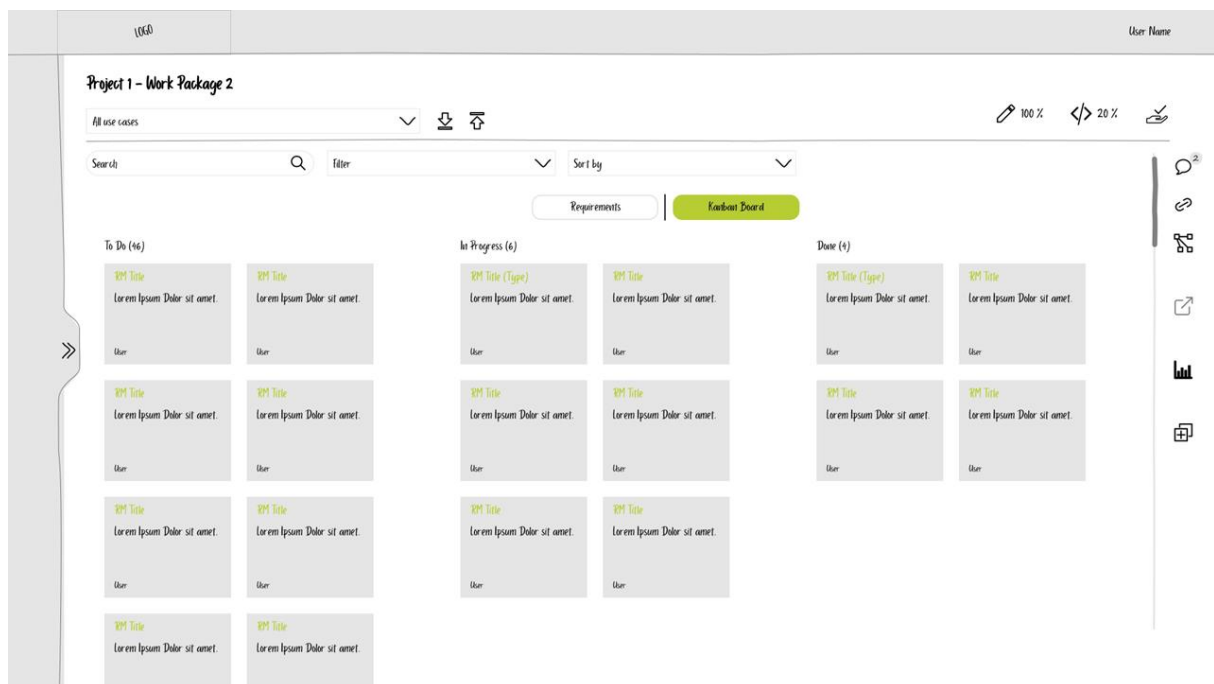
¹⁴A specific workspace for programming was rejected for an initial concept, see Chapter 6.1 Figure 11 in connection with Appendix 6: Formatted Documents of Expert Round Iterations of Wireframes

Figure 22: Detailed view of a requirement including the customer-specific action to "Accept Requirement" via a button.



If the requirements have been assessed as correct and complete by the customer, the "Tickets" area is opened for programming (see Figure 23). There, the recorded requirements are displayed in accordance with the working method of agile programming, for example in the form of tickets on a Kanban board. Configuration options for other information representations are conceivable. In addition, the option of an overview of capacities available for programming also appears for programming (see Figure 23 and Chapter 7.2). Those are to be calculated on the basis of assigned tickets for a person across projects.

Figure 23: Exemplary Screen showing a programmer's exclusive view of the requirements section, including an option to show data in other constellation exemplary as a kanban-board and viewing programming capacity



In the "Requirements" section as well as in the "Wireframes" section, there are actions for selecting the displayed use cases of the work package. Hereby it should also be possible to display the information of all use cases. Another desired feature is the options for downloading and uploading data, which aims to integrate information into the selected (file) format and vice versa. If, for example, a use case with comments is uploaded or downloaded, these comments should be included in the file or in the tool system. Status views on the processing status of the respective open workspace and the implementation status are visible to all users. The "Review" function cooperates with the display in "General" (see above). With this action, designers resp. user researchers can release their work for internal review. Figure 17 and Figure 18 show the described functions in the wireframes (area 3).

In all work sections, the distances between the function icons within area 5 provide conclusions about their affiliation according to principles of Gestalt psychology (Law of proximity) (Baumann & Schärlich, 2023). Figure 24 shows an example of area 5 of "Requirements" (left) and "Wireframes" (right).

Figure 24: Comparison of area 5 of the "Requirements" (left) and "Wireframes" section (right).



In both the "Requirements" and "Wireframes" sections, the comments and links functions that are accessible to all user groups are arranged in the upper part of area 5. These serve the common presentation of various information and thus promote their summarised understanding. For this purpose, the options called up from area 5 are displayed in area 6 and can be shown or hidden by pressing the icon. In this way, the content displayed in area 4 can be viewed in combination with currently relevant information. Function are described in Chapter 7.2 and action sequences are shown in the Appendix 7: Final Concept Wireframes. Within the requirements, the topmost area also contains the option to display connections of the requirements on the workspace (area 4). Within the wireframes, in addition to comments and links, component data also belong to the first part of the function area.

In the "Wireframes" section, the discipline of design is predominant. This area is used for the graphical representation of exemplary user interfaces such as wireframes. Accordingly, most of the functions for designers are anchored in this area. Grouping between object-related functions such as:

- Delete
- Change State
- Exchange
- Transfer Attributes

and general functions such as:

- Change Text
- History
- Add

can be distinguished (see function description in Chapter 7.2). Figure 25 illustrates the function “delete” as representative of object related functions, whereas the Figure 26 - Figure 31 illustrate the process of adding an object as representative of general functions. Further function operations can be found in Appendix 7: Final Concept Wireframes.

Figure 25: Insight into the conceptualized delete function with selection of the screens on which it is to be applied.

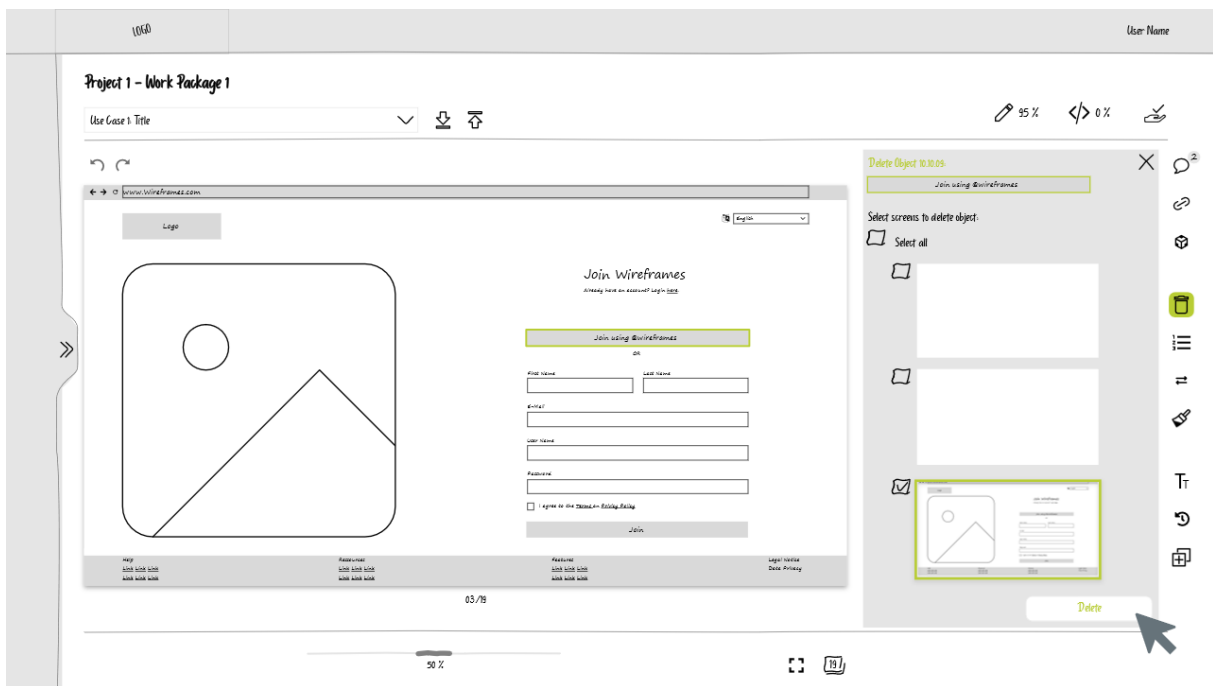


Figure 26: Add an object: 1. Select add object.

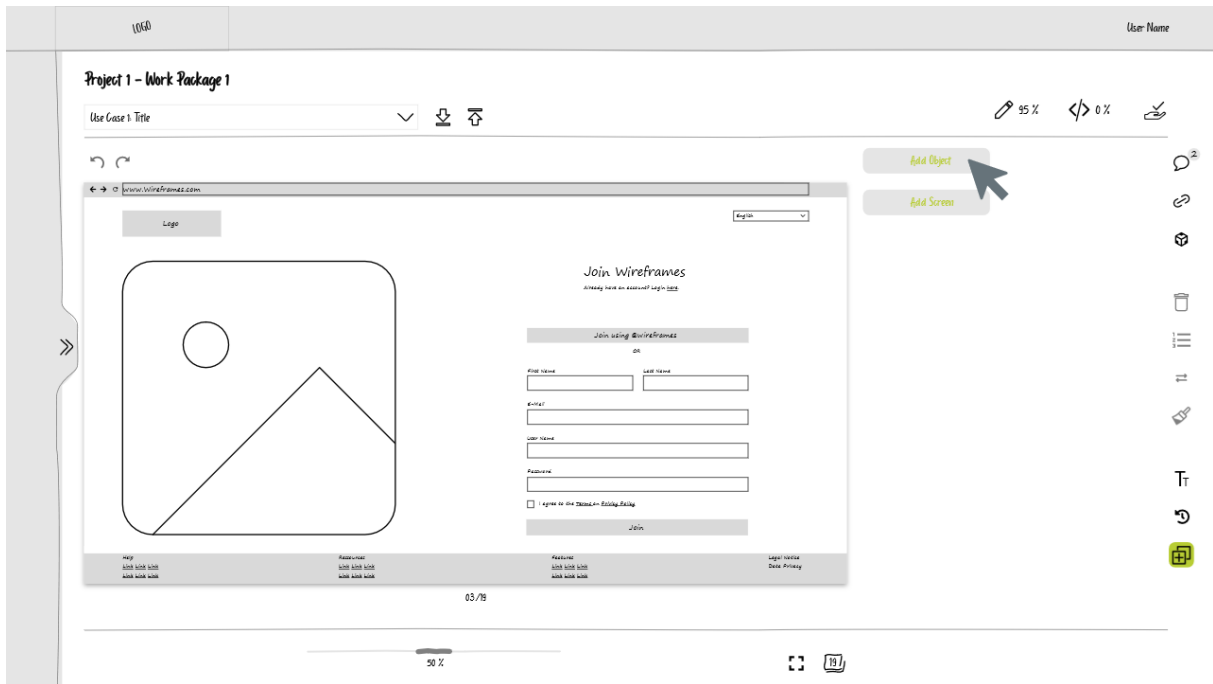


Figure 27: Add an object: 2. Open context menu.

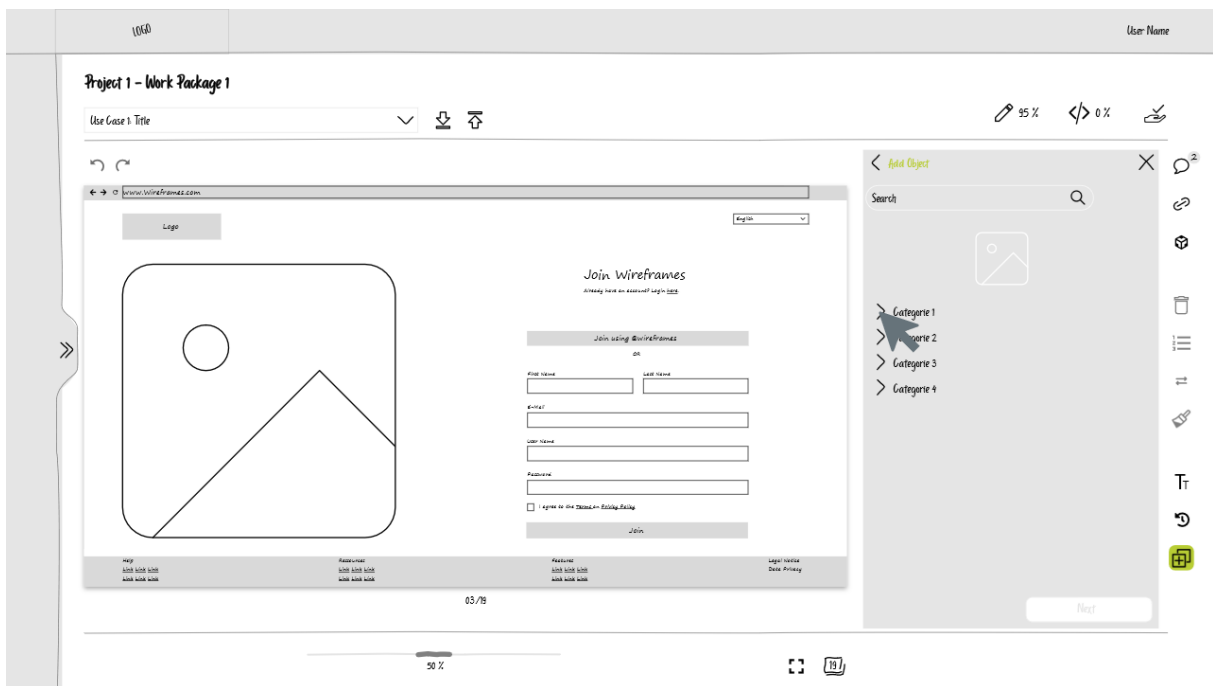


Figure 28: Add an object: 3. Select object.

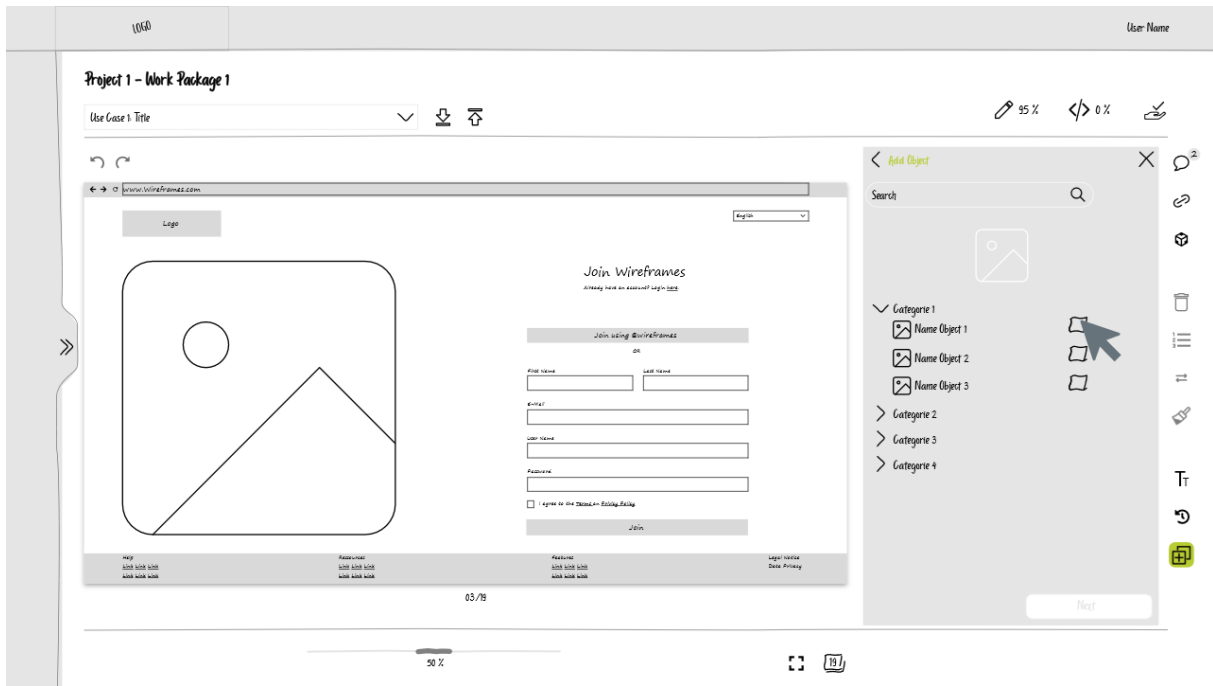


Figure 29: Add an object: 4. Go to next step (select screen).

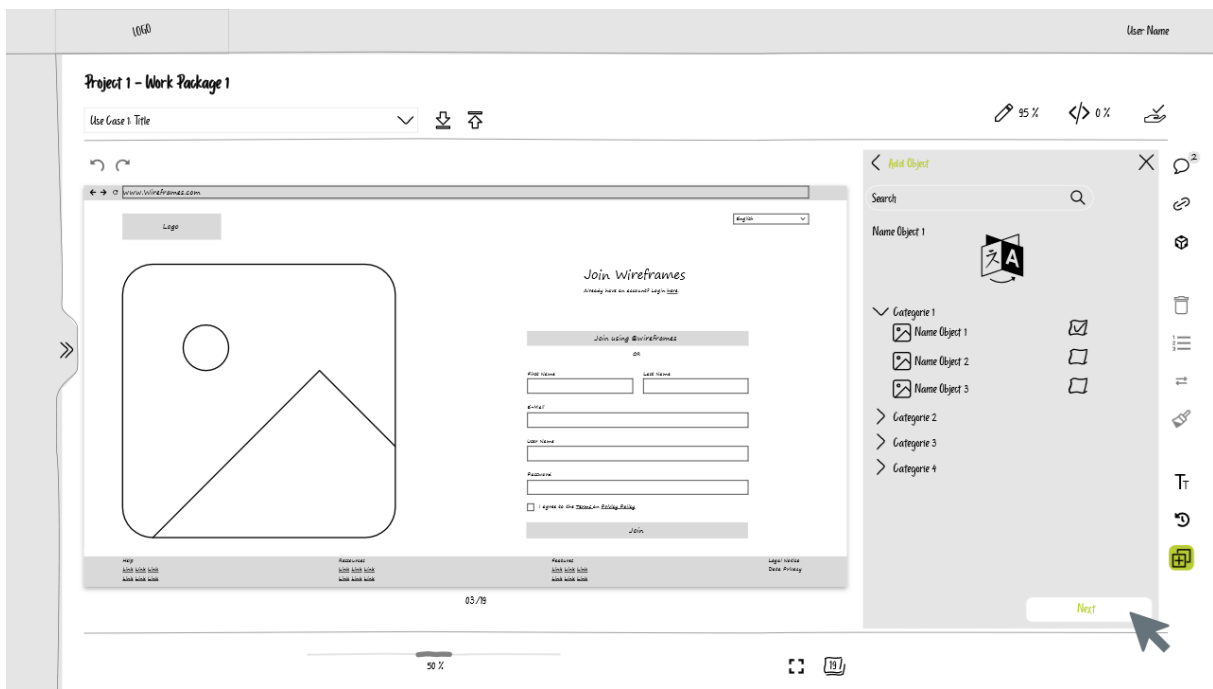


Figure 30: Add an object: 5. Select screen.

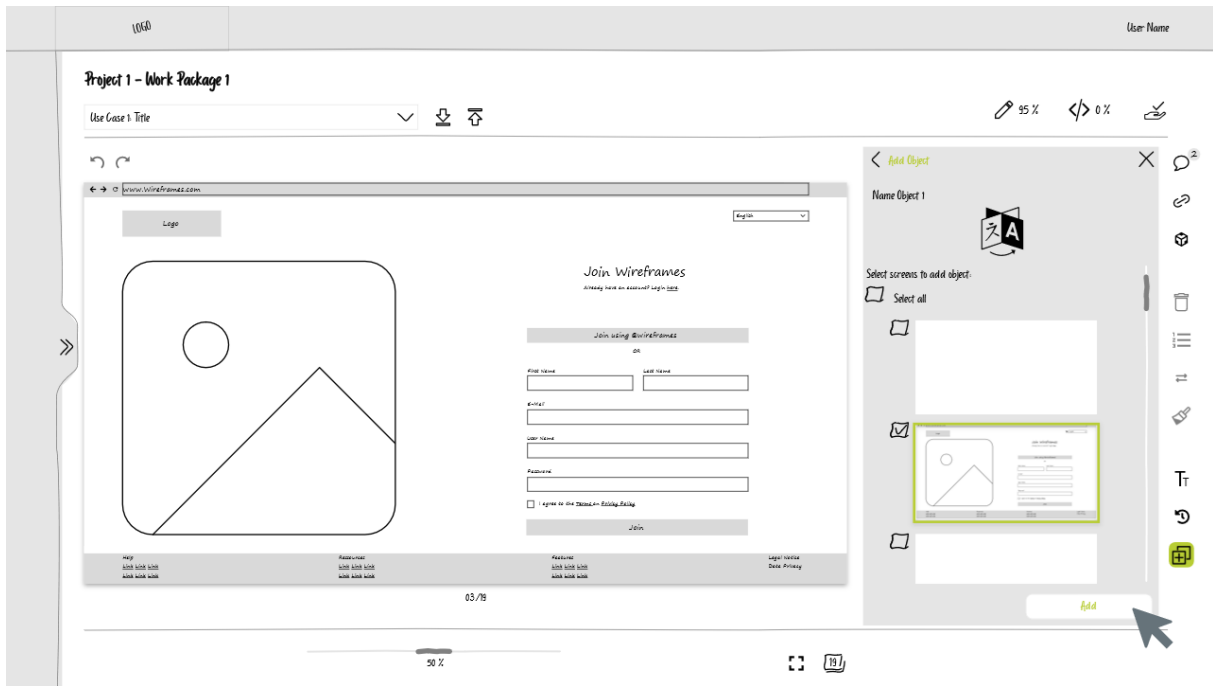
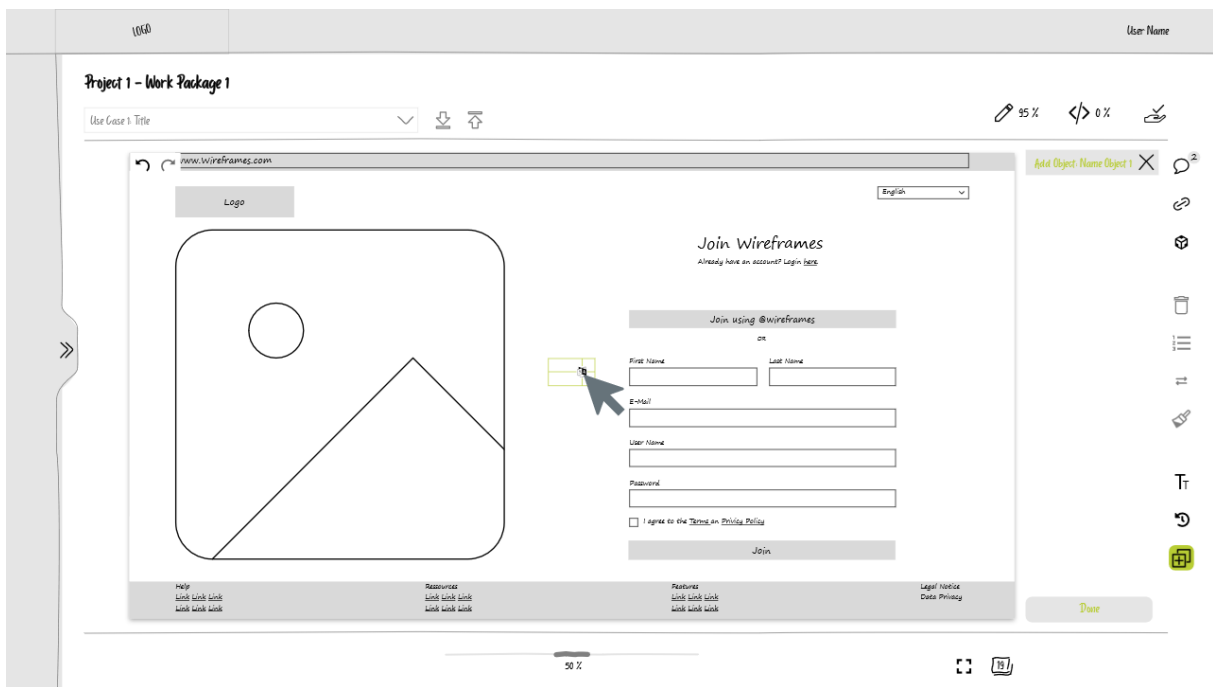


Figure 31: Add an object: 6. Place object; object will be placed at similar position in relation to the objects surrounded in all selected screens from step five. Grid movement within screens defined distances (see green guidance lines) supports consistent adjustments.

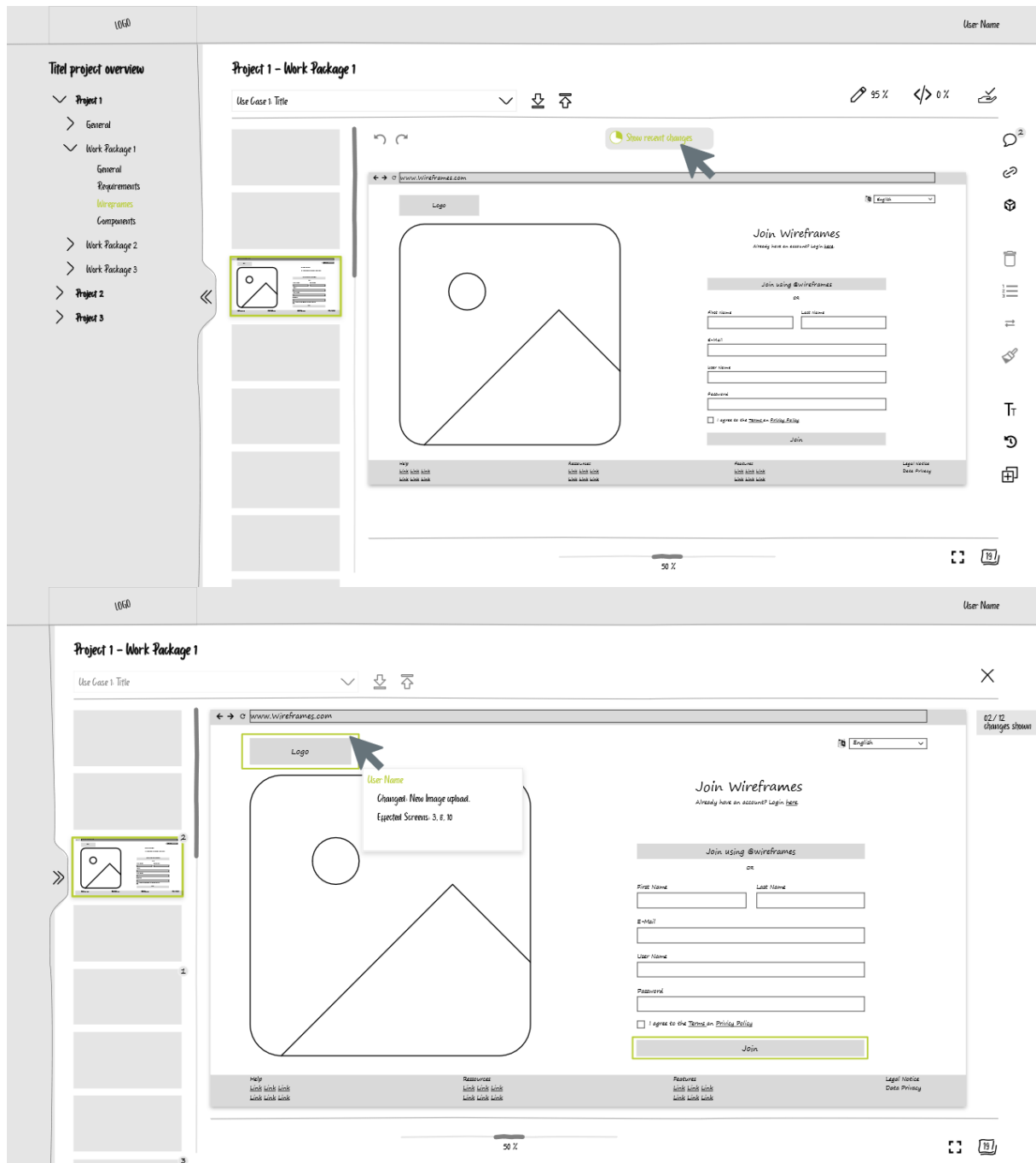


It is important that the adaptations made can be transferred to all screens in which the corresponding attribute is present. Therefore, the system creates a dialogue in which screens with the corresponding representations are pre-filtered and can be selected (see Figure 25). In

this way, it is possible to ensure that adjustments are made consistently across work packages in just a few steps.

It is important for designers to be able to track changes and get an overview of what has changed since the last time the work package was opened. For this reason, a time-based function to display changes has been invoked. Figure 32 shows this function. Changed objects are marked and changes are displayed when clicked on the marked object. Options in the left column (area 5) are omitted, instead there is information about displayed changes in relation to all changes (e.g., two out of twelve changes displayed) on the right. In the overview column on the left, screens on which changes have been made are labelled with their number of changes. Users can also view the history of a screen. The view is similar to the tracking of changes via the time-based function described.

Figure 32: When opening the wireframes of a working package the option to display recent changes made by other users is offered for a limited amount of time.



Textual changes, which should function similarly to the "Replace" function known from other application (e.g., MS office programmes), can be made by designers. Furthermore, designers can add objects or screens via "Add". Important differences to existing tools are the simultaneous insertion of objects on several, preselected screens at the same position in relation to surrounding objects, as well as the grid movement of the objects within their predefined distance, which are displayed (see process Figure 26 - Figure 31). It is also possible

to insert not only objects but also screens according to the set application frames (in the components area, see also Chapter 6.2) or to refer to existing screens.

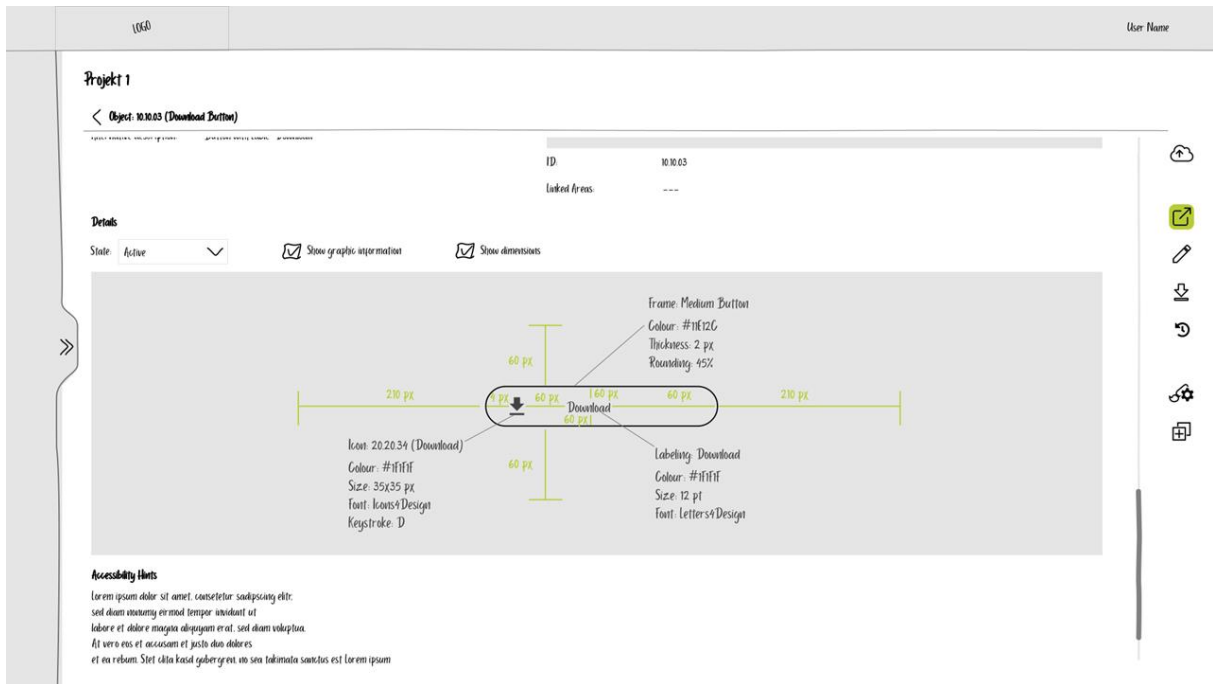
The components used in the wireframes are automatically collected in the "Components" section and can be overviewed and administered here (see Figure 33).

Figure 33: Overview of components used within a project.

ID	Category	Type	Name	Image	Function (specification)	State	Linked Area
10.10.01	Kategorie 1	Type 1	Lorem Ipsum		Lorem Ipsum	State 1	Area 1
10.10.02	Kategorie 1	Type 1	Lorem Ipsum		Lorem Ipsum	State 2	Area 1
10.20.01	Kategorie 2	Type 2	Lorem Ipsum		Lorem Ipsum	State 0	Area 1
10.20.02	Kategorie 2	Type 3	Lorem Ipsum		Lorem Ipsum	State 1	Area 1
10.30.01	Kategorie 3	Type 4	Lorem Ipsum		Lorem Ipsum	State 2	Area 1

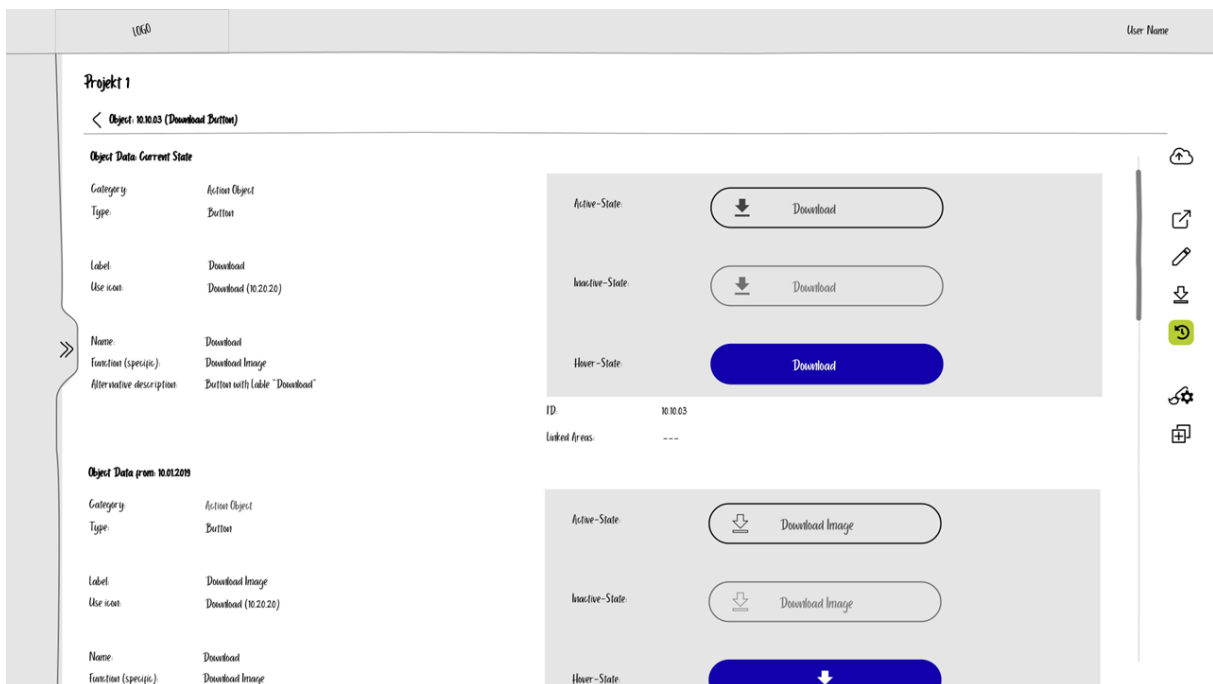
In order to be able to work flexibly, synchronisation with design tools (e.g., Adobe XD) is used to exchange set component data ("Synchronize" function). Further details can be opened by all users and data can be edited by designers (see Figure 34).

Figure 34: Detailed view of component data of a certain object.



Via the history, all users can also view the past representations of an object (see Figure 35). This ensures that, on the one hand, no information is lost and, on the other hand, the most recent version is always displayed at the front. The "Download" function allows users to download various data such as image formats or CSS Notes and use them for their work.

Figure 35: Object history of an object showing previously used object data.



General designs, such as the appearance of a button, which can be used continuously in the system for the creation of further components ("Object Settings" function), are the main

elements to be created. In this area, the system components presented in Chapter 6.2 is to be used. First, the designer is given general accessibility instructions for the creation and after uploading the image, concrete conditions such as colour contrasts are checked. Accordingly, the designer gets a result structure of fulfilled (green), not fulfilled (red) and not checkable criteria within the hints area. The process is shown as a coherent overview in Figure 36 and Figure 37.

Figure 36: Include a new component type into a project: 1. Select component type and required object data.

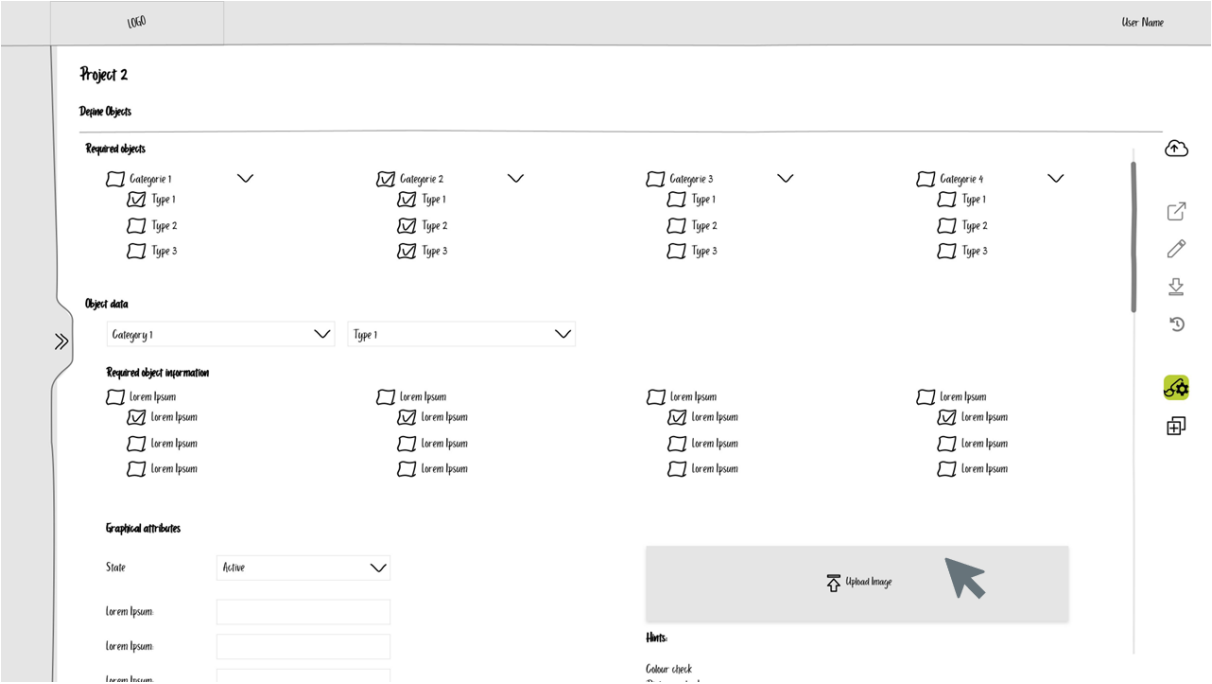
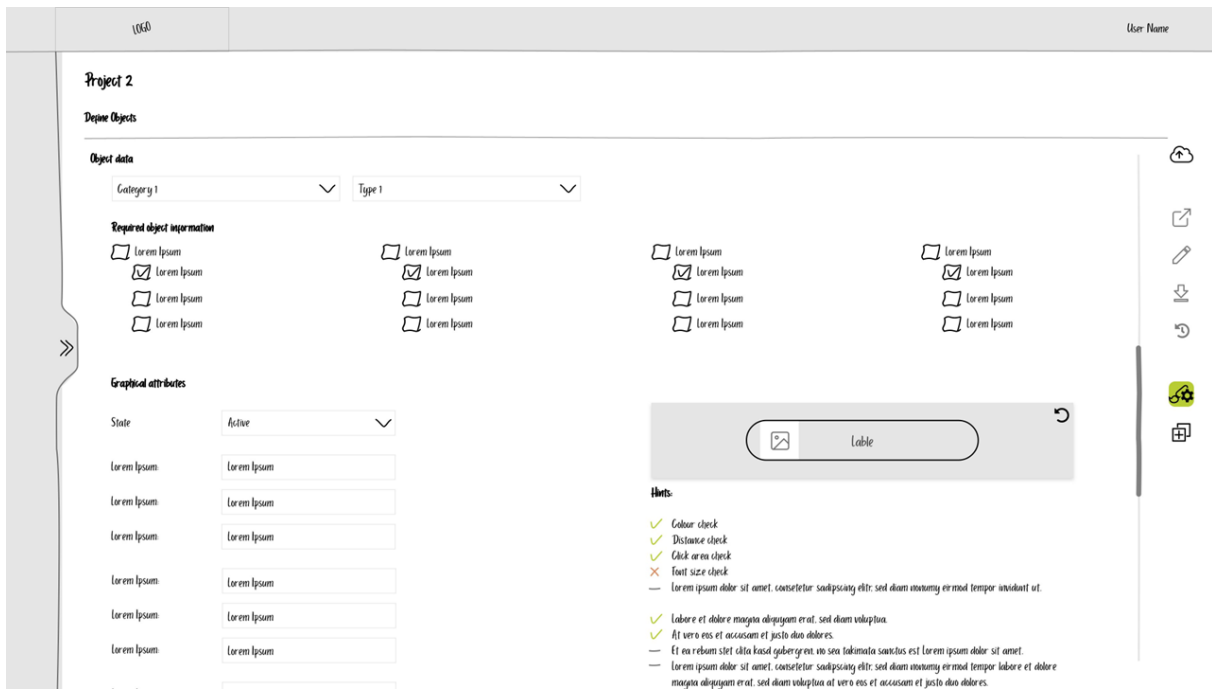


Figure 37: Include a new component type into a project: 2. Insert graphical attributes and receive hints (e.g., regarding accessibility) for uploaded visual data.



New objects can be added within the defined data structures. By defining the general data structures, such as the appearance of buttons including, for example, the colours, positioning in relation to other objects and positioning their labels, consistency is automatically created and administration is made easier. Adjustments can also be made globally, for example if colour schemes change. Figure 38 - Figure 40 shows an impression of adding a component to the list.

Figure 38: Adding a new component to a project: 1. Select category and type to display deposited visual appearance of which.

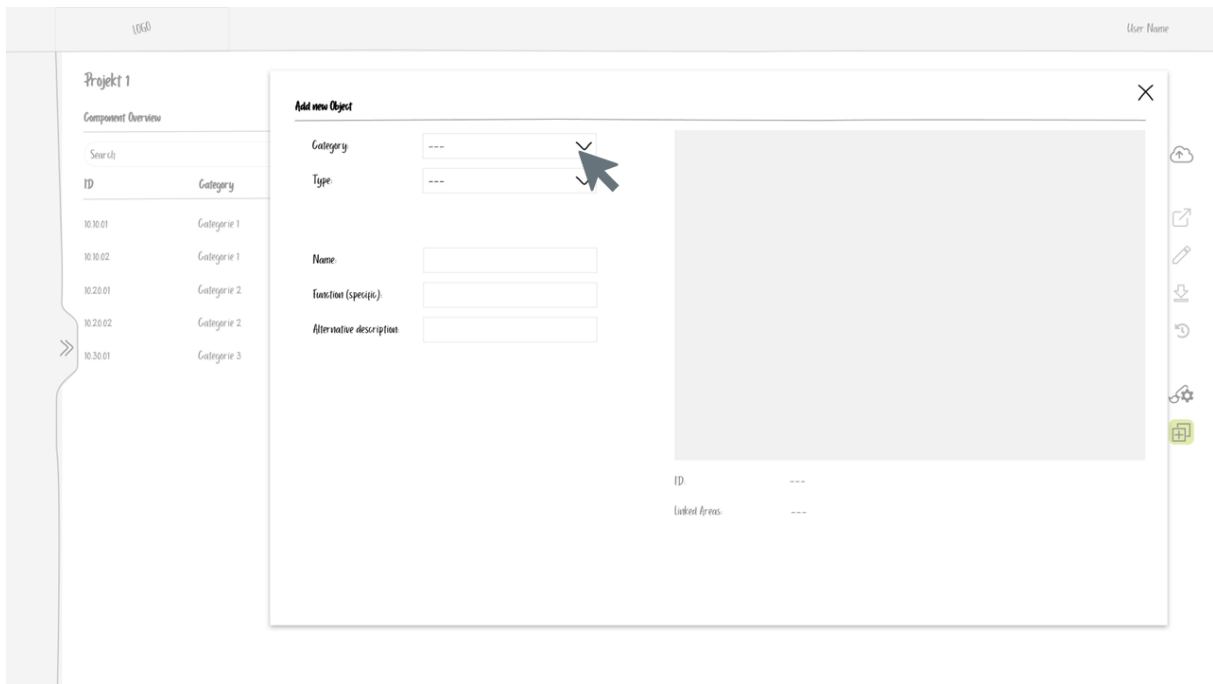


Figure 39: Adding a new component to a project: 2. Add data necessary corresponding to component type.

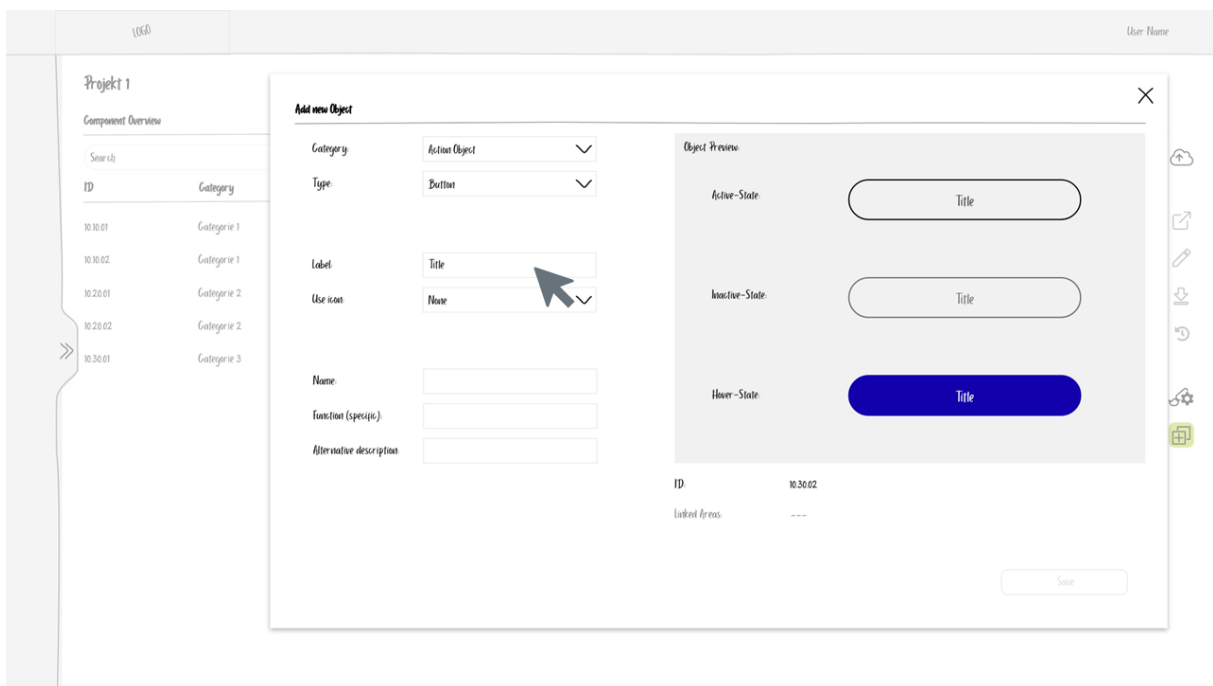
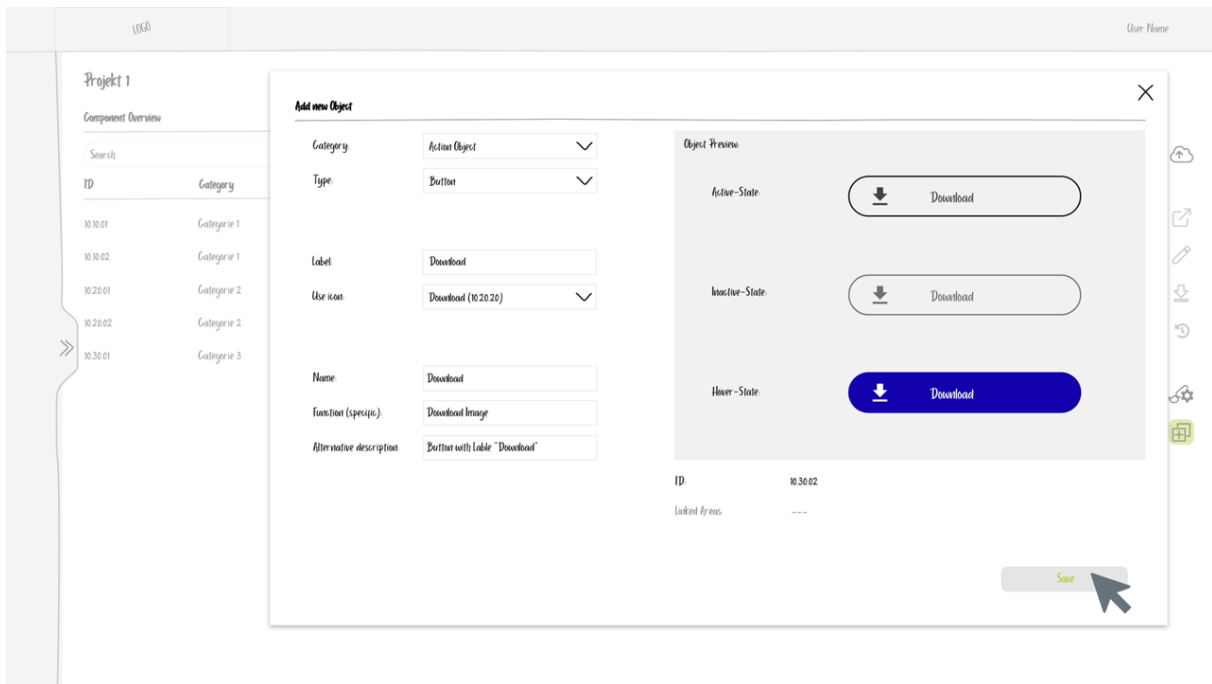


Figure 40: Adding a new component to a project: 3. ID and linked areas will be added automatically based on the usage in the system and stored ID logic (for example according to category and type).



In the following chapter, a comprehensive overview of the derived functions is given.

7.2 Introducing Derived Functions

Within the application frame introduced in Chapter 7.1 (see Figure 14), main functions were derived and located within the various tool sections. The functions are listed, defined and assigned to a certain user group in Figure 41 - Figure 44, grouped by working area and area in the application frame. Due to the different sights of different user roles, those functions partly overlap (e.g., comment function for requirements and wireframes).

Figure 41: Description of Actions integrated into different Areas (see Figure 14) of the “General” section.

Actions in General

Area 4 – Content (individual)

Project Level

Project Overview: All users can see an overview of which work package is in which phase.

Workshops: All users can get an overview of which workshops are coming up. Depending on their role, they can call up corresponding data (e.g. wireframes) needed for this workshop.

Project Data & Settings: Relevant settings are displayed according to role

Work Package Level

Current State: All users see the current phase status of the work package and can retrieve last data statuses of the current and past phases.

Workshops: All users can open the latest workshop documents.

Data & Settings: Relevant settings are displayed according to role.

Area 5 – Content-related actions



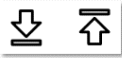
Phase management

PMO can manage phases (e.g. phase transitions)

Figure 42: Description of actions integrated into different areas (see Figure 14) of the “Wireframes” section.

Actions in Wireframes Section

Area 3 – Connection navigation & content



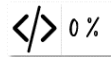
Download & Upload

Designers can open a dialogue for uploading files. Information is integrated into the tool according to the system logic.
All users can optionally download displayed wireframes with additional information (comments, links, ...) in the appropriate format.



Processing status

Indicates the processing status of the wireframes. This is measured, for example, by solved comments and accepted requirements. Visible for **all users**.



Implementation status

All users can see the implementation status of the programming. This is measured, for example, by the ticket status (To do vs. In Progress vs. Done).



Review

Designers can release wireframes of the open work package or use case for internal review.

Area 5 – Content-related actions



Comments

All users can view comments, reply to them or post them themselves. The comments are always attached to a screen resp. object.



Links

Overview of system information related to this component or screen (e.g. user stories) can be viewed by **every user** and edited by **designers** and **user researchers**.



Component Data

Relevant component data can be viewed by **programmers**.



Delete

Designers can open the dialogue to select on which screens the selected object should be removed.



Change State

Designers can open the dialogue to select on which screens the state of the selected object should be changed.



Exchange

Designers can open the dialogue to select on which screens the selected object should be exchanged.



Transfer Attributes

Designers can open the dialogue to select which object properties should be transferred to other objects (e.g., position, color scheme, ...).



Change Text

Designers can open the dialogue to select on which screens one term should be replaced by another.



History

All users can open the dialogue to view the history of a screen.



Add

Designer can open the dialogue to add: an object (via selection from component list) to selected screens, a new screen or a reference to an existing screen, that should be displayed here.

Figure 43: Description of actions integrated into different areas (see Figure 14) of the “Components” section.

Actions in Component List

Area 4 – Content (individual)

Hints

Designers can display hints (e.g., on accessibility) by uploading initial component data (e.g., images).
Programmers can display hints for programming by viewing details to a component.

Area 5 – Content-related actions



Synchronize

Designers can synchronise the component list with Adobe Component Library.



Details

All users can open the detailed view of an object.



Edit

Designers can open the detailed view of an object in the edit mode.



Download

All users can open the dialogue to download relevant object data (e.g., image formats, css notes)



History

All users can open the history of an object.



Object Settings

Designers can open the mask to manage the component data.



Add

Designers can open the dialogue to add new objects taking into account stored component data (e.g. font, colours, spacing).

Figure 44: Description of actions integrated into different areas (see Figure 14) of the “Requirements” section.

Actions in Requirements Section

Area 4 – Content (individual)

Tickets: **Programmers** can view requirements as tickets and sort them (e.g., on a kanban board).

Area 5 – Content-related actions



Comments

All users can view comments, reply to them or post them themselves. The comments are always attached to a requirement or part of the requirement.



Links

Overview of system information related to this component or screen (e.g. user stories) can be viewed by **every user** and edited by **designers** and **user researchers**.



Connections

All users can view connection of a selected requirement to other requirements.



Details

All users can open the detailed view of a requirement.



Edit

User Researcher and **Programmers** can open the detailed view of their requirement types in the edit mode.



Change Text

User Researchers can open the dialogue to select on which requirements one term should be replaced by another.



Multiple Selection

User Researchers can select multiple requirements at once (e.g., to link, delete, shift them).



Add

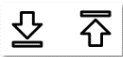
User Researcher and **Programmers** can add new requirements. In order to increase comprehensibility, a predefined form is filled out for each type of requirement.



Capacity

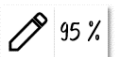
Programmers can open a screen to view current capacity distribution.

Area 3 – Connection navigation & content



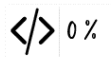
Download & Upload

User Researchers can open a dialogue for uploading files. Information is integrated into the tool according to the system logic. **All users** can optionally download displayed wireframes with additional information (comments, links, ...) in the appropriate format.



Processing status

Indicates the processing status of the requirements. This is measured, for example, by solved comments and accepted requirements. Visible for **all users**.



Implementation status

All users can see the implementation status of the programming. This is measured, for example, by the ticket status (To do vs. In Progress vs. Done).



Review

User researchers can release requirements of the open work package or use case for internal review.

In a next step, those functions were evaluated by potential users of Die Plusbringer in the form of an online survey. The procedure and results are described in the next chapter.

7.3 Evaluating Concept Functionalities

Using development capacities in a way that, on the one hand, they are not used on features that end users seldom utilize and, on the other hand, there are sufficient resources to focus on functions that really provide value to the user is one objective of human-centered tool development. Chapter 4.3.2 already mentioned this aspect in relation to prioritising the main

use cases. In pursuit of this goal, an online survey on the functions integrated in the concept was conducted in the period from 23.01.2023-30.01.2023, which should serve as a basis for implementation recommendations. (Geis & Polkehn, 2018; UXQB e.V., 2023)

For the survey to assess the usefulness of functions, ten participants were interviewed via a google forms survey. During the survey, participants got a visual example and a description of the function to rank the functions from not useful at all to very useful. The functional description as presented in Chapter 7.1 was used for this purpose. An example extract is shown in Figure 45. The survey can be found in the Appendix 8: Screenshots of the Online Survey Regards Usefulness of Functions.

Figure 45: Example screenshot of the online survey regards the assessment of the derived functions.

Please indicate what you think of the features of the "wireframes" work space described below.

The screenshot shows a web browser window displaying a wireframe workspace. The workspace contains a wireframe of a mobile app screen with a header, a main content area, and a footer. A tooltip is visible over the wireframe, indicating a change. Below the workspace, there is a rating scale with five options: "not useful at all", "somewhat useful", "neither", "useful", and "very useful". Below the rating scale, there is a text box with the following text: "Show Recent Changes: Designers can view the last changes that have been done since they last opened the wireframes." Below this text, there are five radio buttons corresponding to the rating scale options.

Since general descriptions of the initial concept and excerpts from initial wireframes were available for evaluation, it was decided to not use a more detailed grading than a five-level scale ranking. In addition, the participants should be given the opportunity to take a neutral

position due to their different disciplines, the intended role concept and the fact that all participants were interviewed about all functions. This was important to give all participants an overall picture of the application, as only five of the ten participants who received an invitation to the survey and took part had also taken part in the previous expert rounds. The participants thus had the opportunity to neutrally rate functions that were not specialised as "neither useful nor not useful". In addition, it could be recognised through the close cooperation with the experts of Die Plusbringer in various workshops that, due to the close cooperation with colleagues within the company, there is interdisciplinary knowledge about problem cases among the work areas. Within Die Plusbringer, there is also a great interest in optimising the course of action of non-own disciplines, since the work results of these disciplines often form the basis of one's own work. Consequently, optimisations for the team members hold potential for optimising the overall process. An assessment of non-disciplinary functions therefore seemed plausible in the depth queried here. However, tracing the data in relation to the participant disciplines was made possible by querying them. In addition, care was taken to use equidistant verbal paraphrases in order to facilitate later evaluation. A five-point scale has been proposed in the literature to improve response rates and quality while lowering participants levels of frustration or confusion. It continues that a five-point scale provides a good balance between sufficient response options and capturing differences in opinion, while being easy for participants to understand and answer. Also, it is suggested that using fewer response options can lead to a loss of information and more than nine can be confusing for participants. As this can be the case especially in the early stages of an application's development, five points were considered most suitable. (Babakus & Mangold, 1992; Döring & Bortz, 2016; Garg & Deshpande, 2016)

Five of the participants had already taken part in the previous development process, while five had not. The proportions were also balanced in terms of the disciplines represented, as Table 16 shows.

Table 16: Participant distribution of the online survey conducted to estimate usefulness of derived functions.

Participant ID	Discipline(s) of Participant
P01	Programming
P02	Design, User Research, Programming, Project Management Office (PMO)
P03	User Research

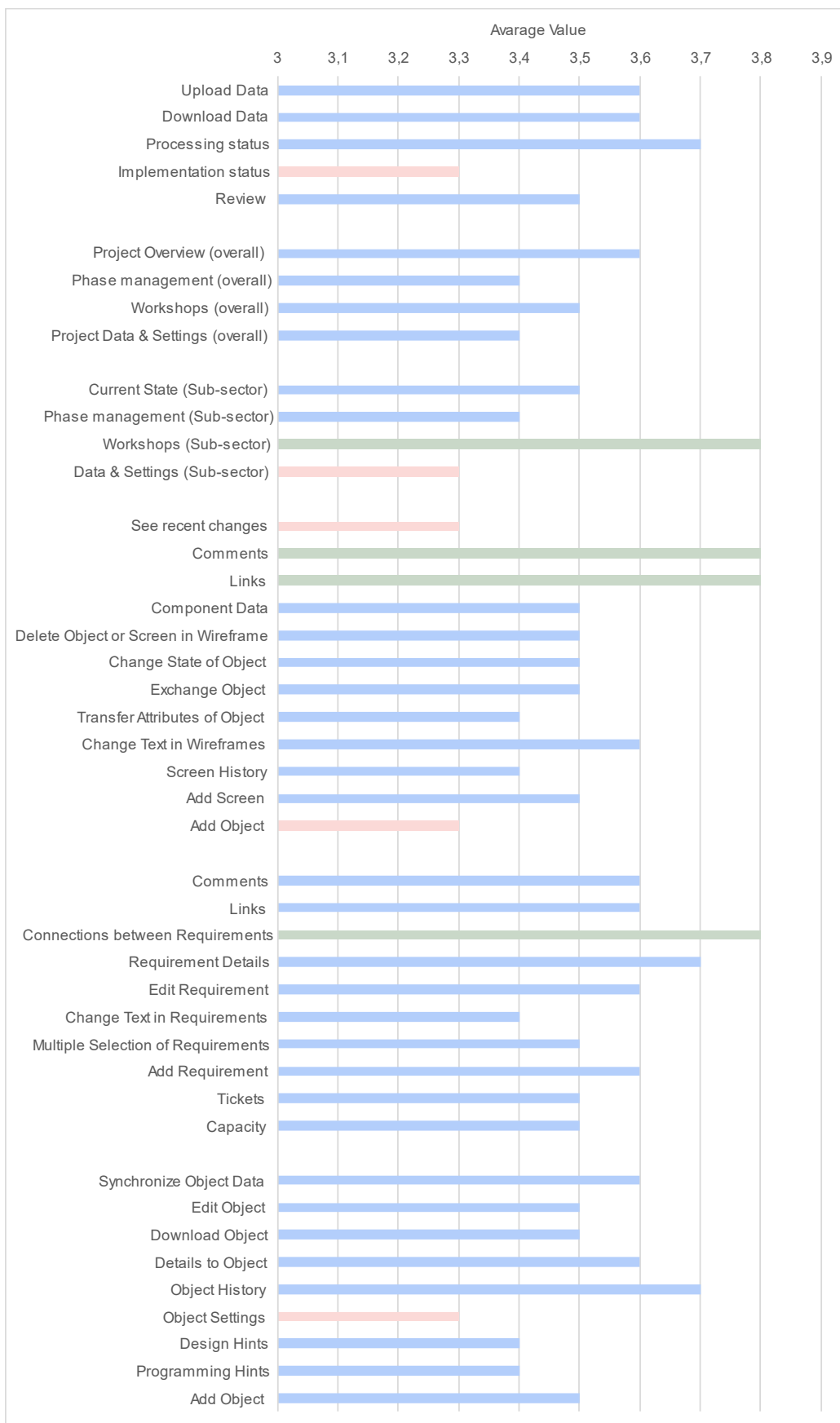
P04	Project Management Office (PMO)
P05	Design
P06	Design
P07	Programming
P08	Design, User Research
P09	User Research, Project Management Office (PMO)
P10	Programming, Project Management Office (PMO)

Formulating approximately equally spaced verbal paraphrases resulted in an interval-scaled variable for the estimated usefulness. This enables the translation of verbally formulated expressions into numerical values. In this context, higher measured values mean a stronger expression. Therefore, it was possible to determine average values of the evaluation of each function. The values were operationalised as follows:

- Not useful at all: 0
- Somewhat useful: 1
- Neither: 2
- Useful: 3
- Very useful: 4

Thus, the survey produced interval-scaled data. The result of these general averages is shown in Figure 46. (Döring & Bortz, 2016)

Figure 46: Evaluation results of the online survey regards the assessment of the derived functions shown as average values, whereas red columns show most negatively rated and green columns most positively rated functions.



On the rating scale of 0 to 4, average values of 3.3 to 3.8 were achieved overall. Following functions were rated highest:

- Overview of workshops within a sub-project area (work package) within "General"
- Comment function within "Wireframes"
- Links within "Wireframes"
- Connections between requirements within "Requirements"

The lowest score was achieved by the functions:

- Display of implementation status
- Data & Setting within "General" of a subproject area (work package)
- See recent changes within "Wireframes"
- Add object within "Wireframes"
- Object Settings within "Components"

However, it should be noted that the functions with the lowest score are nevertheless between the highest ranges of "useful" and "very useful". Since the participants were asked about their discipline and functions are related to user disciplines (see description on Figure 41 - Figure 44), an additional discipline-based consideration of the function rating seems sensible especially for subject-related functions with a lower score. Therefore, the functions "See recent changes", "Add object" and "Object Settings" were examined to see how people from the discipline rated these functions. Consequently, the data from participants P02, P05, P06, and P08 were used for a closer investigation (see Table 16). This shows that these functions were rated higher (than 3.3) on a subject basis: See recent changes achieved a score of 3.75, add objects and object settings each achieved a score of 3.5. It should be noted that only the votes of four participants could be evaluated for this, as the function is only intended for designers.

Few qualitative comments were made, so that a more detailed evaluation can be done in the following. At the end of the "Wireframes" section, the comment

"Maybe there is a link to an actual design library. Look of elements, use of colours & fonts etc...."

(P05, see Table 16)

was added. Since the section on component data has not yet been filled in here, as well as the component data displayed in wireframes are to be left as placeholders and participants who were not integrated into the previous development process of the wireframes took part, it is

possible that this participant did not know that this is already provided for in the concept. Other comments at the end of the interview were:

"It would be nice to be able to set in the settings which view external persons have and which actions they can perform."

(P09, see Table 16)

and

"Good concept. Didn't want to say anything about functions of colleagues. We can continue to work with that. For example: Giving external users individually restricted views could be helpful. Always depends on the customer, what one can "understand" etc. ;) But really good for now."

(P10, see Table 16).

Since both comments are aimed at limiting the content for external users such as customers, considering these functions seems sensible. Nevertheless, this should be explored in more detail before that it can only be recommended. Also, in the last comment a hint can be found for the difference of general and subject-related assessments of the usefulness of functions (see above): Since the lowest evaluation of a function within the present survey was "Neither" (score: 2) and the participant did not belong to the discipline of design, the blanket "neutral evaluation" of functions not related to the subject may have contributed to the difference between the two scores. The raw data and evaluation data of the study was processed using Excel and can be found in the Appendix 9: Raw Data of Online Survey and Appendix 10: Evaluation of Online Survey. Further general comments regarding usefulness were made, are included under 8.3 and can be found additionally in the Appendix 9: Raw Data of Online Survey.

In general, it can be concluded from the survey that the derived functions are assessed as at least useful on average from the experts' point of view. It cannot necessarily be recommended to reject certain functions on the basis of the survey results, but the subject-related evaluation shows evidence that the participant discipline can influence the statement on the usefulness of a function. The general assessment can thus be seen as a guideline that can be used for implementation prioritisation in the event of a need to optimise implementation capacities. For a more targeted prioritisation, however, it is advisable to also consider qualitative opinions on the usefulness of the functions, which were not collected in the survey since it aimed for first guidance. It is also advisable to take the discipline of the participants more into account in the evaluation of the functions in order to have enough participants per discipline to be able to

make a solid statement for functions that should only be available for individual user groups. After the creation and initial evaluation of the concept ideas from the perspective of potential users, further experts were consulted for a conclusion, as discussed in Chapter 8.

8 Conclusion

To draw a conclusion, different expert opinions were taken into consideration and summarized in the frame of a SWOT analysis to determine potentials of the developed concept (see Chapter 8.1). Technical feasibility was analysed in a workshop with a software development expert from Die Plusbringer. The results, including functions that were judged concerning their complexity, are described in Chapter 8.2. In respect of the described research activities, a final conclusion of the thesis project could be drawn, including a critical review, project limitations and points of departure for future work (see Chapter 8.3).

8.1 Analysing Potentials of the Developed Concept

In order to analyse the potential of the developed concept, a SWOT analysis¹⁵ was carried out with a representative from each of the areas of user research with PMO, design and programming. This makes it possible to show the strengths and weaknesses of a project and to compare these with the opportunities and risks arising from the market. Various strategies can be derived from this. The aim is to combine the strengths and weaknesses identified with possible opportunities and risks in such a way that suitable strategic options for action can be derived for internal or external changes. The various combinations result in different strategies for action:

- Strengths-opportunities strategy: use strengths to seize opportunities
- Strengths-risk strategy: using strengths to ward off risks
- Weakness-opportunity strategy: reduce weaknesses in order to seize opportunities
- Weakness-risk strategy: reduce weaknesses to avoid risks

(Vahs & Brem, 2015).

¹⁵ Theoretically serves to analyse a company and was transferred to concept level.

During the workshop, the strengths and weaknesses of the concept were first identified according to Figure 47.

Figure 47: Strengths and weaknesses of the concept as identified during a cooperative SWOT analysis workshop with Die Plusbringer.

Strengths

- Merge graphics, requirements and logic in one place (clarity, understanding)
- It is no longer necessary to compare different documents
- Annotations are assigned precisely to the target (always to the object), which promotes understanding and allows the annotations to be assigned more quickly.
- Processes of a target system can be recognised quickly
- Different objects/categories clearly defined from the start (new creation made easier, error potential reduced)
- Traceability of object uses

Weaknesses

- Currently no versioning (which change will be implemented in which release)
- Individual areas compete with special applications for these individual topics
- Works for software with graphical user interface (e.g., ABS)
- New tool must be integrated with the user (especially the customer)

The environment in which the concept is to be placed was then considered and opportunities and risks listed in Figure 48 were identified.

Figure 48: Opportunities and threads of the concept as identified during a cooperative SWOT analysis workshop with Die Plusbringer.

Opportunities

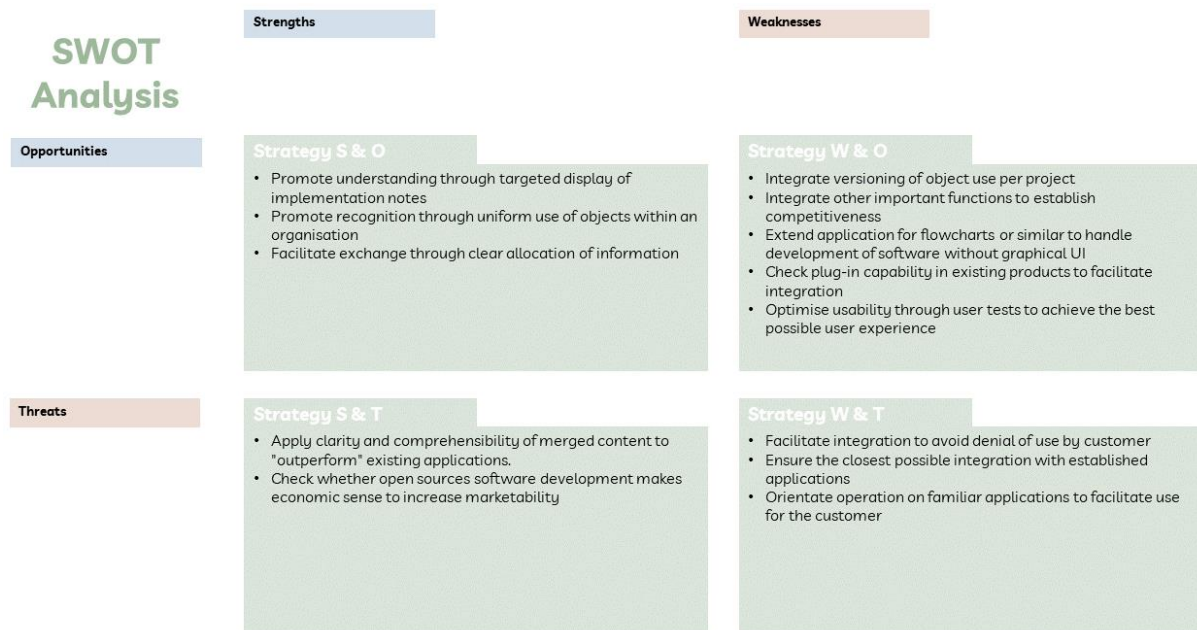
- Aspects of accessibility can be taken into account from the outset
- Less effort required for changes, uniformity of objects promoted
- Traceability of changes facilitated
- Documentation effort reduced, duplicate documentation no longer necessary
- Different applications can be created in the same way within an organisation ("corporate UX")
- Developers get the information they need on components exactly when they need it

Threats

- Technical feasibility of automated processes
- Use refused by customer (effort regarding import and export of files)
- Established applications such as Jira, Confluence have established themselves in the market, market penetration must first be achieved.

Subsequently, the identified characteristics were combined into possible strategies. Figure 49 shows the workshop result of the SWOT analysis for the developed concept.

Figure 49: Resulting Strategies of the combination of identified strengths and weaknesses (see Figure 47) and opportunity and threads (see Figure 48) as identified during a cooperative SWOT analysis workshop with Die Plusbringer.



In a next step, technical feasibility of the concept was assessed consulting an software expert of Die Plusbringer.

8.2 Assessing Technical Feasibility

In the assessment of technical feasibility, the functions presented in chapter 7.2 were assessed by a software development expert from Die Plusbringer according to the descriptions shown previously (see Figure 41 - Figure 44). The aim was to determine which functions might be very difficult to implement to be able to make recommendations for implementation prioritisation, also in connection with the results of the online survey (see Chapter 7.3). For this purpose, a classification scheme was used including the categories:

- feasible,
- feasible, but elaborate and
- not feasible.

Since the expert was consulted face-to-face and comments, explanations or positions could be additionally expressed verbally, a three- point-scale was estimated as suitable. The expert identified the following functions as "feasible, but elaborate":

- Upload function to upload and integrate data in "Wireframes" and "Requirements".
- Display of processing status in "Wireframes" and "Requirements".

- Links between requirements in "Requirements"
- Hints for designers and programmers when developing components in "Components".
- Synchronisation of libraries in "Components"

Remaining functions were assessed as "feasible".

Uploading and integrating data is more difficult because an unambiguous integration is not necessarily possible. This must be worked out and adhered to which is very time-consuming but feasible. The display of the processing status can only represent an estimate based on data in the system. Therefore, the degree of implementation can only be measured if tickets are used and implementation is only measured via tickets but not via actual implementation. If the ticket is marked as done, the tool cannot check whether only the ticket has been marked as done or whether the implementation has actually been implemented correctly. The expert also noted that everything that has to do with implementation quality is difficult to measure via interfaces to external systems because of the setting criteria. When connecting different requirements, the difficulty lies in mapping large data structures and the appearance of circular relationships, the expert explained. It is similar with the hints for designers or programmers, here it must be possible to fall back on a comprehensive data back to be able to display and check the correct hints. However, the expert stated that colour contrast checkers, among other things, are already known from various web applications, which facilitate research for implementation and thus make this feasible, but more complex. According to the expert, the challenge is that the question of accessibility is not only a question of presentation but also of system implementation: If the programmer does not implement aspects according to the concept or, for example, data implementation is not suitable for screen readers, it's not sufficient to make a system accessible. When synchronising, the aspect of finding out the most recent information can be complicated. In addition, connections to external systems are always difficult because those system do not necessarily allow or provide for this from the outset. If supported by the third-party system, however, the time of creation could give an indication of the timelines of the data and make the information comparable.

Nevertheless, the majority of functions were considered feasible, which proves the concept's viability. One reason mentioned by the expert was that there exist best practices which handle similar functions, which can be considered during the development. Overall, this result further

encourages the viability of the concept idea, which will be discussed in more detail in the final conclusion of Chapter 8.3.

8.3 Critical Review and Outlook

The present thesis shows an example of how interdisciplinary information exchange between software design and software implementation and the documentation of iterative processes can be supported by software. Thereby, needs and requirements arising from software design and software implementation could be determined (see Chapter 3 and 4) and included via multiple functions and system structuring as iteratively developed in wireframes (see Chapter 5 and 6). Through automated processes and data archiving, this could remain clear even with iterative processes (see Chapter 7). The consideration of working principles known by involved disciplines and linguistic concepts (see Chapter 2) further supports interdisciplinary understanding. In the context of the master's thesis, the development of a collaboration tool proves to be a promising way to enhance interdisciplinary exchange during UX projects and to reduce the resulting documentation effort. This could be shown by a SWOT analysis (see Chapter 8.1) and expert-based assessment of the technical feasibility (see Chapter 8.2). Furthermore, initial discovered theoretical foundations (see Chapter 2) could be integrated into a system concept under framework conditions, which also provide starting points for further work.

The design principles (see Chapter 2.1) have revealed that technical requirements and user requirements are important basic blocks for the creation of an application. For this reason, in the resulting system, requirements can not only be documented but also linked to the corresponding software aspects and displayed together. These common displays, as well as their uniform creation guaranteed by forms, not only promote the understanding of aspects to be developed, but also support interdisciplinary communication in equal measure. Potential solutions need to be reviewed especially with experts and / or (potential) users, which usually results in an iterative process using prototypical displays. For this reason, customisation is a major influencing factor - both on invested time and on resulting consistency. Since current tools offer satisfactory creation possibilities, but changes, for example, often cannot be enforced efficiently enough, the concept provides for various functions for the efficient implementation of changes. Examples of this are the comprehensive exchange of certain terms independently of objects or the global management of objects. The latter not only offers comprehensive change implementation

independent of existing groupings or modifications, but also reduces the documentation effort through their automatic listing and the merging of essential information to them. The system components used for this were developed in a workshop with various experts, whereby existing systems from design and programming provided the basis. In the presented approaches of programming, the themes of user-friendliness and comprehensibility give rise to various component systems for transferring knowledge into a comprehensible system language.

Through this early integration of the subject areas, it can be assumed that these are largely complete and comprehensible to all as elementary standard components. Concepts originating from a programming side of computer science like the inheritance of properties support to determine a system logic, for example when it comes to a transfer of (visual) attributes to different representations. Naming objects with the "correct" titles from the domain is also suggested, both to promote understanding of the domain and to create a consistent team language (Evans, 2004). As called for by Evan (2004) and confirmed by presented principles from language and communication theory (see Chapter 2.3), the team language is also strengthened by directly linking visual elements (e.g., wireframes, referring to implicit knowledge presentation) with their description (e.g., requirements, referring to explicit knowledge presentation). The clear presentation of the project parts and their status promotes process understanding and facilitates communication through the structure given by this. In addition, the specification of forms, which are intended for the creation of objects or the setting of requirements, should create a structure in the presentation that promotes the understanding of all those involved. This should also facilitate the transfer when implementing the software.

The brief introduction of existing tools was used as basis to discuss a suitable structure for the tool to be developed. For example, based on desk research about common tools (see Chapter 2.4), it appeared beneficial to group data in an "action" related way. An example can be found in common structures of ticket systems: Applying the same data structure through entry instructions and grouping them in a content-related way e.g., in a Kanban board creates uniformity and can facilitate orientation and understanding. (Atlassian, 2022a, 2022b)

In summary, the resulting main findings as presented in chapter 2.5 could be considered in the concept:

- 1) *Basic domain understanding to manage system complexity is necessary to develop software that serves in a specific context of use effectively, efficiently and purposefully.*

The concept supports the understanding of the domains for which something is to be developed by linking all the information collected.

- 2) *Purposeful communication needs a shared understanding of language.*

The concept uses general language vocabulary or icons known from related applications, within the menu navigation, to exchange information across domains.

- 3) *An analysis should precede development activities, to start development activities in a targeted manner.*

The concept enables a connection between requirements and their implementation in order to guide the development.

- 4) *Uniform and concise documentation can promote understanding and accelerate processes.*

The concept provides a uniform and user-friendly structure for organising project knowledge and requirements (for example: Which object properties, distances and requirements have to be fulfilled in the project or work package).

- 5) *Ideally, attention is already paid to object orientation in early analysis and design.*

The concept makes it possible to work with references in order to define important aspects (such as behaviour, appearance) only once and to be able to use them continuously. The object structures are based on a combination of design-based and programming-based concepts.

The positive result of the assessment of technical feasibility by a software expert gives the concept an overall degree of feasibility. The fact that most of the functions were assessed as feasible, only a small part as elaborate and none of the functions as not feasible increases the practicability of the concept ideas conceived. This is an encouraging sign for the project especially in comparison with the results of the evaluation of functions introduced in Chapter 7.3. The focus of the tool is supposed to be on exchanging information between design and programming. Participant distribution shows that project management was included additionally. It should be noted that the role of "PMO" can only be seen as the main role of the participant in one case (see Chapter 7.3, Table 16) and that the activities of the other participants were focused on the core areas of programming, design / user research.

Nevertheless, a managerial influence is discernible in the software but was encouraged by the practice partner. The context of use interviews were scheduled for 90 minutes and aimed to spend as much time as possible with the interviewees. Interviews varied in length from 35 minutes to 87 minutes. The equal involvement of the disciplines was therefore focused on even more strongly in the further process. The concept was developed on the basis of expert assessments; although these experts are also users, at least the external view was not included due to the framework conditions. Therefore, a connecting point for future work could be to include an external view of (possible) clients of Die Plusbringer. Additionally, a more precise classification of different types of requirements is still pending. It is conceivable that this could be set up in a similar way to the workshop presented in Chapter 6.2 for identifying standard objects of user interfaces. Further ideas for subsequent follow-up activities are:

- **Refine:** System information (e.g., Requirements, Components)
- **Expand:** Subareas of Software (e.g., Maturity Levels, Software Development)
- **Research:** Integrating and developing AI based solutions (checking logic, relations, plausibility)
- **User Testing:** Include external view
- **Design:** Developing a precise and responsible design
- **Technical Aspects:** Cross-system data integration and exchange, synchronization of different file formats, central element repository for software development, responsibility

A general aim of the tool is to make changes easier to handle and therefore has projection functions. This means that information can be collected, documented and linked in the tool both via direct input and via the import of various documents (which in turn can represent the export from other tools, should their use be mandatory). In a second version, interfaces to common tools would also be conceivable, as these are often used and one would not have to compete with them. Nevertheless, Die Plusbringer would have the advantage of being able to administer all the content that is documented and communicated via one tool, which they synchronise with the other tools. In this context, the differences to existing software solutions described under Chapter 7.1 must be taken into account and highlighted. In this sense, the thesis project enabled to show a possibility to support the information exchange between design and programming. Furthermore, documentation processes can be simplified by using

automated processes with individualisation options. It can be assumed on the basis of expert estimations, that by integrating the identified functions, work can be done more effectively, efficiently and satisfactorily. Overall, the concept seems promising for Die Plusbringer, as also supported by the following comments from the online survey (also see Appendix 9: Raw Data of Online Survey):

"Many good ideas! With the text changes alone, changes could happen much faster..."

(P06, see Table 16)

"The automatic creation of the elements alone would help a lot. (...)"

(P02, see Table 16)

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Appendix 1: Interview Guide for Context of Use Interviews

I. Introduction to the discussion (introduction, clarification of roles) (approx. 5 min.)

Presentation / Theme:

I study User Experience Design at the Ingolstadt University of Applied Sciences. Here, I mainly focus on aspects of interaction between people and machines. I am currently working on my master's thesis on the development of a system that should facilitate the interdisciplinary exchange of information - both within the company and with external partners.

My goal today is to get to know your everyday work in order to be able to derive requirements for this monitoring system and to develop a sensible design for such a system. Therefore, the first step today is to understand how projects are currently running and *not to* work out potential solutions.

Introduction:

Please be critical and let me know what positive or negative aspects you are currently experiencing. This helps me for development and optimisation.

I am not testing you or your way of working, but want to empathise with the challenges and comforts associated with various of your usual work tasks. Therefore, there is no right and wrong.

Your participation in this interview is voluntary. If you have any reservations about participating, you are free not to take part in the interview or to cancel it. This will not put you at any disadvantage.

Notes on data collection and evaluation:

If it is okay with you, I would record the conversation. This will help with the evaluation and making of notes. All data will be kept strictly confidential; your statements will only be presented anonymously. If you do not agree with this, please let me know now.

Clarification of the process:

1. Duration approx. 90 min
2. Mutual introduction or personal participant profile
3. Interview on interdisciplinary cooperation in everyday working life
 - a. Reference to the topic
 - b. Everyday work: tasks, procedures, programmes
 - c. Everyday work: Communication
 - d. Everyday work: Interdisciplinary cooperation

II. Personal participant profile (approx. 5 min.)

Reference to the topic of interdisciplinary cooperation

(In order to make the data of the interviews comparable, the currently largest project with the most participants internally and externally was found out beforehand. The participants were consequently asked to orientate themselves on this project and to put other - current and past projects - in relation to it and to supplement statements if necessary).

- 1) Area of responsibility with die Plusbringer
- 2) Points of contact with other disciplines at work (internal/external)

III. Everyday working life (approx. 45 min)

Everyday work: tasks, procedures, programmes (approx. 15 min)

- 3) What are your typical tasks at work?
- 4) How do you proceed in carrying out the mentioned tasks?
 - a. Are those aspects dependent on the input of others (external partners / internal input)?
- 5) Which tasks are more demanding, which are easier than others?
- 6) What programmes do you use at work?
 - a. Which aspects/functions make your work easier?
 - b. Which aspects/functions are more of a hindrance?
 - c. Are there aspects/functions that are missing or would help you?

Everyday work: Communication (approx. 10 min)

- 7) How is communication done internally and externally? (Tools, meetings; tasks, deadlines)
 - a. Which aspects are more difficult, which easier to agree on?
- 8) When are tasks considered "done" internally and externally?
 - a. Is anything documented on this?

Everyday work: Interdisciplinary cooperation (approx. 20 min)

Core questions (C) were specialised for the subject areas **programming (P)**, **user research (U)**, **design (D)** for easier answering (following marked accordingly).

9) *C: In your field of work, which aspects are easier and which are more time-consuming?*

P: Which aspects are easier and which are more time-consuming in the implementation of design templates and requirements?

U: Which aspects are easier and which are more time-consuming when eliciting requirements?

D: Which aspects are easier and which are more time-consuming when implementing requirements?

10) *C: What requirements does your discipline have for the work results of the other disciplines?*

P: What requirements does programming have for work results of design and user research?

U: What requirements does user research have for the work results of design and programming?

D: What requirements does design place on the work results of user research and programming?

a. *C: How does your discipline check whether the other disciplines implement these requirements?*

P: How do you check if the requirements set by programming are met by design and user research?

U: How do you check if the requirements of the user research are met by the design and programming?

D: How do you check if the requirements set by the design are met by user research and programming?

b. How do you report back if your requirements are not met or adjustments or additional information is needed?

c. **P:** What information must absolutely be included in the work result of user research and design so that you can work ideally?

11) C: What demands do the other disciplines place on your discipline?

P: What requirements do design and user research place on the work results of programming?

U: What requirements do design and programming place on work results from user research?

D: What requirements do user research and programming place on work results from design?

- a. How are required adjustments ideally reported back to you?
- b. Which requirements/adaptations are more difficult and which are easier to implement?

12) C: *What requirements does the professional side place on the work results of your discipline?*

P: What requirements does the professional side place on the work results of programming?

U: What requirements does the professional side place on the results of the requirements user research?

D: What requirements does the professional side place on the results of the design work?

a. C: *How is it checked whether the result meets the requirements of the professional side?*

P: How is it checked that the programming meets the requirements of the professional side?

U: How is it checked that the identified requirements reflect the requirements of the professional side?

D: How is it checked whether the design meets the requirements of the professional side?

b. Which requirements/adaptations required by the professional side are easier to implement and which are more difficult?

13) Further comments from the participant

VI. conclusion of the conversation (approx. 3 min)

Thank you for taking the time to answer my questions.

Appendix 2: Transcription of Context of Use Interviews (German)

Transkript I – 18.10.2022

Design

Interviewer 00:00:01,320-00:02:35,810

Dann fangen wir an! Ja. Erst mal vielen Dank, dass du dich bereiterklärst hast, noch mal mit mir über ein paar Themen meiner Masterarbeit zu sprechen. Ich würde auch direkt anfangen, mich und das Thema noch einmal ein bisschen vorzustellen, weil ich im Anschluss dann auch ein paar Fragen an dich habe. Und ja, damit du nicht das Gefühl hast, das Ganze wäre ziemlich einseitig von dir aus. Okay. Okay. Und genau. Also, wie du wahrscheinlich mitbekommen hast, studiere ich User Experience Design an der Technischen Hochschule in Ingolstadt. Und hierbei konzentriere ich mich im Wesentlichen auf Aspekte der Interaktion zwischen Menschen und Maschinen. Und derzeit arbeite ich im Rahmen meiner Masterthesis an der Entwicklung eines Systems, welches den fachlichen Austausch von Informationen, also sowohl innerhalb von den Plusbringern als auch mit externen Partnern erleichtern soll. Heute wäre mein Ziel, deine Arbeit oder dein Arbeitsalltag noch mal ein bisschen besser kennenzulernen, um folglich dann Anforderungen an so ein System ableiten zu können und einen sinnvollen Entwurf entwickeln zu können. Es geht also in einem ersten Schritt heute erst mal darum, zu erfassen, wie Projekte eben aktuell laufen und es nicht um das Erarbeiten potenzieller Lösungen. Da wäre ich auch schon beim zweiten Teil meiner nicht Gesprächsregeln. Das klingt zu hart. Aber meine Gesprächsstruktur nenne ich es mal: Seien Sie gerne kritisch und teilt mir mit, welche positiven und negativen Aspekte du aktuell erlebst. Das hilft mir nämlich ungemein beim Entwickeln und Optimieren. Ich teste dabei nicht dich, sondern deine Arbeitsweise, sondern eben vielmehr möchte ich nachempfinden, welche Herausforderungen und Annehmlichkeiten es aktuell bei deinen Arbeitsaufgaben eben gibt. Und wie du wahrscheinlich auch schon gehört hast, gibt es dabei kein richtig und kein Falsch. Danke noch mal ganz formal deine Teilnahme an den Interviews freiwillig. Wenn du Bedenken gegen deine Teilnahme hast, dann steht dir frei, nicht an dem Gespräch teilzunehmen und oder das Ganze abzubrechen, wenn wir auch schon mitten im Gespräch sind. Da entstehen dadurch keinerlei Nachteile. Und genau. Okay, dann, wenn du einverstanden bist.

Herr Weber 00:02:35,980-00:02:37,000

Ich bin einverstanden.

Interviewer 00:02:37,300-00:03:09,910

Sehr schön. Wenn du keine weiteren Fragen dazu hast, würde ich das Gespräch auch gerne aufzeichnen, wenn das für dich okay ist. Das hilft mir nämlich bei der Auswertung und bei der Anfertigung von Notizen. Alle Daten werden natürlich, ob aufgenommen oder nicht aufgenommen, streng vertraulich behandelt. Deine Aussagen werden nur anonymisiert in meiner Arbeit dargestellt und wenn du damit nicht einverstanden bist, dann würde ich dich bitten, mich jetzt noch mal darauf hinzuweisen.

Herr Weber 00:03:11,200-00:03:13,690

Die Gesprächs Aufzeichnung ist für mich in Ordnung.

Interviewer 00:03:14,500-00:04:02,830

Ja, schön. Gut. Wir rennen ein wenig durch die durch die formalen Themen und werden jetzt schon beim Nächsten, und zwar Klärung des Ablaufs. Also wie ich schon

angekündigt habe, dauert das Gespräch jetzt so um die 90 Minuten. Wir würden anfangen und ich habe schon los gestartet mit dem gegenseitigen Vorstellen bzw. deinem persönlichen Profil innerhalb des Unternehmens. Und dann würden wir auch in das richtige Interview starten. Die Thematik heute ist ja die interdisziplinäre Zusammenarbeit im Arbeitsalltag. Da würde ich erst mal ein paar Fragen zum Bezug zu diesem Thema und deiner Arbeit stellen und dann würden wir über deinen Arbeitsalltag sprechen.

Interviewer 00:04:02,830-00:04:56,390

Genau. Ganz wichtig vielleicht noch: Ich weiß, dass ihr verschiedene Projekte habt im Unternehmen und verschiedene verschieden große Projekte habt. Für dieses Interview kannst du gerne alle im Blick haben. Allerdings würde ich mich freuen, würde ich dich bitten, dich auf das aktuell größte Projekt was ihr habt, das so ein bisschen präsenter im Hinterkopf zu haben als die etwas kleineren, weil ja umso mehr Personen, umso schwieriger stelle ich mir zumindest die Kommunikation und den Austausch von Informationen aus vor. Und. Genau das noch als kleiner Hinweis. Hast du noch Fragen, bevor wir alle fragen? Oder irgendwelche Anmerkungen?

Herr Weber 00:04:57,710-00:05:06,360

Ich habe keine. Keine Fragen. Bin aber gespannt. Was mir dazu einfällt. Aber jetzt warte ich erst mal deine Fragen.

Interviewer 00:05:07,920-00:05:16,910

Okay, dann lösen wir die Spannung doch ein bisschen auf. Ich denk, zur Ersten fällt dir was ein: Was ist denn so dein Aufgabenbereich bei den Plusbringern?

Herr Weber 00:05:18,870-00:06:23,230

Bei den Plusbringern bin ich als Design Berater angestellt. Bring mich da ein als Teil. Ich sage mal grafisch grafische Gestaltung für für Nutzer Oberflächen. Ähm. Ich betreue in einem Projekt die. Kommu, also eine Projekt. Es geht um die Kommunikation durch Piktogramme, also sprachfreie Kommunikation, nur beschränkt auf Visuelles. Wie sagt man? Visuelle Verständigung. Und. Ja, und Da kümmere ich, oder oder bring mich auch ein in den. Quasi in den Bedienungsabläufen, die Bedienlogik.

Interviewer 00:06:23,570-00:06:55,220

Okay. Genau. Wo gibt's denn bei den gerade genannten Aufgabenbereichen oder überhaupt bei deiner Arbeit Berührungspunkte mit anderen Disziplinen, das heißt mit anderen Disziplinen meine ich jetzt so was wie physische Produkthersteller oder Programmierungen oder, ähm, ja, die anderen im Unternehmen vertretenen Disziplinen oder auch extern vertretenen Disziplinen.

Herr Weber 00:06:56,950-00:07:33,070

Also wirklich physische Produkte. Das ist quasi die Kommunikation nach außen, bei der bei der Herstellung von einem Lautsprechersystem tatsächlich physische, haptische Produkte. Betreut werden dann die Organisationen, die Organisationen, den Aufbau und auch die Planung von. Von. Ja, das sind Lautsprecher Systeme. Ursprünglich kam das auch aus einem. Projekt.

Interviewer 00:07:33,070-00:07:33,520

Okay.

Herr Weber 00:07:34,870-00:07:53,990

Wo wir die Bedienung und das Interface gestaltet haben. Da wurde die Nachfrage laut. Nach einem. Nach einem

quasi. Lautsprechersystem, welches man wirklich um sich herum aufbauen kann.

Interviewer 00:07:54,620-00:07:58,980

Dafür hast du eine Skizze angefertigt, oder wie kann ich mir das vorstellen?

Herr Weber 00:07:58,680-00:08:46,340

Genau das. Dieses, diesen modularen Aufbau von Lautsprechern, was es an sich ja so nicht gibt, dass jeder Lautsprecher einzeln konfiguriert und einstellbar ist. Genau da gingen wir über die Überlegung: Wie können wir diese einzelnen Komponenten anordnen und auch herstellen. Also. Quasi von der von vom Planungsaufbau, von der Idee, wie man diese diese Elemente aufteilt, bis hin zur Kommunikation, zum Modellbau, wie man. Wie man das System dann quasi wirklich realisieren kann.

Interviewer 00:08:46,710-00:09:02,720

Und wenn ich jetzt nochmal auf das Interface eingehen kann, vielleicht nicht unbedingt nur zu diesem Produkt, aber wenn es gerade das prominente Beispiel ist mit welchen Disziplinen hast du da zusammengearbeitet?

Herr Weber 00:09:02,790-00:09:16,890

Was? Kannst du nochmal auf die Sprünge helfen?

Interviewer 00:09:16,950-00:09:37,740.

Genau. Disziplin. Sowas wie jetzt gerade, hast du von Modellbauern gesprochen. Genau. Es gibt dann ja auch noch, bei der Software geht es ja auch immer um eine Implementierung dieser, also die Programmierung beispielsweise für euch. Seid ihr da im Austausch? Darauf wollte ich hinaus.

Herr Weber 00:09:38,910-00:10:46,340

Genau die. Wenn wir. Wenn wir ein Projekt kennenlernen. Wie soll ich sagen? Folgt jetzt erst mal im Austausch mit dem Kunden. Face to face die Idee festlegen, bevor wir dann quasi in User Interface oder um die User Experience kümmern. Und ich arbeite mit meinen Kollegen. Aber ich arbeite hier am User Experience und auch die Logik, wie wie die Dinge funktionieren. Ich. Selber. Für mich ging mein Teil durch die durch die grafischen Elemente des Interfaces oder oder ein. Ja, das Gesamtkonstrukt habe ich mit meinen Kollegen aus dem Bereich User Experience und.

Herr Weber 00:10:46,340-00:10:54,770

Ich stehe auf dem Schlauch gerade.

Interviewer 00:10:55,220-00:11:00,200

Alles okay. Alles gut.

Herr Weber 00:11:01,550-00:11:04,820

Kann es grad nicht formulieren.

Interviewer 00:11:04,820-00:11:07,060

User Experience, die Fachseite und.

Herr Weber 00:11:09,430-00:11:11,170

Ja, ich will das nicht Fachleute nennen.

Interviewer 00:11:11,170-00:11:16,150

Aber wer? Der Kunde? Der Kunde. Um es zu wiederholen hier.

Herr Weber 00:11:19,290-00:11:20,020

Genau. Danke.

Interviewer 00:11:20,350-00:12:20,680

Ja, es sind ja schon mal zwei. Wenn dir noch mehr einfallen, kannst du sie gerne auch im weiteren Gespräch bei einer anderen Frage noch einbringen. Oder vielleicht

ergibt sich auch noch was. Genau dann hätten wir unseren ersten großen Gesprächspunkt schon besprochen. Das war jetzt die Thematik zu deinem persönlichen Teilnehmer Profil im Unternehmen. Wir würden jetzt weiter gehen zum Themenblock Arbeitsalltag. Und da würde ich als allererstes gerne auf Arbeit, ja, auf deine, dein Arbeitsalltag eben deine Aufgaben, deine Vorgehensweisen und aber auch die Programme, die du dafür benutzt, eingehen. Und wir fangen, wir haben natürlich nur ganz einfache Aufgaben und fangen deswegen auch mit der ganz einfachen Frage an: Was sind denn so deine typischen Aufgaben? Also wenn du die jetzt mit fünf Worten oder so sagen müsstest, was machst du so in deinem Arbeitsalltag? Wie würdest du das beschreiben?

Herr Weber 00:12:24,390-00:12:32,310

Die typisch Aufgaben. Meine typischen Aufgaben. Wenn man jetzt mal die Programme außen vorlassen.

Interviewer 00:12:32,730-00:12:34,200

Genau. Nur die Aufgabe.

Herr Weber 00:12:37,270-00:13:35,340

Grafische Ausarbeitung von Ideen. Danach auch die Ausarbeitung von. Wenn ich jetzt an mein Piktogramm Projekt denke, quasi analysieren der. Der Idee oder des Objekts, wie ich es darstellen kann, dass das läuft mittels Recherche. Und dann. Auch. Mit den. Ideen, die ich entwickelt habe. In Absprache mit dem Kunde kann ich dann loslegen, diese diese Ideen in Grafiken oder in grafische Elemente umzusetzen. Wir waren gerade bei der Arbeit. Bei den typischen Aufgaben.

Interviewer 00:13:35,650-00:13:40,980

Genau. Also, alles sehr mit Grafik.

Herr Weber 00:13:41,280-00:14:02,520

Das ist grafisch, ja. Überleg grad noch. Es geht auch. Um Missverständnis. In manche Projekte geht es um das Verständnis von Logik und.

Interviewer 00:14:05,240-00:14:05,540

Hm.

Herr Weber 00:14:07,260-00:14:24,700

Wenn ich also an unsere Projekte denke. Wie gehen wir dann heran? Ja im Austausch mit den Kollegen arbeiten. Wir Logiken oder oder. Ein. Mh. Ich. Tut mir leid.

Interviewer 00:14:28,690-00:14:30,040

Ist alles gut.

Herr Weber 00:14:30,450-00:15:13,310

Ja, alles gut. Genau. Okay. Schwer zu beschreiben, aber ja. Gerade zu unserem Thema haben wir ja ein ganzes. Ich sag mal. Eine Gestaltungsbibliothek erarbeitet um ein konsequentes strukturiertes grafischen Aufbau zu zu gewährleisten. Quasi ein Pool erschaffen mit dem man quasi verschiedene. Abläufe, Bedienerabläufe, die später benötigt werden auch modular zusammenbauen können.

Interviewer 00:15:13,520-00:15:33,394

Okay, also das geht so in die Richtung Grafiken erarbeiten, dann eben Nutzungs Abläufe erarbeiten mit dem Kunden. Welche Logiken verbergen sich dahinter? Und auch so was wie das Anlegen von Bibliotheken oder Design Konzepten für eine konsistente Gestaltung?

Herr Weber 00:15:33,470-00:15:33,922

Genau.

Interviewer 00:15:33,997-00:15:34,374

Okay.

Herr Weber 00:15:34,449-00:15:36,710

Danke für die Zusammenfassung.

Interviewer 00:15:37,100-00:16:19,660

Sehr gerne. Okay, dann würden wir schon in die nächste Frage gehen. Und zwar, wir haben eins der drei Aufgabenbereiche besprochen. Einmal das Erstellen von Grafiken. Die hängen natürlich alle zusammen. Input vom Kunden bearbeiten und das ganze Bibliotheken erstellen bzw. Konzept fürs Design erstellen. Wie gehst du denn im Groben bei den Aufgaben vor? Also. Wenn du jedes Mal, wenn es beispielsweise ein Piktogramm erstellen musst, dann hängt dort höchstwahrscheinlich würde ich denken, die Recherche dran. Richtig?

Herr Weber 00:16:21,880-00:16:42,340

Ja. Ähm. Ja, vielleicht können wir noch ein Stück weiter raus gehen. Erstmal das Verständnis schärfen, in welchem, in welchem Umfeld sich das Projekt bewegt. Wer, also wir wissen ja, dass gerade am Beispiel von den Piktogrammen festmachen.

Interviewer 00:16:42,940-00:16:43,240

Ja.

Herr Weber 00:16:46,070-00:17:30,090

Wo ist interessant. Wer nutzt später das System? Also bevor man überhaupt irgendwas zeichnet oder oder umsetzt? Wer ist die Nutzergruppe? Zum Beispiel sind sie. Sind es alte Nutzer? Sind es junge Nutzer? Unter welchen Verhältnissen arbeiten die? Schon allein, ob draußen oder drinnen ist interessant. Auf welchem Gerät wird es genutzt? Oder wird es überhaupt auf dem Gerät benutzt? Ist ja ein Unterschied, ob es jetzt ein Leitsystem wäre oder auf einem Handy oder auf dem Tablet oder auf einem PC.

Interviewer 00:17:30,600-00:17:30,900

Mhm. Ja.

Herr Weber 00:17:33,090-00:17:56,600

Und dann erst beschäftigt man sich näher mit der konkreten Gestaltung. Also wie: Wer ist unser Auftraggeber? Hat, hat er ein bestimmtes Erscheinungsbild und Stilmittel was er, was er, was er einsetzt. Nach außen trägt.

Interviewer 00:17:57,470-00:17:57,597

Mhmh.

Herr Weber 00:17:57,622-00:18:30,990

Keine Ahnung das kann sein, hat er, hat er. Ist es eine Firma, die hat ein Logo, die hat Corporate Identity. Im besten Fall haben die schon Corporate Identity ausgearbeitet. Und dann und dann wird quasi die die Sprache entwickelt. Welche für. Dieses ganze System oder diese diese Sammlung, die man aufbaut, funktionieren soll, ist quasi ein in sich geschlossenes Produkt entstehen kann.

Interviewer 00:18:38,340-00:18:41,100

Genau mit Sprache meinst du was? Eine grafische Sprache?

Herr Weber 00:18:42,810-00:18:55,460

Genau. Eine grafische Sprache. Ich meine wenn man eine konkrete Sprache tatsächlich eine Sprache denkt, dann ist natürlich auch der Einfluss von der Kultur wichtig.

Interviewer 00:18:56,170-00:18:56,420

Ja.

Herr Weber 00:18:56,720-00:19:17,410

Könnte ich auch als Sprache verstehen. Als Erscheinungsbild, als. Ja, Wenn man weiß, wo die Dinge passieren, dann, kann man sich besser die. Ähm. Rantasten, wie es wie im Idealfall funktionieren soll.

Interviewer 00:19:18,390-00:19:41,410

Okay, genau das Ganze geht auch ein bisschen in die Richtung. Requirements Engineering ist das auch dein Arbeitsgebiet oder bist du wirklich für die grafischen Sachen zuständig? Und die Aufgabenerfassung und Anforderungsanalyse ist eher woanders? Waren das die User Experience Kollegen, die du vorhin erwähnt hast?

Herr Weber 00:19:42,660-00:19:50,530

Das gehört schon auch mit zu meinem Aufgabengebiet, auch wenn ich es nicht jetzt konkret so betiteln würde.

Interviewer 00:19:50,710-00:19:51,610

Ok. Ich wollte nur nachfragen.

Herr Weber 00:19:53,980-00:20:25,930

Das stimmt schon. Mit dem Begriff an sich. Ich sag mal, müsste ich mich mehr mehr rein studieren, um das so zu betiteln. Aber im Grunde im Grunde. Da ich mit meinen Kollegen so die die Inhalte erarbeite, fällt es auch auf meinen Aufgabenbereich zu. Auch wenn ich da eher frei und ich sage mal kreative rangehe.

Interviewer 00:20:28,150-00:20:40,720

Ah ja ok. Wenn ich kurz nichts sage, dann wahrscheinlich, weil ich mir kurz Notizen mache.

Herr Weber 00:20:40,780-00:20:41,380

Ich habs nicht eilig alles gut.

Interviewer 00:20:41,380-00:20:57,870

Sehr gut. Okay, das war der Bereich Grafik und Kundenarbeit. Wie ist das im Bereich Bibliotheken und Design? Konzepte erstellen? Also wie kommt es vom einzelnen Element zum ganzen Konzept?

Herr Weber 00:21:02,270-00:22:49,940

Das ist wahrscheinlich ein persönliches Ding. Eine persönliche Vorliebe. Aber ich notiere mir aus der Geschwindigkeit heraus, die ich in einem Gespräch zur Verfügung hatte. Also die Zeit, die man Verfügung hat zu führen, bin ich am schnellsten, das von Hand auf Papier zu machen. Ähm. Was natürlich auch den Vorteil bringt, dass man gegebenenfalls gleich Zeichnungen machen kann und Ideen notieren. Ähm. Das finde ich eigentlich einen Vorteil. Dass man das nun schnell genug ist, die Dinge, die Dinge festzuhalten. Also für mich diese zwei, ich sag mal, die zwei Sachen mitschreiben und quasi gleich Ideen zu fixieren hat den Nachteil, dass man, dass ich nicht gleich digital habe. Und ich nicht gleich teilen kann mit anderen, wie das jetzt bei einem bei dem Protokoll wäre, was man quasi jederzeit verschicken kann. Das wäre dann quasi meine, meine Nacharbeit. Allerdings gibt es auch gibt es auch Projekte, da habe ich mein, mein Stift bei mir und mein Blatt Papier, wo dann quasi nur die Ideen skizziert werden und ich kann Notizen mache ich dann gleich am Rechner auf einem Programm eingeben. Bin ich da eigentlich immer bei Word oder direkt in der Email? Die ich mit meinen Kollegen teilen kann.

Interviewer 00:22:52,670-00:23:05,470

Okay. Und welche Aufgaben, die du jetzt beschrieben hast, sind denn dabei, sage ich mal aufwändiger, und welche gehen eher super einfach von der Hand.

Herr Weber 00:23:08,850-00:23:21,840

Hmm. Ähm. Die, ich sag mal, die, die konzeptionellen Aufgaben oder wirklich wo man wo man was erschafft.

Interviewer 00:23:23,910-00:23:24,450

Mhmh.

Herr Weber 00:23:24,510-00:23:45,741

Das sind die aufwendigeren Arbeiten. Weil man ja ich sag mal jetzt kein konkretes man hat vielleicht, wenn man jetzt denkt, man macht ein Logo oder ein Piktogramm, da hat man schon das Ziel vor Augen. Klar, ein kleines, grafisch ausgearbeitetes, ich sage mal Produkt, zu erreichen.

Interviewer 00:23:45,835-00:23:46,305

Mhmh.

Herr Weber 00:23:46,399-00:24:16,260

Aber der Weg dahin ist vielleicht gar nicht ist nicht so, nicht immer einfach. Welchen Stellvertreter quasi für für Wenn ich jetzt ein Logo mach, dann mache ich ja einen Stellvertreter für, für ein System oder einen Betrieb oder eine Firma. Und da kann man natürlich da, will man keine. Keine Bereiche, keine Details außer Acht lassen.

Interviewer 00:24:17,240-00:24:17,295

Mhmh.

Herr Weber 00:24:17,306-00:25:02,309

Und daher fließt da viel ich sag mal Recherche oder Gedanken kombinieren viel, viel, man muss viel verwerfen und neu anfangen, um eine neue Idee zu kriegen. Ähm. Ich denke mal, dass sie die aufwändigste Arbeit, wenn man wenn man konzeptionell was erarbeitet bis hin zum Ziel. Die Umsetzung was zu zeichnen, oder was zusammenzubauen. Das ist quasi absehbar. Man weiß, wie lange man braucht, um eine Zeichnung zu machen, wenn die, wenn das Konzept da ist. Oder ich sage mal ein ein Use Case aufzubauen.

Interviewer 00:25:02,331-00:25:02,440

Mhmh. Ja.

Herr Weber 00:25:02,730-00:25:15,440

Weil ich ja alles vorbereitet habe, muss ich es nur noch umschreiben. Das ist ja. Ich sage mal, zeitlich absehbare Dinge.

Interviewer 00:25:15,440-00:25:16,600

Mhmh.

Herr Weber 00:25:17,720-00:25:29,200

Aber wenn man vor einer neuen Aufgabe, was Neues zu kreieren, da muss man sich erst mal seine, seine Punkte zusammensuchen, bis man. An die Umsetzung gehen kann.

Interviewer 00:25:31,220-00:25:38,180

Okay, wenn wir gerade schon bei der Umsetzung sind, welche Programme verwendest du denn bei der Arbeit?

Herr Weber 00:25:42,960-00:27:58,756

Ähm. Programme, also von bis, also wir morgens unserem unsere Team Abstimmung in den Teams. Mhmh. Nutzen wir unser Chat-Programm Teams, was wir auch für für die einzelne Besprechungen nutzen, hat sich etabliert. Damit kennt sich jetzt jede gut aus und kann schnell damit arbeiten oder auch Ideen teilen. Ähm, dann die Microsoft Office Programme auch weil es Kollegen nutzen, muss ich oft Excel aufmachen oder Worddateien, oder auch Präsentationen erstellen. Wenn der Kunde auch auch Powerpoint nutzt, arbeiten wir auch in Powerpoint, oder

um zu PDFs zu erstellen. Grafische Programme sind meistens die Adobe Programme. Hauptsächlich ähm arbeite ich für mein, für meine ich sag mal Piktogrammen Bereiche in Illustrator. Ähm Photoshop, braucht man eher weniger vielleicht man wenn man wirklich. Ich sage mal für das Interface Verläufe braucht oder oder schnell mal ein Konzept erstellen muss, dann dann Photoshop. Und in XD lassen sich sehr gut die Bedienung Abläufe darstellen oder das Verhalten von von Benutzeroberflächen oder auch Users Experience. Ähm. Genau in XD halt auch der Vorteil: Da können sich meine Kollegen aus anderen Bereichen mittlerweile auch einbringen und mitarbeiten. Lässt sich durch die, durch den, durch die Anbindung wie heißt es durch die nicht Anbindung an die Cloud, digitale Funktion?

Interviewer 00:27:58,790-00:27:59,777

Durch die Cloud-Funktion ja.

Herr Weber 00:27:59,812-00:28:20,390

Ja, genau. Wirklich live verfolgen und man kann live dran arbeiten. Das gefällt mir eigentlich, wenn man keine. Ich sag mal keine Neuerungen oder neue neue Ideen. Neue Zustände vom Projekt verpasst.

Interviewer 00:28:22,880-00:28:31,970

Mhmh okay. Und arbeitet ihr dadurch in all euren Projekten quasi in einer Cloud oder gibt es da auch lokale Dateien, die ihr.

Herr Weber 00:28:33,940-00:28:35,920

Es gibt lokale Dateien.

Interviewer 00:28:37,040-00:28:38,330

Oh. Ähm.

Herr Weber 00:28:38,660-00:28:56,050

Wo sind zu. Einer Zeit, wo zu bestimmten Zeiten eine Person dran arbeitet. Und also jeder. Jeder kümmert sich um einen Teilbereich oder ein Teilprojekt.

Interviewer 00:28:56,770-00:28:57,050

Mhmh.

Herr Weber 00:28:57,460-00:29:16,600

Was er dann speichert und kommuniziert, dass er quasi damit fertig ist. Und dann weiß man ja, das dieser, dass dieser Zustand der letzte, der letzte Zustand ist und kann dann daran arbeiten oder auch einsehen.

Interviewer 00:29:18,220-00:29:28,210

Okay, und warum benutzt ihr die offline Dateien zusätzlich und nicht nur die Cloud?

Herr Weber 00:29:29,680-00:29:51,870

Diese also bei uns ist. Ich sage ich sag mal. Oder ich meine, ich versuch's zu formulieren. Es ist ein Sicherheitsaspekt weil unsere Projekte oft erst nur intern behandelnd werden. Unter Verschluss sind. Ich sag mal intern behandelt werden oder unter wie heißt es? Unter Verschluss.

Interviewer 00:29:51,880-00:29:54,610

Ah ehm, so eine Geheimhaltung?

Herr Weber 00:29:54,930-00:30:32,250

Ja und ich selber kann gar keine Aussage genau treffen, wie wie sicher oder unsicher so eine Cloud Datei wäre. Also eine Datei die außerhalb von außerhalb von unserem Speicher System speichert. Aber das geht so in die Richtung, der Kunde möchte einfach, dass nicht mit Clouds gearbeitet wird, in welcher Form das jetzt auch immer formuliert wird. Das ist also die Ansage.

Interviewer 00:30:32,250-00:30:33,659
Achso.

Herr Weber 00:30:33,895-00:31:02,120
Und auch beim Übermitteln von Daten. Da sind wir nicht so frei, sondern wir nutzen quasi abgesicherte Plattformen, um Dateien zu transportieren. Was den Arbeitsaufwand, den Arbeitsaufwand und die Arbeitsgeschwindigkeit auch ein bisschen. Ich sage mal. Runter stuft oder auch die Flexibilität.

Interviewer 00:31:09,870-00:31:15,170
Genau. Welche sichere Art meinst du da genau?

Herr Weber 00:31:17,820-00:31:30,020
Ähm. Beispiel. Ist ein Projekt, wo wir immer über eine Sicherheitsserver gehen müssen. Ähm. Müsste ich kurz fragen, wie das genau heißt.

Interviewer 00:31:30,030-00:31:49,760
Ist nicht wichtig. Alles gut. Das ist einfach, wenn ich grob sagen kann, das ist dann einfach was, was der Kunde euch zur Verfügung stellen, was ihr zum Austausch dieser Daten nutzen müsst?

Herr Weber 00:31:50,020-00:32:10,880
Genau auch unser E-Mail Programm. Läuft teilweise unter also. Quasi im werkseigenen System das die, dass die E-Mails auch innerhalb von ich sage mal innerhalb vom Betrieb bleiben und nicht über Outlook unser Outlook geht.

Interviewer 00:32:12,050-00:32:13,430
Ihr kriegt dann so eine Kunden-Mail-Adresse.

Herr Weber 00:32:14,180-00:32:25,110
Genau. Ja. Genau.

Interviewer 00:32:26,700-00:32:28,920
Okay. Ja.

Herr Weber 00:32:29,290-00:32:53,110
Ich hab sogar, ich selbst, hab nicht mal die ich sag mal die vertragliche Berechtigung es zu versenden, sondern muss über den, ich sag mal den Vertrauenspersonen oder Ansprechpartner bei den Plusbringern gehen und es über den dann die Daten transferieren.

Interviewer 00:32:55,080-00:33:03,734
Also es gibt dann einen Zuständigen im internen Bereich, der das dann nach extern kommuniziert?

Herr Weber 00:33:03,850-00:33:06,834
Genau. Über die notwendigen Kanäle.

Interviewer 00:33:06,919-00:33:12,700
Und das, hattest du gesagt, ist eher ein Aspekt, der das Ganze verlangsamt.

Herr Weber 00:33:14,230-00:33:47,980
Ja schon allein, dass ich. Dass ich. Mit meiner Kollegin, die vielleicht auch nicht immer. Ähm. Abrufbereit ist, weil sie in Projekte steckt. Dass ich erst mal warten muss, bis zum Verschicken oder vielleicht auch etwas zurückzubekommen. Um Feedback zur Arbeit zu bekommen. Das ist es ja. Ich denke. Das. Verlangsamt die Projekte.

Interviewer 00:33:48,250-00:34:25,340
Das ist verständlich ja. Okay. Gibt es da noch weitere solche hinderlichen Aspekte oder Funktionen? Auch wenn du nochmal an die Programme, also beispielsweise Illustrator, XD denkst. Ehm. Da gibt es ja einige Funktionen.

Gerade auch, wenn es um das Management von Bibliotheken oder Konzepten geht. Gibt es da positive oder eher weniger positive Aspekte dran, die dir einfallen?

Herr Weber 00:34:30,560-00:34:58,670
XD ehm. Jetzt wenn wir konkret von Xd reden. Das einzige Produkt, das ich nutze, was intelligent auf Quellen oder auf Daten zugreift. Ähm. Ist auf jden Fall. Auf jeden Fall eine Hilfe.

Interviewer 00:35:00,320-00:35:00,800
Ah okay.

Herr Weber 00:35:01,640-00:35:12,530
Ja ich sage mal, es verhindert Fehler, wenn, wenn es korrekt, gepflegt und angelegt ist. Es verhindert Fehler und demnach auch, auch Zeit.

Interviewer 00:35:14,110-00:35:14,204
Mhmmh.

Herr Weber 00:35:14,110-00:35:34,830
Tags: Programm Pro
Und im schlimmsten Fall auch Geld. Das ähm. Und es ist auch sehr sinnvoll, wenn, wenn ein Element quasi hinterlegt ist in diesen internen Bibliotheken, weil wenn mehrere Personen daran arbeiten, dann sind auch die auf dem aktuellsten Stand. Wenn jetzt eine Element oder eine Bilddatei getauscht wurde.

Interviewer 00:35:44,760-00:35:45,410
Okay.

Herr Weber 00:35:49,220-00:36:19,680
Tags: Programm Kontra
Jetzt ist es aber auch so: Komponenten sind hilfreich aber funktionieren nicht immer so wie sie sollten. Also Beispiel. Etwas schwer so abstrakt. Hat man eine Komponente mit Text und zwei Zustände. Jetzt wäre es. Es wäre gut wenn ich die einfüge, den text den ich brauche einfüge und Zustand ändere. Text bleibt gleich. Ist aber nicht so. Wenn sich der Zustand ändert dann ist der Text. Der ist wieder mit dem Platzhalter aus der Quelle. Also im, im anderen Zustand. Schalte um. Kopiere wieder rüber. Ist ja ist nervig.

Interviewer 00:36:22,490-00:36:24,500
Verständlich. Okay.

Herr Weber 00:36:25,830-00:36:31,268
Tags: Programm Kontra
Das gleiche mit Abstände. Und man kann Änderungen komplett im Dokument übernehmen oder nicht. Keine individuelle Entscheidung. Kann man alles nicht smart festlegen. Wir haben so work-arounds, durchsichtige Abstandshalter und so weiter, aber ja. Nicht, nicht ideal.

Interviewer 00:36:31,323-00:36:45,105
Ja. Okay. Gibt es denn auch noch zusätzliche Funktionen, wo du sagst die würden mir helfen, gibt es aber so nicht?

Herr Weber 00:36:45,210-00:37:07,360
Tags: Programm wish
Vielleicht das eine, dass eine Bearbeitungshistorie da wäre. Es gab. Es gibt schon manchmal Änderungen. Die habe ich vielleicht verpasst durch keine Ahnung, Krankheit, Urlaub, nicht da.

Interviewer 00:37:09,310-00:37:09,753
Okay.

Herr Weber 00:37:09,841-00:37:39,030
Wenn man wie ich an Projekten parallel arbeitet, kann man nicht immer alles verfolgen. Da kann man nicht immer alles

mitkriegen oder auch keine Ahnung Termine verpasst man dann auch einfach. Dass es einen. Keine Ahnung. Vielleicht auch ohne viel Dokumentationsaufwand, den andere betreiben müssen, dass man das quasi mitbekommt, was geändert wurde.

Interviewer 00:37:39,030-00:37:39,130

Okay.

Herr Weber 00:37:39,150-00:37:53,330

Das liegt aber nicht vielleicht am grafischen Systemen an sich. Es kommt ja auch. Änderungen kommen ja auch immer durch Gespräche. Ich sag mal vielleicht mit dem Kunde, dem, der hat Ideen, der hat Änderungen. Ähm.

Interviewer 00:37:53,340-00:37:53,390

Okay.

Herr Weber 00:37:53,410-00:38:13,383

Tags: Programm wish

Und. Genau das. Dass diese. Diese. Notizen, die er vielleicht die er vielleicht. Mit dem Kunde wird oft kommuniziert, in Powerpoint.

Interviewer 00:38:13,399-00:38:13,450

Ja.

Herr Weber 00:38:15,540-00:38:45,690

Tags: Programm wish

Ja. Dass diese Notizen, die er dort einpflegt, vielleicht auch in andere Systeme übertragen werden, das man quasi, ähm, wenn ich jetzt eine grafische Änderungen habe. Das, da fragt sich vielleicht einer: Warum? Ist das richtig? Dann muss man nachfragen. Aber wenn da jetzt drinstehen würde Änderung laut Meeting XY. Dann. Dann wäre ich quasi sicherer in meiner Arbeit.

Interviewer 00:38:48,190-00:38:48,446

Mhmm.

Herr Weber 00:38:48,497-00:38:49,930

Da hätte ich mehr Sicherheit.

Interviewer 00:38:50,740-00:38:57,910

Also es geht nicht nur darum, was wurde geändert, sondern auch um den Aspekt was soll geändert werden oder?

Herr Weber 00:38:58,780-00:39:11,680

Tags: Programm wish

Das ist natürlich auch wenn man, wenn man in die Zukunft denkt. Also wo? Wo steht eine Änderung an? Wo wurde was noch nicht angepasst? Ist natürlich interessant. Ja.

Interviewer 00:39:12,580-00:39:43,560

Gut, dann hast du gerade schon die Kommunikation mit dem Kunden angesprochen und darüber soll es jetzt auch in unserem nächsten Abschnitt gehen. Also um das Thema Kommunikation. Wie wird denn intern und extern kommuniziert? Ich habe jetzt schon mitbekommen, der Kunde wird wahrscheinlich eine Powerpoint irgendwie erhalten und die kommentiert er dann und schickt die euch zurück. So richtig?

Herr Weber 00:39:47,600-00:40:12,250

So, das ist eine. Eine Möglichkeit, oder man arbeitet gemeinsam, derzeit überwiegend im Internet, egal ob Teams oder oder anderen Online. Ich sage mal. Wir heißen die? Meeting Tools.

Interviewer 00:40:12,520-00:40:18,160

Also du meinst jetzt sowas wie teams, skype?

Herr Weber 00:40:18,160-00:40:18,640

Genau.

Interviewer 00:40:18,640-00:40:18,990

Ja. Online Meeting Tools.

Herr Weber 00:40:19,330-00:40:56,400

genau oder man, man präsentiert es, den aktuellen Stand und macht dann. Ich sage mal parallel Notizen. Entweder in die Datei rein. Oder man hat parallel sein, sein Notizblock. Egal ob analog mit Blatt Papier oder digital auf separaten Präsentationen oder Dokument wie Word. Ähm. Ja, genau.

Interviewer 00:40:56,970-00:40:57,750

Okay.

Herr Weber 00:40:59,920-00:41:16,010

Tools sind da wie gesagt Powerpoint Teams Word oder Keine Ahnung. Wenn es um eine Excel Datei geht, dann kann man die ja auch gemeinsam bearbeiten. Man braucht immer nur einen Schriftführer.

Interviewer 00:41:16,460-00:41:16,760

Ja.

Herr Weber 00:41:18,330-00:42:06,850

Tags: Programm wish

Einfacher wäre es vielleicht. Wenn. Wenn sich. Wenn sich Personen treffen aus verschiedenen Bereichen, dass sie dann quasi einen schreib Zugang hätten auf eine Datei. Dass man abwechselnd sich, sich einbringen könnte und auch gleich beschreiben. Weil manchmal muss man die Worte als, ich sag mal, als Schriftführer erstmal verstehen, was jemand aus dem anderen Bereich meint, notieren möchte. Vielleicht ist die Notiz ja gar nicht für alle. Vielleicht ist es ja nur für die Programmierer oder spezielle Fachbereiche, die gar nicht alle verstehen müssen. Das finde ich schwierig. Wenn es einen Schriftführer hat, der vielleicht gar nichts von diesem Fachbereich versteht.

Interviewer 00:42:07,690-00:42:07,930

Mhmm. Ja.

Herr Weber 00:42:11,790-00:42:19,180

Also ich sage mal offene, offene Produkte, also offene, offene. Software.

Interviewer 00:42:22,290-00:42:47,280

Ja. Okay das macht Sinn. In der Absprache, welche Aspekte sind da schwieriger und welche einfacher? Also ich habe jetzt schon gehört, wenn es einen Schriftführer gibt und er hat jetzt fachlich eben von dem, was gesprochen wird, nicht so viel Expertise, dann hätte ich das jetzt mal gesagt, ist das eher schwierig.

Herr Weber 00:42:49,130-00:43:18,590

Tags: Programm wish

Ja, genau. Das war ein Punkt schon davon. Dass die. Dass ähm ich sag mal die Ergebnisse oder, oder Ideen, die in einem Meeting oder in einem während einem Gespräche entstehen. Und. Dass die. Dass die festgehalten werden, dass die leicht auch an die richtigen Personen kommen.

Interviewer 00:43:31,210-00:43:31,810

Okay.

Herr Weber 00:43:31,900-00:43:50,970

Mhm. Welche sind einfach in einer Absprache? Da fällt mir nichts ein.

Interviewer 00:43:51,630-00:43:52,620

Okay. Kein Problem.

Herr Weber 00:43:54,090-00:43:57,150

Was gut, was gut klappt, also besonders. Mhmh.

Interviewer 00:44:02,610-00:44:24,420

Alles gut. Wir können einfach weitermachen. Wann wird denn eine Aufgabe intern oder extern sozusagen mit dem Stempel erledigt versehen? Ähm. Fangen wir vielleicht erst einmal intern an.

Herr Weber 00:44:27,990-00:46:19,920

Aufgabe als erledigt ansehen. Ist ja eigentlich egal, ob das intern und extern ist. Man muss immer quasi. Also ich sage mal, jeder hat so sein Fachgebiet und ist dafür selber verantwortlich. Egal ob mit Hilfe oder ohne Hilfe von Kollegen oder, oder Spezialisten. Sein, sein Ziel zu erreichen. Oder auch zu. Auf den Stand zu bringen, es mitzuteilen und zu kommunizieren. Ich muss gerade. Ich muss gerade irgendwie eine Erklärung finden. Ich kann jetzt auch kein, kein Gesicht zeichnen, da fehlt noch die Nase. Also man man. Mhm. Ist verantwortlich für seine, für sein, für seine Aufgabe oder für sein, für seinen Schritt, den man erledigen möchte. Ich meine, die Kollegen oder Andere können das ja nur bestätigen. Oder wenn Sie es sehen oder ein Wissen davon haben. Andererseits könnten Sie ja nur darauf vertrauen. Also. Wenn jetzt ein Programmierer zu mir sagt, das ist fertig. Dann muss ich darauf vertrauen. Ich meine, jeder könnte nachher ein System bewerten. Gerade wenn eine ablaufende ein System nicht richtig funktioniert, dann kann ich das natürlich auch bewerten. Aber.

Interviewer 00:46:24,030-00:46:26,760

Hmm. Okay.

Herr Weber 00:46:27,090-00:46:31,080

Wann? Wann wird eine Aufgabe als erledigt angesehen?

Interviewer 00:46:35,360-00:47:01,940

Also vielleicht noch mal ein bisschen runtergebrochen. Es muss ja ein Stand an den Kunden quasi übermittelt werden. Hier geht es nicht um ein zeitliches wann. Aber für diesen Schritt, den man in dem Projekt gerade geht, muss ja eine Datei erzeugt werden und diese muss dann irgendwie versendet werden. Gibt es da noch mal so einen Art alle gucken es an und wir schicken es danach ab? Oder gibt es da eher so eine verantwortliche Person. Oder.

Herr Weber 00:47:03,080-00:47:44,030

Achso, ja das gibt es manchmal schon. Vier Augen Prinzip ist natürlich immer gut. Und dann gibt es meistens eine Verantwortliche die die Kommunikation nach außen übernimmt. Unter Zeitdruck können wir natürlich nie oder kann man nicht immer. Ich sag mal ein vier Augen Prinzip machen oder jemand darum bitten, dass er mit mir draufschaut. Also es gibt immer jemand dem ich, dem ich gerne mal mein Projektstand zeigen würde. Bevor ichs also, um auch ich sag mal Fehler, die sind ja in der Phase noch erlaubt, solange ich es noch jemand zeigen kann, um diese auszumerzen oder auch nachzufragen, ob es überhaupt so gedacht war. Diese, diese Idee umzusetzen. Ich sage, ich rede immer von Idee, aber die die Aufgabe umzusetzen.

Interviewer 00:47:44,570-00:47:54,673

Mhmh. Ja das macht Sinn. Wird das dokumentiert?

Herr Weber 00:47:54,677-00:48:29,120

Es ist meistens so, dass man das man Kollegen dann anhand von einer Datei. Das ist dann in meiner Sicht ist es auch eine Dokumentation. Ich sage jetzt Datei, weil es können ja. Auf der einen Seite ist es ein Bild. Auf der

anderen Seite ist es vielleicht eine Entwicklung, wo man Entwicklungsschritte zeigen muss, wie man was erreicht. Es werden Dokumente dokumentiert in Powerpoint.

Interviewer 00:48:32,140-00:48:33,070

Okay. Ja.

Herr Weber 00:48:34,090-00:48:34,660

Genau.

Interviewer 00:48:35,320-00:48:35,590

Ok, also.

Herr Weber 00:48:35,810-00:48:56,330

Das wäre quasi die einfachste Form von Dokumentation. Also nicht förmlich unbedingt festgelegt, aber man hat quasi was mit einem mit einem Datum mit einem abspeichert Datum. Genau wenn mans dann verschickt hat man auch den Adressat.

Interviewer 00:48:56,840-00:48:57,197

Mhmh, ja.

Herr Weber 00:48:57,206-00:48:59,540

Genau ich sage mal wie der wie der Poststempel.

Interviewer 00:49:01,370-00:49:19,190

Okay, also würde ich für den internen Bereich mal mitnehmen. Jedes Fachgebiet ist quasi verantwortlich für seine Ziele. Wenn es die Zeit zulässt und die Teammitglieder da eine gewisse Expertise haben, guckt man es aber schon noch mal gemeinsam an, bevor das dann an den Kunden geht.

Herr Weber 00:49:20,980-00:49:22,520

Genau. Okay.

Interviewer 00:49:23,470-00:49:47,110

Okay. Wie sieht das extern aus? Wie beschließt der Kunde, sage ich mal, dass jetzt dieser Themenbereich erledigt ist. Gibt es da einen förmlichen Zeitplan und wenn der abgelaufen ist, dann.

Herr Weber 00:49:47,620-00:50:42,460

Achso ja klar, da hab ich jetzt gerade gar nicht dran gedacht. Aber natürlich gibt es. Gibt es eine Timeline. Ich sag mal, für überschaubare Projekte gibt's dann gibt es eine Deadline, wo, wo dann das Projekt fertig sein muss. Um es irgendwie kontrollierbar zu halten. Gibt es Zwischentermine, Zwischenschritte, um diesen Termin einzuhalten. Und bei größeren Projekten werden Zeit oder Zeiträume getaktet. Eingeteilt, das man Teilschritte erledigen kann, um um quasi später ich sag mal ein großes Ganzes zu erreichen.

Interviewer 00:50:49,920-00:51:01,280

Ja. Okay.

Herr Weber 00:51:02,570-00:51:12,500

Ich weiß viel zu wenig Fachbegriffe, Fachsprache von den anderen Bereichen. Aber ja, time, wenn ich Timeline sage, ist eigentlich schon, schon klar, was gemeint ist.

Interviewer 00:51:14,310-00:51:15,086

Ja, ich habe das Gefühl ich verstehe was du meinst.

Herr Weber 00:51:15,101-00:51:15,660

Projektmanagement halt.

Interviewer 00:51:18,390-00:51:58,760

Ja. Auch wenn das jetzt keine Fachsprache ist, ist vielleicht sogar besser. Genau. Also bezüglich der Dokumentation von diesem quasi erledigten Zustand habe ich jetzt mal mitgenommen, intern eben durch den E-Mail Verlauf.

Sonst benutzt ihr aber nichts förmliches. Also ich schmeiß mal so ein paar agile Methoden in den Raum, da gibt es ja Kanban Boards, Agile Boards und so weiter.

Herr Weber 00:51:59,260-00:53:43,970

Ja, für größere Projekte gibt es natürlich natürlich solche. Ich sage mal projektbetreuenden Systeme. Wobei ich. Ich muss sagen, ich. Ich. Beschränke mich eher im internen internen Bereich innerhalb, also auf die direkte Kommunikation und Zeitmanagement. Innerhalb unserer Firma. Was nutzt mir da Jira? Die heißen Atlassian glaube ich. Das machen wir anhand von einem Kanban Board. Genau. Und her und. Also was? Einfach die. Was, was. Unsere To. Dos aufzeigt. Ja, was steht an? Was ist wirklich? Was haben wir wirklich als Idee oder als Aufgabe gekriegt? Dann vielleicht, was grad sich im Prozess befindet. Oh. Ähm, wo gibt es noch Fragen? Das ist auch so noch im Prozess. Und was ist wirklich abgeschlossen? Was? Also welche? Wenn wir es abgeschlossen sind, fragt man sich warum? Warum dokumentiere ich sowas einfach als kleiner Merktzettel? Was muss ich dem Kunden vielleicht noch zeigen, dass man es wirklich von unserer To Do Liste streichen kann? Also abgeschlossen. Suche? Ja. Dann.

Interviewer 00:53:44,570-00:53:56,360

Okay, das heißt intern für dich eher die direkte Kommunikation oder das Aufgabenboard. Okay. Und was sind genau extern Sachen?

Herr Weber 00:53:59,170-00:54:01,930

Was meinst du, was sind die externen Sachen? Also?

Interviewer 00:54:02,440-00:54:23,500

Na ja, es muss ja auch. Also, innerhalb des Unternehmens wird gesagt, die Aufgabe, okay, die ist jetzt quasi im Bord auf erledigt gestellt. Aber das sieht ja der Kunde nicht. Bei den Kunden, gibt es da auch eine Dokumentation irgendwie? Was ist erledigt oder was steht als nächstes an? Gibt es so eine Projekt übergreifende Übersicht?

Herr Weber 00:54:24,520-00:55:06,440

Das gibt es auf jeden Fall. Ich glaube, das machen wir auch. Auch mittels. Mittels eine Software. Allerdings. Kann ich nicht gerade nicht sagen, wie wie dieses Projekt Tool heißt. Weil es für mich nach außen zum Kunde hin gibt es für mich momentan keine Berührungspunkte. Für mich sind es eher nur, ich sag mal kurze Zeiträume von keine Ahnung. Ich sage mal, bis zu drei Wochen, wo ich mich dann, wo ich nachschauen kann, was steht an, was ist schon okay.

Interviewer 00:55:07,770-00:55:08,520

Gut, dann.

Herr Weber 00:56:15,570-00:56:17,010

Also Workshop, Workshoptermine. Das haben wir natürlich auch. Neben unseren To Do Listen.

Interviewer 00:56:17,010-00:56:24,030

Ja.

Herr Weber 00:56:25,100-00:56:30,290

Neben unserem agilen Kanban Board, sage ich mal, haben wir noch unsere Termine fixiert. Mit dem Kunden dann auch gemeinsam.

Interviewer 00:56:37,860-00:57:23,660

Okay. Gut, dann würde ich zum letzten Themenblock übergehen. Und zwar war das die wär das die fachliche, fachübergreifende Zusammenarbeit eben mit den anderen Disziplinen. Ich würde noch mal kurz zusammenfassen, was ich jetzt im Gespräch für andere Disziplinen aufgenommen

habe. Das heißt, wir hatten da zum einen ja ähm den Austausch mit dem Kunden, dann eben die Kollegen von der User Experience, die eben die nicht nur beim Graphischen unterstützen, sondern im vorrangig auch bei den Anforderungen, bei der Ermittlung. Und dann habe ich auch noch rausgehört, die Programmierung, die da so ein bisschen ihren Teil hat.

Herr Weber 00:57:25,500-00:57:25,760

Mh ja.

Interviewer 00:57:26,480-00:57:58,800

Okay. Gut, dann werden das jetzt so die Disziplinen, die wir, die wir mal, im Kopf haben, wenn wir jetzt in die Fragen reingehen, und zwar. Jetzt gibt es ja Anforderungen, die vormerklich der Kunde wahrscheinlich stellt. Wie wird denn da. Wie wird denn da bei der Umsetzung vorgegangen? Bzw. Was ist denn da leichter umzusetzen? Und was ist denn da aufwändiger?

Herr Weber 00:58:01,890-00:58:10,260

Was ist leichter als aufwändige? Auch auf den Bereich der Gestaltung.

Interviewer 00:58:11,160-00:58:11,430

Genau.

Herr Weber 00:58:12,360-00:58:13,170

Mein Bereich.

Interviewer 00:58:13,410-00:58:40,554

Ja. Also der Kunde. Ich sage mal, wie ich mir das bisher erschließe: Der Kunde kommt jetzt her und dann möchte er diese 1,2,3 Sachen integriert haben. Und dann stellt er aber nicht nur der die Ansprüche darauf, weil das Ganze muss ja irgendwie auch implementiert werden. Das heißt, da gibt es ja auch noch andere Parteien, die Programmierung oder eben der User Experience Kollegen.

Herr Weber 00:58:40,620-00:58:41,020

Genau.

Interviewer 00:58:41,020-00:59:07,050

Und die kommen ja alle mit ihren Anforderungen irgendwann im Prozess auf dem Konzeptentwickler oder Designer zu. Gibt es da Sachen, wo du pauschal sagen kannst Ja, wenn das und das eben die Anforderung ist, das ist eigentlich einfach, oder manchmal passiert das und das und dann wird es eher komplizierter?

Herr Weber 00:59:07,560-01:00:14,600

Also man kann es technisch sehen, wenn man, quasi, eine bestimmtes Dateiformat braucht oder bestimmte Umsetzung braucht für die späteren, ich sag Systeme mal. Dann ist es eigentlich unumgänglich. Dann muss man sie nur mit dem Wissen vertraut machen, was man braucht. Ähm. Oder. Ja. Oder was was der Programmierer braucht. Egal, ich sag jetzt mal Programmierer. Es kann ja auch, wenn es wirklich um auch, es kann ja auch um Druck gehen. Was was brauchte der Drucker? Ähm. Der. Und das ist eigentlich der weniger aufwendigere Teil. Und weil das kann man ja technisch lösen.

Interviewer 01:00:14,990-01:00:16,900

Ja okay.

Herr Weber 01:00:18,880-01:00:42,580

Was schwieriger ist, ist alles was später kommt. Klassisch so kann ich nicht implementieren muss so aussehen. Das ist jetzt auch nicht sag ich mal ist nicht, nicht schwer aber es dauert ja es ist halt es dauert Zeit. In der man nicht neues nichts neues beiträgt oder schafft. Weil die

Programmierung. Hab ich das Gefühl. Am liebsten von allem ein Bild. Genau wie es aussehen soll. Und wenn ändern dann direkt überall.

Interviewer 01:00:43,060-01:00:43,270

Oh, okay. Viel Arbeit.

Herr Weber 01:00:43,720-01:01:05,500

Ja. Und der Kunde. Ja der will ja was von mir, sag ich jetzt mal so, was er selber nicht kann so eine gewisse Raffinesse. Was Ansprechendes. Und auch dem zum System, zum zum restlichen System passendes schaffen. Oder auch. Ich sage mal den Nutzern eine Erleichterung vom Nutzen schafft. Das ist der aufwändigere Teil.

Interviewer 01:01:06,340-01:01:07,100

Und was?

Herr Weber 01:01:07,200-01:01:14,430

So was. So logisch. Und. Ich sage Bedienung freundlich zu gestalten.

Interviewer 01:01:16,740-01:01:17,140

Mhmh.

Herr Weber 01:01:20,880-01:02:09,120

Dass es sich. Dass sich. Dass der Nutzer, quasi gar nicht darüber nachdenken muss, wie er es nutzt, sondern nur noch. Und nur noch nur seine seine Arbeit damit verrichten kann oder seine seine Aufgaben, damit, das das der Nutzer in keinem Moment darüber nachdenken muss, wie funktioniert das jetzt eigentlich? Sondern das er es eigentlich nutzt. Also das schwierige aufwändiger ist was zu schaffen. Was genial einfach wäre ja noch okay.

Interviewer 01:02:09,830-01:02:17,620

Also wäre es quasi die, diese ganzen Anforderungen irgendwie zu kombinieren und allem ein bisschen gerecht zu werden.

Herr Weber 01:02:17,680-01:02:28,300

Genau das kommt aber auch von vom Dings. Also es hängt ja auch vom vom Umfeld ab, wo es später genutzt wird, was damit verrichtet wird. Welche Arbeit.

Interviewer 01:02:28,690-01:03:27,240

Ja genau, okay. Welche Anforderungen? Wenn das Arbeitsergebnis jetzt vom Design, sage ich mal, die Vorlage ist fertig. Welche Anforderungen hat denn deine Disziplin da an die Arbeitsergebnisse der anderen Disziplinen, die da beteiligt sind? Das heißt, nehmen wir mal wieder beispielsweise die Analyse von den Anforderungen und ja, wahrscheinlich ein bisschen vorher, bevor die Gestaltung losgeht und währenddessen stattfindet und auch die Programmierung wahrscheinlich eher hinten raus, aber auch da Überschneidungen hat. Also welche Anforderungen stellst du an das Ergebnis von Anforderungsformulierung und wie wird diese Arbeitsvorlage denn es mal im weiteren Prozess programmiert oder umgesetzt?

Herr Weber 01:03:27,810-01:03:33,830

Ich verstehe nicht ganz. Anforderungen also. Also, was?

Interviewer 01:03:34,200-01:03:51,520

Die Anforderungen geben ja eine gewisse Richtlinie vor. Was Design werden muss. Wie sind die am besten dargestellt?

Herr Weber 01:03:53,020-01:04:02,010

Achso. Ja. Jetzt. Ok. Also am besten gibt es schon eine grobe Vorlage, was wohin soll und ich kann diese dann

präzise designen. Das können jetzt Wordclouds für ein Logo sein oder Screens für ein UI. Am besten jeder hat schon alles gesagt und dann steht in einem Dokument alles, was ich also was ich quasi ja was ich machen soll so. Ähm. Ja.

Interviewer 01:04:03,310-01:04:12,040

Ok. Und wenn du damit fertig bist, was erwartest du von der Programmierung?

Herr Weber 01:04:12,440-01:05:47,020

Von der Programmierung? Ja das sie es quasi abbilden wie ich es zeige. Also wir als Gestalter geben ja eine gewisse. Das als, als sehr gut definierte Idee oder ein Leitfaden vor. Wie was auszusehen hat oder die Erscheinung, Wirkung. Es liegt ja alles an der Definition von Farben, Abständen, Größen. Und quasi mein, mein mein Layout zu zu strukturieren. Dass es auch so bleibt. Weil das habe ich ja ich sag mal mit Sinn und Verstand so gewählt. Und dass sie ja dass sie sie da auch ein bisschen sich ja. Ein bisschen reindenken. Dass ich nicht jeden Klick zeigen muss. Was passiert. Wie sieht was aus. Dass die Idee erfasst wird. Für Programmierer schwerer, weil er selber damit kämpft, es zu pflegen, das zu tun, umzusetzen. Aber. Eigentlich möchte ich, dass er sich an den Gestaltungsleitfaden hält.

Interviewer 01:05:49,110-01:06:07,890

Okay und für die Anforderungen, was du jetzt umsetzen. Gibt es da auch solche Ansprüche, die man eben daran hat, dass man damit gut arbeiten kann von dem, was man da als Anforderung ich sage mal vorgesetzt bekommt.

Herr Weber 01:06:11,440-01:07:26,110

Anfangs bekommt man ja gar nicht so viel vorgesetzt. Es gibt eigentlich nur. Inhaltliche, inhaltliche Vorgaben. Die Man in Form in eine Struktur bringen. Darf. Muss. Ähm. Manchmal kommt es dann zu, ich sage mal zu. Zu Änderungswünschen, wenn man Vorschläge macht, nur egal, sei es ob Farben oder. Oder. Ja, Anordnungen, weil man selber einfach sich. Die die Infos, die man, die man vorab gekriegt hat, wenn man die in seiner in seiner Sicht so, ich sag mal so so. Erarbeitet und gestaltet hat. Und. Ja. Eigentlich liegt es ja am Gestalter, die Informationen in Form zu bringen.

Interviewer 01:07:27,860-01:07:54,670

Okay. Und. Wie wird es überprüft, ob beispielsweise da eine Übereinstimmung von dem umgesetzten Endresultat besteht, sag ich mal und dem dann dem Konzept, der Vorgabe? Gibt es einen geordneten Prozess oder ein geordnetes Herangehen?

Herr Weber 01:07:54,680-01:09:35,000

In meisten Fällen endet das eigentlich immer in der Abstimmung. Also bei Workshops. Idee wird vorgestellt. Interessanterweise, bei der Gestaltung da geht es zwar um die Darstellung von Information, aber auch zum Teil was am meisten zu Diskussion führt, das Weglassen von manchen Infos, manchen Dingen, um um den Kern der Sache klar darzustellen. Dadurch, dass wir in Besprechungen viele Fachbereiche mit haben darf man niemanden übergehen. Aber es kann natürlich sein, dass das auch manchmal. Wenn wir jetzt eine Information. Für die, ich sage mal, für die Aufgabe als weniger, weniger wichtig einstuft und jetzt, ich sage mal, ganz klein darstellen und weniger wichtig. Dann kann es sein, dass das dann eben bei der bei der nächsten Besprechung, bei der Zwischenstandspräsentation dass man da erst mal, oder das erste Mal merkt, dass diese diese Info und diese

Wichtigkeit von diesen mal nicht beteiligtem Experten jetzt eher doch sehr wichtig ist. Dann muss man noch ein bisschen mehr, ich sag mal anpassen, aufblasen oder wichtiger darstellen muss.

Interviewer 01:09:35,470-01:09:35,750
Ja.

Herr Weber 01:09:36,710-01:09:50,630
Genau. Eigentlich geht es immer um eine. Eine Abstimmung zu. Erkennen und zu erkennen, ob man auch alle. Ich sage mal Aufgaben gerecht wird.

Interviewer 01:09:52,050-01:09:53,220
So eine Art Kompromiss?

Herr Weber 01:09:54,109-01:09:58,050
Kompromiss ist immer. Kompromiss. Ja, das stimmt.

Interviewer 01:09:59,780-01:10:17,850
Okay. Gut, jetzt schauen wir uns das Ganze noch mal aus der anderen Richtung an, also welche Anforderungen werden dann von der anderen Seite gesehen an die Design Disziplin gestellt? Also. Was ist so.

Herr Weber 01:10:18,120-01:10:32,320
Was von von von der Gestaltung gewünscht wäre also was, was eben die anderen Teilnehmer an die Gestaltung für Anforderungen haben?

Interviewer 01:10:35,760-01:10:40,860
Genau. Gibt es da irgendwelche Vorgaben seitens Programmierung oder?

Herr Weber 01:10:44,520-01:12:09,380
Ja. Also je nachdem, wie etwas programmiert wird, also mit welchen ich sag mal Programmen und welchen Möglichkeiten. Gibt es auch Einschränkungen in die Gestaltung. Okay ja. Ähm. Das kann das können von. Ähm. Ja der Ausgestaltung von Elementen, sein, manchmal sogar nur weil. Es gibt, wenn man betont, Elemente durch. Durch einen Schatten, dass das quasi hervorgehoben wird. Oder ein Highlight. Oder. Oder auch mal ein bisschen ausschmücken durch einen Glanzpunkt. Aber manche Programmierungen lassen dann solche, ich sage mal, grafischer Spielereien gar nicht zu, weil. Weil man. Für ein anderes Dateiformat braucht. Oder so. Zum Beispiel. Genau. Man muss mit einem Projekt arbeitet. Oft. Oder man muss eigentlich immer vorab prüfen, wie wird es umgesetzt, wie wird es programmiert? In dem Fall. Schwierig, wenn da vorher nichts gesagt wird. Oder am besten es gibt ein Beispiel und dann bitte alles so. Das ist aber nicht Design. Da schieb ich ja nur rum, was die mir quasi ja ich sag mal hingeworfen haben. Aber der Kunde hat ja aus gutem Grund einen Designer mitgebucht.

Interviewer 01:12:09,770-01:12:40,180
Ja, okay, das stimmt wohl. Und wie schaut das jetzt aus bei den Anforderungen? Ich hab's glaube ich schon ein bisschen rausgehört. Da gehts wohl vor allem darum dass die Anforderungen umgesetzt gesehen werden. Habe ich das so richtig mitbekommen oder was noch?

Herr Weber 01:13:34,130-01:13:54,040
Genau. Ja, wenn die Anforderung ist, ich will das Feld erst sehen, wenn ich das andere ausgefüllt habe, dann soll das natürlich entsprechend auch so dargestellt werden.

Herr Weber 01:13:54,300-01:14:16,170
Was die Programmierung an mich stellt ist dann halt quasi das ist dann so mach alles genau wie es war oder sagen wir mal besser mach alles mit etwas was ich schon mal

irgendwo habe. Aber wie gesagt, der Kunde verlangt ja nicht ohne, ich sag mal, nicht ohne Grund noch einen Designer.

Interviewer 01:14:16,710-01:14:19,110
Okay, ja das denke ich doch auch.

Herr Weber 01:14:20,960-01:14:59,020
Und dann muss da natürlich auch wieder abgestimmt werden. Also eine gute Mitte vom Aufwand nenn ich es mal finden. Darf nicht zu, nicht zu weit weg sein aber muss natürlich ich sag mal es sollte jetzt nicht ein Detail im Konzept oder ja Kleinigkeiten hunderte Arbeitsstunden kosten.

Interviewer 01:14:59,020-01:15:22,420
Und wenn wir grade schon über Abstimmung reden, kommt die Rückmeldung dann vor allem über Meetings oder wie sieht das aus? Zuvor hatten wir auch über Kommentaren in Dateien gesprochen.

Herr Weber 01:15:23,180-01:15:38,190
Ja, okay. Okay. Ja, das stimmt. Also, es geht über Kommentare. In der Präsentation also wenn man fragt jetzt. Wie wird es zurückgebracht?

Interviewer 01:15:39,000-01:15:39,180
Mhmm.

Herr Weber 01:15:39,215-01:16:44,330
Oder auch, ähm, vor der Gestaltung, also bevor man Sinn in Form bringt oder in der Struktur. Es steht ja meistens nur die Idee und die Information im Raum. Und wenn die Idee dann quasi graphisch oder, oder gelayoutet ist. Wurde in Form gebracht. Dann ist es eigentlich mehr eine neue Sicht und Verständnis Prüfung, ob die Idee auch transportiert wird. Oft fügen sich da noch ganz viele, ganz viele Details oder Möglichkeiten hinzu. Also meistens eigentlich noch um eine Idee ergänzt. Oder es wird eben auch Dinge weggestrichen, weil sie zu viel sind für diese Seite und als Extra.

Herr Weber 01:16:44,330-01:16:56,680
Denn dann werden quasi Ideen auch, ich sage mal dank der Gestaltung, dank dem drüber nachdenken. Weil es noch greifbar ist. Und ja, dann kommen die Rückmeldungen in Workshops wie du gesagt hattest oder auf per E-Mail in Dateien oder ja. Werden dann bei uns intern weiter gegeben. Meistens ruft mich dann jemand an. Oder im Daily morgens. Genau.

Interviewer 01:17:09,620-01:17:36,321
Okay! Sehr gut. Dann habe ich eigentlich auch schon Infos zu den nächsten Fragen, weil wir da schon ein bisschen drüber gesprochen haben. Das nächste wäre jetzt, nämlich die Anforderungen seitens der Fachseite, vom Kunde also. Da habe ich aber ja jetzt schon rausgehört, es geht eben über Abstimmungen und versendete Dateien. Dann wird zurückgemeldet. Ergeben sich gegebenenfalls neue Punkte, die eingebracht werden sollen oder soll doch noch was geändert werden?

Herr Weber 01:17:36,393-01:17:40,567
Genau das trifft auf Programmierung, Fachseite alle so zu.

Interviewer 01:17:40,639-01:17:55,550
So viel zu meinen Punkten. Gibts denn von deiner Seite noch weitere Anmerkungen, die du gerne eingebracht hättest, die ich jetzt aber nicht passend abgefragt habe? Oder was du noch hinzufügen möchtest?

Herr Weber 01:17:56,150-01:18:59,940

Nee, ich bin. Ich stecke, ich stecke gerade gedanklich drin. Bestimmt kommen wir nachher ganz viele, ganz viele Ideen noch dazu, weil ich jetzt grad. Ja, Ich sag mal, ich bin. Ich bin blind. Mit. Mit meine. Zwei, drei aktuellen Projekten. Aber ja, es ändert sich auch. Die Arbeitsweise ändert sich ja auch von von Projekt zu Projekt, weil. Ich sage mal. Jede Firma hat so sein eigenes Rezept, wie sie mit den Kunden kommuniziert oder wie sie intern arbeitet. Und. Ja, ich fänds Interessant wenn du wenn quasi diese Informationsströme irgendwie leiten könntest oder auch die Kommunikation innerhalb von. Von Programmen und Systemen in.

Herr Weber 01:18:59,940-01:19:11,600

Ähm. Wie du merkst. Ich ich bin ja auch nicht glasklar. Von dem her find ich dein Thema voll interessant.

Interviewer 01:19:14,550-01:19:14,910

Danke.

Herr Weber 01:19:15,570-01:20:23,470

Ja, weil. Weil wir. Ich. Ich glaube, es ist egal, wo man arbeitet. Man beschäftigt sich auch immer noch mit. Mit weiteren Themen. Die vielleicht nicht unbedingt seinem, seinem seiner, ich sage mal Hauptaufgabe oder blöd gesagt dem, was man gelernt hat oder dem, was man kann entspricht. Dennoch muss man. Damit alles glatt laufen könnte. Innerhalb von einem Betrieb oder auch nach außerhalb, dass man. Das so darstellen kann, dass es für alle interessant ist und auch verständlich. Ich glaube, daran liegt es eigentlich hauptsächlich, dass manche Projekte nicht ganz flüssig laufen, weil. Weil es keine ich sage keine einheitliche Sprache oder oder einen Fluss gibt, durch die durch die Projekte und Programme.

Interviewer 01:20:23,890-01:20:24,140

Ja. Okay das ist interessant dass das auch so wahrnehmbar ist.

Herr Weber 01:20:26,480-01:20:27,560

Weißt du, was ich meine?

Interviewer 01:20:27,710-01:20:28,310

Ich denke ich habe einen guten Eindruck bekommen, ja.

Herr Weber 01:20:28,810-01:20:29,150

Okay.

Interviewer 01:20:29,570-01:20:50,320

Also, jeder hat so seine Expertise, sein Vokabular, und dass. Umso tiefer man dann in seiner eigenen Disziplin oder in seinem eigenen Fachgebiet eben sprachlich auch abtaucht, lässt man natürlich die anderen aus anderen Fachgebieten auf der Strecke liegen. Und dann wie soll man fragen, was man nicht versteht. Man versteht ja das Wort schon nicht.

Herr Weber 01:20:50,930-01:20:55,490

Genau! Man wird ja auch nicht nachfragen, weil das ja auch eine gewisse Hemmschwelle. Oder dann fragt man ob die Person es wiederholt. Sie sagt genau das gleiche. Okay danke.

Interviewer 01:20:56,540-01:20:56,890

Ja, toll!

Herr Weber 01:20:57,170-01:21:07,140

Oft ist man auch abgehängt und hat hat quasi eine. Eine Hemmung, noch mal nachzufragen, weil man einfach in sein in seinem Fach, in seinem Fach steckt.

Interviewer 01:21:07,630-01:21:56,960

Ja. Okay, sehr schöne Einblicke. Ähm, dann bleibt mir noch übrig weiteren Raum zu geben für weitere Anmerkungen oder auch dir zu danken, für deine Teilnahme und deine ausführlichen Schilderungen. Es wird sicher nochmal die Gelegenheit geben dich weiter einzubringen, weil du meintest später fällt dir sicher mehr ein. Kein Problem. Im Gegenteil, kannst du gerne auch direkt an mich senden. Genau das kann ich gerne noch anbieten. Ansonsten meinerseits war es ein gutes Interview.

Herr Weber 01:22:05,040-01:22:08,190

Ja. Ich hoffe, ich konnte. Ich konnte was beitragen.

Interviewer 01:22:08,820-01:22:17,740

Auf jeden Fall! Okay, dann würde ich sagen Interview beendet. Vielen Dank. Und dann Wiedersehen.

Herr Weber 01:22:18,220-01:22:19,120

Echt interessant. Danke dir! Bis später.

Interviewer 01:22:19,630-01:22:20,110

Gerne. Tschüss.

Herr Weber 01:22:20,110-01:22:23,800

Tschüss.

Transkript II – 19.10.2022 Programmierung

Interviewer 00:00:03,750-00:00:38,700

Okay, dann habe ich jetzt die Aufnahme gestartet und würde weitermachen mit der Klärung des Ablaufs. Also das Ganze geht jetzt circa 90 Minuten. Ich würde beginnen mit der gegenseitigen Vorstellung, das habe ich ja jetzt schon gemacht. Und dann starten wir mal mit dem persönlichen Teilnehmerprofil und gehen dann über zum Interview zur interdisziplinären Zusammenarbeit im Arbeitsalltag. Da geht es vor allem um dein Erleben des Alltags, deine Aufgaben und angenehmen und weniger angenehmen Aspekte dabei.

Herr Mayer 00:00:39,480-00:00:39,900

Okay.

Interviewer 00:00:42,100-00:01:03,160

Dann starten wir mal mit deinem persönlichen Teilnehmerprofil. Wichtig dazu ist, dass ich weiß, dass sie viele Projekte habt, die auch alle unterschiedlich groß sind. Da es bei uns heute um Kommunikation mit verschiedenen Fachbereichen geht, würde ich dich bitten, da mal am präsentesten an das größte oder ein größeres Projekt zu denken.

Herr Mayer 00:01:03,960-00:01:04,129

Okay.

Interviewer 00:01:06,260-00:01:12,410

Okay, dann würde ich als erstes dich mal fragen, was dein Aufgabenbereich bei den Plusbringern ist.

Herr Mayer 00:01:13,610-00:02:06,130

Bei den Plusbringern bin ich vor allem für die Anleitung und Leitung der Fachbereiche, die für die Umsetzung von Software zuständig sind, zuständig. Und dazu gehört eben auch das Festlegen von den Parametern für ein Projekt, dann die Verteilung von den Aufgaben, die nach Kapazitäten und eben auch zu schauen, wer kann was und wem kann ich welche Aufgabe geben. Und dann auch zu inspizieren. Also das erste Mal eben zu schauen, wie ist das Ganze dann umgesetzt worden und sind die Anforderungen? Funktioniert das alles? Und ja, ich kann

natürlich auch selber noch bei der Umsetzung mit das und so, das ist so meine Aufgabe.

Interviewer 00:02:07,060-00:02:11,860

Okay, alles klar. Und hast du da auch Berührungspunkte mit anderen Disziplinen?

Herr Mayer 00:02:13,600-00:02:41,560

Ähm, ja. Also wenn ich entsprechend was umsetzen soll, dann brauche ich natürlich auch die entsprechenden Vorgaben, was ich denn umsetzen soll. Und da sind natürlich sehr viele Berührungspunkte im Bereich der definierten Anforderungen, aber gleichfalls auch in Richtung Softwarearchitektur und Sicherheitsarchitektur.

Interviewer 00:02:43,350-00:02:44,140

Okay ja.

Herr Mayer 00:02:45,300-00:04:14,910

Ja, die Anforderungen kommen dann eher aus dem Bereich Gestaltung, Requirements Engineering und die grafische Gestaltung eben da als Ablauf dargestellt. Und extern kommt eben noch hinzu, dass ich mit den entsprechenden Kunden eben ihre entsprechenden Laufzeitumgebungen. Die haben ja ihre entsprechenden Umgebungen. Und da geht es dann natürlich auch um so Aspekte wie die Migration von einer auf andere Software Daten Schnittstellen für automatisierten Datenaustausch und solche Themen. Ja und? Der Kunde, der die Software ja im Anschluss betreiben will. Das. Die sind ja fachlich meist entkoppelt. Aber es ist natürlich so, dass die Personen aus ihrer fachlichen Domäne heraus auch mit ihren Sicherheitsaspekten kommen oder mit anderen Aspekten wie das Unternehmensmotto, die Unternehmensfarben oder Themen wie Barrierefreiheit, Erreichbarkeit, DSGVO, Themen und solche Sachen.

Interviewer 00:04:16,500-00:04:19,140

Ja, alles. Klar. Und.

Herr Mayer 00:04:20,680-00:04:25,180

Aber in der Regel sind das Applikationen, die in der freien Wirtschaft angewendet werden.

Interviewer 00:04:26,860-00:04:38,530

Okay, super. Dann würde ich jetzt mal mit dem Arbeitsalltag weiter weitermachen. Und würde gern wissen, was denn Ihre typischen Aufgaben dort sind.

Herr Mayer 00:04:39,880-00:05:24,990

Na ja, also ich bin ja. Also prinzipiell ist meine Aufgabe anleiten und leiten bei der Entwicklung von Software und. Ja. Das sind die typischen Aufgaben, die ich vorhin eigentlich auch schon genannt hatte. Das heißt Aufgaben selber übernehmen und verteilen, die Projektparameter im Blick haben. Und genau bei externen Beschaffungsprozessen bin ich natürlich auch mit dabei. Das heißt, das ist eben noch vor Auftragsverteilung, da wird beispielsweise eben ein Umfang abgeschätzt und ja, das wird wiederum dann mit dem Kunden abgestimmt und dann wird sich geeinigt. Und solche Prozesse, das sind auch typische Aufgaben von mir.

Interviewer 00:05:26,440-00:05:31,450

Okay. Und wie gehen Sie bei der Aufgabenerledigung dann genauer vor?

Herr Mayer 00:05:34,330-00:06:19,810

Also erst mal brauche ich ja meine Anforderungen und Informationen, was ich denn überhaupt tun soll. Bei der Aufgabenverteilung schau ich dann nach den Fähigkeiten,

verfügbaren Kapazitäten und der Dringlichkeit der Aufgabe vor allem. Projektparameter sind klassisch die Entwicklungsumgebung, soll das eine App werden? Oder nur im Web? Und dann, wenn das Projekt soweit geht, dass ich quasi überprüfe, gucke ich vor allem so Bugs, wenn Eingaben, nicht entsprechend verarbeitet werden und ja Anzeigefehler an. Absturz. Sowas. Tatsächliches Umsetzten ist verschieden. Was ist da was ist zu tun. Muss man prinzipiell verstehen und im Anschluss jede Konsequenz in der Umsetzung berücksichtigt und angepasst werden.

Interviewer 00:06:23,590-00:06:30,880

Ok. Das heißt, sie sind dabei auf den Input anderer angewiesen, das habe ich richtig verstanden?

Herr Mayer 00:06:31,690-00:07:19,640

Ja, also klar. Die Herausforderung, die sich stellt, ist natürlich, dass in der Regel keine. Ich sage mal, kein singulärer Anforderungskatalog besteht und. Dadurch suche ich mir eben an verschiedenen Punkten die Informationen zusammen, aus verschiedenen Dokumenten, verschiedenen Tools. Und das kommt halt einfach daher, dass wir bisher noch kein Tool gefunden haben, was diese schriftlichen und die verbalen Aspekte, die notwendig sind, weil man eben nicht alles, weil das Design eben nicht alles über Prototypen kommunizieren kann. Da haben wir einfach noch nichts gefunden, was das eben aussagekräftig verbinden kann.

Interviewer 00:07:21,430-00:07:29,050

Alles klar. Und gibt es da Aufgaben, die sind eher aufwändiger und andere, die sind leichter?

Herr Mayer 00:07:32,290-00:08:49,250

Also wenn das Tool gut gewählt ist, dann sind rein logische Umsetzungen im Sinne von wenn Daten oder auch multiple Verbindungen recht einfach umzusetzen. Spannender wird dann der Teilbereich von Datenzugriffe und Datenintegrität. Was besonders spannend ist, ist der Bereich UI weil dort in Führungsstrichen viel weniger standardisiert ist. Weniger standardisiert. Heißt halt die Funktionalitäten und im visuellen Bereich gibt es halt einfach nicht so den Standard, dass es individueller, je nachdem wie das ausgestaltet wird. Und es kommt natürlich auch auf den Kunden an. Der möchte natürlich, dass seine Anwendung dann auch so aussieht, als wäre das ein Produkt von seiner Palette und es soll auch das Unternehmen dann eben widerspiegeln. So Logikbäume, so was. Das kann man relativ einfach abarbeiten. Aber wie diese dann eben gezeigt werden dass es dann schon schwieriger weil da gibt es eben nicht die eine Art es anzuzeigen. Zudem ist es schwierig, dass wir die Sachen an mehreren Stellen nachschauen müssen. Das heißt manches steht in Confluences direkt, manches in Dateien. Dann immer hin und her. Der Überblick ist das schwieriger. Manches kommt später dazu oder wird geändert. Wenn das so ist. Meistens je größer das Projekt ist dann passiert sowas.

Interviewer 00:08:50,610-00:09:07,000

Ok. Das klingt spannend auf jeden Fall. Und woher bekommen Sie diese Vorgabe?

Herr Mayer 00:09:09,950-00:09:34,730

Also wie das Ganze auszusehen hat. Das ist dann meistens eine Vorlage für das UI, was aus dem Design kommt und ähm. Ja, das ist halt meistens so der Weg, dass man über das Design eine Art Leitfaden erarbeitet und daraus resultiert dann eben die Applikation und die entsprechende ähm Beschreibung. Genau.

Interviewer 00:09:40,220-00:09:45,050

Okay! Und welche Programme verwenden Sie persönlich bei der Arbeit?

Herr Mayer 00:09:47,420-00:10:08,930

Ganz klassisch Confluence und Jira, aber auch die Basisprogramme nenne ich sie mal so was wie Powerpoint, Excel und die gängigen Kommunikationstools. Eben so was wie. Das E Mail Programm, Outlook oder Teams und so weiter.

Interviewer 00:10:10,790-00:10:14,630

Okay. Und bei der Umsetzung?

Herr Mayer 00:10:15,020-00:10:43,160

Da nutze ich natürlich verschiedene Entwicklungsplattformen von Microsoft, die uns zur Verfügung steht, um übergreifenden Code zu erstellen. Und die Entwicklungsplattform von Google, die mit Flotte und dort eben eine gute Plattform für Web und App Anwendungen bietet. Und dazu kommt noch die Low Code Software, die wir öfter verwenden. Und das ist die Software von Scopeland.

Interviewer 00:10:45,820-00:10:56,430

Aha. Und ja, genau. Wovon hängt die Wahl da ab?

Herr Mayer 00:10:57,870-00:11:51,710

Ja, also welches Tool genutzt wird, hängt eben vom Kunden und auch von den gestellten Anforderungen ab. Also zum Beispiel mit Scopeland. Dann kann man eben keine mobilen Apps verwenden. Äh, ja. Kann man nicht für mobile Apps verwenden. Kann man damit nicht erzeugen. Ist aber sehr gut geeignet für den Umgang mit großen Datenbanken und Flutter und Dart orientiert sich Stück weit eher an verfügbaren Daten. Das heißt auch eher so in die Richtung VR und. Wenn ich mehr kommunikativ eben noch nicht mal unterwegs bin. Also sprich die App spricht mit einem Backend, dann ist die Xamarin Entwicklungsumgebungen aus unserer Sicht die etwas geeignetere Wahl.

Interviewer 00:11:53,330-00:12:00,530

Alles klar. Und wenn Sie jetzt überlegen, welche Aspekte oder Funktionen erleichtern Ihnen die Arbeit dabei?

Herr Mayer 00:12:04,070-00:12:36,630

Im Sinne der Anforderungsumsetzung. Da ist es natürlich in vielerlei Hinsicht. Jetzt gibt es eben Frameworks wie Jason. Da gehe ich einfach rein, mache meine 4 bis 5 Attribute rein und habe dann fast alles fertig, um gegen einen Webserver zu kommunizieren. Das ist einfacher, weil die beiden eben mit standardisierten Schnittstellen arbeiten. Ähm. Dann hilft noch die Ordnerstruktur. Im Sinne von, ich mich durch die Kollegen aus der Erhebung verlassen, dass ich die aktuellen Dokumente direkt und im Archiv ältere habe. Das finde ich gut. Auch, dass ich direkt anrufen kann.

Interviewer 00:12:38,340-00:12:41,730

Und was ist dabei, welche Aspekte sind eher hinderlich?

Herr Mayer 00:12:44,370-00:13:30,070

Ja gut, wenn ich von Standardisierungen rede, dann ist das natürlich manchmal auch hinderlich, weil umso mehr ich eben auf die vorgefertigten Sachen zurückgreife, umso schneller bin ich. Ähm, zwar fertig, sag ich mal. Aber umso weniger individuell bin ich auch. Und im Wesentlichen gibt es meiner Meinung nach eben zwei Möglichkeiten. Entweder der Standard passt gut und ich kann ihn so verwenden oder ich muss es eben komplett frei machen.

Das ist dann schon sehr aufwendig, weil ich dann den standardisierten Teil eben nochmal neu machen muss, so dass er eben für für mich in dem Fall dann passt. Das ist dann schon so!

Interviewer 00:13:31,120-00:13:40,130

Okay, ja. Gibt es Aspekte oder Funktionen, die Ihnen fehlen bzw. die Ihnen helfen würden? Im.

Herr Mayer 00:13:43,740-00:14:31,410

Also teilweise wünsche ich mir schon, dass es da eine stärkere Berücksichtigung, ja ich nenne es mal vom Programmieraufwand schon bei der Erarbeitung von Umsetzungsvorlagen gibt. Also ich verstehe zwar schon, dass das jetzt nicht der Fokus vom Design ist, da geht es ja eher um das Erlebnis, was dann später rauskommt. Aber wenn die Designer auch so Programmierwissen hätten, dann wäre das schon leichter, weil man sich dann manche Anmerkungen oder ich nenne es jetzt mal Diskussionen halt einfach ja sparen könnte. Sozusagen. Und das. Das wäre dann schon leichter, auch in der Kommunikation und der Absprache.

Interviewer 00:14:33,020-00:14:49,160

Alles klar. Super. Vielen Dank, das war eine gute Überleitung denn wir würden tatsächlich schon übergehen zur Kommunikation. Wie wird denn intern oder auch extern bei Ihnen kommuniziert?

Herr Mayer 00:14:49,820-00:15:57,280

Naja. Also der fachliche Austausch findet über fachliche Meetings statt. Die werden dann eben individuell vereinbart, so dass man auch im Vorfeld planen kann, wo muss man teilnehmen und wo muss man was fertig haben usw. Und die Tools sind dafür, vor allem Confluence und Jira. Ähm, ja, aber wie ich auch schon gesagt hatte, bevor natürlich trotzdem auch noch die klassischen, die klassische E-Mail. Und grundsätzlich innerhalb vom Unternehmen wird sich eigentlich was nur verbal abgesprochen. Ähm, also wir haben einmal am Tag so unsere Regelkommunikation. Das ist morgens gleich unser Daily über Teams. Da geht es vor allem um Aspekte wie Wer braucht was, bis wann, von wem? Und sowas. Und die kleineren Arbeitsbereiche, die setzen sich dann eben gemeinsam individuell zusammen. Das können Sie aber halt in der Gruppensituation schon absprechen und planen. Das ist ganz praktisch.

Interviewer 00:15:58,480-00:16:00,130

Und wie läuft es extern ab?

Herr Mayer 00:16:00,870-00:16:44,820

Ähm, genau. Extern besteht meist auch so eine Art Regeln Kommunikation. Ähm, aber extern sich auf täglicher Basis ein Stück weit mehr inhaltlich fundiert im Sinne von geplanter Absprache zu Abläufen und Themenbereichen, wie sie eben vorher abgesprochen und festgelegt wurden. Das ist das, was ich vorhin schon gesagt hatte, dass man eben auch planen kann. Welche Ressourcen braucht man und was muss ich dabei haben? Ist also eher so um vorbereitete Workshops oder Meetings, die halt hinsichtlich der Teilnehmer deutlich geplanter sind als unser internes Daily jetzt.

Interviewer 00:16:46,880-00:16:55,190

Okay, super. Und wenn Sie jetzt überlegen würden, welche Aspekte sind dabei schwieriger und welche sind einfacher? Also vor allem in der Absprache jetzt.

Herr Mayer 00:16:57,220-00:17:48,520

Ähm. Das kann ich pauschal so schwer sagen. Also. Ich sage mal. Intern. Sowie auch extern kommt es immer aufs Thema an. Also desto verstrickter Themen sind, desto mehr man im Blick haben muss, desto voller die Anwendung halt wird oder umfangreicher ist, desto schwerer ist es natürlich auch alles zu überblicken und dann halt sinnvoll zu verarbeiten und auch verbal sag ich mal, es weiter zu verarbeiten. Wenn dann die Dokumente noch an verschiedenen Orten über verschiedene Wege kommen. Das macht das ganze schon komplexer. Vor allem bei UI, gibt es da dann visuellen und textuellen Anmerkungen. Und die liegen nicht verbunden.

Interviewer 00:17:49,360-00:17:58,750

Okay. Alles klar, das klingt natürlich aufwändig. Wann werden dann Aufgaben intern und extern als erledigt angesehen?

Herr Mayer 00:18:00,470-00:19:29,710

Ja so in unseren Tools, da kann man den Status auch entsprechend an den tatsächlichen Status anpassen. Da kann man dann natürlich sagen, das ist. Fertig. Das schiebe ich jetzt quasi in meine Box für die fertigen Tickets. Und ein bisschen weniger übersichtlich. Aber natürlich, gang und gäbe sind dann auch einfach Emails, die versendet werden mit den entsprechenden Dateien im Anhang. Also klassisch Word Excel PowerPoint im Anhang. Und. Dann checke ich meistens nochmal, bevor es an den Kunden geht. Bei allen unseren externen Projekten gibt es nach der Erstellung des Projekts verschiedene. Qualitätschecks. Die je nach Kunde auch wieder unterschiedlich sind, Also dass es dann sehr viel formalisierter als intern, also intern gibt, man dann eben seine Tickets, sag ich mal und macht das offensichtlich für die anderen aber extern, das ist schon noch mal was anderes. Und das bedeutet, dass dort auch wieder mehr mit mit so externer Software sag ich mal so was wie Trello oder ja Confluence gearbeitet wird und. Das dann eben auch kommuniziert wird. Gegebenenfalls nacharbeiten oder oder ähnliches. Da ruft man sich einfach an.

Interviewer 00:19:31,060-00:19:33,640

Okay und wird hierzu etwas dokumentiert zusätzlich?

Herr Mayer 00:19:35,510-00:19:50,690

Ja geht auch nicht anders. Wenn ich. Wenn ich eine Email schreibe, dann ist das ja schon irgendwo auch dokumentiert, oder wenn ich halt meine Tickets da bearbeite, ist das okay. Dokumentation ja.

Interviewer 00:19:51,320-00:19:53,450

Aber explizit wird nichts festgehalten?

Herr Mayer 00:19:55,030-00:20:23,320

Doch schon. Auch das kommt eben auf den Kunde an. Aber natürlich gibt es bei uns auch Protokolle und Zeitpläne und einige Kunden wollen dann eben bestimmte Protokolle oder bestimmte Beratungen eben haben einfach zugesendet bekommen. Und andere Kunden. Ist das jetzt nicht so wichtig? Ist das in den Tools ausreichend? Aber es kommt schon auch vor.

Interviewer 00:20:24,620-00:20:41,690

Okay, super, vielen Dank. Dann würde ich jetzt noch übergehen zur fachübergreifende Zusammenarbeit. Da wäre jetzt meine erste Frage, um welche Aspekte bei der Umsetzung von Gestaltungsvorlagen und Anforderungen leichter und welche aufwändiger sind.

Herr Mayer 00:20:43,250-00:22:22,360

Also am einfachsten ist die Umsetzung von Software, bei der bereits alle Elemente, deren Zustände und Verhalten fix definiert sind. So, das klingt schön, das ist in der Realität aber ja nicht möglich, da wir ja iterativ vorgehen und sich das Ganze auch weiterentwickelt und das Ganze ja natürlich auch möglich sein muss, dass man da was anpassen kann. Und oft wird eben im Design. Da werden Nutzungsmöglichkeiten gestaltet, die durch ihre, ich sage es mal Individualität eben besonders nutzerfreundlich sind für bestimmte Situationen oder bestimmte Anwendergruppen, wie jetzt bei der Barrierefreiheit zum Beispiel. Das kann dann aber gegebenenfalls eben sehr schwierig sein bei der Programmierung. Also ja, ich habe das vorhin schon mal angedeutet, aber ich habe schon öfter das Gefühl, dass vom Design nur teilweise verstanden wird, was jetzt eben mit der jeweiligen Programmierung möglich ist und was eben nicht. Und da muss man sich dann schon und da befindet man sich dann schon im regen Austausch, sage ich mal, um eben einfach noch mal Sachen in gerne Überarbeitungen oder eine Anpassung zu geben oder sich dann da irgendwie zu einigen, um da so ein gutes Mittelfeld zu finden. Weil ja mir ist natürlich schon klar, also für das Design hat. Der Kunde erst mal Vorrang. Und der muss natürlich auch aus meiner Sicht und auch in dem, was ich dann erstelle, das finden, was er braucht. Das ist schon klar.

Interviewer 00:22:24,540-00:22:25,920

Okay. Mhmh.

Herr Mayer 00:22:26,310-00:22:49,330

Und. Ja. Meistens ist es dann eben auch so bei den Anforderungen, dass die auch nicht vollständig erhoben sein können. Also ja. Ja, man weiß halt nicht alles schon. Schon zu Anfang konnte man ja nie anfangen zu arbeiten.

Interviewer 00:22:50,550-00:23:01,420

Ja, alles klar. Und welche Anforderungen stellt die Programmierung an die Arbeitsergebnisse von Design und Requirements Engineering? Also zum Beispiel.

Herr Mayer 00:23:01,900-00:23:50,170

An Design und Analyse. Ja, also. Ja, das habe ich schon ein bisschen angedeutet. Also beim Design ist natürlich. Schön und gut. Wenn. Wenn das. Supertoll aussieht. Aber das muss im Endeffekt ja auch funktionieren und da muss man so ein bisschen die Balance finden. Es sollte also auf jeden Fall auf die Basics. Raster. Und so weiter geachtet werden. Bei RM. Ist mein Wunschenken jetzt mal, dass da einfach alles schon da ist, aber das ist ja nicht möglich. Also so vollständig wie möglich und so. Und verständlich.

Interviewer 00:23:53,220-00:24:07,530

Alles klar. Und wie überprüfst du, ob die anderen Disziplinen diese Anforderungen auch gerecht werden? Ob alles da ist, was du brauchst? Also vor allem vom Design und der Anforderungserhebung her.

Herr Mayer 00:24:31,130-00:25:26,800

Na ja, also ich bekomme ja als allererstes mal die Ergebnisse, sage ich, sag ich mal, und die inspiziere ich im ersten Durchgang und schaue dann eben, ob so Sachen eingehalten wurden, die mir einfach vorgegeben sind durch die jeweilige Entwicklungsumgebung. Und. Genau. Also wenn ich da jetzt ganz offensichtlich schon was sehe oder lese, dann frage ich da eben noch mal nach. Oder. Ja, unsere Tickets versuch ich dann auch vorzudenken. Passt

alles? Geht das so? Und ja, wenn was nicht passt dann muss man gucken wie man es löst. Zusammen.

Interviewer 00:25:28,760-00:25:38,480

Alles klar und wie melden Sie zurück, wenn Ihre Anforderungen nicht erfüllt sind bzw. wenn Anpassungen oder zusätzliche Informationen benötigt werden?

Herr Mayer 00:25:39,760-00:26:00,790

Ja, das ist dann so über individuellen Austausch. Also. Ich fragte dann eben an. Was? Was war gefordert oder was jetzt gemeint war. Und dann tauscht man sich da aus. Passt Designs an oder formuliert nochmal nach. Ja.

Interviewer 00:26:04,480-00:27:04,280

Alles klar. Okay. Und? Welche Informationen müssen im Arbeitsergebnis der Anforderungen und im Design unbedingt enthalten sein, damit Sie ideal arbeiten können?

Herr Mayer 00:27:06,570-00:27:53,780

Also bei den grafischen Elementen muss natürlich spezifiziert sein, dass sich alle Zustände haben. Wie soll das aussehen? Wie soll das funktionieren? Welche Größen, welche Farben sind da vorgesehen? Also jetzt nicht einfach blau, sondern dann ist das das beliebig falsche Blau, sondern der richtige Wert für die Farbe. Abstände sind natürlich. So Aspekte, die man, die man eben braucht und die man von der Aufteilung her eben einfach ja einfügen muss. Ähm. Und. Ja. Anforderungen halt wie gesagt. Alle einfach.

Interviewer 00:27:55,360-00:27:55,850

Alles klar. Können Sie alle etwas genauer beschreiben?

Herr Mayer 00:27:55,990-00:28:41,350

Idealtypisches, das alles schon so vorhanden. Dann vollständig. Wie es wie es funktioniert oder wie es möglich ist, weil. Ja, die Anforderungen passend also keine Konflikte. Also. Ähm. Widersprüche meine ich. Nicht das hier steht geh linksrum und dann im nächsten Satz steht geh rechtsrum. So beispielhaft. Und oft kommen so Fragen oder die Fehler dann erst bei der Umsetzung. Und das unterbricht dann so ein bisschen den Workflow. Idealerweise eben nicht. Also idealerweise passt das alles schon.

Interviewer 00:28:43,650-00:28:54,490

Okay. Und welche Anforderungen stellen die anderen? Ähm. Also. Also das Design und Requirements Engineering, denn an die Programmierung und ihre Ergebnisse?

Herr Mayer 00:28:57,190-00:29:16,890

Ja, das ist recht einfach. Also das Design will halt, dass die Programmierung so aussieht, wie sie das eben gezeigt haben. Und die Anforderung von der Erhebung ist halt, dass die ganzen Anforderungen überall enthalten sind und überall funktionieren und ja, überall verstanden werden.

Interviewer 00:29:18,260-00:29:22,970

Okay. Und wir werden Ihnen benötigte Anpassungen ideal zurückgemeldet?

Herr Mayer 00:29:30,200-00:30:35,480

Ähm. Ja, also am besten so vollständig und so korrekt wie möglich und widerspruchsfrei soll das Ganze sein. Außerdem eben direkt da, wo es passieren soll. Aber. Ja. Außerdem ist es so, dass es nicht. Beim Bau von Logiken vor allem eben nicht funktioniert, weil. Die Designer und auch bei der Erhebung, die denken sich eben einfach nicht in die letzte Ebene dieser Elemente und entwickeln dann eben für ihre individuellen Fälle ihre Use Cases. Aber beim

Bau von Logiken fällt dann schon hier und da manchmal so eine Logiklücke auf. Und. Ja, das kommt dann schon vor.

Interviewer 00:30:39,230-00:30:44,360

Und welche Anforderungen oder Anpassungen sind schwerer und welche sind leichter umzusetzen?

Herr Mayer 00:30:45,810-00:32:38,190

Also am einfachsten ist es, wenn alle Angaben, die zum Anpassen benötigt werden, direkt gemacht werden. Oft wird aber auf andere Dokumente oder Angaben verwiesen oder etwas nachgetragen. Dadurch müssen benötigte Informationen als Kombination aus verschiedenen Aspekten zusammengetragen werden. Gerade in so ganz spezifischen Fachthemen ist das halt einfach nicht so einfach. Dass dann eben nicht alle alles Wissen, direkt vernetzt und alles direkt auch für jeden aus dem Team verständlich ist. Und. Und ja. Dann ist halt auch schwer, das ganze eben zu übertragen, sag ich mal. Also vor allem die Situationen, die nicht dargestellt sind, die sind schwer. Sich zusammen zu reimen, weil. Die Anforderungen eben meist nur gegen schriftliche verschriftlicht. Tickets gegenübergestellt werden. Und dann so einer gefühlten grafischen Situation ausgesetzt sind. Weil die eben meistens einfach nicht dargestellt sind, weil nicht jede Situation quasi dargestellt wird. Und das ist dann schon. Äh, ein bisschen schwieriger, sage ich mal. Weil man halt einfach keine konkrete Vorgabe, keine konkrete Vorlage hat.

Interviewer 00:32:40,980-00:32:46,740

Super. Und welche Anforderungen stellt die Fachseite an Arbeitsergebnisse der Programmierung?

Herr Mayer 00:32:47,940-00:32:58,980

Ähm, ja, also das ist so umgesetzt, wie Sie es eben bestellt haben. Oder besser gesagt, dass es so umgesetzt ist, wie Sie glauben, dass Sie das bestellt haben.

Interviewer 00:33:00,080-00:33:03,260

Und sie wird. Entschuldigung. Wie wird das überprüft?

Herr Mayer 00:33:05,800-00:33:49,830

Ähm, also das ist meistens so, dass wir im Vorfeld mit dem Kunden Testsabläufe definieren und diese werden dann eben durchgearbeitet. Und basierend auf diesen Ergebnissen bekommt man dann die Rückmeldung und im einfachsten Fall bekommt man einen Screenshot geschickt, also einfach ein Bild und dort wird dann rückgemeldet. Hier bitte anders. Am besten noch ein Grund, damit man das auch. Ja, sage ich mal, übertragen kann. Oder damit man auch versteht, was das System da jetzt falsch gemacht hat, damit man das besser quasi implementieren kann und nicht nur so punktuell.

Interviewer 00:33:53,010-00:33:59,260

Ok. Welche Anforderungen oder Anpassungen, die die Fachseite stellt, sind leichter und welche schwierig umzusetzen?

Herr Mayer 00:34:03,150-00:34:55,110

Ich sage es mal so. Viele Fachanwender haben große Probleme, sich Dinge außerhalb dessen vorzustellen, was sie gewohnt sind, also vor allem, was sie, was sie visuell gewohnt sind und sich das Ganze dann visuell anders vorzustellen. Deswegen bekomme ich dann keinen Screenshot sondern Text beschrieben. Das lässt sich dann aber eigentlich nie ohne Rückfragen umsetzen. Es kommt. Eher im Sinne der Anforderungserhebung, dann eben zu Schwierigkeiten. Aber wenn das halt nicht präzise erfolgt,

dann ist das Ergebnis eben auch ebenso unpräzise. Und dass es so faktisch im Sinne von Was hat der Kunde gemeint und was hat der Umsatz auf dem. Und da kann erfahrungsgemäß tatsächlich schon eine ganz schöne Distanz dazwischen liegen.

Interviewer 00:34:58,830-00:35:12,300

Gut. Alles klar, dann sind wir jetzt schon beinahe am Ende des Interviews. Ich hätte jetzt Sie gerne noch mal gefragt, ob Sie noch irgendwelche weiteren Anmerkungen Ihrerseits haben, die Sie noch mitteilen möchten.

Herr Mayer 00:35:14,090-00:35:18,550

Ähm. Nö, nö, eigentlich nicht. Aber ich hoffe ich konnte etwas beitragen.

Interviewer 00:35:19,420-00:35:32,440

Auf jeden Fall! Super. Dann haben wir alle Fragen beantwortet. Vielen dank, dass Sie sich die Zeit genommen haben für das Interview!

Herr Mayer 00:35:34,450-00:35:44,710

Alles Klar. Ja. Gerne. Vielen Dank für das Gespräch, für das angenehme Interview und einen schönen Tag noch.

Interviewer 00:35:45,580-00:35:46,570

Danke, gleichfalls.

Herr Mayer 00:35:46,690-00:35:47,740

Danke. Tschüss.

Interviewer 00:35:48,100-00:35:48,520

Tschüss.

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Interviewer 00:00:01,080-00:00:52,500

Gut, dann habe ich jetzt die Aufnahme gestartet. Vielen Dank, dass ich das Ganze aufzeichnen darf. Ich würde weitermachen mit unserem heutigen Ablauf. Wir werden uns so in etwa 90 Minuten unterhalten. Nach dem gegenseitigen Vorstellen. Ich habe jetzt schon mehr oder weniger, was von mir erzählt. Wir fangen an mit ein paar Fragen zu was so dein persönliches Profil eben im Unternehmen ist, um dann weiterzumachen mit dem tatsächlichen Interview. Das heißt, da wird es dann eben um die interdisziplinäre Zusammenarbeit im Arbeitsalltag gehen mit verschiedenen Bezugspunkten. Genau. Aber natürlich. Ich habe natürlich nur einfache Frage. Ich fange mal mit der einfachsten an und sag was ist denn so dein Aufgabenbereich bei den Plusbringern?

Frau Smith 00:00:54,170-00:01:12,080

Also mein Hauptaufgabenbereich bei den Plusbringern ist die Anforderungserhebung. Das bedeutet, ich kommuniziere mit Personen, also mit internen und externen Stakeholdern, wie man das so schön sagt. Außerdem übernehme ich zum großen Teil Dokumentation und Austauschthemen. Soll ich da näher darauf eingehen?

Interviewer 00:01:13,550-00:01:15,890

Ja, gerne, wenn du das willst.

Frau Smith 00:01:16,640-00:03:03,200

Genau. Also je nachdem, wie ausführlich das auch sein soll. Das bedeutet einfach für mich ich bin dadurch, dass ich ja die Anforderung aus Erhebung mach, bin ich von Anfang an mit den Stakeholdern. Was jetzt zum Beispiel unsere Kunden sind, bin ich von Anfang an in den Termin mit dabei und versuche natürlich ein allen ist soll Zustand abzuholen. Das bedeutet, wir müssen natürlich einmal

schauen. Okay, Was? Was ist denn der aktuelle Zustand? Wie wird zum Beispiel aktuell gearbeitet? Wie ist da das Vorgehen? Und dann muss natürlich angeschaut werden okay, wir haben ja dann dieses Projekt aus einem bestimmten Grund. Das bedeutet, was ist der gewünschte Zustand? Also wo wollen wir uns hinbewegen? Was ist unser Ziel genau? Und dann geht es eigentlich darum, das herauszuarbeiten. Das kommt auch ein bisschen auf den, auf den Stakeholder, auf den Kunden an, wie klar diese Ziele vielleicht auch schon im Kopf vom Kunden sind. Ähm, ja. Und versucht. Und man versucht praktisch. Alles das, was dem Kunden vorschwebt, auf den Punkt zu bringen und das dann natürlich dementsprechend umzusetzen. Wobei die Umsetzung natürlich nicht in meinem Bereich liegt, sondern ich kommuniziere. Dass diese Anforderungen dann wiederum intern an unsere Designer, an die Leute, die das umsetzen. Das bedeutet, ich habe einmal die Kommunikation mit x externen Stakeholdern und dann aber auch die interne Kommunikation, wo ich natürlich das, was ich aufgenommen habe, weitergeben muss.

Interviewer 00:03:03,660-00:03:22,810

Und hier im Projekt, da sind wir schon bei unserer oder meiner nächsten Frage bisschen gelandet. Und zwar Welche Berührungspunkte hast du denn in deiner Arbeit mit anderen Disziplinen? Also ich habe jetzt intern schon aufgenommen, eben das Design und extern die Kunden, die Stakeholder.

Frau Smith 00:03:23,350-00:04:16,720

Ganz genau. Das sind auch so die hauptsächlichen. Wir haben natürlich extern nicht nur die Kunden. Genau, sondern wir haben auch noch je nachdem, in welchem Projekt man sich natürlich befindet. Aber in dem Fall hätten wir jetzt eben auch noch die Programmierung. Das bedeutet, ich muss auch mit den Leuten, die die Umsetzung tatsächlich machen, muss ich das eben auch wiederum kommunizieren. Wobei man dazu sagen muss, dass das ja wiederum übersah, übers Design, ähm passiert. Weil in unserem Fall arbeiten wir mit Wireframes und User Stories. Das bedeutet Wireframes ist was, Das kommt aus dem Design. Und die User Stories, die kommen aber wiederum aus der Anforderung Erhebung. Das bedeutet, die kommen von mir und das läuft praktisch zusammen und geht dann beides extern in die Programmierung.

Interviewer 00:04:18,550-00:04:50,720

Okay, genau jetzt habe ich am Anfang noch vergessen auf was hinzuweisen. Und zwar weiß ich ja schon, dass ihr unterschiedliche Projekte habt und die unterschiedlichen Projekte natürlich auch unterschiedlichen Umfang haben. Wir würden dich jetzt bitten und sofern ich das richtig gehört habe, hast du das glaube ich gerade auch schon getan, quasi primär im Kopf zu behalten. So das größte Projekt. Okay, weil ich schätze mal, dass das Projekt viel ist. Ja, und genau die größten Herausforderungen.

Frau Smith 00:04:51,800-00:04:52,130

Genau.

Interviewer 00:04:53,460-00:05:15,590

Okay, dann würden wir in den Hauptteil des Interviews eintreten, und zwar der Arbeitsalltag. Da würde ich mal anfangen mit Fragen bezüglich deiner Aufgaben, deiner Vorgehensweisen und der Programme, die du da benutzt. Was sind denn so deine typischen Aufgaben?

Frau Smith 00:05:16,970-00:06:35,690

Also die die typischsten Aufgaben. Das habe ich auch schon ganz am Anfang ein bisschen erwähnt darauf eingegangen. Teilnahme an so vielen Terminen wie möglich, um natürlich die Themen, die vom Kunden kommen, zu verstehen. Also ich muss die Themen verstehen, ich muss sie so gut es geht auch voll umfänglich erfassen. Weil dadurch, dass ich die Hauptperson bin, die bei diesen Terminen dann eben auch mit protokolliert und diese Themen erfasst, liegt es dann ja praktisch an dem, wie gut ich es schaffe, die Themen zu erfassen und auch diese Themen dann aufzubereiten für mein Design Themen. Wie gut ist dann auch letzten Endes umgesetzt wird. Also das bedeutet, es ist ganz wichtig, dass wenn ich bei Terminen dabei bin, dass ich gut protokollieren, dass das auch im Nachhinein einfach noch mal das im Nachgang auch noch mal nachvollzogen werden kann und dass das eben auch als Grundlage für die Umsetzung im Design. Und weil das logischerweise auch in die User Stories mit reinläuft. Muss ich das einfach so gut wie möglich erfassen.

Interviewer 00:06:36,900-00:06:41,050

Ja, wirkt auf jeden Fall so genau.

Frau Smith 00:06:41,930-00:06:49,480

Also nein, das ist alles in Ordnung. Wir können ja gerne die Fragen beantworten, die jetzt kommen.

Interviewer 00:06:50,560-00:06:57,200

Ähm, ja, es sei denn, es gibt noch weitere typische Aufgaben, die du hinzufügen magst.

Frau Smith 00:06:58,520-00:07:38,750

Ich glaube, das macht vielleicht Sinn, da ein bisschen später drauf einzugehen, weil es kommt ein bisschen darauf an, in welchem Zyklus man sich gerade befindet. Es gibt ja unterschiedliche, ähm, unterschiedliche. Wie sagt man das auf Deutsch? Stages, der Qualitätssicherung und praktisch der erste Wellenschlag, wenn man das so betrachten möchte. Das ist praktisch auch, dass die Sachen, die jetzt vom Design im ersten Schritt umgesetzt worden sind, dass ich die noch mal durchschaue, ob das tatsächlich dem, was ich an Anforderungen aufgenommen habe, dass das tatsächlich auch so umgesetzt worden ist.

Interviewer 00:07:39,870-00:07:40,160

Ok

Frau Smith 00:07:42,690-00:08:02,490

Genau. Aber genau das wäre jetzt der erste Schritt. Es gibt da natürlich noch die weiteren Schritte. Das passiert dann tatsächlich in der Qualitätssicherung. Aber das ist auch noch ein Teil, der ich übernehme und natürlich ganz wichtig in meiner Rolle User Stories schreiben. Okay, eigentlich einer der Hauptteile.

Interviewer 00:08:03,190-00:08:14,250

Also das ist quasi so die. Über User Stories werden so für alle Stakeholder offensichtlich die Anforderungen dokumentiert. So richtig?

Frau Smith 00:08:14,250-00:08:59,790

Genau. Ja, aber es ist. Man kann jetzt nicht wirklich sagen technisch, weil sie sind trotzdem so geschrieben, dass auch die, also die externen Stakeholder bzw der Kunde sag ich jetzt mal, der muss die auch verstehen können, weil er muss die prüfen, ob das fachlich so stimmt. Es wäre auch wieder dann ein Teil von der Qualitätsprüfung. Aber das bedeutet, die User Stories müssen so geschrieben werden,

dass die Fachlichkeit das nachvollziehen kann und die Programmierung aber trotzdem umsetzen kann. Also das bedeutet in den User Stories muss und praktisch eine Art und Weise finden, wie alle beteiligten Stakeholder. Ja das, was Sie prüfen können, auch tatsächlich prüfen können.

Interviewer 00:09:02,150-00:09:23,290

Oh je. Wie gehst du denn da bei der Aufgaben Erledigung vor? Also ich habe schon mal die Termine mitbekommen, also. Ja, dort finden wahrscheinlich Termine statt, an denen du teilnimmst und wie du beschrieben hast, diese eben dokumentiert.

Frau Smith 00:09:24,400-00:10:00,100

Genau protokollieren. Dann danach ist die Nachbereitung. Dadurch, dass wir mit Voice Frames und User Stories arbeiten, bereiten wir die diese Termine auf innerhalb von den Frames, weil das auch das ist. Wie. Also das ist die Art und Weise, wie ich mit dem Design kommuniziere. Wir haben dann auch noch mal Termine intern. Aber an und für sich bereite ich die Wireframes dann so nach mit den Informationen, die ich aufgenommen habe, dass das Design die entsprechend umsetzen kann.

Interviewer 00:10:00,560-00:10:01,180

Oh.

Frau Smith 00:10:03,900-00:10:43,950

Und im Nachgang würde ich dann eben auch für diese Wireframes wenn die eine bestimmte Reife, sage ich in Führungszeichen haben muss, dann eben auch an die User Stories dafür zu schreiben. Das macht ganz am Anfang noch keinen Sinn, weil wenn man sich noch in der Anforderung als Erhebung in relativ kleinen Zyklen befindet und wir gehen ja nach Scrum vor, das bedeutet, wir haben diese Zyklen einfach. Dann macht es keinen Sinn, ganz am Anfang schon anzufangen, die User Stories auszuformulieren. Weil sich da einfach noch zu viel verändert. Da wird man dann nur noch daran, User Stories umzuschreiben.

Frau Smith 00:10:43,950-00:11:06,530

Das bedeutet, ab einem bestimmten Reifegrad der Frames macht das dann auch tatsächlich Sinn, die User Stories in, also in der Art und Weise aufzubereiten und zu formulieren, wie es dann eben auch an die Stakeholder geht. Weil natürlich bestimmte Sachen davor erfassen, aber das findet über die Protokolle statt.

Interviewer 00:11:08,020-00:11:20,050

Okay. Alles klar. Also, wenn ich das richtig verstanden habe, bist du auf jeden Fall schon mal auf dem Input vom Kunde angewiesen. Sag ich mal definitiv genau.

Frau Smith 00:11:20,120-00:11:33,140

Weil das ist immer. Den Input braucht man einfach von der Fachlichkeit, weil das ist natürlich was. Deswegen ist Mitdenken ganz wichtig und verstehen. Aber letzten Endes können wir ja nur das aufnehmen, was wir tatsächlich von der Fachlichkeit bekommen.

Interviewer 00:11:34,610-00:11:43,670

Ja, das macht auf jeden Fall Sinn. Gibt es da noch andere externe oder interne Partner, von denen du für deine Arbeit Input brauchst?

Frau Smith 00:11:46,260-00:12:17,740

Ähm. Ja relativ viel. Also auch von der Programmierung brauche ich ja Rückmeldungen, weil es gibt zum Beispiel einfach bestimmte Sachen, das denkt man sich dann vielleicht schön, oder das stellt sich der Kunde vielleicht

auch ganz einfach vor, ist aber vielleicht einfach in der Programmierung nicht machbar. Ja, also das bedeutet, ich bin ganz klar darauf angewiesen, dass ich mit den Programmierern spreche und sie frage Hey, der Kunde hat sich das und das vorgestellt. Aber ist das denn überhaupt umzusetzen?

Interviewer 00:12:18,520-00:12:25,240

Ja und? Okay, also die Programmierung ist doch auch wichtig.

Frau Smith 00:12:25,870-00:13:07,940

Genau. Und letzten Endes muss man ja auch sagen, das Design spielt auch eine Rolle, weil da geht es ja auch gerade auch in deinen Aspekt mit rein. Egal ob jetzt Design oder auch dann UI. Man muss ja auch immer schauen, der Kunde stellt sich vielleicht auch mal was vor und es muss aber trotzdem dann auch mit dem Design abgeklärt werden. Macht das Sinn, das so umzusetzen? Weil vielleicht ist eine Umsetzung eine eine Situation x technisch gesehen bessere Umsetzung möglich und der Kunde aufgrund der Kunde ist ja praktisch nicht in. In unseren Köpfen drin? Ja.

Frau Smith 00:13:07,940-00:13:25,870

Das bedeutet, der Kunde kann ja nur aus seiner Fachlichkeit und dem, was er braucht, uns beschreiben, was er gerne hätte, hat aber ja unseren Hintergrund nicht. Das bedeutet, es geht auch darum, dem Kunden vielleicht einfachere Wege aufzuzeigen.

Interviewer 00:13:26,360-00:13:26,590

Ja.

Frau Smith 00:13:26,920-00:13:31,000

Also von dem Kunden auch das Feedback vom Design sehr, sehr wichtig.

Interviewer 00:13:32,030-00:13:38,330

Ja, okay, das sind ja einige Disziplinen, die da irgendwie zu koordinieren sind.

Frau Smith 00:13:39,200-00:14:42,080

Ja, ich meine, was halt logischerweise auch eine Rolle spielt. Das weiß ich aber nicht. Ich bekomme natürlich über die Meetings auch Informationen über über größere Themen wie zum beispiel. Ähm, also die. Also man muss die Sprint Planung mitberücksichtigen. Auch die Budgetplanung muss mitberücksichtigt werden. Weil es gibt zum beispiel. Also zum Beispiel, wenn wir jetzt in verschiedenen Versionen die Planung erstellt haben, dann ist einfach ganz klar, also für eine Version eins oder zwei, auch wenn sich der Kunde das eigentlich wünscht. Es gibt ja noch weitere Stakeholder in dem Projekt. Oft zumindest. Und dann bedeutet das in unserer Planung also einen bestimmten Zeitraum, kann man nur eine bestimmte Anzahl von Sachen umsetzen. Also das bedeutet, das muss auch mitberücksichtigt werden, auch wenn der Kunde sagt Ey, ich will jetzt aber unbedingt das haben. Wenn das einfach im Budget oder vor und von der Zeit her nicht möglich ist, dann dann muss man das auch mitberücksichtigen.

Interviewer 00:14:42,500-00:14:42,740

Ja.

Frau Smith 00:14:44,070-00:14:50,360

Wobei das ja nicht so ganz die. Die Anforderung der Erhebung ist das.

Interviewer 00:14:50,380-00:14:51,370

Nein, aber eher.

Frau Smith 00:14:51,370-00:14:55,510

So in einem PMS. Aber das muss vielleicht ja auch noch ein bisschen berücksichtigt werden.

Interviewer 00:14:55,850-00:15:14,190

Ja. Ja, Nein, aber das ist ja, wenn ich es richtig verstanden habe, schon ein Input, auf den du mehr oder weniger angewiesen bist. Du musst ja wissen, was kommt jetzt in die Versionen rein oder was genau genau, was auch nicht in unser Budget. Dass wir das jetzt noch tiefer analysieren?

Frau Smith 00:15:14,730-00:15:36,030

Genau. Vielleicht auch wann müssen welche Sachen, also wann müssen welche Anforderungen erhoben werden? Dafür ist diese Information einfach wichtig und auch wann kann das erhoben werden? Weil es macht natürlich vielleicht auch nicht Sinn, jetzt ein Thema zu erheben, von dem man aber ganz genau weiß, dass es in Version eins und vielleicht auch gar nicht in Version zwei reinkommt. Dann sieht man natürlich die anderen Themen vor.

Interviewer 00:15:36,420-00:15:52,540

Ja. Genau. Gut, da waren wir schon mehr oder weniger bei den Aufgaben. Kannst du denn da so allgemein sagen, welche Aufgaben eher aufwendig sind und welche eher leichter sind als andere?

Frau Smith 00:15:53,860-00:19:29,810

Das ist total schwierig. Weil das. Meine Erfahrung bisher ist tatsächlich, dass das von den Stakeholdern abhängig ist, nicht so sehr von den unterschiedlichen Aufgaben. Weil meine Aufgaben habe ich ja schon oben beschrieben. Das bedeutet, dass es einmal die Teilnahme an dem Termin, dann das Einarbeiten von dieser Rückmeldung oder auch zum Beispiel das erste Erstellen von Wireframes oder sich den Ablauf überlegen für die ersten Frames geben, dass das aufbereitet werden kann und dann auch so ein bisschen so diese Nachkontrolle und das Schreiben natürlich von den User Stories. Da könnte ich jetzt nicht sagen, dass das eine leichter ist als das andere. Aber was ich definitiv sagen kann, ist, dass wenn ich zum Beispiel mit einem Stakeholder kommuniziere, der ganz klar weiß, was dieser vorhin erwähnte, so ist und soll, Zustand ist, was er möchte, dann ist es um ein Vielfaches einfacher, die Anforderungen zu erheben und die auch sehr schnell sehr, sehr gut umzusetzen, als wenn jetzt zum Beispiel Stakeholder kein sonderlich gutes Verständnis vielleicht auch für die Vorgehensweise hat. Das bedeutet, dieser Stakeholder kann vielleicht so beschreiben, was er in seinem Alltag tut. Aber vielleicht, weil es einfach sehr viele Variablen in seiner in seiner Arbeit gibt, ist es unglaublich schwierig, dieses Thema wirklich auf den Punkt zu bringen oder zu erfassen. Und das macht dann wiederum alle Aufgaben um einiges komplexer, weil man einfach gegebenenfalls viel mehr Zyklen braucht, um dann dieses Thema tatsächlich optimal auf den Punkt zu bringen. Ja, wenn. Aber wenn man einfach eine ganz klare Ansage hat und man ganz klar weiß, wie das auch umgesetzt werden kann, ist keiner von meinen Aufgaben jetzt was, wo ich sagen würde Oh, aber das ist schon komplexer als das andere ein. Generell kann ich sagen, dass für mich das User Stories schreiben meistens am längsten dauert, wobei das auch relativ ist, weil diese User Stories eben. Das muss sehr genau geschrieben werden. Und wie gesagt, das muss ja auch wieder abgestimmt werden mit Fachlichkeit und und auch der Programmierseite. Das sage ich jetzt einfach mal

so, weil die User Storys ja wirklich zu 100 % meine Aufgabe ist. Da wird von extern von den Stakeholdern drüber geschaut und natürlich noch mal geprüft. Aber dadurch, dass das hauptsächlich in meiner Verantwortung liegt, ist das für mich persönlich am aufwendigsten. Zeitaufwendig. Das ist ganz wichtig. Aber wie gesagt, je nach Stakeholder kann ein Termin, wo man die Anforderungen erheben muss. Ja, ja, man wird schnell gehen und sehr, sehr lange dauern.

Interviewer 00:19:29,980-00:19:39,410

Ich denke, das kann ich nachvollziehen. Genau. Welche Programme verwendest du denn bei der Arbeit?

Frau Smith 00:19:42,000-00:20:35,630

Das einfachste Programm ist Word zum protokollieren. Dann natürlich Excel. Wobei ne, Excel würde ich jetzt hier vielleicht rauslassen, weil Excel das ist wieder eher so PMO Bereich, was wir ganz viel verwenden. Dadurch, dass das eben Programm ist, mit dem wir auf was der Kunde auch Zugriff habe. Ist logischerweise Powerpoint ist auch PDF. Ähm. Und ansonsten ja, das sind eigentlich so die Programme, mit denen ich persönlich arbeite, weil Design ist dann ja noch mal was anderes und da arbeite ich auch nicht persönlich mit. Und ich würde mal behaupten, das sind so die hauptsächlich. Ah ja, hätte ich auch fast verdrängt.

Frau Smith 00:20:35,630-00:20:37,280

Jira und Confluence.

Interviewer 00:20:41,540-00:20:46,190

Und Jira und Confluence benutzt du für die Aufgaben.

Frau Smith 00:20:48,030-00:21:07,500

Also Jira und Confluence benutzen wir intern und extern intern für die, für unsere Kommunikation. Das bedeutet Aufgabenverteilung und aber auch Kommunikation, was Termine betrifft. Wobei Jira eben für die Aufgaben, für die Aufgabenverteilung und Confluence für die Termine.

Interviewer 00:21:09,390-00:21:09,609

Mhmh. Ok.

Frau Smith 00:21:09,633-00:22:15,790

Genau. Weil das wird so benutzen wir es intern. Und extern dadurch, dass wir ja zum Teil eben sehr, sehr große Projekte haben. Ähm, müssen Informationen ja irgendwo vorgehalten werden. Also die, die müssen irgendwo von allen Parteien abgerufen und gefunden werden können. Also das bedeutet, es handelt sich hierbei weniger um Protokolle, sondern alles das, was tatsächlich dann auch für die Umsetzung, gegebenenfalls aber auch schon für die späte Anforderungserhebung relevant ist. Also das bedeutet, wenn jetzt zum Beispiel ähm wir haben ja unterschiedliche Zyklen, das bedeutet, wir haben einmal die Anforderung Erhebung, wenn wir mit dieser Anforderung Erhebung durch sind, landet dann ja dieses Paket, was wir geschnürt haben, in der Fachfreigabe und von dort geht es dann ins Refinement und von dort aus dann in die Umsetzung.

Interviewer 00:22:17,680-00:22:22,460

Ok also für die Kommunikation mit den Stakeholdern. Und über die Phasen sage ich jetzt mal.

Frau Smith 00:22:22,526-00:22:23,250

Ganz genau.

Interviewer 00:22:25,850-00:22:26,570

Hinweg wird da kommuniziert.

Frau Smith 00:22:31,890-00:22:54,350

Genau. Also alles das, was ich eben in Richtung Umsetzung bewegt, also ab dem Refinement-Zeitpunkt bis zur Umsetzung. Diese Sachen müssen praktisch ja für alle. Ja, müssen alle Zugriff drauf haben und einsehen können. Zumindest bestimmte Stakeholder. Bestimmte Stakeholder haben dann eben bestimmte Zugriffe.

Interviewer 00:22:57,550-00:23:08,680

Okay, ähm, welche Aspekte oder welche Funktion haben diese Tools denn, die dir jetzt die Arbeit erleichtern?

Frau Smith 00:23:10,230-00:24:16,956

Also mit Word ist es ja ganz einfach. Word ist es einfach nur Protokollier Funktion. Das bedeutet, dass ich Text formatieren kann. Das ist eigentlich das Einzige, was ich brauche. Ich muss einfach ein Tool haben, mit dem ich Text, also was Text erfasst und wo ich eben gute Formatierungsmöglichkeiten habe. Und Word ist da das einfachste Word ist auch normalerweise über alle Stakeholder hinweg ein gängiges Dokumenten Format. Natürlich kann man auch immer auf PDF, in PDF umwandeln und das dann in dieser Form teilen. Aber generell ist das eigentlich mitunter das Wichtigste. Excel dadurch, dass so Sachen wie. Manchmal werden Anforderungen je nachdem, um was es sich handelt, auch in Excel erfasst. Einfach weil weil man vielleicht eine Tabelle, eine tabellarische Darstellung braucht über Excel leichter. Das bedeutet, da braucht man eher weniger so Sachen wie eine Kalkulationsfunktion, sondern es geht einfach nur darum, dass man Inhalte in der Tabelle darstellen muss, weil es der Einfachheit halber geschuldet.

Interviewer 00:24:16,959-00:24:16,979

Mhmh ja.

Frau Smith 00:24:16,982-00:24:33,010

Und wenn man dann vielleicht auch noch bei bestimmten Sachen Input von den Stakeholdern braucht, die dann Sachen vervollständigen, zum Beispiel jetzt, wenn es um Input von der Fachlichkeit geht. Und das ist dann wiederum der einfachste, das einfachste und das gängigste Format, weil das die meisten Stakeholder haben und benutzen und wissen auch, wie man es benutzt.

Interviewer 00:24:43,270-00:24:55,960

Ja. Okay. Und in den Bereichen Jira und Confluence. Da gibt es ja jetzt einige Funktionen, die diese Software bereitstellen.

Frau Smith 00:24:56,470-00:24:56,680

Ja allerdings.

Interviewer 00:24:56,695-00:25:04,600

Gibt es da irgendwas, wo du sagst also das ist wirklich gut, dass es das gibt, weil das erleichtert mir dies und jenes um einiges?

Frau Smith 00:25:06,800-00:25:33,200

Äh, ja. Garantiert. Nein. Also vielleicht mal angefangen mit Jira. Jira ist natürlich von dem her praktisch als dass es ja so was wie ein Ticketsystem ist. Das bedeutet, die Anforderungen, die wir erheben, werden eben in Tickets. In Tickets. Wie sagt man dazu? Aufbereitet?

Interviewer 00:25:33,690-00:25:34,771

Ja, dokumentiert.

Frau Smith 00:25:34,833-00:25:43,710

Genau. Und diese Tickets können dann eben abgearbeitet

werden von der Programmierung. Und das ist natürlich etwas, was sehr, sehr praktisch ist.

Interviewer 00:25:45,040-00:25:47,260

Das war für Jira richtig?

Frau Smith 00:25:47,620-00:26:01,281

Ganz genau. Also, Jira ist das Ticketsystem. Vielleicht macht es aber mehr Sinn, wenn wir jetzt praktisch Confluence drüber, also praktisch themenmäßig Themenkomplex mäßig über Jira stellen.

Interviewer 00:26:01,346-00:26:02,129

Okay, warum?

Frau Smith 00:26:02,194-00:26:22,510

Weil wir fangen eigentlich generell, was die Dokumentation betrifft immer in Confluence an, bei Confluence kann man sich vorstellen, wie soll ich das am besten beschreiben? Ähm, ich glaube, als ich das erste Mal gesehen habe, ist es mir vorgekommen wie ein Mix aus Facebook und Wikipedia.

Interviewer 00:26:22,850-00:26:25,396

Oh oh, okay.

Frau Smith 00:26:25,445-00:27:04,660

Aber was eigentlich nur bedeutet. Also man kann sich einfach Seiten anlegen und kann da jeglichen Content drin aufbereiten und abspeichern. Das bedeutet, in Confluence wird ganz viel Dokumentation abgelegt. Ähm. Zum Beispiel. Ähm. Auch die User Stories Wireframes, aber auch andere relevante Dokumente, zum Beispiel auch Dokumente, die für das Design dann wichtig sind, wo die Programmierung wiederum Zugriff braucht, wie zum Beispiel das Fox Konzept oder auch sonstige Sachen. Das bedeutet, er hat einfach alles abgelegt.

Interviewer 00:27:04,900-00:27:14,620

Und es wird als Datei quasi genauso vorstellen und als Datei hochgeladen und liegt dann da und kann heruntergeladen werden als Ganzes oder wie auch immer. Okay.

Frau Smith 00:27:14,980-00:29:27,570

Ganz genau. Also jegliche Formate können da abgelegt werden. Man kann aber auch in diesen Programmen Tabellen implementieren, also jegliche Inhalte, also Inhalte, die man für Stakeholder zur Verfügung stellen möchte, weil die eventuell Zugriff darauf brauchen. Das kann man dort alles zur Verfügung stellen. Deswegen also ein bisschen so dieser dieser Facebook Gedanke, weil man kann da ja theoretisch auch Sachen posten und das ist dann halt für die Leute, für deine Freunde oder dann eben in dem Fall für die Stakeholder, die die Berechtigung haben können, das eben gegebenenfalls anschauen, runterladen, damit arbeiten. Und der Vorteil ist natürlich auch, dass mehrere Personen auch an einer Seite arbeiten können. Was das Ganze? Ja, was? Das Ganze eben sehr gut für eine. Na ja, es ermöglicht eine gute Zusammenarbeit. Was allerdings schwierig ist. Da kommt es eben dazu, weil, wie ich gesagt habe, dort wird eben alles dokumentiert. Das bedeutet auch die User Stories müssen ja nach dem wie im Moment auf Confluence. Und das Problem besteht jetzt aber darin, dass wenn diese User Stories so passen. Wie ich eben gesagt habe, ist Kira allerdings das Ticketsystem. Das bedeutet, diese User Stories müssen jetzt praktisch in Tickets rein. Und das ist die Herausforderung. Beide Programme Confluence und Jira sind von Entlassungen allerdings mehr oder weniger kompatibel. Das bedeutet,

ich kann zwar automatisch aus Confluence heraus Tickets in Jira anlegen. Allerdings werden nur bestimmte Informationen übernommen. Formatierung ist keine Information, die übernommen wird. Das bedeutet, ich kann zwar Tickets anlegen, ich muss aber jedes einzelne Ticket in Kira noch einmal manuell anpassen. Weil ansonsten kann das auch ein Programmierer nicht lesen.

Interviewer 00:29:29,420-00:29:42,280

Okay, also wie kann ich mir das vorstellen? Du hast dann die User Stories quasi als Datei als PDF hochgeladen. Und daraus werden dann die Tickets mehr oder weniger,

Frau Smith 00:29:42,310-00:29:42,670

Ne.

Interviewer 00:29:42,670-00:29:43,120

okay?

Frau Smith 00:29:43,990-00:31:10,570

Weil die User Stories. Das wäre eine Möglichkeit. Man könnte einfach die User stories, weil wir die erfassen. In Powerpoint könnten wir die theoretisch auch einfach als Powerpoint hochladen. Allerdings wie ich gerade schon gesagt habe, kann man aus Confluence heraus automatisch Tickets indirekt anlegen. Dafür ist es aber nötig, dass diese User Stories in einer Tabelle aufbereitet werden in einem ganz bestimmten Format, weil ansonsten funktioniert die Automatik nicht. Also das bedeutet, ich muss leider, weil wir die Anforderung der Erhebung für den Kunden in Powerpoint machen. Muss ich aber danach dann nach dem Befinden die User Stories übertragen In Confluence muss auch. Weil auch dort die Übernahme für die Formatierung nicht funktioniert. Muss alles noch mal neu formatieren. Und wenn ich dann die Tickets automatisch in Kira erstelle, wird die Formatierung wieder nicht übernommen und ich muss alles noch mal manuell rein Copy Paste, weil wenn man es im Nachgang nochmal manuell einfügt, also aus Confluence raus kopiert und den Inhalt in die in das Ticket selbst reinkopiert, dann übernimmt es die Formatierung. Also das wer auch immer sich das ausgedacht hat.

Interviewer 00:31:12,370-00:31:29,140

Okay? Ja. Klingt kompliziert. Ich glaube, ich hab's auch leider immer noch nicht ganz verstanden. Ich versuch's nochmal zu wiederholen. Also dieses Arrays werden erhoben und sind dann erst erstmal, sofern sie beschlossen sind, eben in einer Powerpoint dokumentiert.

Frau Smith 00:31:29,680-00:31:30,190

Ganz genau.

Interviewer 00:31:30,640-00:31:55,150

Dann geht der Weg quasi von dieser Powerpoint in eine Confluence Tabelle. Ganz genau. Und dort muss wieder eine neue Formatierung gemacht werden. Das heißt man macht Steuerung C und Steuerung V, um das ganze einzufügen. Aber dann muss man noch mal so wie Fettdruck und Abstände und so was ein stellen oder muss man es direkt da schon abschreiben?

Frau Smith 00:31:57,010-00:32:15,830

Nee, nee, also man, man muss einfach bestimmte Formatierungen anpassen. Das ist ein bisschen kompliziert, das vielleicht jetzt an der Stelle zu beschreiben, aber in dieser Confluence. Die haben so was wie eine. Wie eine eigene. Formatierung und auch eine eigene Programmiersprache für die Formatierung.

Interviewer 00:32:16,040-00:32:16,640
Okay.

Frau Smith 00:32:17,300-00:33:48,370

Ja, das macht das Ganze leider ein bisschen komplizierter, weil das bedeutet, bestimmte Sachen werden übernommen. Zum Beispiel wenn ich jetzt von Powerpoint in Confluence kopiere, werden zum Beispiel Abstände beibehalten, bestimmte Formatierungen werden aber nicht übernommen. Also das bedeutet, ich muss, wenn ich das mit Copy Paste von Powerpoint nach Confluence übertragen habe, muss ich danach einfach die komplette User Story noch mal überarbeiten, dass das halt von den Abständen her passt. Es gibt nämlich auch keine Tabulator Funktion. Das bedeutet, wenn du eine Auflistung hast, sieht das generell schrecklich aus, weil du kannst Sachen einfach nicht untereinander auflisten. Das sieht immer schief aus. Ähm, ja. Und läutet. Es gibt da halt einfach. Man muss einfach. Man kann bestimmte Sachen leider einfach nicht so darstellen, wie man das gerne hätte. Damit es für den Programmierer einfacher ist, die Inhalte zu erfassen. Weil das ist einfach wichtig. Also du kannst. Man kann ja nicht einfach, Wenn man jetzt zum Beispiel eine Auflistung hat innerhalb von der User Story, weil es zum Beispiel unterschiedliche Menüpunkte gibt, dann ist das halt ein bisschen schwierig, wenn das einfach im Fließtext dasteht, sondern ist einfach eine bestimmte Formatierung notwendig, damit der Programmierer nicht fünf Stunden an diesem Ticket sitzt und sich fragt, was ich hier eigentlich von ihm möchte.

Interviewer 00:33:49,110-00:33:50,630
Ah ja.

Frau Smith 00:33:51,520-00:35:28,540

Und dann. Und wenn man jetzt dann eben diese User Story Inkongruenz hat in dieser Tabelle, ja dann kann man für die komplette Tabelle, also man muss zuerst die arbeiten ja generell in der Anforderung Erhebung mit Apex und User Stories. Apex ist praktisch einfach nur so was wie Win win. Wie eine Überschrift. So was. Oder man kann sich vielleicht vorstellen, wenn man Fragen hat, ist von mir aus das Epic, das das Gerüst vom Schrank und die User Stories sind dann die einzelnen Schubladen oder so ungefähr. Also Epic ist praktisch einfach nur die Überschrift, wo dann die User Stories, ja, die dann praktisch die User Stories, die dann kommen, drin praktisch zusammenfassen. Themen mäßig ist das zusammengefasst damit. Das bedeutet, es geht zuerst darum. Deswegen ist halt diese Tabelle notwendig, weil ich zuerst eine Tabelle Überschrift brauche. Das wäre dann dieses Epic und dann alle dazugehörigen User Stories kann ich praktisch mit einem Mal erstellen. Das bedeutet angenommen ich habe jetzt ein Epic und da sind 15 User Stories drunter und dann kann ich praktisch mit einem Klick alle 15 User Stories automatisch vom System anlegen lassen. Das ist natürlich eine riesen Erleichterung, weil ich mir natürlich es spare, manuell in Kira 15 einzelne Tickets anzulegen.

Interviewer 00:35:31,300-00:35:34,140
Aber das Formatierungsproblem bleibt wieder?

Frau Smith 00:35:35,260-00:36:32,880

Besteht. Und zwar nicht nur das Formatierungsproblem, sondern dass man zum Beispiel auch bestimmte Informationen, die man diesem Ticket mitgibt. Zum Beispiel gibt es das, das nennt sich Label. Das ist einfach nur, wenn man angenommen, beschlossen hat, man gibt jetzt, man hat bestimmte Dinge, man hat bestimmte

Arbeitspakete zum Beispiel, und man sagt okay, es gibt jetzt ein Label, das heißt Arbeitspaket a, Arbeitspaket B, Arbeitspaket C, damit man dieses Ticket ganz klar auch einem Arbeitspaket zuweisen kann. Das hilft einfach bei der Orientierung. Ähm, ja, dann muss ich dieses Label, also das kann ich leider nicht übernehmen. Ich kann zum Beispiel nicht sagen, ich gebe jetzt meinem Epic ein Label und dann wird zum Beispiel abgefragt, ob man das für alle drunter hängenden User Stories übernehmen möchte. Nein, das muss man tatsächlich alles einzeln händisch machen. Okay, das bedeutet diese Nachbereitung. Kostet sehr viel Zeit.

Interviewer 00:36:33,010-00:36:47,220

Ja, das glaube ich. Okay. Also. Gibt es noch mehr Aspekte, die irgendwie. Und die Funktionen, die irgendwie eher hinderlich sind für das, was du machen möchtest.

Frau Smith 00:36:51,840-00:39:02,060

Ich denke, das sind so die hauptsächlichen. Sagen wir es mal so, dass das die größte heraus oder einer der größeren Herausforderungen für uns ist. Es tatsächlich. Habe ganz am Anfang schon erwähnt, dass das, ja, dass es wichtig ist bei Programmen, dass die involvierten Stakeholder Zugriff haben. Das bedeutet, die müssen wissen, wie arbeitet man mit dem Programm und die müssen das Programm logischerweise haben. Ähm, ja. Aber wie ich eben gerade jetzt schon gesagt habe, das habe ich gerade schon ein bisschen vorweggenommen. Die müssen auch wissen, wie man damit arbeitet. Und genau das ist das Problem. Wir haben Stakeholder, die sich mit Jira und Confluence nicht auskennen, weil sie damit noch nie gearbeitet haben. Das bedeutet Mir macht zwar an und für sich Jira Confluence das Leben leichter und die Programmierung ist auch ein Ticketsystem angewiesen, also die, die müssen mit irgendeinem Ticketsystem arbeiten, ansonsten funktioniert die Umsetzung einfach nicht, oder? Aber das Problem ist, dadurch, dass jetzt unsere, also unser Kunde zum Beispiel nicht mit Jira und Confluence arbeitet, müssen wir praktisch die Anforderungen der Erhebung bis zum Refinement, also bis zu dem Zeitpunkt, wo wir praktisch im engen Austausch mit dem Kunden stehen, müssen wir auf gängige Programme zurückgreifen. Das bedeutet Word, Excel, Powerpoint. Und das macht mir mein Leben um einiges schwerer, weil für die Programmierung später und für die Umsetzung brauche ich die Sachen auf Confluence und Jira bedeutet ich habe ganz viel Aufwand, weil ich Dokumente synchron halten muss und das geht. Das geht den Anderen nicht anders. Also das ist für das Im Design ist das ganz genauso, dass wir einfach die Herausforderung haben. Wir müssen auf eine bestimmte Art und Weise mit dem Kunden in unserem Fall kommunizieren und brauchen dabei für die Programmierung oder für die Umsetzung in einem anderen Format. Und dadurch haben wir einfach ganz viel Copy Paste.

Interviewer 00:39:03,050-00:39:09,910

Und es gibt jetzt auch keine Funktion, dass man sagt, man macht das Ganze im Conference und exportiert sich eine Excel Liste daraus.

Frau Smith 00:39:11,150-00:40:09,550

Na ja, das würde ja. Das würde ja auch nicht immer funktionieren. Also an und für sich kann ich natürlich jetzt aus. Weiß ich nicht. Aber wenn die Sachen eben schon in Konturen sind, dann macht es auch nicht mehr viel Sinn, das irgendwie zurückzuziehen, weil das Problem ist. Angenommen. Ich würde jetzt sagen okay, ich schreibe jetzt keine User Storys mehr im Powerpoint Format,

sondern macht das einfach direkt in Confluence. Dann ist wiederum das Problem, selbst wenn ich das dann downloaden und irgendwie nochmal schaffe, in einem einigermaßen guten Format in der PDF zu konvertieren, damit ich das dann wieder mit dem Kunden teilen kann, dann sind da trotzdem die Bearbeitung und Möglichkeiten eingeschränkter, als wenn sie es einfach als PDF haben. Also das Problem ist einfach, dass ich ja, dass der Kunde irgendwie die Arbeit mit Powerpoint. Vielleicht auch einfacher findet. Oder angenehmer findet.

Interviewer 00:40:12,250-00:40:21,150

Also die Bearbeitung der Möglichkeiten der exportierten Dateien ist einfach nicht gegeben. In der Form, in der der Kunde das eben machen möchte. Ja, genau.

Frau Smith 00:40:21,170-00:40:44,520

Also angenommen, ich könnte jetzt ganz einfach, aber das ist, also das geht einfach nicht. Angenommen, man könnte jetzt ganz einfach User Stories exportieren, wieder in Powerpoint, dann wäre das natürlich was anderes. Aber dann hätte man auch wiederum das Problem. Das Feedback vom Kunden muss ja auch wieder dann in Confluence letzten Endes landen. Also genau.

Interviewer 00:40:45,630-00:41:13,710

Also ich spinne mal ein bisschen über Aspekte oder Funktionen, die dir eben helfen würden, wenn das natürlich gehen würde, dass du sagst, du hast da deine Powerpoint und dort sind deine Tickets, sage ich mal in dem Sinne schon erstellt, wird seine Powerpoint hoch, deine Tickets werden automatisch erstellt und du kannst auch immer wieder Änderungen dazu hochladen. Das wäre das ist aktuell so nicht vorhanden oder.

Frau Smith 00:41:14,550-00:43:27,880

Sagen wir es mal so ein bisschen anders formuliert Ich ich glaube, ich kann das sehr glauben und was für mich wirklich eine Erleichterung. Ja, also erstens Formatierungen werden mit Copy Paste übernommen. Ja, das wäre super. Super, gut. Ja. Und eben auch. Und das wundert mich auch jedes Mal, dass das nicht möglich ist, weil also beides so Jira ist ja ein Produkt von entlassen, das ist die selbe Firma also und die schaffen das aber nicht, dass wir nicht aus uns heraus in Jira Tickets erstelle, dass dann die Formatierung übernommen wird. Ja, also das bedeutet Formatierung Übernahme einmal mit Copy Paste. Wenn man zum Beispiel jetzt von von Burn oder Excel oder Powerpoint was auch immer das zum Beispiel nach Confluence überträgt und dann wiederum auch die Übernahme von Formatierung, wenn man innerhalb von Atlas die Endprodukten Content überträgt. Das ist einmal eine riesen Erleichterung. Und das zweite, was auch noch eine riesen Erleichterung wäre, ist, wenn ich diese Tickets erstellt habe in in Confluence. Dadurch, dass wir wie gesagt in Zyklen arbeiten, weil wir eben nach Scrum vorgehen, hab ich in jeder User Story auf Confluence eine Verknüpfung für das Ticket in Jira. Sehr gut. Das ist wirklich sehr, sehr gut, muss man sagen, weil das macht die Arbeit schon mal leichter. Allerdings das Problem ist das nicht die User Story selbst, die in der Tabelle ist, verknüpft ist. Das bedeutet, angenommen wir müssen jetzt aufgrund von einer bestimmten Entwicklung eine Arbeitspaket Synchronisierung durchführen. Und ein Ticket verändert sich, dann muss ich das immer zweimal ändern. Ich muss es einmal auf Confluence anpassen. Und da aber nicht der Inhalt verknüpft ist, sondern einfach nur ein praktisch eine Verknüpfung für das Ticket besteht. Ich kann zwar direkt auf das Ticket zugreifen, muss aber das Ticket trotzdem

noch mal manuell verändern. Also ich muss die Umkehrung machen.

Interviewer 00:43:28,570-00:43:32,890

Also es ist quasi wie ein Link da, aber die Änderungen sind nicht synchron.

Frau Smith 00:43:33,460-00:43:34,120

Ganz genau.

Interviewer 00:43:34,690-00:43:35,200

Das muss immer.

Frau Smith 00:43:35,200-00:44:03,060

Alles manuell gemacht werden. Aber das sind glaube ich, so die zwei größten Sachen. Das könnte mir persönlich bei meiner Arbeit, also wenn das möglich wäre, die Übernahme von Formatierungen und dass das eben eine tatsächliche Synchronizität ist. Das wären tatsächlich glaube ich die. Die größten. Also die größten Faktoren, wo man wirklich Zeit einsparen könnte bei meiner Arbeit.

Interviewer 00:44:05,360-00:44:53,240

Und synchronisieren. Und eigentlich ist das ja auch Synchronisieren eben von der Formatierung. Ja, Ja, das kann ich auf jeden Fall nachvollziehen. Das stelle ich mir sehr, doch sehr aufwendig vor. Genau. Und du bist jetzt schon ein bisschen auf die Kommunikation, die ja auch jetzt über diese Aspekte der Kommunikation der Dokumentation abgedeckt wird, eingegangen. Darüber wollen wir jetzt noch mal ein bisschen genauer sprechen. Meine erste Frage haben wir schon ein bisschen diskutiert. Wie wird denn intern oder extern kommuniziert? Also das, ich nenne es mal Confluence Dilemma ist dort sicherlich auch mit zu nennen.

Frau Smith 00:44:54,080-00:45:24,370

Ja, auf jeden Fall. Aber das muss man ja trotzdem sagen. Also über Jira und Conference wird ja praktisch indirekt kommuniziert, weil das, was man dort hochlädt, zur Verfügung stellt. Wird ja für den anderen Stakeholder ja. Sichtbar wird, bekannt. Das bedeutet, dass auf jeden Fall dann natürlich ganz wichtig Meetings kann man ein bisschen genauer, das sind hauptsächlich Workshops und Jour Fixe Termine. Das bedeutet einfach wöchentliche Termine.

Interviewer 00:45:27,180-00:45:27,540

Ja.

Frau Smith 00:45:28,980-00:46:14,810

Ansonsten Aufgaben. Das ist die interne Kommunikation, zum Beispiel über Jira und Conflicts auch wieder. Allerdings natürlich auch in internen Terminen. Egal ob das jetzt Ladies sind oder auch fix Termine oder auch mal einen internen Workshop, den man hat. Und Deadlines werden auch hauptsächlich über die Confluence kommuniziert. Wobei? Jira Nein, das wird über Confluenceen kommuniziert, einfach mal auf Confluenceen zum Beispiel auch die Möglichkeit hat, verschiedene Tabellen anzulegen. Das bedeutet, es ist einfach ein relativ gutes Tool. Oh, meine Güte, Deadlines zu kommunizieren.

Interviewer 00:46:15,170-00:46:22,490

Okay, aber die beiden oben spielen ja so ein bisschen gemeinsam. Man kann ja da Verlinkungen erzeugen. Quasi.

Frau Smith 00:46:23,120-00:46:41,470

Genau. Wobei man jetzt natürlich für den Termin, den man jetzt vereinbart. Würde man jetzt natürlich nicht auf Jira ein Ticket erstellen. Also das hat tatsächlich Deadlines. Hat

nur was mit Confluence zu tun. Genau. Aber man kann natürlich auch auf einen Kalender verlinken. In Confluence, also in Konstanz, kann man wirklich alles mögliche tun. Also das ist.

Interviewer 00:46:43,210-00:47:00,770

Woher? Okay. Jetzt haben wir auch über die interne Kommunikation zu Aufgaben gesprochen. Gibt es da Aspekte, die schwieriger oder einfacher sind in der Sprache? Kann man das so allgemein irgendwie klassifizieren?

Frau Smith 00:47:02,540-00:47:05,210

Okay, wir sind jetzt bei der internen Kommunikation.

Interviewer 00:47:05,600-00:47:05,920

Genau.

Frau Smith 00:47:06,140-00:47:11,360

Dieser Frage Welche Aspekte sind einfacher und welche Aspekte sind gegebenenfalls schwieriger?

Interviewer 00:47:11,580-00:47:20,950

Genau. Du kannst auch gerne mit der externen Kommunikation anfangen. Wie du magst. War jetzt einfach, um mit irgendeiner der beiden Arten anzufangen.

Frau Smith 00:47:22,760-00:48:16,530

Ja. Welche Aspekte? Das ist jetzt wirklich schwierig zu sagen, weil es da wiederum fünf. Ich denke generell ist es so an. Gerade was externe Kommunikation bespricht. Externe Kommunikation. Ist immer schwieriger. Desto weniger Klarheit da ist, wenn das Sinn macht. Also das ist halt, das spielt wieder mit damit rein, was ich oben schon gesagt habe. Also desto klarer eigentlich. Ein Stakeholder weiß, was er braucht, desto einfacher ist halt auch die Absprache.

Interviewer 00:48:18,420-00:48:25,980

Ja, das geht so auf einer Kommunikations base. Ja, ja, danke. Ja.

Frau Smith 00:48:26,550-00:48:55,410

Und dann intern glaube ich ähm, ist das dann logischerweise weitergeführt. Weil wenn du das Gefühl hast, dass eine Thematik sehr, sehr gut erfasst, ist das natürlich auch viel, viel einfacher. Das dann wiederum an das Design und dadurch dann auch wieder letzten Endes an die Programmierung zu kommunizieren, desto komplexer das Thema ist oder durch desto undurchsichtiger, vielleicht auch desto schwieriger ist, desto schwieriger ist es dann eben auch, dieses Thema weiterzugeben.

Interviewer 00:48:57,240-00:48:58,710

Nein, das macht auf jeden Fall Sinn.

Frau Smith 00:49:00,000-00:50:21,110

Wobei ich wirklich sagen muss, Ich habe wirklich das Gefühl, dass gerade das, was wir jetzt als letztes besprochen haben, also auch die Programme spielen, eine ganz große Rolle mit, weil desto weniger unterschiedliche Programme du hast oder desto besser die Programme, mit denen man arbeitet, von allen verstanden werden, desto einfacher ist auch die Kommunikation. Weil wenn ich mir jetzt zum Beispiel in unserem Projekt vorstelle, alle wüssten, wie man mit Confluence und Jira arbeitet, könnten wir eigentlich die kompletten MS Office nicht komplett, aber trotzdem, man könnte einfach sehr, sehr viel Arbeitsaufwand reduzieren, weil, wie ich das gerade oben schon gesagt habe, sehr, sehr viel meiner Zeit

verbringe ich damit zu Copy und Paste und Formatierungen, die ich eigentlich schon getan habe, wieder herzustellen oder besser gesagt das praktisch wieder hinzubekommen. Also das bedeutet. Mit, desto desto weniger Programme man braucht, desto besser, denke ich. Weniger unterschiedliche Programme man braucht und desto desto besser. Sich die Leute, die in dem Programm oder in dem Projekt einfach zusammenarbeiten, desto besser sie sich damit auskennen.

Interviewer 00:50:21,470-00:51:01,040

Ja, und das macht auf jeden Fall Sinn. Also wo wir gerade bei dieser Kommunikation intern und extern sind, irgendwann eine Aufgabe. Ja, mal so, ich sage mal abgestempelt als erledigt. Gibt es da intern irgendwas, einen Leitfaden oder ähnliches Prozedere sage ich mal ähm, wann denn eine Aufgabe als erledigt angesehen wird? Also wir haben jetzt erst mal Externe und können wir dann danach um das ein bisschen ich schätze mal, da gibt es Unterschiede oder nicht? Dann können wir auch bei uns gemeinsam besprechen.

Frau Smith 00:51:02,120-00:54:56,740

Also ich finde ein sehr passendes Beispiel dazu. Das ist mir vorhin eingefallen, weil wir schon mal kurz auch das so ein bisschen angekratzt haben. Wenn man zum Beispiel einen Stein ins Wasser fallen lässt, dann dann gibt es ja diesen Wellenschlag, der nach außen hin immer breiter wird. Ich finde, so ungefähr ist das. Das bedeutet, wir befinden uns, wie gesagt, in einer agilen Softwareentwicklung. Das bedeutet Softwareentwicklung nach Scrum. Die erste Welle, würde ich jetzt mal behaupten, ist eben so die Anforderung, die Erhebung. Und da haben wir uns praktisch in dieser ersten Welle befinden. Das hört sich vielleicht komisch an, aber ist eigentlich dann was als erledigt angesehen, wenn wenn das, was ich aufgenommen habe, in den Frames umgesetzt wurde. In. Und dann geht es jetzt natürlich weiter, weil das, das checke ich dann ja auch wieder, ob das vom Design ebenso verstanden wurde, wie ich das gemeint habe. Dann wird das dem Kunden präsentiert und der Kunde sagt. Ja, passt, oder? Nee, das passt so nicht für uns. Also allein da sind eigentlich jetzt schon zwei Wellen. Wir haben einmal, dass ich noch mal drüber gehe und sage Ja, so habe ich das auch vom Kunden verstanden. Ich denke, das ist so gut umgesetzt. Wir können das dem Kunden präsentieren. Und die zweite Welle ist dann schon, dass der Kunde sagt Ja, passt die nächste Welle. Wenn der Kunde jetzt sagt okay, ja, dass dieses Thema, dieser Teilbereich ist vollumfänglich erfasst. Das passt. So wie gesagt, kommt die dritte Welle. Was da bei uns eben ist, das kann von Projekt zu Projekt unterschiedlich sein. Das ist bei uns ja die Freigabe. Das bedeutet, da werden, da geht man praktisch nur eine Ebene höher auf der Leiter und da werden dann irgendwelche Teamleiter oder oder auch höhere Personen eingeladen, damit praktisch auch noch mal mit einem. Dass Personen, die Stakeholder, die nicht ganz so in dem Projekt drin sind, praktisch mit einem frischen Kopf draufgucken und das auch noch mal verifizieren. Ja, passt das so? Stimmt das? So ist das verständlich. Und dann die nächste Welle. Ich glaube, wir sind jetzt bei der vierten, ist dann, dass wir sagen, wir gehen ins Raffinement. Im MINT kommen noch mal die Stakeholder von der Programmierung, Programmierung, Design, Anforderungen, Erhebungen. Also alle diese Personen kommen nochmal zusammen und sagen Okay, ja, jetzt passt das. Es kann jetzt in die Entwicklung gehen. Das bedeutet, das ist auch nochmal ein Schritt, wo die Leute

sagen Ja, das ist jetzt soweit fertig. Dann kommt die nächste Welle. Da ist die Programmierung. Das bedeutet die Programmierung. Die fangen dann ja auch umzusetzen. Die schauen sich also die Tickets an? Und arbeiten dieses Ticket ab. Und die haben ja auch intern eine Qualitätssicherung, wo sich dann jemand dieses Ticket anschaut und anschaut, was umgesetzt worden ist und dann sagt ja, passt, ist somit fertig oder nicht. Und danach kommen wir dann wiederum in die, also in die generelle Qualitätssicherung. Das bedeutet, dass dann wirklich noch mal Leute vom Design, von der Fachlichkeit, also das noch mal alle Personen, alle Stakeholder draufschauen und sagen Ja, wir testen das Ganze jetzt. Und das passt so, das ist eigentlich der letzte Schritt, weil dann geht es tatsächlich ins Roll out und Roll out bedeutet Live Umgebung.

Interviewer 00:54:57,140-00:54:57,530

Okay.

Frau Smith 00:54:58,360-00:55:15,560

Genau. Also das waren. Also es gibt sehr viele Punkte. Und wie gesagt, in jeder Schritt für jede Welle gibt es praktisch einen Punkt, wo die Leute dann zusammenkommen und sagen es ist erledigt. Zumindest dieser Teil Schritt.

Interviewer 00:55:18,710-00:55:36,170

Ja. Also es sind quasi immer wieder die verschiedenen in den Phasen relevanten Stakeholder, die zusammen kommen und sich eben mehr oder weniger darauf einigen, dass man das so in die nächste Phase stellt. Dann sage ich mal.

Frau Smith 00:55:36,710-00:55:41,300

Genau das ist dem Prozess Schritt, dass es in den nächsten Prozess Schritt übergehen kann.

Interviewer 00:55:43,520-00:56:27,090

Das würde ich mir gerade mal noch kurz dokumentieren. Wo wir über das Dokumentieren sprechen. Wird denn in den verschiedenen Phasen auch was dokumentiert, dass man quasi sagt okay, hier steht's, ist es erledigt oder schiebt sich das quasi bis zum Roll out und jeder schreibt sich das so selber hinter seine Ohren? Sage ich mal, dass man das jetzt eben final besprochen hat und dass alles, was nicht angemerkt wurde, dann logischerweise nicht aufgenommen ist, weil es ja erledigt ist.

Frau Smith 00:56:29,040-00:58:29,610

Dafür gibt es jeweils die Termine, die unterschiedlichen Prozessschritte, die ich gerade schon angesprochen habe. Das bedeutet, wir haben da einmal die Anforderung Erhebung, dann haben wir die Freigabe in mind. Danach geht es in die Umsetzung und dann sind wir in der Qualitätssicherung. Es gibt da jeweils fixe Termine für uns Leute, wenn wir zum Beispiel in der Anforderung durch sind. Das wird ja in den Workshops passiert. Ja, die Anforderung Erhebung. Und wenn wir da dann an dem Punkt sind, wo wir sagen okay, jetzt passt das, ist es vollständig erhoben. Also das Thema ist jetzt einfach fertig. Somit, dann ist das der Punkt. Das wird im Protokoll dementsprechend dokumentiert. Also das ist in dem Fall im Protokoll. Die letzten Anpassungen, die gegebenenfalls gemacht werden müssen, werden gemacht. Und dann gehen wir aber in die Terminfindung für die Freigabe und die Freigabe ist ja ein gesetzter Termin. Das bedeutet, das ist ein Termin, wo diesen extra externen oder unbeteiligten Stakeholdern nenne ich es jetzt mal einfach, aber die sind ja nicht ganz unbeteiligt. Aber die sind ja, wie gesagt,

schauen noch mal mit einem frischen Kopf drauf und das ist ein Termin, wo die das präsentiert bekommen. Die bekommen auch die Unterlagen vorab zugeschickt. Das bedeutet, die können sich das schon mal anschauen, können schauen, Gibt es vielleicht Unklarheiten? Gibt es Fragen, die wir stellen müssen? Dann bekommen wir das einmal präsentiert und danach haben sie eine Woche Zeit. Um noch Anmerkungen oder Änderungswünsche oder sonstiges zu äußern. Und wenn dieser eine Woche aber verstrichen ist und es kam kein Feedback, denn dann ist klar, es gilt als Fach freigegeben. Und da gibt es auch ein Dokument dazu, wo das dokumentiert ist. Also es ist ein offizielles Dokument, das wird auch unterschrieben von den Personen, die dort beteiligt waren. Wo es heißt okay. Ja, dieses Arbeitspaket. Dieser Teilbereich gilt jetzt als Fach freigegeben.

Interviewer 00:58:30,960-00:58:37,250

Das Ganze wird dann noch mal formal quasi. In dem genau in dem Dokument Dokument.

Frau Smith 00:58:37,610-00:58:41,720

Genau in einem Dokument wird das festgehalten und.

Interviewer 00:58:42,260-00:58:46,250

Dieses Dokument wird dann auch wieder hochgeladen, oder?

Frau Smith 00:58:46,640-01:00:56,110

Nein, das Dokument wird tatsächlich nicht hochgeladen, sondern das ist ein Dokument. Das wird per Email verschickt an die Beteiligten von der Übergabe, weil die Übergabe das betrifft nicht alle Stakeholder, zum Beispiel jetzt Design oder Programmierung wäre da nicht dabei. Das geht tatsächlich, würde ich jetzt mal behaupten, an an die technische Projektleitung, an die Projektleitung und eben kommt ja eben vom Kunden, ja vom Auftraggeber. Und ähnlich nicht genau gleich. Aber ähnlich ist es beim Refinement. Das bedeutet auch beim Wir vereinbaren Das ist ein fester Termin. An dem Termin ist klar, dass dieser Teilbereich von dem Projekt das ist schon durch die Fach Freigabe durchgegangen. Und es geht wirklich nur noch mal darum, dass man sich das Ganze tatsächlich anschaut. Es bedeutet in der Fach Freigabe ist ja auch nur immer ein bestimmter Personenkreis. Aber Feynman sind tatsächlich aus allen Bereichen Stakeholder mit eingebunden. Das bedeutet aus der Programmierung, aus dem Design, aus der Fachlichkeit Anforderung Erhebung. Da kommen praktisch alle noch mal an den Tisch und sagen okay, haben wir alles verstanden. Das wird auch wieder eine Woche vorab geschickt. Das bedeutet, es kann geprüft werden. Fragen können erarbeitet werden und die werden praktisch abschließend in dem Referat noch einmal geklärt. Das bedeutet das Ziel vom Refinement ist. Alles für die Umsetzung komplett fertig zu machen. Nach dem Refinement werden alle Themen, die besprochen worden sind, abschließend eingearbeitet. Das wird dann wieder herumgeschickt. Mit der Aufforderung, eben noch mal alles durchzugehen, zu prüfen. Und wenn dann kein Feedback mehr kommt, geht dann praktisch noch mal die Mail rum. Okay, es kam keine Rückmeldung. Somit gilt das Thema als abgeschlossen. Das bedeutet, das Thema geht dann über von den gesagten Powerpoint.

Interviewer 01:00:57,860-01:00:58,040

In.

Frau Smith 01:00:58,270-01:01:07,930

Confluence und Kira und sobald die Tickets auf Kira erstellt

sind, dann steht das der Programmierung offen, sich diese Tickets auch in den Sprint zu ziehen.

Interviewer 01:01:09,530-01:01:09,960
Um.

Frau Smith 01:01:16,460-01:01:49,400
Dann natürlich die Dokumentation für die Programmierung. Es sind die Tickets. Das bedeutet, Tickets werden verschoben von in Arbeit oder to do in Arbeit. Interne Qualitätssicherung. Und dann? Dann muss man die Programmierung ganz genau. Und das ist ja praktisch die offizielle Dokumentation von deren Seite, weil es kann ja ganz genau nachvollzogen werden, wo befindet sich welches Ticket. Und dann bedeutet logischerweise ist es umgesetzt.

Interviewer 01:01:49,940-01:01:53,660
Kann ich mir das so ungefähr wie in Kanban dort vorstellen oder was genau.

Frau Smith 01:01:53,660-01:01:56,620
Das ist Ganz genau.

Interviewer 01:01:57,560-01:01:58,040
Okay.

Frau Smith 01:01:59,230-01:02:19,060
Sehr gut muss man so Kanban mäbig? Ist es in Scrum Board der einzige? Nicht wirklich der einzige. Aber der größte Unterschied ist das, dass das Sprint Board, also Kanban Board arbeitet ja nicht mit Sprints, aber diese Scrum Board, da arbeitet man eben nach Sprints, so dass.

Interviewer 01:02:21,090-01:02:25,300
Genau. Also kann man ähnlich.

Frau Smith 01:02:25,960-01:03:01,330
Ganz genau. Und dann haben wir eben den letzten Schritt. Der da ist die nicht wirklich letzter Schritt. Aber der nächste Schritt ist ja dann eben die Qualitätssicherung. Und in der Qualitätssicherung wird natürlich auch alles dokumentiert. Das passiert je nachdem, mit was man arbeitet. Ob man das jetzt in Excel dokumentieren möchte oder in einem anderen Programm. Aber da muss natürlich dann ganz genau, es muss. Die User Stories und auch die Wireframes müssen gecheckt werden gegen das, was tatsächlich umgesetzt worden ist. Und hier muss natürlich alles dokumentiert werden, egal in welcher Form.

Interviewer 01:03:01,930-01:03:03,790
Also ob umgesetzt oder nicht.

Frau Smith 01:03:05,090-01:03:05,420
Genau.

Interviewer 01:03:06,320-01:03:07,960
Okay, also ich muss genau.

Frau Smith 01:03:07,980-01:03:35,500
Und es muss logischerweise auch alles einfach noch mal auf Plausibilität und soweit geprüft werden. Das bedeutet Qualitätssicherung. Ist ja auch nicht so, dass macht ja nicht nur eine Personengruppe, sondern das muss ja von unterschiedlichen. Ja von unterschiedlichen Personen auch auf unterschiedliche Sachen geprüft werden, weil man kann natürlich auf You are you ex prüfen. Man kann aber auch auf Logik prüfen. Man kann auf Funktion prüfen. Also es gibt ja unterschiedliche Prüfungen.

Interviewer 01:03:36,580-01:03:37,000
Okay.

Frau Smith 01:03:37,600-01:03:40,780
Und das muss aber alles dokumentiert werden, egal wie man jetzt prüft.

Interviewer 01:03:41,200-01:03:41,470
Ja.

Frau Smith 01:03:43,310-01:04:22,670
Und natürlich muss es dann da auch ein finales Meeting geben, wo man sich das anschaut und sagt okay, das jetzt geprüft werden, weil diese Prüfung muss dann ja wiederum zurück in die Entwicklung. Das muss dann gegebenenfalls noch mal nachgearbeitet werden, wenn es nicht okay war. Und danach geht es dann ja nochmal in eine Prüfung, so lange, bis man eben tatsächlich sagt und da gibt es dann auch wieder einen Termin für, wo man dann tatsächlich sagt okay, ja, jetzt ist das Produkt tatsächlich gut. Das ist genau das, was wir wollten. Das kann jetzt tatsächlich in den Rollout gehen. Also das bedeutet, es wird eigentlich alles dokumentiert, ständig in irgendeiner Form.

Interviewer 01:04:23,110-01:05:27,840
In diversen Formen und ist klar. Okay, jetzt waren wir schon relativ viel bei diesen Anforderungen müssen übereinstimmen und das greift schon ein bisschen in den nächsten Abschnitt vor, über den ich gerne sprechen würde. Und zwar ist das die fachübergreifende Zusammenarbeit. Da geht es ja oft um Anforderungen, die der eine quasi an den anderen stellt. Und dann muss wieder überprüft werden, ob diese Anforderungen denn dann auch so umgesetzt sind, wie die gestellt wurden. Da habe ich jetzt gerade schon mal als die Analyse quasi überprüft, ob Design und Programmierung eben die Anforderung erfüllt, die Qualitätskontrolle mit aufgenommen. Also einmal, wie ganz zu Anfang beschrieben wurde, dass du eben noch mal die Designs checkst, ob deine Anforderungen eben auch enthalten sind oder auch die etwas formale, umfangliche Qualitätssicherung, Dann am Ende hätte ich jetzt mal hier mit eingeordnet. Gibt es da noch andere? Überprüfungen.

Frau Smith 01:05:29,390-01:06:28,450
Nein, das passiert tatsächlich nicht wirklich alles in diesen Zyklen. Weil wie gesagt, Qualitätskontrolle wird ja von den unterschiedlichsten, ich sage jetzt mal Stakeholdern und auch nicht generell. Alles wird als Stakeholder bezeichnet, der eben irgendwie ein Teil von dem Projekt ist. Finden halt die unterschiedlichen Prüfungen statt und so wird logischerweise auch meine Arbeit überprüft. Meine Arbeit wird eigentlich in jedem einzelnen Workshop überprüft, weil in jedem einzelnen Workshop, wo wir den aktuellen Stand besprechen, können wir ja auch logischerweise nur das mit dem Design umsetzen und vorstellen, was ich davor aufgenommen habe. Also das bedeutet, es wirkt eigentlich in jedem einzelnen Workshop. Überprüft habe ich, habe ich das, was mir die Fachlichkeit praktisch mitteilen wollte? Habe ich das richtig aufgenommen? Habe ich das richtig verstanden? Ja und somit wurde das eben auch dementsprechend umgesetzt.

Interviewer 01:06:29,500-01:06:35,830
Und hier? Also das würde man dann quasi in den Wireframes sehen.

Frau Smith 01:06:36,550-01:06:56,050
Ganz genau. Und natürlich auch die User Stories werden ja ab einem bestimmten Zeitpunkt auch geschrieben und dann auch versendet und würden logischerweise auch von der Fachlichkeit überprüft. Das bedeutet, da würde dann

wiederum das Feedback mit Kommentaren per Email oder sonstwie kommen.

Interviewer 01:06:58,030-01:07:06,130

Also die Anforderungen kommen dann in Form von Kommentaren, entweder verbal oder eben schriftlich. Naja, alle Änderungen.

Frau Smith 01:07:08,450-01:07:55,990

Ganz genau. Je nach Kommunikation. Wenn wir gerade in einem Workshop sind, passiert das logischerweise verbal. Das wird aber auch wieder aufgenommen über die Protokolle. Es passiert war ja. Kommentar. Angenommen, wir verschicken jetzt Wireframes, damit die vielleicht schon mal vorab geprüft werden. Dann werden da Kommentare gemacht und die werden entweder von uns vorab geprüft und schon eingearbeitet oder falls von unserer Seite dann noch Fragen offen sind, weil das natürlich auch vorkommen kann, werden praktisch dann noch mal in den Meetings besprochen. Oder ist es eine reine Kommunikation via Mail oder logischerweise kann es auch eine Kommunikation sein? Via Confluence. Oder oder auch innerhalb von den Tickets kann Kommunikation stattfinden mit Kommentaren und sonstigen.

Interviewer 01:07:58,000-01:08:03,070

Tickets oder eben in den ich sage jetzt mal MS Office Dateien?

Frau Smith 01:08:04,150-01:08:05,080

Ganz genau. Ja.

Interviewer 01:08:06,600-01:08:47,189

Okay, gibt es denn da wieder die berühmte Frage Gibt es ein paar Sachen, die, die dir leichter sind an Anforderungen, die zurückgestellt werden? Und welche, die eher schwierig sind? Jetzt bekommt es natürlich hier höchstwahrscheinlich wieder auf die Formulierung an und so klar und präzise das Ganze, wie du vorhin schon erläutert hast, umso einfacher natürlich umzusetzen. Aber gibt es da noch was anderes, was du wo du sagen kannst? Also wenn das und das passiert, dann wird es immer schwierig, weil dann muss ich so viele Dinge irgendwie kombinieren oder oder.

Frau Smith 01:08:47,490-01:10:23,140

Nee, eigentlich nicht, weil ich denke absoluter okay. Also was absolut wichtig ist, wenn man merkt, dass man ein Thema nicht mehr überblicken kann, weil es zu groß ist, dann hat man es noch nicht weit genug unterteilt in in kleinere Arbeitspakete. Das bedeutet, wenn man merkt, dass ein Thema so groß ist und irgendwie auch nicht mehr richtig erfasst werden kann, dann dann lohnt es sich meistens, es einfach noch mal in kleinere Arbeitspakete zu unterteilen, bis man merkt Ah, okay, jetzt kann man das Thema tatsächlich umfassend überblicken. Also das ist wirklich ganz wichtig. Gerade in größeren Projekten ist es unmöglich. Du kannst ja nicht ein. Angenommen, es handelt sich wirklich um ein größeres Produkt, was umgesetzt werden soll, ist es unmöglich, das komplette Produkt in einem Workshop zu erarbeiten? Ja, natürlich nicht. Und das passiert aber auch immer wieder. Und dafür ist ja auch das das Scrum Vorgehen. Ja, ich würde jetzt nicht sagen, dafür ist entwickelt worden. Aber mit dem Gedanken, dass man natürlich gerade in der Softwareentwicklung, die einfach sehr agil ist. Man kann nicht alles voraussehen, also Sachen entwickeln, sich einfach nehmen. Das bedeutet, man muss einfach flexibel bleiben. Und wenn man merkt, ein Thema ist doch größer,

als man sich das vielleicht am Anfang vorgestellt hat oder vielleicht auch komplexer, dann muss man sich das eventuell einfach noch mal anschauen und und muss es vielleicht auch einfach mal unterteilen.

Interviewer 01:10:24,640-01:10:33,370

Na ja. Das klingt auf jeden Fall sinnvoll. Okay, sind wir ein bisschen gesprungen an den Themen?

Frau Smith 01:10:34,090-01:10:34,270

Ja.

Interviewer 01:10:35,050-01:11:18,550

Nee, nee, alles gut. Also, für mich ist alles gut. Ähm. Ich muss nur gerade ein bisschen schauen, ob ich das alles so richtig aufgenommen habe. Also wenn man jetzt darüber sich fragt, welche Anforderungen die Erhebung bzw Analyse an die Arbeitsergebnisse der anderen Disziplinen, also sprich das Design, den Preis und die Programmierung mit der in Führungsstrichen finalen Software stellt, habe ich jetzt rausgehört, dass dort eben. Allumfassend die Anforderungen umgesetzt werden sollen, wie sie vom Kunden verstanden worden.

Frau Smith 01:11:20,610-01:12:15,480

Essen. Wie sie vom Kunden verstanden und wie sie vom Kunden gefordert worden. Vielleicht er Ja, genau wie Sie von den Stakeholdern. Ich würde es tatsächlich. Ah ja, nee, es geht hier eigentlich schon eher um den Kunden. Dadurch, dass wir ja auch die, die Termine haben, wie eben zum Beispiel wie in MINT, wo ja auch noch mal alle Stakeholder zusammenkommen. Nein, diese Termine sind ja dafür da, dass alle Beteiligten. Ein Verständnis für das Thema bekommen. Dass praktisch sichergestellt wird, dass wirklich. Dass das, was vom Kunden ja tatsächlich gefordert wurde, dass das von A von der Anforderung Erhebung richtig erhoben wurde und vom Design richtig umgesetzt wurde, damit, dass eben auch von der Programmierung genau so umgesetzt werden kann.

Interviewer 01:12:17,160-01:12:24,570

Vorher also richtig verstanden, ich nenne es mal richtig im Design konzipiert?

Frau Smith 01:12:25,260-01:12:28,170

Genau. Und dann eben auch richtig umgesetzt.

Interviewer 01:12:29,210-01:12:36,960

Und richtig verstanden wären sie entsprechend den Kundenwünschen? Oder Anforderungen.

Frau Smith 01:12:38,320-01:13:46,110

Sagen wir mal so richtig verstanden, müssen wir das ja aus der. Also wir müssen das richtig verstehen. Also wir müssen ja die Kundenanforderungen richtig verstehen. Nur dann kann ja auch das Design richtig umsetzen und nur dann kann auch das Programmier technisch entsprechend umgesetzt werden. Richtig in Führungszeichen. Aber letzten Endes ist natürlich wichtig, dass der Kunde ein Produkt hat, mit dem er was seinen Vorstellungen entspricht und mit dem sie dann auch arbeiten. Das ist natürlich das Wichtigste. Und dementsprechend natürlich ganz wichtig. Man muss davon ausgehen, dass wir das Ich wir natürlich Anforderungen richtig erheben. Aber dann wäre die Anforderung an Design und Programmierung, dass die Umsetzung entsprechend den erhobenen Anforderungen ist. Also das wäre eigentlich das was. Die Anforderung ist in einem Satz formuliert.

Interviewer 01:13:50,120-01:13:53,700
Das klingt verständlich.

Frau Smith 01:13:55,120-01:14:13,780
Genau. Und man könnte sogar jetzt noch dahinter schreiben In Klammern entsprechend der Kunden wird der Wunsch des Kunden oder Forderungen des Kunden oder so was. Ja, natürlich. Klar ist das steht jetzt also. Enthält das ja praktisch, aber trotzdem. Ja.

Interviewer 01:14:15,380-01:14:41,540
Genau. Das ganze wird dann in der Mitte besprochen. Qualitätskontrolle oder Qualitätssicherung bzw den anderen zuvor ausführlich beschriebenen Prozess überprüft und eine Rückmeldung erfolgt hier, wenn ich es richtig verstanden habe, auch wieder über die jeweilige schriftliche Form oder eben verbal.

Frau Smith 01:14:43,210-01:15:05,640
Genau. Wobei das dann ja auch wieder über Protokolle und sonstiges festgehalten wird. Also es sollte logischerweise möglichst alles so vollständig wie möglich protokolliert werden. Weil wenn man einfach nur irgendwas sagt in dem Meeting, dann kann man sehr stark davon ausgehen, dass ich dann eventuell bis zum nächsten Meeting niemand mehr dran erinnert. Deswegen ist halt Dokumentation unglaublich wichtig.

Interviewer 01:15:07,590-01:15:16,320
Und diese Protokolle über Änderungen, die jetzt noch gemacht werden müssen, liegen die dann auch auf Confluence ab, oder? Inwiefern?

Frau Smith 01:15:17,100-01:16:01,450
Ja Nein, weil das das befindet sich noch in der Anforderung selber, in der Anforderung Erhebung. Und da befinden wir uns ja rein in der internen Geschichte. Das bedeutet Anforderung. Sehr hohe Erhebung sind wir natürlich im Austausch mit dem Kunden, aber die der Weg von der Anforderung erhebt. Eine Erhebung zum Design ist bei uns intern. Das bedeutet, das ist wirklich reine interne Kommunikation und somit muss das zumindest nicht auf den externen Teil von Confluence, aber zum Beispiel intern genutztes Girokonto. Da erstellen wir natürlich zum Beispiel auch Tickets für Sachen, die eh noch gemacht werden müssen. Ja.

Interviewer 01:16:08,450-01:16:42,560
Okay. Hier. Dann wäre auf meinem Zettel, sofern die letzte Frage noch mal die umgekehrte Sicht jetzt stellt, natürlich die Anforderung, Analyse und Erhebung bestimmte Anforderungen an beteiligte Disziplinen. Aber diese Disziplinen stellen von der anderen Seite her natürlich auch wieder Anforderungen an das Arbeitsergebnis aus der Erhebung und der Analyse. Ja.

Frau Smith 01:16:42,950-01:16:43,400
Ganz genau.

Interviewer 01:16:44,190-01:16:50,630
Kann man die so verbalisieren, was das für welche sind? Oder ist das auch sehr abhängig?

Frau Smith 01:16:50,740-01:17:57,670
Doch kann man eigentlich schon, weil die Anforderungen an die Familie das ist jetzt ein bisschen gedoppelt. Die Anforderungen an die Anforderung Erhebung ist, dass ich Themen. Vollumfänglich erfasse. Genau das ist ganz wichtig. Vor allem auch, dass es eben verständlich gemacht wird. Es muss tatsächlich vollumfänglich verständlich formuliert werden. Und für mich kommt es auch immer

darauf an mit wem kommuniziere ich, Weil Eine Kommunikation zwischen mir und dem Design sieht logischerweise anders aus als eine Kommunikation zwischen mir und der Programmierung im Kern. Wobei man generell sagen kann, also Kommunikation zwischen mir und dem Design sind Wireframes meistens. Ähm und die Kommunikation zwischen mir und Programmierung ist dann meist meistens eher Tickets.

Interviewer 01:17:58,630-01:17:59,290
In Jira?

Frau Smith 01:17:59,500-01:19:44,960
Ja Jira, eben die User Stories. Wir können, mal abgesehen von den Tickets, es sind, es ist einfach, das sind die User Stories, weil hier befinden sich in den Tickets also. Genau. Natürlich müssen die User direkt mit den Briefings übereinstimmen. Das ist natürlich ganz, ganz wichtig. Aber ja, natürlich. Letzten Endes ist das, was gefordert ist. Also, ich muss das, was der Kunde mir mitteilt. Ich muss das verstehen. Ich muss den Kunden verstehen, ich muss verstehen, Was will der Kunde? Ich muss vielleicht auch schon. Ich muss mir Gedanken machen, was den. Wie sage ich das am besten? Man muss sich Gedanken machen, was tatsächlich? Also wie kann das Thema gut umgesetzt werden? Die Frage ist noch, wie kann das sein? Man muss Abläufe einfach logisch durchdenken. Das bedeutet, der Kunde hat jetzt vielleicht eine Vorstellung von irgendwas, ist aber vielleicht vom Denken her in seinem alten Programm verhaftet. Das bedeutet, als Externer hat man einfach die Chance, Sachen vielleicht ein bisschen unvoreingenommener oder auch klarer zu sehen. Und kann damit vielleicht an und kommt daher vielleicht auch andere Lösungsansätze. Ja, also das bedeutet, es gilt da wirklich auch mitzudenken. Und. Und die Sachen so gut verständlich, effizient wie möglich aufzubereiten. Weil es muss einfach letzten Endes eine optimale Lösung bei rauskommen, die tatsächlich eine Arbeitserleichterung Erleichterung dann auch darstellt.

Interviewer 01:19:45,380-01:20:19,050
Ja genau. Und hier dann meine letzte Frage Wir haben jetzt schon darüber gesprochen, wie Anpassungen in der Regel zurückgemeldet werden. Kannst du dir eine ideale Form oder ist dir davon ein lieber oder wird die idealste Form überhaupt nicht verwendet? Aber du sagst, wenn es so oder so zurückgemeldet werden würde, wäre das für mich viel besser. Kannst du dir da eine. Ja ideale Form zur Rückmeldung von Anpassungen vorstellen.

Frau Smith 01:20:20,580-01:21:53,460
Tatsächlich. Muss ich sagen. Ist ja aktuell in unserem Projekt jetzt oder in dem Projekt, in dem ich jetzt arbeite, noch so nicht der Fall und es ist daher auch noch nicht erprobt worden. Was ich mir allerdings vorstellen könnte. Dadurch, dass wir viele verschiedene Stakeholder haben, die alle auf dem aktuellen Stand gehalten werden sollen und müssen, wäre es tatsächlich die größte Arbeitserleichterung, wenn man alles in einem Programm abbilden könnte, auf was die Stakeholder alle Zugriff haben und was auch alle Stakeholder, wie ich das vorhin schon erwähnt habe, die sich damit auskennen, die das auch verstehen. Das bedeutet. Von Florence kann leider. Also kann sehr, sehr viel kann unglaublich viel. Leider nicht. Nicht alles das, was ich mir wünschen würde, aber trotzdem angenommen. Wir sind jetzt eben gerade in einem Projekt, wo wir Confluence benutzen. Na gut, das bedeutet in dem Sinne, wer eigentlich für mich. Also wenn wir sagen würden, in unserem Projekt, wir würden

tatsächlich Confluence zur Kommunikation benutzen, das wäre an und für sich kein Problem, weil in Confluence können Powerpoint hochgeladen werden, Es kann ja alles hochgeladen werden. Und gut.

Interviewer 01:21:53,640-01:21:59,670

Die müssen dann halt auch wieder erstellt werden und dann hat man wieder verschiedene Kommunikationswege.

Frau Smith 01:22:00,450-01:23:00,510

Ich denke, in allem ist es nicht möglich. Also bestimmte Sachen zum Beispiel Wireframes kann man nicht auf Confluence konzipieren, geht einfach nicht. Da muss man dann damit arbeiten, dass man eben diese Dateien hochladen muss. Aber zum Beispiel Tabellen nicht in Excel zu machen, sondern die direkt in Confluence zu machen. User Stories nicht extra in Powerpoint zu schreiben, sondern das direkt in Confluence zu machen. Also das wären halt wirklich Sachen, wenn man praktisch die die Plattform oder die Programme dort wo möglich geht, vielleicht nicht überall, aber dort womöglich eindampfen würde könnte. Dann glaube ich. Ja, das wäre. Das wäre eine ziemlich große Erleichterung. Weil Confluence bietet zum Beispiel die Möglichkeit, Kommentare zu schreiben und sogar Kommentare abzuarbeiten. Also, das bedeutet, es wäre theoretisch alles da.

Interviewer 01:23:03,690-01:23:12,240

Und woran liegt das, dass das trotzdem über Powerpoint und Excel oder andere andere Tools laufen muss?

Frau Smith 01:23:12,390-01:24:05,180

Der Einarbeitung Aufwand, weil wie gesagt, wenn die Stakeholder sich das nicht zutrauen mit dem Programm zu arbeiten oder wenn. Wenn einfach gesagt wird es gibt es. Wir haben nicht genug Zeit für eine Einarbeitung, dann findet das halt so nicht statt oder gegebenenfalls fehlen auch die Zugriffe. Das ist auch noch so ein Punkt, das. Da ist man auch schon dran gescheitert. Also weiter unterschiedlichste Gründe für. Weil es ist halt leider so, also jeder hat halt MS Office. Und ich kenne niemanden, der es nicht hat. Von dem her ist das sehr, sehr leicht. Da muss keine Einarbeitung passieren und gar nichts. Tja, aber dementsprechend.

Interviewer 01:24:10,260-01:24:36,010

Ja, ja, das verstehe ich. Okay, dann habe ich tatsächlich von meiner Liste alles abgehakt. Fehlt bei mir eigentlich nur noch, mich zu bedanken und genau zu fragen, ob du da noch weitere Anmerkungen hast, du gerne loswerden würdest oder mir mit auf den Weg geben würdest, die ich jetzt aber so nicht abgefragt habe.

Frau Smith 01:24:38,500-01:26:16,080

Ich denke, das einzige, was mir dazu einfällt, ich meine, ich kann ja jetzt aus meiner Sicht praktisch der Sicht der Anforderung Erhebung sprechen. Aber dadurch, dass ich in andere Teile mit involviert bin, glaube ich, dass gerade wenn es um effizientes Arbeiten geht. Das ist eigentlich immer. Also desto besser die Kommunikation läuft, desto besser läuft auch das Projekt. Ist so eine Erfahrung. Und das ist auch genau jetzt so der letzte Punkt. Kommunikation muss ja irgendwie stattfinden. Natürlich. Kommunikation in Workshops ist natürlich das super, weil man kommt einfach unglaublich schnell zu Resultaten. Aber sobald es einfach um um Dokumentation geht, dass man einfach Inhalte teilen muss. Also das merke ich wirklich sehr stark und ich glaube, das ist nicht nur in meinem Bereich so! Wenn es tatsächlich die Möglichkeit gäbe, dass man mit weniger Programmen arbeitet als mit mehr und diese Programme aber wirklich das abdecken würden, was man für sein tägliches Doing braucht und das auch noch effizient passiert, das würde, glaube ich, da könnte man sich einiges an Arbeitszeit sparen. Und da bin ich der Meinung. Sehr.

Interviewer 01:26:17,630-01:26:25,220

Stimmt. Daher Hoff ich doch das ich da einen soliden Vorschlag für hervorbringen kann.

Frau Smith 01:26:27,250-01:26:28,990

Ja, ich glaube auch. Genau.

Interviewer 01:26:31,460-01:26:52,880

Alles klar. Dann, wenn du keine weiteren Anmerkungen hast, würde ich das Protokoll jetzt quasi oder die Aufnahme jetzt beenden, mich von dir verabschieden und noch mal bedanken, dass du dir so viel Zeit genommen hast, um mir das Ganze noch mal ausführlich aus deiner Sicht und von deiner Herangehensweise heraus zu schildern.

Frau Smith 01:26:54,080-01:26:58,710

Ja, ich hoffe, es war hilfreich. Ja, ich habe mich hier sehr.

Interviewer 01:26:58,730-01:27:15,860

Also wirklich, das waren doch noch mal einige Einblicke, die ich jetzt in den anderen Interviews einfach nicht gehört habe. Es ist ja auch völlig klar, aber das war eine andere Disziplin. Danke. Dann wünsche ich noch einen schönen Tag und würde mich aus dem Interview verabschieden.

Frau Smith 01:27:16,750-01:27:18,770

Genau. Vielen Dank auch.

Appendix 3: Transcription of Context of Use Interviews (English)

Transcript I - 18.10.2022

Design

Interviewer 00:00:01,320-00:02:35,810

Let's start then! Yes. First of all, thank you for agreeing to talk to me again about a few topics of my master's thesis. I'd also like to start by introducing myself and the topic a bit, because I'll have a few questions for you afterwards. And yes, so that you don't have the feeling that the whole thing is rather one-sided on your part. Okay. Okay. And exactly. Well, as you probably know, I study User Experience Design at the Technische Hochschule Ingolstadt. And here I basically focus on aspects of interaction between people and machines. And at the moment, I'm working on my master's thesis on the development of a system that should facilitate the exchange of information, both within the Plusbringers and with external partners. Today, my goal would be to get to know your work or your everyday work a little better in order to then be able to derive requirements for such a system and to be able to develop a sensible design. So the first step today is to record how projects are currently running and not to work out potential solutions. That brings me to the second part of my non-conversation rules. That sounds too harsh. But I'll call it my conversation structure: Feel free to be critical and tell me what positive and negative aspects you are currently experiencing. That helps me immensely in developing and optimising. I'm not testing you or your way of working, but rather I want to understand what challenges and conveniences you currently face in your work. And as you have probably already heard, there is no right and no wrong. Thank you again for formally volunteering to participate in the interviews. If you have reservations about your participation, you are free not to take part in the interview or to cancel the whole thing when we are already in the middle of the interview. There are no disadvantages in doing so. And exactly. Okay, then, if you agree.

Mr Weber 00:02:35,980-00:02:37,000

I agree.

Interviewer 00:02:37,300-00:03:09,910

Very nice. If you don't have any more questions, I would like to record the interview if that's okay with you. Because that helps me with the evaluation and with making notes. All data, whether recorded or not, will of course be kept strictly confidential. Your statements will only be presented anonymously in my work and if you do not agree with this, I would ask you to point this out to me again now.

Mr Weber 00:03:11,200-00:03:13,690

The call recording is fine for me.

Interviewer 00:03:14,500-00:04:02,830

Yeah, fine. Good. We run through the formal topics a little bit and now we're already on to the next one, which is clarification of the procedure. So as I've already announced, the conversation now lasts about 90 minutes. We would start and I already started with the mutual introduction or your personal profile within the company. And then we would start with the real interview. The topic today is interdisciplinary cooperation in everyday work. I would first ask a few questions about the relationship to this topic and your work, and then we would talk about your everyday work.

Interviewer 00:04:02,830-00:04:56,390

Exactly. Maybe very important: I know that you have different projects in the company and different projects of different sizes. For this interview you are welcome to keep an eye on all of them. However, I would be happy to ask you to focus on the largest project you currently have, to have that in mind a bit more than the smaller ones, because the more people there are, the more difficult I imagine it is to communicate and exchange information. And. Just that as a little hint. Do you have any questions before we all ask? Or any comments?

Mr Weber 00:04:57,710-00:05:06,360

I have none. No questions. But I am curious. What comes to my mind. But for now I'll wait for your questions.

Interviewer 00:05:07,920-00:05:16,910

Okay, let's break up the tension a little bit. I think you can think of something for the first one: What is your area of responsibility with the Plusbringers?

Mr Weber 00:05:18,870-00:06:23,230

I am employed by Plusbringer as a design consultant. Bring me in there as part. I say graphic design for user interfaces. Um. In one project I supervise the. I'm in charge of a project. It's about communication through pictograms, i.e. language-free communication, only limited to visuals. How do you say? Visual communication. And. Yes, and I take care of that, or I get involved in that. Quasi in the operating procedures, the operating logic.

Interviewer 00:06:23,570-00:06:55,220

Okay. Exactly. In the areas of responsibility you just mentioned or in your work in general, where are the points of contact with other disciplines, that is, by other disciplines I mean something like physical product manufacturers or programming or, um, yes, the other disciplines represented in the company or also externally represented disciplines?

Mr Weber 00:06:56,950-00:07:33,070

So really physical products. That is quasi the communication to the outside, where in the production of a loudspeaker system actually physical, haptic products. Looked after then the organisations, the organisations, the construction and also the planning of. By. Yes, these are loudspeaker systems. Originally that also came out of a Project.

Interviewer 00:07:33,070-00:07:33,520

Okay.

Mr Weber 00:07:34,870-00:07:53,990

Where we designed the operation and the interface. That's where the demand came in. For one. For a quasi. Loudspeaker system that you can really build around yourself.

Interviewer 00:07:54,620-00:07:58,980

You made a sketch for that, or how can I imagine that?

Mr Weber 00:07:58,680-00:08:46,340

Exactly that. This, this modular construction of loudspeakers, which doesn't really exist, that each loudspeaker is individually configured and adjustable. That's where we started to think about it: How can we arrange and produce these individual components? So,

from the planning structure, from the idea of how to divide up these elements, to communication, to model construction, to how to actually build the system. How to actually realise the system, so to speak.

Interviewer 00:08:46,710-00:09:02,720

And if I can now go back to the interface, maybe not necessarily just to this product, but if it's just the prominent example, what disciplines did you work with there?

Mr Weber 00:09:02,790-00:09:16,890

What? Can you do it again?

Interviewer 00:09:16,950-00:09:37,740

Right.

Discipline. Something like right now, you were talking about model builders. Exactly. Then there's also, with software it's always about implementing it, so the programming for you, for example. Are you in an exchange? That's what I was getting at.

Mr Weber 00:09:38,910-00:10:46,340

The very one. When we. When we get to know a project. How should I say? Follows now first of all in exchange with the customer. Face to face we define the idea, before we then sort of get into user interface or take care of the user experience. And I work with my colleagues. But I work on the user experience here and also the logic of how things work. Me. Myself. For me, my part went through the through the graphic elements of the interface or or one. Yes, the overall construct I worked on with my colleagues in user experience and.

Mr Weber 00:10:46,340-00:10:54,770

I'm on the tube right now.

Interviewer 00:10:55,220-00:11:00,200

All is well. All good.

Mr Weber 00:11:01,550-00:11:04,820

Can't put it into words right now.

Interviewer 00:11:04,820-00:11:07,060

User experience, the professional side and.

Mr Weber 00:11:09,430-00:11:11,170

Yes, I don't want to call them professionals.

Interviewer 00:11:11,170-00:11:16,150

But who? The client? The client. To repeat here.

Mr Weber 00:11:19,290-00:11:20,020

Exactly. Thank you.

Interviewer 00:11:20,350-00:12:20,680

Yes, there are already two. If you can think of more, you're welcome to bring them up in the next interview with another question. Or maybe something will come up. Then we would have already discussed our first major point of discussion. That was the topic of your personal participant profile in the company. We would now move on to the topic of everyday work. First of all, I would like to talk about your work, your everyday work, your tasks, your procedures and also the programmes you use for this. And we start, of course we only have very simple tasks and therefore we also start with the very simple question: What are your typical tasks? So if you had to say them in five words or so, what do you do in your daily work? How would you describe it?

Mr Weber 00:12:24,390-00:12:32,310

The typical tasks. My typical tasks. If you leave the programmes out of it.

Interviewer 00:12:32,730-00:12:34,200

Exactly. Just the task.

Mr Weber 00:12:37,270-00:13:35,340

Graphic elaboration of ideas. After that also the elaboration of. When I think of my pictogram project now, quasi analysing the. The idea or the object, how I can represent it, that that runs by means of research. And then. Also. With the. Ideas that I have developed. In consultation with the client, I can then start to translate these ideas into graphics or into graphic elements. We were just at work. With the typical tasks.

Interviewer 00:13:35,650-00:13:40,980

Exactly. So, all very with graphics.

Mr Weber 00:13:41,280-00:14:02,520

That's graphic, yes. I'm still thinking about it. It's also possible. About misunderstanding. Some projects are about understanding logic and.

Interviewer 00:14:05,240-00:14:05,540

Hm.

Mr Weber 00:14:07,260-00:14:24,700

So when I think about our projects. How do we approach then? Yes work in exchange with colleagues. We logics or or. On. Mh. Me. Sorry.

Interviewer 00:14:28,690-00:14:30,040

It's all good.

Mr Weber 00:14:30,450-00:15:13,310

Yes, all good. Exactly. Okay. Hard to describe, but yes. Just on our topic, yes, we have a whole. I'll say. A design library was developed to ensure a consistent, structured graphic design. So to speak, we created a pool with which you can create different. We created a pool, so to speak, with which you can assemble different processes, operator processes, which will be needed later on in a modular way.

Interviewer 00:15:13,520-00:15:33,394

Okay, so that goes in the direction of working out graphics, then working out procedures for use with the customer. What logic is behind this? And also something like creating libraries or design concepts for a consistent design?

Mr Weber 00:15:33,470-00:15:33,922

Exactly.

Interviewer 00:15:33,997-00:15:34,374

Okay.

Mr Weber 00:15:34,449-00:15:36,710

Thank you for the summary.

Interviewer 00:15:37,100-00:16:19,660

Very much so. Okay, then we would already go into the next question. And that is, we discussed one of the three tasks. One is the creation of graphics. Those are all related, of course. Processing input from the client and creating the whole library or concept for the design. How do you go about these tasks? Well, if you have to create a pictogram every time, for example, then I would think that research is most likely involved. Right?

Mr Weber 00:16:21,880-00:16:42,340

Yes. Um. Yes, maybe we can go a bit further out. First of all, sharpen the understanding in which, in which environment the project moves. We know that the pictograms are a good example.

Interviewer 00:16:42,940-00:16:43,240

Yes.

Mr Weber 00:16:46,070-00:17:30,090

Where is interesting. Who uses the system later? So before you even draw or implement anything? Who is the user group? For example, are they. Are they old users? Are they young users? Under what conditions do they work? Just whether it's outdoors or indoors is interesting. On which device is it used? Or is it used on the device at all? It makes a difference whether it is a guidance system, a mobile phone, a tablet or a PC.

Interviewer 00:17:30,600-00:17:30,900

Mhm. Yes.

Mr Weber 00:17:33,090-00:17:56,600

And only then do you deal more closely with the concrete design. So like: Who is our client? Does he, does he have a certain appearance and stylistic device what he, what he, what he uses. Carries outwards.

Interviewer 00:17:57,470-00:17:57,597

Mhmm.

Mr Weber 00:17:57,622-00:18:30,990

I don't know that can be, he did, he did. Is it a company, they have a logo, they have corporate identity. In the best case they have already worked out corporate identity. And then and then the language is developed, so to speak. Which for. This whole system or this collection that one is building up is supposed to function, is quasi a self-contained product that can emerge.

Interviewer 00:18:38,340-00:18:41,100

Exactly by language you mean what? A graphic language?

Mr Weber 00:18:42,810-00:18:55,460

Exactly. A graphic language. I mean if you think a concrete language actually a language, then of course the influence of culture is also important.

Interviewer 00:18:56,170-00:18:56,420

Yes.

Mr Weber 00:18:56,720-00:19:17,410

I could also understand it as a language. As an appearance, as. Yes, If you know where things happen, then, you can better understand the. Um. Rantasten, how it should work like in the ideal case.

Interviewer 00:19:18,390-00:19:41,410

Okay, exactly the whole thing goes a bit in that direction. User research is that also your field of work or are you really responsible for the graphical things? And the task recording and requirements so user research is rather somewhere else? Were those the user experience colleagues you mentioned earlier?

Mr Weber 00:19:42,660-00:19:50,530

That is also part of my area of responsibility, even if I wouldn't call it that now.

Interviewer 00:19:50,710-00:19:51,610

Okay. I just wanted to ask.

Mr Weber 00:19:53,980-00:20:25,930

That's true. With the term itself. I say, I would have to study more into it to title it that way. But basically in essence. Since that's how I work out the content with my colleagues, it also falls into my area of responsibility. Even though I'm rather free and creative in my approach.

Interviewer 00:20:28,150-00:20:40,720

Ah yes ok. If I don't say anything for a moment, it's probably because I'm taking notes for a moment.

Mr Weber 00:20:40,780-00:20:41,380

I am in no hurry everything is fine.

Interviewer 00:20:41,380-00:20:57,870

Very good. Okay, that was the area of graphics and client work. What is it like in the area of libraries and design? Creating concepts? So how does it go from the individual element to the whole concept?

Mr Weber 00:21:02,270-00:22:49,940

It's probably a personal thing. A personal preference. But I note out of the speed that I had available in a conversation. So the time you have available to lead, I'm quickest to do that by hand on paper. Um. Which of course also has the advantage that you can make drawings and note down ideas right away if necessary. Um. I think that's actually an advantage. That you are now quick enough to record the things, the things. So for me, these two, I'll say, the two things of taking notes and fixing ideas right away, so to speak, have the disadvantage that I don't have digital right away. And I can't share them with others straight away, like I can with a protocol, which you can send at any time. That would be my rework, so to speak. However, there are also projects where I have my pen with me and my sheet of paper, where only the ideas are sketched, so to speak, and I can then make notes on a programme on the computer. Am I actually always in Word or directly in the email? Which I can share with my colleagues.

Interviewer 00:22:52,670-00:23:05,470

Okay. And which tasks that you have now described are, let's say, more time-consuming, and which are rather easy to do.

Mr Weber 00:23:08,850-00:23:21,840

Hmm. Um. The, I say, the, the conceptual tasks or really where you create where you create.

Interviewer 00:23:23,910-00:23:24,450

Mhmm.

Mr Weber 00:23:24,510-00:23:45,741

These are the more complex works. Because you don't have a concrete one, perhaps, when you think you're making a logo or a pictogram, you already have the goal in mind. Sure, to achieve a small, graphically elaborated, I'll say product.

Interviewer 00:23:45,835-00:23:46,305

Mhmm.

Mr Weber 00:23:46,399-00:24:16,260

But the way there is perhaps not at all is not so, not always easy. When I make a logo now, I am making a representative for a system or a business or a company. And of course you can, you don't want to. No areas, no details can be disregarded.

Interviewer 00:24:17,240-00:24:17,295

Mhmh.

Mr Weber 00:24:17,306-00:25:02,309

And so there's a lot of I say research or thought combining going on, a lot, you have to discard a lot and start again to get a new idea. Um. I think it's the most time-consuming work when you're working on something conceptually up to the goal. The implementation of drawing something, or assembling something. It's sort of foreseeable. You know how long it takes to make a drawing when the concept is there. Or let's say to build a use case.

Interviewer 00:25:02,331-00:25:02,440

Mhmh. Yes.

Mr Weber 00:25:02,730-00:25:15,440

Because I have everything prepared, I just have to rewrite it. That is. I'll say things that are foreseeable in time.

Interviewer 00:25:15,440-00:25:16,600

Mhmh.

Mr Weber 00:25:17,720-00:25:29,200

But when you're faced with a new task, creating something new, you first have to gather your, your points together until you can. Then you can start to implement it.

Interviewer 00:25:31,220-00:25:38,180

Okay, while we're on the subject of implementation, what programmes do you use at work?

Mr. Weber 00:25:42,960-00:27:58,756

Um. Programmes, so from to, so we in the morning our our team coordination in the teams. Mhmh. We use our chat programme Teams, which we also use for the individual meetings, has become established. Everyone is now familiar with it and can work quickly with it or share ideas. Um, then the Microsoft Office programmes also because colleagues use it, I often have to open Excel or Word files, or also create presentations. If the client also uses PowerPoint, we also work in PowerPoint, or to create PDFs. Graphic programmes are mostly the Adobe programmes. Mainly I work for my, for my I say pictograms areas in Illustrator. Um Photoshop, you don't need so much maybe if you really. I say for the interface you need gradients or you need to create a concept quickly, then Photoshop. And XD is a very good tool for depicting operating procedures or the behaviour of user interfaces or the user experience. Um. The advantage of XD is that my colleagues from other areas can now also contribute and work together. Can the digital function be achieved through the, through the, through the connection, what do you call it, through the connection to the cloud?

Interviewer 00:27:58,790-00:27:59,777

Through the cloud function, yes.

Mr Weber 00:27:59,812-00:28:20,390

Yes, exactly. Really follow it live and you can work on it live. I actually like that, if you don't have any. I'll say no innovations or new new ideas. New states from the project missed.

Interviewer 00:28:22,880-00:28:31,970

Mhmh okay. And so do you work in a cloud in all your projects or are there also local files that you.

Mr Weber 00:28:33,940-00:28:35,920

There are local files.

Interviewer 00:28:37,040-00:28:38,330

Oh. Um.

Mr Weber 00:28:38,660-00:28:56,050

Where are at. A time where at certain times a person is working on it. And so everyone. Everyone takes care of a sub-area or a sub-project.

Interviewer 00:28:56,770-00:28:57,050

Mhmh.

Mr Weber 00:28:57,460-00:29:16,600

What he then saves and communicates that he is quasi finished with it. And then you know that this, that this state is the last, the last state and can then work on it or also view it.

Interviewer 00:29:18,220-00:29:28,210

Okay, and why do you use the offline files in addition and not just the cloud?

Mr Weber 00:29:29,680-00:29:51,870

So this one is with us. I say I say. Or I mean, I try to put it. It's a security aspect because our projects are often only dealt with internally. They are kept under lock and key. I say treated internally or under what do you call it? Under lock and key.

Interviewer 00:29:51,880-00:29:54,610

Ah ehm, such secrecy?

Mr Weber 00:29:54,930-00:30:32,250

Yes, and I myself cannot make any statement exactly how secure or insecure such a cloud file would be. So a file that stores outside of outside of our storage system. But it goes something like this, the customer simply wants that we don't work with clouds, in whatever form that is formulated now. So that's the message.

Interviewer 00:30:32,250-00:30:33,659

I see.

Mr Weber 00:30:33,895-00:31:02,120

And also when transferring data. We are not so free there, but we use quasi secured platforms to transport files. Which makes the workload, the workload and the work speed also a bit. I'll say. I'll say that. It also reduces flexibility.

Interviewer 00:31:09,870-00:31:15,170

Exactly. What safe kind do you mean exactly?

Mr Weber 00:31:17,820-00:31:30,020

Um. Example. Is a project where we always have to go through a security server. Um. I'd have to ask briefly what that's called exactly.

Interviewer 00:31:30,030-00:31:49,760

Doesn't matter. All good. That's just, if I can roughly say, that's just something then that the client has to provide you with, that you have to use to exchange this data?

Mr Weber 00:31:50,020-00:32:10,880

Exactly also our e-mail programme. Runs partly under so. Quasi in the company's own system that the e-mails also stay within I say within the company and do not go via Outlook our Outlook.

Interviewer 00:32:12,050-00:32:13,430

You will then get a customer e-mail address.

Mr Weber 00:32:14,180-00:32:25,110

Exactly. Yes. Exactly.

Interviewer 00:32:26,700-00:32:28,920

Okay. Yes.

Mr Weber 00:32:29,290-00:32:53,110

I even, I myself, don't even have the, let's say, contractual authorisation to send it, but have to go through the, let's say, the trusted person or contact person at the Plusbringers and then transfer the data through them.

Interviewer 00:32:55,080-00:33:03,734

So there is a responsible person in the internal area who then communicates this externally?

Mr Weber 00:33:03,850-00:33:06,834

Exactly. Through the necessary channels.

Interviewer 00:33:06,919-00:33:12,700

And that, you had said, is rather an aspect that slows the whole thing down.

Mr Weber 00:33:14,230-00:33:47,980

Yes, just the fact that I. That I. With my colleague, who maybe also not always. Um. Is on call, because she is involved in projects. That I first have to wait until I can send something or maybe get something back. To get feedback on the work. That's the thing. I think. That. Slows down the projects.

Interviewer 00:33:48,250-00:34:25,340

That's understandable yes. Okay. Are there any other such hindering aspects or functions? Also if you think again about the programmes, for example Illustrator, XD. Ehm. There are some functions. Especially when it comes to the management of libraries or concepts. Are there any positive or less positive aspects that you can think of?

Mr Weber 00:34:30,560-00:34:58,670

XD ehm. Now talking specifically about Xd. The only product I use that intelligently accesses sources or accesses data. Um. Is definitely. Definitely a help.

Interviewer 00:35:00,320-00:35:00,800

Ah okay.

Mr Weber 00:35:01,640-00:35:12,530

Yes, I say, it prevents errors if, if it is correct, maintained and created. It prevents errors and therefore also time.

Interviewer 00:35:14,110-00:35:14,204

Mhmh.

Mr Weber 00:35:14,110-00:35:34,830

Tags: Programme Pro

And in the worst case, money. That um. And it also makes a lot of sense if an element is stored in these internal libraries, because if several people are working on it, then they are also up to date. If an element or an image file has been exchanged.

Interviewer 00:35:44,760-00:35:45,410

Okay.

Mr Weber 00:35:49,220-00:36:19,680

Tags: Programme Contra

Now here's the thing: components are helpful but don't always work as they should. So example. It's a bit difficult to do this abstractly. If you have a component with text and two states. Now it would be. It would be good if I insert them, insert the text I need and change the states.

Text stays the same. But it does not. If the state changes then the text does. It is again with the placeholder from the source. So in, in the other state. Switch over. Copy back over. It's annoying.

Interviewer 00:36:22,490-00:36:24,500

Understandable. Okay.

Mr Weber 00:36:25,830-00:36:31,268

Tags: Programme Contra

The same with spacing. And you can accept changes completely in the document or not. No individual decision. You can't set everything smartly. We have so work-arounds, transparent spacers and so on, but yeah. Not, not ideal.

Interviewer 00:36:31,323-00:36:45,105

Yes, okay. Are there also additional functions where you say they would help me, but they don't exist?

Mr Weber 00:36:45,210-00:37:07,360

Tags: Programme wish

Maybe the one thing that there would be an editing history. There was. There are sometimes changes. I may have missed them due to no idea, illness, holidays, not there.

Interviewer 00:37:09,310-00:37:09,753

Okay.

Mr Weber 00:37:09,841-00:37:39,030

If you work on projects in parallel like I do, you can't always follow everything. You can't always catch up on everything or you simply miss deadlines. That it's a. I don't know. Maybe even without a lot of documentation work that others have to do, that you sort of notice what's been changed.

Interviewer 00:37:39,030-00:37:39,130

Okay.

Mr Weber 00:37:39,150-00:37:53,330

But that's not perhaps because of the graphic system itself. It does come. Changes always come about through discussions. I say maybe with the customer, who has ideas, who has changes. Um.

Interviewer 00:37:53,340-00:37:53,390

Okay.

Mr. Weber 00:37:53,410-00:38:13,383

Tags: Programme wish

And. Exactly that. That these. These. Notes that he may have that he may. With the client is often communicated, in PowerPoint.

Interviewer 00:38:13,399-00:38:13,450

Yes.

Mr Weber 00:38:15,540-00:38:45,690

Tags: programme wish

Yes. That these notes, which he enters there, are perhaps also transferred to other systems, that one can, so to speak, um, if I now have a graphic change. Somebody might ask: Why? Is that right? Then you have to ask. But if it were to say Change according to meeting XY. Then. Then I would be more secure in my work, so to speak.

Interviewer 00:38:48,190-00:38:48,446

Mhmh.

Mr Weber 00:38:48,497-00:38:49,930

I would have more certainty there.

Interviewer 00:38:50,740-00:38:57,910

So it's not only about what was changed, but also about the aspect of what should be changed or?

Mr Weber 00:38:58,780-00:39:11,680

Tags: Programme wish

Of course, that's also when you think about the future. So where? Where is a change due? Where has something not yet been adapted? That's interesting, of course. Yes.

Interviewer 00:39:12,580-00:39:43,560

Good, then you've just mentioned communication with the client and that's what we're going to talk about in our next section. So about the topic of communication. How do you communicate internally and externally? I've already noticed that the client will probably receive a PowerPoint of some kind and then he comments on it and sends it back to you. Is that right?

Mr Weber 00:39:47,600-00:40:12,250

So that's one. One way, or you work together, currently mostly on the internet, whether teams or other online. I'll say. What are they called? Meeting Tools.

Interviewer 00:40:12,520-00:40:18,160

So you mean like teams, skype?

Mr Weber 00:40:18,160-00:40:18,640

Exactly.

Interviewer 00:40:18,640-00:40:18,990

Yes. Online Meeting Tools.

Mr Weber 00:40:19,330-00:40:56,400

exactly or one, one presents it, the current state and then makes. I say parallel notes. Either into the file. Or you have your, your notepad in parallel. It doesn't matter whether it's analogue with a sheet of paper or digital on separate presentations or documents like Word. Um. Yes, exactly.

Interviewer 00:40:56,970-00:40:57,750

Okay.

Mr Weber 00:40:59,920-00:41:16,010

Tools are, as I said, PowerPoint Teams Word or I don't know. If it's an Excel file, then you can also work on it together. You only ever need one secretary.

Interviewer 00:41:16,460-00:41:16,760

Yes.

Mr Weber 00:41:18,330-00:42:06,850

Tags: Programme wish

It might be easier. If. If. When people from different areas meet, that they would then have quasi write access to a file. That they could take it in turns to contribute and describe themselves at the same time. Because sometimes, as, let's say, a secretary, you first have to understand what someone from the other area means and wants to write down. Maybe the note is not for everyone. Maybe it's only for the programmers or special departments that don't have to understand everyone. I find that difficult. If it has a secretary who maybe doesn't understand anything about that subject area.

Interviewer 00:42:07,690-00:42:07,930

Mhmh. Yes.

Mr Weber 00:42:11,790-00:42:19,180

So I'm going to say open, open products, so open, open. Software.

Interviewer 00:42:22,290-00:42:47,280

Yes. Okay that makes sense. In the consultation, which aspects are more difficult and which are easier? Well, I've already heard that if there's a secretary and he doesn't have that much expertise in what's being said, then I would have said that it's rather difficult.

Mr Weber 00:42:49,130-00:43:18,590

Tags: Programme wish

Yes, exactly. That was one point of it. That the. That um I say the results or, or ideas that arise in a meeting or in a during a conversation. And. That they. That they are recorded so that they can easily reach the right people.

Interviewer 00:43:31,210-00:43:31,810

Okay.

Mr Weber 00:43:31,900-00:43:50,970

Mhm. Which ones are simply in collusion? I can't think of any.

Interviewer 00:43:51,630-00:43:52,620

Okay. No problem.

Mr Weber 00:43:54,090-00:43:57,150

What works well, so especially. Mhmh.

Interviewer 00:44:02,610-00:44:24,420

It's all good. We can just continue. So when does a task get stamped done, so to speak, internally or externally? Um. Let's maybe start internally first.

Mr Weber 00:44:27,990-00:46:19,920

Consider task completed. It doesn't really matter whether it's internal or external. You always have to be quasi. I would say that everyone has their own area of expertise and is responsible for it. No matter whether with the help or without the help of colleagues or specialists. To achieve one's goal. Or also to. To bring it up to date, to share it and to communicate it. I just have to. I have to find an explanation somehow. I can't draw a face now either, the nose is still missing. So, man. Mhm. You are responsible for your, for your, for your task or for your, for your step that you want to do. I mean, colleagues or others can just confirm that. Or if you see it or have a knowledge of it. On the other hand, you could just trust it. So, if a programmer says to me that it's ready, then I have to trust it. Then I have to trust it. I mean, anyone could evaluate a system afterwards. Especially if a running system doesn't work properly, then of course I can evaluate it. But.

Interviewer 00:46:24,030-00:46:26,760

Hmm. Okay.

Mr Weber 00:46:27,090-00:46:31,080

When. When is a task considered completed?

Interviewer 00:46:35,360-00:47:01,940

So maybe we can break it down a bit more. A status has to be transmitted to the customer, so to speak. It's not a question of when. But for this step, which you are currently taking in the project, a file has to be created and this then has to be sent somehow. Is there another kind of everyone looks at it and we send it off afterwards? Or is there more of a responsible person? Or.

Mr Weber 00:47:03,080-00:47:44,030

Oh, yes, that does happen sometimes. The four-eyes principle is always good, of course. And then there is usually a person in charge who takes over the communication with the outside. Under time pressure, of course, we never can or we can't always. I say make a four-eyes principle or ask someone to look at it with me. So there is always someone to whom I would like to show my project status. So, before I do it, I would also like to say that mistakes are still allowed in this phase, as long as I can still show it to someone, in order to eliminate them or to ask whether it was actually intended that way. To implement this idea. I say I always talk about ideas, but implementing the task.

Interviewer 00:47:44,570-00:47:54,673

Mhmh. Yes that makes sense. Is anything documented about this?

Mr Weber 00:47:54,677-00:48:29,120

It is usually the case that one colleague then does this on the basis of a file. In my view, this is also documentation. I say file now because it can be. On the one hand it is a picture. On the other hand, it may be a development where you have to show development steps, how you achieve something. Documents are documented in PowerPoint.

Interviewer 00:48:32,140-00:48:33,070

Okay. Yes.

Mr Weber 00:48:34,090-00:48:34,660

Exactly.

Interviewer 00:48:35,320-00:48:35,590

Ok, so.

Mr Weber 00:48:35,810-00:48:56,330

That would be sort of the simplest form of documentation. So you don't have it formally fixed, but you have something with a date with a saved date. Exactly when you send it, you also have the addressee.

Interviewer 00:48:56,840-00:48:57,197

Mhmh, yes.

Mr Weber 00:48:57,206-00:48:59,540

Exactly I say like the like the postmark.

Interviewer 00:49:01,370-00:49:19,190

Okay, so I would take for the internal area. Each department is responsible for its own goals, so to speak. If time allows and the team members have a certain expertise, they look at it together before it goes to the customer.

Mr Weber 00:49:20,980-00:49:22,520

Exactly. Okay.

Interviewer 00:49:23,470-00:49:47,110

Okay. How does that look externally? How does the client decide, let's say, that now this issue area is done. Is there a formal timetable and when that has expired, then.

Mr Weber 00:49:47,620-00:50:42,460

Oh, yes, of course, I hadn't thought of that just now. But of course there is. There is a timeline. I say, for manageable projects there's a deadline where the project has to be finished. To keep it somehow controllable. There are intermediate deadlines, intermediate steps to meet this deadline. And with larger projects, time or time periods are

timed. They are divided up so that partial steps can be completed in order to achieve, let's say, a large whole later on.

Interviewer 00:50:49,920-00:51:01,280

Yes. Okay.

Mr Weber 00:51:02,570-00:51:12,500

I know far too few technical terms, technical language from the other areas. But yes, time, when I say timeline, it is actually already, already clear what is meant.

Interviewer 00:51:14,310-00:51:15,086

Yes, I have the feeling I understand what you mean.

Mr Weber 00:51:15,101-00:51:15,660

Project management halt.

Interviewer 00:51:18,390-00:51:58,760

Yes. Even though it's not technical language now, maybe it's even better. Exactly. So with regard to the documentation of this quasi-completed state, I have now taken along, internally just through the e-mail process. But otherwise you don't use anything formal. So I'll throw a few agile methods into the room, there are Kanban boards, Agile boards and so on.

Mr Weber 00:51:59,260-00:53:43,970

Yes, for larger projects, of course, there are. I say project support systems. Whereby I. I have to say, I. I. Restrict myself more to the internal internal area within, so to direct communication and time management. Within our company. What use is Jira to me there? I think they're called Atlassian. We do that on the basis of a Kanban board. Exactly. And here and. So what? Just the. What, what. Our To. Dos. Yes, what's coming up? What is really? What have we really got as an idea or as a task? Then maybe what is currently in the process. Oh. Um, where are there still questions? That is still in the process. And what is really finished? What? So which one? If we have completed it, one wonders why? Why do I just document something like that as a little notepad? What do I have to show the client, perhaps, that can really be crossed off our To Do list? So completed. Search? Yes. Then.

Interviewer 00:53:44,570-00:53:56,360

Okay, that means internally for you more the direct communication or the task board. Okay. And what exactly are external things?

Mr Weber 00:53:59,170-00:54:01,930

What do you mean, what are the external things? So?

Interviewer 00:54:02,440-00:54:23,500

Well, it has to. So, within the company it is said that the task, okay, is now set to done in the board, so to speak. But the customer doesn't see that. With the customers, is there also documentation of some kind? What is done or what is next? Is there a project-wide overview?

Mr Weber 00:54:24,520-00:55:06,440

There definitely is. I think we do that as well. Also by means of. By means of a software. However. I can't say right now what this project tool is called. Because for me, externally to the client, there are no touch points for me at the moment. For me it's more like, I'll say short periods of I don't know. I'd say up to three weeks, where I can then look at what's pending, what's already OK.

Interviewer 00:55:07,770-00:55:08,520

Good, then.

Mr Weber 00:56:15,570-00:56:17,010

So workshop, workshop dates. We have that too, of course. Next to our To Do Lists.

Interviewer 00:56:17,010-00:56:24,030

Yes.

Mr Weber 00:56:25,100-00:56:30,290

In addition to our agile Kanban board, I would say, we also fixed our deadlines. Then also together with the customer.

Interviewer 00:56:37,860-00:57:23,660

Okay. Good, then I would move on to the last block of topics. And that was the interdisciplinary cooperation with the other disciplines. I would like to briefly summarise again what I have now included in the discussion for other disciplines. That is, on the one hand we had the exchange with the customer, then the colleagues from User Experience, who not only support them with the graphics, but primarily also with the requirements, with the determination. And then I also heard that the programming department had a bit of a part to play.

Mr Weber 00:57:25,500-00:57:25,760

Mh yes.

Interviewer 00:57:26,480-00:57:58,800

Okay. Good, then these are the disciplines that we have in mind when we go into the questions, namely. Now there are requirements that the customer probably has. How is this done? How do we proceed with the implementation? What is easier to implement? And what is more time-consuming?

Mr Weber 00:58:01,890-00:58:10,260

What is easier than elaborate? Also on the area of design.

Interviewer 00:58:11,160-00:58:11,430

Exactly.

Mr Weber 00:58:12,360-00:58:13,170

My range.

Interviewer 00:58:13,410-00:58:40,554

Yes, so the client. Let me say how I understand it so far: The customer comes here now and then he wants to have these 1,2,3 things integrated. And then he doesn't just make demands on them, because the whole thing has to be implemented somehow. That means there are also other parties, the programming or the user experience colleagues.

Mr Weber 00:58:40,620-00:58:41,020

Exactly.

Interviewer 00:58:41,020-00:59:07,050

And they all come to the concept developer or designer with their requirements at some point in the process. Are there things where you can say yes, if such and such is the requirement, that's actually simple, or sometimes such and such happens and then it becomes more complicated?

Mr Weber 00:59:07,560-01:00:14,600

So you can see it technically, if you, so to speak, need a certain file format or need certain implementation for the later, I say systems times. Then it is actually unavoidable. Then you just have to familiarise them with the knowledge of what you need. Um. Or. Yes. Or what the programmer

needs. Anyway, I'll say programmers now. It can also, if it's really about also, it can also be about printing. What did the printer need? Um. That. And that's actually the less complex part. And because that can be solved technically.

Interviewer 01:00:14,990-01:00:16,900

Yes okay.

Mr Weber 01:00:18,880-01:00:42,580

What is more difficult is everything that comes later. I can't implement classically like this, it has to look like this. That's not difficult, but it takes time. In which you don't contribute or create anything new. Because the programming. I have the feeling. Preferably a picture of everything. Exactly how it should look. And if you change it, then directly everywhere.

Interviewer 01:00:43,060-01:00:43,270

Oh, okay. A lot of work.

Mr Weber 01:00:43,720-01:01:05,500

Yes, and the customer. Yes, he wants something from me, I'll put it that way, something he can't do himself, a certain refinement. Something appealing. And also to create something that fits in with the system, with the rest of the system. Or also. I would say that it makes it easier for the users to use the system. That is the more complex part.

Interviewer 01:01:06,340-01:01:07,100

And what?

Mr Weber 01:01:07,200-01:01:14,430

So what. So logical. And. I say service friendly to design.

Interviewer 01:01:16,740-01:01:17,140

Mhmm.

Mr Weber 01:01:20,880-01:02:09,120

That it. That. That the user, so to speak, doesn't have to think about how he uses it at all, but only. And he can only do his work with it or his tasks with it, so that the user doesn't have to think about it at any moment, how does it actually work now? But that he actually uses it. In other words, it is more difficult to create something. Something ingeniously simple would still be okay.

Interviewer 01:02:09,830-01:02:17,620

So it would be to combine all these requirements somehow and to do justice to everything a little bit.

Mr Weber 01:02:17,680-01:02:28,300

But that also depends on the thing. It also depends on the environment, where it is used later, what is done with it. What kind of work.

Interviewer 01:02:28,690-01:03:27,240

Yes exactly, okay. What are the requirements? If the work result now comes from the design, let's say the template is ready. What requirements does your discipline have for the work results of the other disciplines that are involved? That is, let's take the user research of the requirements again, for example, and yes, probably a little before the design starts and during it, and also the programming, probably more towards the end, but it also has overlaps there. So what requirements do you place on the result of the requirements formulation and how is this work template, let's call it, programmed or implemented in the further process?

Mr Weber 01:03:27,810-01:03:33,830

I don't quite understand. Requirements, then. So, what?

Interviewer 01:03:34,200-01:03:51,520

The requirements give a certain guideline. What design has to be. How are they best presented?

Mr Weber 01:03:53,020-01:04:02,010

I see. Yes. Now. Ok. So ideally there is already a rough template of what should go where and I can then design it precisely. This can be wordclouds for a logo or screens for a UI. It's best if everyone has already said everything and then there's a document with everything I need to do, so to speak. Um. Yes.

Interviewer 01:04:03,310-01:04:12,040

Ok. And when you're done with that, what do you expect from the programming?

Mr Weber 01:04:12,440-01:05:47,020

From the programming? Yes, that they more or less depict it as I show it. So we as designers give a certain. That as, as a very well defined idea or a guideline. What something has to look like or the appearance, the effect. It's all down to the definition of colours, distances, sizes. And to structure my, my layout, so to speak. That it stays that way. Because that's what I chose, I say, with sense and reason. And that they also get used to it a little bit. To get used to it a bit. That I don't have to show them every click. What happens. How something looks. That the idea is captured. Harder for programmers because he himself struggles to maintain it, to do that, to implement it. But. Actually, I want him to follow the design guide.

Interviewer 01:05:49,110-01:06:07,890

Okay, and for the requirements that you are now implementing. Are there also such demands that you have to be able to work well with what you are presented with as a requirement?

Mr Weber 01:06:11,440-01:07:26,110

At the beginning, you don't get that much in front of you. There is actually only. Content-related, content-related guidelines. You have to put them into a structure. May. Must. Um. Sometimes it comes to, I'll say. To requests for changes, when one makes suggestions, just no matter, whether it's colours or. Or. Yes, arrangements, because you yourself simply. The information that one has received in advance, when one has, in one's own view, so, I say so. Worked out and designed. And. Yes, actually it's up to the designer to put the information into shape.

Interviewer 01:07:27,860-01:07:54,670

Okay. And. How is it checked whether, for example, there is a correspondence between the implemented end result, I would say, and the concept, the target? Is there an orderly process or an orderly approach?

Mr Weber 01:07:54,680-01:09:35,000

In most cases it always ends in the vote. So in workshops. The idea is presented. Interestingly enough, the design is about the presentation of information, but also partly what leads to the most discussion, the omission of some information, some things, in order to clearly present the core of the matter. Because we have many departments in the meetings, no one should be left out. But of course it can happen sometimes. If we now have a piece of information. For the, let's say, for the task as less, less important and now, let's say, present it very small and less important. Then it can happen that at the next meeting, at the interim presentation, you first notice, or notice for the first time, that this information and this importance of

these experts, who were not involved for a while, is very important. Then you have to adapt it a bit more, I would say, inflate it or make it more important.

Interviewer 01:09:35,470-01:09:35,750

Yes.

Mr Weber 01:09:36,710-01:09:50,630

Exactly. Actually, it's always about one. A vote to. To recognise and to realise whether one is also doing all. I say tasks fairly.

Interviewer 01:09:52,050-01:09:53,220

Some kind of compromise?

Mr Weber 01:09:54,109-01:09:58,050

Compromise always is. Compromise. Yes, that is true.

Interviewer 01:09:59,780-01:10:17,850

Okay. Good, now let's look at the whole thing again from the other direction, that is, what demands are made on the design discipline from the other side? So. What is so.

Mr Weber 01:10:18,120-01:10:32,320

So, what would be desired from the design, what just the other participants have for requirements to the design?

Interviewer 01:10:35,760-01:10:40,860

Exactly. Are there any guidelines from the programming or?

Mr Weber 01:10:44,520-01:12:09,380

Yes, depending on how something is programmed, with which programmes and what possibilities. Are there also restrictions in the design. Okay yes. Um. That can be the can of. Um. Yes the design of elements, be, sometimes even just because. There are, when you emphasise, elements through. Through a shadow, that that is emphasised, so to speak. Or a highlight. Or. Or also sometimes a bit of embellishment through a highlight. But some programmes don't even allow such, I'll say, graphic gimmicks, because. Because one. For another file format. Or so. For example. You have to work with a project. Often. Or actually you always have to check in advance, how will it be implemented, how will it be programmed? In that case. It's difficult if nothing is said beforehand. Or best of all there is an example and then please do everything like that. But that's not design. That is just pushing around what they've thrown at me, so to speak. But the client has booked a designer for a good reason.

Interviewer 01:12:09,770-01:12:40,180

Yes, okay, that's probably right. And how do the requirements look now? I think I've already figured it out a bit. The main thing is that the requirements are seen as implemented. Have I understood that correctly or what else?

Mr Weber 01:13:34,130-01:13:54,040

Exactly. Yes, if the requirement is, I don't want to see the field until I've filled in the other one, then of course it should be displayed accordingly.

Mr Weber 01:13:54,300-01:14:16,170

What the programming demands of me is then, so to speak, do everything exactly as it was or, let's say, better do everything with something I already have somewhere. But as I said, the client doesn't ask for a designer without, let's say, a reason.

Interviewer 01:14:16,710-01:14:19,110

Okay, yes I think so too.

Mr Weber 01:14:20,960-01:14:59,020

And then, of course, there has to be another vote. So I would call it finding a good middle ground in terms of effort. It shouldn't be too, not too far away, but of course it shouldn't cost hundreds of hours of work for a detail in the concept or for small things.

Interviewer 01:14:59,020-01:15:22,420

And while we're talking about voting, does the feedback come mainly through meetings or what does that look like? Earlier we also talked about comments in files.

Mr Weber 01:15:23,180-01:15:38,190

Yeah, okay. Okay. Yes, that's right. So, it's about comments. So in the presentation when you ask now. How is it brought back?

Interviewer 01:15:39,000-01:15:39,180

Mhmh.

Mr Weber 01:15:39,215-01:16:44,330

Or also, um, before the design, that is, before you put meaning into form or structure. Usually there is only the idea and the information in the room. And when the idea is then, so to speak, graphically or, or laid out. Has been put into form. Then it is actually more of a new view and understanding, checking whether the idea is also transported. Often many, many details or possibilities are added. So usually an idea is actually added to. Or things are cut out because they are too much for this page and as an extra.

Mr Weber 01:16:44,330-01:16:56,680

Because then quasi ideas also become, I say thanks to the design, thanks to thinking about it. Because it's still tangible. And yes, then the feedback comes in workshops as you said or by e-mail in files or yes. It is then passed on internally. Most of the time someone calls me. Or in the Daily in the morning. Exactly.

Interviewer 01:17:09,620-01:17:36,321

Okay! Very good. Then I actually already have information about the next questions, because we've already talked about them a bit. The next one would be the requirements from the professional side, from the client. But I've already heard that it's all about voting and sending files. Then we report back. Are there any new points that should be included or should something be changed?

Mr Weber 01:17:36,393-01:17:40,567

That's exactly how it is on the programming side, on the professional side.

Interviewer 01:17:40,639-01:17:55,550

So much for my points. Do you have any other comments that you would like to make, but which I haven't asked you about yet? Or what you would like to add?

Mr Weber 01:17:56,150-01:18:59,940

Nah, I'm. I'm in it, I'm in it mentally right now. I'm sure we'll get many, many more ideas later, because I'm just now. Yes, I'll say, I am. I'm blind. With. With my. Two or three current projects. But yes, it also changes. The way of working changes from project to project, because. I'll say. Every company has its own recipe for how it communicates with clients or how it works internally. And. Yes, I would find it interesting if you could somehow manage these

information flows or also the communication within. Of programmes and systems in.

Mr Weber 01:18:59,940-01:19:11,600

Um. As you notice. I am not crystal clear either. That's why I find your topic so interesting.

Interviewer 01:19:14,550-01:19:14,910

Thank you.

Mr Weber 01:19:15,570-01:20:23,470

Yes, because. Because we. Me. I think it doesn't matter where you work. One also still deals with. With other topics. Which maybe don't necessarily correspond to one's, one's, I'll say one's main task or stupidly said what one has learned or what one is able to do. Nevertheless, one has to. So that everything could run smoothly. Within a company or also outside, that one. You have to be able to present it in a way that is interesting and understandable for everyone. I think that's the main reason why some projects don't run smoothly. Because there is no uniform language or flow through the projects and programmes.

Interviewer 01:20:23,890-01:20:24,140

Yes. Okay, that's interesting that it's also perceptible like that.

Mr Weber 01:20:26,480-01:20:27,560

Do you know what I mean?

Interviewer 01:20:27,710-01:20:28,310

I think I got a good impression, yes.

Mr Weber 01:20:28,810-01:20:29,150

Okay.

Interviewer 01:20:29,570-01:20:50,320

So, everyone has their expertise, their vocabulary, and that. The deeper you dive into your own discipline or your own area of expertise linguistically, the more you leave others from other areas of expertise behind. And then how can you ask what you don't understand? You already don't understand the word.

Mr Weber 01:20:50,930-01:20:55,490

Exactly! You don't ask because that's also a certain inhibition threshold. Or then you ask if the person repeats it. They say exactly the same thing. Okay, thank you.

Interviewer 01:20:56,540-01:20:56,890

Yes, great!

Mr Weber 01:20:57,170-01:21:07,140

Often one is also left behind and has, so to speak, an. An inhibition to ask again because you're just stuck in your in your subject, in your subject.

Interviewer 01:21:07,630-01:21:56,960

Yes, okay, very nice insights. Um, then it remains for me to give more space for further comments or also to thank you for your participation and your detailed descriptions. I'm sure there will be another opportunity for you to contribute more, because you said you'd think of more later. No problem. On the contrary, you are welcome to send them directly to me. That's exactly what I can offer you. Otherwise, it was a good interview on my part.

Mr Weber 01:22:05,040-01:22:08,190

Yes. I hope I was able. I was able to contribute something.

Interviewer 01:22:08,820-01:22:17,740

Absolutely! Okay, then I would say interview over. Thank you very much. And then goodbye.

Mr Weber 01:22:18,220-01:22:19,120

Really interesting. Thank you! See you later.

Interviewer 01:22:19,630-01:22:20,110

You're welcome. Bye.

Mr Weber 01:22:20,110-01:22:23,800

Bye

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Interviewer 00:00:03,750-00:00:38,700

Okay, then I have now started the recording and would like to continue with the clarification of the procedure. So the whole thing goes on for about 90 minutes. I would start with the mutual introduction, which I have already done. And then we'll start with the personal participant profile and then move on to the interview on interdisciplinary cooperation in everyday work. This is mainly about your experience of everyday life, your tasks and the pleasant and less pleasant aspects of it.

Mr Mayer 00:00:39,480-00:00:39,900

Okay.

Interviewer 00:00:42,100-00:01:03,160

Let's start with your personal participant profile. It is important that I know that you have many projects, all of which are of different sizes. Since today we are talking about communication with different departments, I would ask you to think of the largest or one larger project.

Mr Mayer 00:01:03,960-00:01:04,129

Okay.

Interviewer 00:01:06,260-00:01:12,410

Okay, then the first thing I would ask you is what your area of responsibility is with the Plusbringers.

Mr Mayer 00:01:13,610-00:02:06,130

At Plusbringer, I'm mainly responsible for guiding and managing the departments that are responsible for implementing software. And that includes setting the parameters for a project, then distributing the tasks according to capacity and also looking at who can do what and to whom I can give which task. And then also to inspect. In other words, to see for the first time how the whole thing has been implemented and what the requirements are. Does it all work? And yes, of course I can also help with the implementation myself, that's my job.

Interviewer 00:02:07,060-00:02:11,860

Okay, all right. And do you also have points of contact with other disciplines?

Mr Mayer 00:02:13,600-00:02:41,560

Um, yes. So if I am to implement something accordingly, then of course I also need the corresponding specifications as to what I should implement. And of course there are many points of contact in the area of defined requirements, but also in the direction of software architecture and security architecture.

Interviewer 00:02:43,350-00:02:44,140

Okay yes.

Mr Mayer 00:02:45,300-00:04:14,910

Yes, the requirements come more from the area of design, user research and the graphic design is represented there as a process. And externally there is also the fact that I work with the corresponding customers on their corresponding runtime environments. They have their own environments. And. Of course, this also involves aspects such as migration from one software to another, data interfaces for automated data exchange and such topics. So what? The customer, who wants to operate the software afterwards. That. They are mostly decoupled from a technical point of view. But it is of course the case that people also come from their technical domain with their security aspects or with other aspects such as the company motto, the company colours or topics such as accessibility, accessibility, DSVG0, topics and things like that.

Interviewer 00:04:16,500-00:04:19,140

Yeah, everything. Sure. And.

Mr Mayer 00:04:20,680-00:04:25,180

But as a rule, these are applications that are used in the free economy.

Interviewer 00:04:26,860-00:04:38,530

Okay, great. Then I'd like to continue with your daily work routine. And I would like to know what your typical tasks are there.

Mr Mayer 00:04:39,880-00:05:24,990

Well, I am. So basically my job is to guide and lead in the development of software and. Yes. These are the typical tasks that I mentioned earlier. That means taking over and distributing tasks myself, keeping an eye on the project parameters. And of course I'm also involved in external procurement processes. That is, before the order is distributed, for example, the scope is estimated and then agreed upon with the customer. And such processes are also typical tasks for me.

Interviewer 00:05:26,440-00:05:31,450

Okay. And then how do you go about completing the task in more detail?

Mr Mayer 00:05:34,330-00:06:19,810

First of all, I need my requirements and information about what I am supposed to do. When allocating tasks, I then look at the skills, available capacities and the urgency of the task above all. Project parameters are classically the development environment, should it be an app? Or only on the web? And then, when the project has reached the point where I check it, I look at bugs, if inputs are not processed appropriately, and display errors. Crash. That kind of thing. Actual implementation is different. What is there, what is to be done. It has to be understood in principle and then every consequence has to be taken into account and adapted in the implementation.

Interviewer 00:06:23,590-00:06:30,880

Ok. That means that they are dependent on the input of others, I understand that correctly?

Mr Mayer 00:06:31,690-00:07:19,640

Yes, so clearly. The challenge that arises, of course, is that usually there is no. I say, there is no singular catalogue of requirements and. This means that I have to gather information at different points, from different documents, from different tools. And that's simply because we haven't yet found a tool that can communicate these written and

verbal aspects, which are necessary because you can't communicate everything, because the design can't communicate everything via prototypes. We simply haven't found anything yet that can combine them in a meaningful way.

Interviewer 00:07:21,430-00:07:29,050

All right. And are there tasks that are more time-consuming and others that are easier?

Mr Mayer 00:07:32,290-00:08:49,250

If the tool is well chosen, then purely logical conversions in the sense of when data or multiple connections are quite easy to implement. More exciting is the sub-area of data access and data integrity. What is particularly exciting is the area of UI because there is much less standardisation there, in inverted commas. Less standardised. That means the functionalities and in the visual area there is simply not such a standard that it is more individual, depending on how it is designed. And of course it also depends on the customer. Of course, they want their application to look as if it were a product from their range and it should also reflect the company. Logic trees, that kind of thing. It's relatively easy to work through. But how they are shown is more difficult because there is no one way to display it. It is also difficult because we have to look up things in several places. That means some things are in Confluences directly, some in files. Then it's always back and forth. The overview is more difficult. Some things are added later or changed. If that is the case. Most of the time, the bigger the project, the more things happen.

Interviewer 00:08:50,610-00:09:07,000

Ok. That sounds exciting in any case. And where do you get this specification from?

Mr Mayer 00:09:09,950-00:09:34,730

So how the whole thing has to look. That is usually a template for the UI, which comes from the design and um. Yes, that's usually the way to work out a kind of guideline via the design and then the application and the corresponding description result from that. Exactly.

Interviewer 00:09:40,220-00:09:45,050

Okay! And what programmes do you personally use at work?

Mr Mayer 00:09:47,420-00:10:08,930

Classically Confluence and Jira, but also the basic programmes, I'll call them something like PowerPoint, Excel and the usual communication tools. Something like that. The e-mail programme, Outlook or Teams and so on.

Interviewer 00:10:10,790-00:10:14,630

Okay. And in the implementation?

Mr Mayer 00:10:15,020-00:10:43,160

Of course I use various development platforms from Microsoft, which is available to us to create overarching code. And the development platform from Google, which with Fleet and there just provides a good platform for web and app applications. And then there's the low code software that we use more often. And that is the software from Scopeland.

Interviewer 00:10:45,820-00:10:56,430

I see. And yes, exactly. What does the choice depend on there?

Mr Mayer 00:10:57,870-00:11:51,710

Yes, so which tool is used depends on the customer and also on the requirements. So for example with Scopeland. Then you can't use mobile apps. Uh, yes. Can't be used for mobile apps. Can't be created with it. But it is very well suited for dealing with large databases and Flutter and Dart is more oriented towards available data. That is also more in the direction of VR and. If I'm more communicative, I'm not even on the road. So the app talks to a backend, then the Xamarin development environments are the more suitable choice from our point of view.

Interviewer 00:11:53,330-00:12:00,530

All right. And when you think about it now, what aspects or functions make it easier for you to do this?

Mr Mayer 00:12:04,070-00:12:36,630

In the sense of requirement implementation. There it is, of course, in many respects. Now there are frameworks like Jason. I just go in, add my 4 or 5 attributes and then I have almost everything ready to communicate against a web server. It's easier because they both work with standardised interfaces. Um. Then the folder structure helps. In the sense of, I rely on the colleagues from the user research that I have the current documents directly and in the archive older. I find that good. Also that I can call directly.

Interviewer 00:12:38,340-00:12:41,730

And what about it, which aspects are more of a hindrance?

Mr Mayer 00:12:44,370-00:13:30,070

Yes, well, when I talk about standardisation, then of course it's sometimes a hindrance, because the more I fall back on the prefabricated things, the faster I am. Um, ready, I'd say. But the less individual I am. And in my opinion, there are basically two possibilities. Either the standard fits well and I can use it as it is, or I have to make it completely free. That is very time-consuming because I have to redo the standardised part so that it fits for me in that case. That's the way it is!

Interviewer 00:13:31,120-00:13:40,130

Okay, yes. Are there any aspects or functions that you are missing or that would help you? Im.

Mr Mayer 00:13:43,740-00:14:31,410

In part, I would like to see more consideration given to, let's say, the programming effort already in the development of implementation templates. I understand that this is not the focus of the design, it's more about the experience that comes out later. But if the designers also had this kind of programming knowledge, it would be easier, because then you could simply save yourself some comments or, I'll call it discussions now. So to speak. And that. That would be easier, also in terms of communication and consultation.

Interviewer 00:14:33,020-00:14:49,160

All right. Great. Thank you very much, that was a good transition because we would actually already move on to communication. How do you communicate internally or externally?

Mr Mayer 00:14:49,820-00:15:57,280

Well. So the professional exchange takes place via professional meetings. These are then arranged individually so that you can plan in advance where you

have to participate and where you have to have something ready, and so on. And the tools are for that, especially Confluence and Jira. Um, yes, but as I already said, before that of course there is still the classic, the classic e-mail. And basically, within the company, there is only verbal communication. Um, we have our regular communication once a day. This is our daily team meeting first thing in the morning. It's mainly about aspects like who needs what, by when, from whom? And that sort of thing. And the smaller work areas are then put together individually. But you can already discuss and plan this in the group situation. That is quite practical.

Interviewer 00:15:58,480-00:16:00,130

And how does it work externally?

Mr Mayer 00:16:00,870-00:16:44,820

Um, exactly. Externally, there is usually also a kind of rules communication. Um, but externally, on a daily basis, it is a bit more substantive in the sense of planned agreements on processes and topics, as they have been agreed upon and defined beforehand. That is what I said earlier, that you can also plan. What resources do I need and what do I need to have with me? So it's more about prepared workshops or meetings that are much more planned in terms of participants than our internal daily meetings.

Interviewer 00:16:46,880-00:16:55,190

Okay, great. And if you were to consider now, which aspects are more difficult and which are easier? So especially in the consultation now.

Mr Mayer 00:16:57,220-00:17:48,520

Um. It's hard for me to say that as a general rule. So. I'll say. Internally. As well as externally, it always depends on the topic. The more involved the topics are, the more you have to keep an eye on, the fuller the application becomes or the more extensive it is, the more difficult it is to keep track of everything and then to process it sensibly and also, I would say, to process it verbally. If the documents then arrive in different places via different channels. That makes the whole thing more complex. Especially with UI, there are visual and textual annotations. And they are not connected.

Interviewer 00:17:49,360-00:17:58,750

Okay. All right, that sounds elaborate, of course. Then when are tasks considered done internally and externally?

Mr Mayer 00:18:00,470-00:19:29,710

Yes, so in our tools, you can also adjust the status to the actual status. Then of course you can say, that's it. That's it. Now I sort of move that into my box for the finished tickets. And a little less clear. But of course, it's also common to send emails with the corresponding files attached. So classic Word Excel PowerPoint in the attachment. And. Then I usually check again before it goes to the client. With all our external projects, there are various quality checks after the project has been created. Quality checks. These vary from client to client, so it's much more formalised than internally, so internally you have your tickets, I'll say, and you obviously do that for the others, but externally that's something else. And that means that there is also more work with external software, I'll say something like Trello or Confluence, and that this is also communicated. This is then also communicated. If necessary, reworking or the like. People simply call each other.

Interviewer 00:19:31,060-00:19:33,640

Okay and is there anything documented about this in addition?

Mr Mayer 00:19:35,510-00:19:50,690

Yes, there is no other way. When I. When I write an email, it is already documented somewhere, or when I process my tickets, that's okay. Documentation yes.

Interviewer 00:19:51,320-00:19:53,450

But explicitly nothing is recorded?

Mr Mayer 00:19:55,030-00:20:23,320

Yes, it does. That also depends on the client. But of course we also have protocols and schedules and some clients simply want to have certain protocols or certain consultations sent to them. And other clients. Is that not so important now? Is that sufficient in the tools? But it does happen.

Interviewer 00:20:24,620-00:20:41,690

Okay, great, thank you very much. Then I would like to move on to interdisciplinary cooperation. My first question would be which aspects of the implementation of design templates and requirements are easier and which are more time-consuming.

Mr Mayer 00:20:43,250-00:22:22,360

So the easiest way is to implement software in which all elements, their states and behaviour are already fixed. That sounds nice, but in reality it's not possible, because we proceed iteratively and the whole thing also develops further, and of course it has to be possible to adapt it. And often it is in the design. Possibilities of use are designed that are particularly user-friendly for certain situations or certain user groups due to their, let's say, individuality, as is the case now with accessibility, for example. However, this can be very difficult to programme. So yes, I already mentioned this earlier, but I often have the feeling that the design only partially understands what is possible with the respective programming and what is not. And then you have to engage in a lively exchange, I would say, in order to simply revise things or adapt them or somehow come to an agreement in order to find a good middle ground. Because, of course, it's clear to me that for the design, the customer has priority first. The customer has priority first. And of course they have to find what they need from my point of view and in what I create. That is already clear.

Interviewer 00:22:24,540-00:22:25,920

Okay. Mhmh.

Mr Mayer 00:22:26,310-00:22:49,330

And. Yes. Most of the time it's also the case with the requirements that they can't be completely collected. So yes. Yes, you don't know everything already. Even at the beginning you could never start working.

Interviewer 00:22:50,550-00:23:01,420

Yes, all right. And what requirements does programming place on the work results of design and user research? So for example.

Mr Mayer 00:23:01,900-00:23:50,170

To Design and user research. Yes, so. Yes, I already hinted at that a little bit. So on design, of course. All well and good. If. If that. Looks great. But in the end it also has to work and you have to find a bit of a balance. So it should definitely be based on the basics. Grid. And so on. With

RM. My wishful thinking is that everything is already there, but that's not possible. So as complete as possible and so on. And understandable.

Interviewer 00:23:53,220-00:24:07,530

All right. And how do you check whether the other disciplines also meet these requirements? Whether everything is there that you need? So especially from the design and the requirements elicitation.

Mr Mayer 00:24:31,130-00:25:26,800

Well, first of all I get the results, I say, I say, and I inspect them in the first round and then I look to see whether things have been adhered to that are simply given to me by the respective development environment. And. Exactly. So if I obviously see or read something, then I ask again. Or. Yes, I also try to think our tickets through in advance. Does everything fit? Does it work like that? And yes, if something doesn't fit, then you have to see how you can solve it. Together.

Interviewer 00:25:28,760-00:25:38,480

All right and how do you report back if your requirements are not met or if adjustments or additional information is needed?

Mr Mayer 00:25:39,760-00:26:00,790

Yes, that is then about individual exchange. So I just asked. What? What was required or what was meant. And then we exchange ideas. Adapts designs or rephrases them. Yes.

Interviewer 00:26:04,480-00:27:04,280

All right. Okay. So? What information must absolutely be included in the work product of the requirements and in the design so that you can work ideally?

Mr Mayer 00:27:06,570-00:27:53,780

So with the graphic elements, of course, it must be specified that all states have each other. How should that look? How should it work? What sizes, what colours are intended? So now not simply blue, but then that is the arbitrarily wrong blue, but the correct value for the colour. Spacing, of course. These are aspects that you need and that you simply have to include in the layout. Um. And. Yes. Requirements, as I said. All of them.

Interviewer 00:27:55,360-00:27:55,850

All right. Can you describe all of them in a little more detail?

Mr Mayer 00:27:55,990-00:28:41,350

Ideal, all that already exists in this way. Then completely. How it works or how it is possible because. Yes, the requirements suitable so no conflicts. So. Um. Contradictions I mean. Not that here it says go left and then in the next sentence it says go right. As an example. And often questions or mistakes only arise during implementation. And that interrupts the workflow a bit. Ideally, it doesn't. So ideally everything fits.

Interviewer 00:28:43,650-00:28:54,490

Okay. And what are the requirements of the others? Um. So. So the design and user research, because on the programming and its results?

Mr Mayer 00:28:57,190-00:29:16,890

Yes, it's quite simple. The design wants the programming to look like what you have just shown. And the requirement of user research is that all the requirements

are contained everywhere and work everywhere and are understood everywhere.

Interviewer 00:29:18,260-00:29:22,970

Okay. And we are reported back to you needed adjustments ideally?

Mr Mayer 00:29:30,200-00:30:35,480

Um. Yes, so the whole thing should be as complete and as correct as possible and free of contradictions. And also directly where it's supposed to happen. But. Yes. It's also the case that it's not. When building logics above all just doesn't work because. The designers, and also in the user research, simply don't think their way to the last level of these elements and then develop their use cases for their individual cases. But when building logics, sometimes a logic gap is noticed here and there. And. Yes, that does happen.

Interviewer 00:30:39,230-00:30:44,360

And which requirements or adaptations are more difficult and which are easier to implement?

Mr Mayer 00:30:45,810-00:32:38,190

So it is easiest if all the information needed for adaptation is given directly. Often, however, reference is made to other documents or information or something is added. This means that the required information has to be compiled as a combination of different aspects. Particularly in such very specific specialist topics, this is simply not so easy. That not everyone knows everything, is directly networked and everything is directly understandable for everyone in the team. And. And yes. Then it is also difficult to transfer the whole thing, I would say. So especially the situations that are not depicted are difficult. It's hard to make sense of them because. The requirements are usually only written down. Tickets are juxtaposed. And then they are exposed to a perceived graphic situation. Because most of the time they are simply not represented, because not every situation is represented, so to speak. And that's already. Uh, a bit more difficult, I'd say. Because you simply don't have a concrete specification, a concrete template.

Interviewer 00:32:40,980-00:32:46,740

Super. And what requirements does the professional side have for programming work results?

Mr Mayer 00:32:47,940-00:32:58,980

Um, yes, so that's implemented the way you just ordered it. Or rather, that it is implemented the way you think you ordered it.

Interviewer 00:33:00,080-00:33:03,260

And she will. Excuse me. How will that be checked?

Mr Mayer 00:33:05,800-00:33:49,830

Um, it's usually the case that we define test procedures in advance with the customer and these are then worked through. And based on these results we get the feedback and in the simplest case we get a screenshot sent to us, just a picture and then we give feedback. Here, please, differently. Preferably a reason, so that you can also. Yes, I'll say, so that it can be transferred. Or so that we understand what the system has done wrong, so that we can implement it better and not just selectively.

Interviewer 00:33:53,010-00:33:59,260

Ok. Which requirements or adaptations made by the professional side are easier to implement and which are difficult?

Mr Mayer 00:34:03,150-00:34:55,110

Let me put it this way. Many specialist users have great problems imagining things outside of what they are used to, that is, above all, what they are used to visually and then imagining the whole thing visually differently. That's why I don't get a screenshot but a text description. But that can never be implemented without questions. It comes. Rather, in the sense of requirements elicitation, there are difficulties. But if this is not done precisely, then the result is just as imprecise. And that it is so factual in the sense of what the customer meant and what the turnover was on the. And experience shows that there can be quite a distance between the two.

Interviewer 00:34:58,830-00:35:12,300

Good. All right, then we are almost at the end of the interview. I would have liked to ask you again if you have any further comments that you would like to share.

Mr Mayer 00:35:14,090-00:35:18,550

Um. Nope, nope, not really. But I hope I was able to contribute something.

Interviewer 00:35:19,420-00:35:32,440

Absolutely! Great. Then we have answered all the questions. Thank you very much for taking the time for the interview!

Mr Mayer 00:35:34,450-00:35:44,710

All clear. Yes. You're welcome. Thank you very much for the conversation, for the pleasant interview and have a nice day.

Interviewer 00:35:45,580-00:35:46,570

Thank you, likewise.

Mr Mayer 00:35:46,690-00:35:47,740

Thank you. Bye.

Interviewer 00:35:48,100-00:35:48,520

Bye.

Transcript III - 21.10.2022

User research

Interviewer 00:00:01,080-00:00:52,500

Good, then I have now started the recording. Thank you very much for allowing me to record the whole thing. I would continue with our proceedings today. We will talk for about 90 minutes. After introducing ourselves to each other. I have already more or less told you something about myself. We'll start with a few questions about your personal profile in the company and then move on to the actual interview. That means it will be about interdisciplinary cooperation in everyday work with various points of reference. Exactly. But of course. Of course I only have simple questions. I'll start with the simplest one and say what is your area of responsibility at Plusbringers?

Ms Smith 00:00:54,170-00:01:12,080

So my main area of responsibility at Plusbringers is requirements elicitation. That means I communicate with people, so with internal and external stakeholders, as they say. In addition, I am largely responsible for documentation and exchange topics in my role as PMO. Should I go into more detail?

Interviewer 00:01:13,550-00:01:15,890

Yes, with pleasure, if that's what you want.

Ms Smith 00:01:16,640-00:03:03,200

Exactly. So depending on how detailed it should be. For me, that simply means that I am involved with the stakeholders from the very beginning, because I derive the requirements from the survey. For example, as far as our customers are concerned, I am involved in the meeting from the very beginning and of course try to pick up on the status quo. That means, of course, we have to take a look. Okay, what? What is the current state? For example, how is the work currently being done? What is the procedure? And then, of course, we have to look at, okay, we have this project for a specific reason. That means, what is the desired state? So where do we want to go? What exactly is our goal? And then it's actually about working that out. It also depends a bit on the stakeholder, on the client, how clear these goals are perhaps already in the client's mind. Um, yes. And you try. And you try practically. To get to the heart of everything the client has in mind and then of course to implement it accordingly. Of course, the implementation is not in my area, but I communicate. That these requirements are then passed on internally to our designers, to the people who implement them. This means that I have to communicate with x external stakeholders and then also communicate internally, where I naturally have to pass on what I have recorded.

Interviewer 00:03:03,660-00:03:22,810

And here in the project, we have already landed at our or my next question. What points of contact do you have with other disciplines in your work? Well, I have already included internally the design and externally the customers, the stakeholders.

Ms Smith 00:03:23,350-00:04:16,720

Exactly. Those are the main ones as well. Of course, we don't only have the clients externally. Exactly, but we also have, depending on the project, of course. But in this case we also have the programming. That means I also have to communicate with the people who actually do the implementation. Whereby it has to be said that this in turn happens via design. Because in our case we work with wireframes and user stories. That means wireframes are something that comes from the design. And the user stories, however, come from the requirements elicitation. That means they come from me and that practically runs together and then both go externally into the programming.

Interviewer 00:04:18,550-00:04:50,720

Okay, right now I forgot to point something out at the beginning. I already know that you have different projects and that the different projects have different scopes. We would like to ask you now, and if I have heard correctly, I think you have already done that, to keep it primarily in mind. So the biggest project. Okay, because I guess the project is a lot. Yes, and exactly the biggest challenges.

Ms Smith 00:04:51,800-00:04:52,130

Exactly.

Interviewer 00:04:53,460-00:05:15,590

Okay, then we would enter into the main part of the interview, which is the daily work routine. I would start with questions about your tasks, your procedures and the programmes you use. What are your typical tasks?

Ms Smith 00:05:16,970-00:06:35,690

So the most typical tasks. I already mentioned that a little

bit at the beginning. Attending as many appointments as possible in order to understand the issues that come from the client, of course. So I have to understand the topics, I have to grasp them as fully as possible. Because I am the main person who also takes minutes at these appointments and records these topics, it is practically up to me how well I manage to record the topics and then prepare these topics for my design topics. How well they are implemented at the end of the day. So that means it is very important that when I am present at meetings, that I keep a good record so that this can also be retraced afterwards and that this also serves as a basis for the implementation in the design. And because this logically also runs into the user stories. I simply have to capture this as well as possible.

Interviewer 00:06:36,900-00:06:41,050

Yes, definitely seems so accurate.

Ms Smith 00:06:41,930-00:06:49,480

So no, that's all fine. We can answer the questions that come now.

Interviewer 00:06:50,560-00:06:57,200

Um, yeah, unless there are other typical tasks that you like to add.

Ms Smith 00:06:58,520-00:07:38,750

I think it might make sense to go into it a bit later because it depends a bit on which cycle you're in. There are different, um, different ones. How do you say it in German? Stages, the quality assurance and practically the first wave, if you want to look at it that way. In practice, this also means that the things that have now been implemented by the design in the first step, that I look through them again to see whether they actually correspond to the requirements that I have included, that they have actually been implemented in this way.

Interviewer 00:07:39,870-00:07:40,160

Ok

Ms Smith 00:07:42,690-00:08:02,490

Exactly. But that would be exactly the first step now. There are, of course, the other steps. That actually happens in quality assurance. But that's also another part that I take on and of course very important in my role of writing user stories. Okay, actually one of the main parts.

Interviewer 00:08:03,190-00:08:14,250

So that's sort of the. About user stories, so obviously the requirements are documented for all stakeholders. So right?

Ms Smith 00:08:14,250-00:08:59,790

Exactly. Yes, but it's. You can't really say technical, because they are still written in such a way that the external stakeholders, or the customer, I would say, must also be able to understand them, because they have to check whether they are technically correct. It would also be part of the quality check. But that means that the user stories have to be written in such a way that the experts can understand them and still implement the programming. So that means that in the user stories you have to find a practical way for all the stakeholders involved. Yes, what you can check can actually be checked.

Interviewer 00:09:02,150-00:09:23,290

Oh dear. How do you go about doing the tasks? Well, I have already noticed the appointments, so. Yes, there are

probably appointments that you take part in and as you described, these are documented.

Ms Smith 00:09:24,400-00:10:00,100

Log accurately. Then after that is the follow-up. Because we work with voice frames and user stories, we prepare these dates within the frames, because that is also. How. So that's the way I communicate with the design. We also have internal deadlines. But in general, I prepare the wireframes with the information that I have recorded so that the design can implement them accordingly.

Interviewer 00:10:00,560-00:10:01,180

Oh.

Ms Smith 00:10:03,900-00:10:43,950

And afterwards I would also write the user stories for these wireframes if they have to have a certain maturity, I say in inverted commas. That doesn't make sense at the very beginning, because if you are still in the requirement phase as an analysis in relatively small cycles, and we are proceeding according to Scrum, that means we simply have these cycles. Then it doesn't make sense to start formulating the user stories at the very beginning. Because there are simply too many changes. Then you only have to rewrite user stories.

Ms Smith 00:10:43,950-00:11:06,530

This means that from a certain level of maturity of the frames, it actually makes sense to prepare and formulate the user stories in the way that they are then sent to the stakeholders. Because, of course, certain things are recorded beforehand, but that takes place via the protocols.

Interviewer 00:11:08,020-00:11:20,050

Okay. All right. So, if I have understood correctly, you are definitely dependent on the input from the client. I'd definitely say exactly.

Ms Smith 00:11:20,120-00:11:33,140

Because that is always. You simply need the input from the professionals, because that is of course something. That's why it's very important to think and understand. But at the end of the day we can only take in what we actually get from the professionals.

Interviewer 00:11:34,610-00:11:43,670

Yes, that definitely makes sense. Are there any other external or internal partners that you need input from for your work?

Mrs Smith 00:11:46,260-00:12:17,740

Yes, quite a lot. So I also need feedback from the programming, because there are, for example, certain things that you might think are nice, or that the client might imagine to be quite simple, but that might simply not be feasible in the programming. Yes, that means that I am clearly dependent on talking to the programmers and asking them Hey, the customer imagined this and that. But can that be implemented at all?

Interviewer 00:12:18,520-00:12:25,240

Yes and? Okay, so the programming is also important.

Ms Smith 00:12:25,870-00:13:07,940

Exactly. And at the end of the day you also have to say that the design plays a role, because it also goes into your aspect. It doesn't matter whether it's design or UI. You always have to consider that the customer might have

something in mind and it still has to be clarified with the design. Does it make sense to implement it this way? Because maybe a situation x technically better implementation is possible and the customer is practically not in because of the customer. In our heads? Yes.

Ms Smith 00:13:07,940-00:13:25,870

That means that the client can only describe to us what he would like from his professionalism and what he needs, but he doesn't have our background. This means that it is also a question of perhaps showing the client simpler ways.

Interviewer 00:13:26,360-00:13:26,590

Yes.

Ms Smith 00:13:26,920-00:13:31,000

So from the client also the feedback from the design very, very important.

Interviewer 00:13:32,030-00:13:38,330

Yes, okay, that's quite a few disciplines that have to be coordinated somehow.

Ms Smith 00:13:39,200-00:14:42,080

Yes, I mean, which just logically plays a role as well. But I don't know that. Of course I get information about the meetings about bigger issues like for example. Um, so those. So you have to take sprint planning into account. Also the budget planning has to be taken into account. Because there are, for example. So, for example, if we have now created the planning in different versions, then it is simply quite clear, so for a version one or two, even if the customer actually wants that. There are other stakeholders in the project. Often, at least. And then, in our planning, that means a certain period of time, you can only implement a certain number of things. So that means that this must also be taken into account, even if the client says, "Hey, I really want this now." If it's simply not possible in the budget or in terms of time, then you also have to take that into account.

Interviewer 00:14:42,500-00:14:42,740

Yes.

Mrs Smith 00:14:44,070-00:14:55,510

Whereas that's not quite the. The requirement of the user research is that. No, but rather. So in a PMS. But that might have to be taken into account a little bit.

Interviewer 00:14:55,850-00:15:14,190

Yes, yes, no, but that is, if I understood correctly, already an input on which you are more or less dependent. You have to know what is going to be included in the versions or what exactly is not in our budget. Do you want us to analyse this even more deeply now?

Ms Smith 00:15:14,730-00:15:36,030

Exactly. Maybe also when do which things, so when do which requirements need to be raised? This information is simply important for that and also when can it be collected? Because of course it doesn't make sense to raise a topic now, but you know exactly that it will be included in version one and maybe not in version two. Then, of course, the other topics should be considered.

Interviewer 00:15:36,420-00:15:52,540

Yes, exactly. Good, we were already more or less at the tasks. Can you say in general which tasks are more difficult and which are easier than others?

Ms Smith 00:15:53,860-00:19:29,810

That's totally difficult. Because that. My experience so far is actually that it depends on the stakeholders, not so much on the different tasks. Because I have already described my tasks above. That means that there is participation in the meeting, then the incorporation of this feedback or, for example, the first creation of wireframes or thinking about the process for the first frames, so that this can be prepared and then also a bit of this follow-up control and the writing of the user stories, of course. I couldn't say that one is easier than the other. But what I can definitely say is that if, for example, I communicate with a stakeholder who clearly knows what this stakeholder mentioned earlier is and should be, what he wants, then it is much easier to establish the requirements and implement them very quickly and very well than if, for example, the stakeholder does not have a particularly good understanding of the procedure. This means that this stakeholder can perhaps describe what he does in his everyday life. But perhaps because there are so many variables in his work, it is incredibly difficult to really get to the heart of the issue or to grasp it. And that, in turn, makes all tasks much more complex, because you simply need many more cycles, if necessary, to really get to the heart of this issue. Yes, if. But if you simply have a very clear announcement and you know very clearly how it can be implemented, none of my tasks is something where I would say Oh, but that is already more complex than the other one. Generally speaking, I can say that writing user stories usually takes me the longest, although that's also relative, because these user stories have to be written very precisely. They have to be written very precisely. And as I said, that also has to be coordinated with the technical side and the programming side. I'm just saying that now because the user stories are really 100% my job. The stakeholders look at them externally and of course they are checked again. But because this is mainly my responsibility, it is the most time-consuming for me personally. Time-consuming. That is very important. But as I said, depending on the stakeholder, there can be a deadline where you have to collect the requirements. Yes, yes, one will go quickly and take a very, very long time.

Interviewer 00:19:29,980-00:19:39,410

I think I can relate to that. Exactly. What programmes do you use at work?

Ms Smith 00:19:42,000-00:20:35,630

The simplest programme is word for transcription. Then of course Excel. But I would leave Excel out of this, because Excel is more the PMO area, which we use a lot. Because it's a programme with which we have access to what the client also has access to. Logically, PowerPoint is also PDF. Um. And apart from that, yes, these are actually the programmes that I work with personally, because design is something else and I don't work with them personally. And I would say those are the main ones. Ah yes, I almost forgot.

Ms Smith 00:20:35,630-00:20:37,280

Jira and Confluence.

Interviewer 00:20:41,540-00:20:46,190

And you use Jira and Confluence for the tasks.

Ms Smith 00:20:48,030-00:21:07,500

So Jira and Confluence we use internally and externally internally for the, for our communication. That means task

distribution and also communication regarding deadlines. Jira is used for tasks, for task distribution and Confluence for deadlines.

Interviewer 00:21:09,390-00:21:09,609
Mhmh. Ok.

Ms Smith 00:21:09,633-00:22:15,790
Exactly. Because that's how we use it internally. And externally because we have some very, very large projects. Um, information has to be kept somewhere. So it must be possible for all parties to retrieve and find it somewhere. So this means that it is not so much about protocols, but everything that is actually relevant for the implementation, but also for the late collection of requirements. This means that if, for example, we have different cycles, i.e. we have the requirements elicitation, once we have completed this requirements elicitation, this package that we have put together ends up in the technical release and from there it goes into the refinement and from there into the implementation.

Interviewer 00:22:17,680-00:22:22,460
Ok so for the communication with the stakeholders. And about the phases I'll say now.

Ms Smith 00:22:22,526-00:22:23,250
Exactly.

Interviewer 00:22:25,850-00:22:26,570
Away is communicated there.

Ms Smith 00:22:31,890-00:22:54,350
Exactly. So everything that I just move towards implementation, so from the refinement point to the implementation. These things have to be practically available to everyone. Yes, everyone must have access to it and be able to see it. At least certain stakeholders. Certain stakeholders have certain accesses.

Interviewer 00:22:57,550-00:23:08,680
Okay, um, what aspects or what function do these tools have that make your work easier now?

Mrs Smith 00:23:10,230-00:24:16,956
So with Word it's quite simple. Word it's just logging function. It means that I can format text. That's actually the only thing I need. I simply have to have a tool with which I can record text and where I have good formatting options. And Word is the simplest Word is also normally a common document format across all stakeholders. Of course, you can always convert it to PDF and then share it in that form. But in general, that is sometimes the most important thing. Excel in that things like. Sometimes requirements are also captured in Excel depending on what it is. Simply because you might need a table, a tabular representation via Excel more easily. This means that you don't need things like a calculation function so much, but it's simply a matter of having to present content in the table for the sake of simplicity.

Interviewer 00:24:16,959-00:24:16,979
Mhmh yes.

Ms Smith 00:24:16,982-00:24:33,010
And then maybe if you also need input from the stakeholders on certain things that then complete things, for example now when it comes to input from the professional. And that is then again the simplest, the easiest and the most common format, because most

stakeholders have it and use it and also know how to use it.

Interviewer 00:24:43,270-00:24:55,960
Yeah, okay. And in the areas of Jira and Confluence. There are now some functions that provide this software.

Ms Smith 00:24:56,470-00:24:56,680
Yes indeed.

Interviewer 00:24:56,695-00:25:04,600
Is there anything where you say, well, it's really good that this exists, because it makes this and that a lot easier for me?

Ms Smith 00:25:06,800-00:25:33,200
Uh, yeah. Guaranteed. No. So maybe starting with Jira. Jira is of course practical in that it is something like a ticket system. That means that the requirements that we collect are converted into tickets. In tickets. How do you say it? Prepared?

Interviewer 00:25:33,690-00:25:34,771
Yes, documented.

Ms Smith 00:25:34,833-00:25:43,710
Exactly. And these tickets can then be processed by the programming. And that is of course something that is very, very practical.

Interviewer 00:25:45,040-00:25:47,260
That was right for Jira?

Ms Smith 00:25:47,620-00:26:01,281
Exactly. So, Jira is the ticket system. But maybe it makes more sense if we now practically put Confluence on top of it, that is, practically theme-wise theme-complex-wise on top of Jira.

Interviewer 00:26:01,346-00:26:02,129
Okay, why?

Ms Smith 00:26:02,194-00:26:22,510
Because we actually generally, in terms of documentation, we always start in Confluence, in Confluence you can imagine, what's the best way to describe it? Um, I think the first time I saw it, it seemed to me like a mix of Facebook and Wikipedia.

Interviewer 00:26:22,850-00:26:25,396
Oh oh, okay.

Ms Smith 00:26:25,445-00:27:04,660
But what it actually means is. So you can just create pages and you can prepare and store any content in there. That means a lot of documentation is stored in Confluence. Um. For example. For example. Also the user stories wireframes, but also other relevant documents, for example documents that are important for the design, where the programming needs access, such as the Fox concept or other things. That means he simply filed everything.

Interviewer 00:27:04,900-00:27:14,620
And it's presented as a file in the same way, so to speak, and uploaded as a file and then it's there and can be downloaded as a whole or whatever. Okay.

Ms Smith 00:27:14,980-00:29:27,570
Exactly. So any formats can be stored there. But you can also implement tables in these programmes, so any content, content that you want to make available for

stakeholders because they might need access to it. You can make all that available there. That's why there's a bit of this Facebook idea, because theoretically you can also post things there and that's then just for the people, for your friends or then just in this case for the stakeholders who can have the authorisation to look at it, download it, work with it if necessary. And the advantage is of course that several people can work on one page. What is all this? Yes, what? The whole thing is very good for one. Well, it enables good cooperation. Which is difficult, though. That's where it comes in, because, as I said, everything is documented there. This also means that the user stories have to be stored on Confluence, as they are at the moment. And the problem now is that if these user stories fit like this. However, as I just said, Kira is the ticket system. That means that these user stories now have to go into tickets. And that is the challenge. However, both Confluence and Jira are more or less compatible in terms of redundancies. This means that I can automatically create tickets in Jira from Confluence. However, only certain information is taken over. Formatting is not information that is transferred. This means that I can create tickets, but I have to manually adjust every single ticket in Kira. Because otherwise, even a programmer can't read it.

Interviewer 00:29:29,420-00:29:42,280

Okay, so how can I imagine that? You uploaded the user stories as a PDF file. And then the tickets more or less become from that,

Ms Smith 00:29:42,310-00:29:42,670

Ne.

Interviewer 00:29:42,670-00:29:43,120

OK?

Ms Smith 00:29:43,990-00:31:10,570

Because the user stories. That would be a possibility. You could just have the user stories because we capture those. In PowerPoint, we could theoretically just upload those as PowerPoint as well. However, as I just said, you can automatically create tickets indirectly from Confluence. For this, however, it is necessary that these user stories are prepared in a table in a very specific format, because otherwise the automatic system does not work. So that means, unfortunately, I have to, because we make the request of the analysis for the customer in PowerPoint. But then I have to transfer the user stories into Confluence according to the findings. Because the transfer for formatting doesn't work there either. I have to reformat everything again. And if I then create the tickets automatically in Kira, the formatting is not transferred again and I have to copy and paste everything again manually, because if you insert it again manually afterwards, i.e. copy it out of Confluence and copy the content into the ticket itself, then it takes over the formatting. So that whoever came up with that.

Interviewer 00:31:12,370-00:31:29,140

Okay? Yes. Sounds complicated. I think I still don't quite understand it either, unfortunately. I'll try to repeat it again. So these arrays are collected and then, if they are decided, they are documented in a PowerPoint.

Ms Smith 00:31:29,680-00:31:30,190

Exactly.

Interviewer 00:31:30,640-00:31:55,150

Then the path sort of goes from this PowerPoint into a

Confluence table. Exactly. And there again a new formatting has to be done. That means you do control C and control V to insert the whole thing. But then you have to set up something like bold print and spacing and so on, or do you have to copy it directly there?

Ms Smith 00:31:57,010-00:32:15,830

Nope, nope, so you, you just have to adjust certain formatting. It's a bit complicated to describe maybe at this point, but in this Confluence. They have something like one. Like their own. They have their own formatting and their own programming language for formatting.

Interviewer 00:32:16,040-00:32:16,640

Okay.

Ms Smith 00:32:17,300-00:33:48,370

Yes, unfortunately that makes it a bit more complicated because it means certain things are carried over. For example, if I now copy from PowerPoint into Confluence, for example, spacing is retained, but certain formatting is not transferred. This means that when I copy-paste from PowerPoint to Confluence, I simply have to revise the entire user story again so that the spacing fits. There is also no tabulator function. This means that when you have a list, it generally looks terrible, because you simply can't list things one below the other. It always looks crooked. Um, yeah. And rings. There's just. You just have to. Unfortunately, you just can't display certain things the way you would like to. So that it's easier for the programmer to grasp the content. Because that is simply important. So you can. You can't just, if you have a list within the user story, for example, because there are different menu items, then it's a bit difficult if it's just in the continuous text, but a certain formatting is necessary so that the programmer doesn't sit on this ticket for five hours and ask himself what I actually want from him here.

Interviewer 00:33:49,110-00:33:50,630

Ah yes.

Ms Smith 00:33:51,520-00:35:28,540

And then. And if you now have this user story incongruence in this table, then you can work with Apex and user stories for the entire table. Apex is practically just something like Win Win. Like a heading. Something like that. Or maybe you can imagine that if you have questions, Epic is the framework of the cupboard and the User Stories are the individual drawers or something like that. So Epic is practically just the heading where the user stories, yes, which then practically summarise the user stories that come next. In terms of themes, this is summarised. That means it's about that first. That's why this table is necessary, because first I need a table heading. That would then be this epic and then I can create all the associated user stories practically at once. This means that if I now have an epic and there are 15 user stories under it, I can have the system create all 15 user stories automatically with one click. Of course, this is a huge relief because I don't have to create 15 individual tickets manually in Kira.

Interviewer 00:35:31,300-00:35:34,140

But the formatting problem remains again?

Ms Smith 00:35:35,260-00:36:32,880

Exists. And not just the formatting issue, but that you also have, for example, certain information that you give to this ticket. For example, there's this, it's called a label. This is simply when you have decided that you now have certain

things, you have certain work packages, for example, and you say okay, there is now a label, that is work package A, work package B, work package C, so that you can clearly assign this ticket to a work package. That simply helps with orientation. Um, yes, then I have to take over this label, so unfortunately I can't do that. For example, I can't say I'm going to give my Epic a label and then be asked whether I want to apply it to all the user stories underneath. No, you have to do that manually, one by one. Okay, that means this follow-up. It takes a lot of time.

Interviewer 00:36:33,010-00:36:47,220

Yeah, I think so. Okay. So. Are there more aspects that kind of. And the functions that are somehow more of a hindrance to what you want to do.

Ms Smith 00:36:51,840-00:39:02,060

I think those are kind of the main ones. Let's put it that way, that's the biggest out or one of the bigger challenges for us. It actually. I mentioned at the very beginning that, yes, it's important in programmes that the stakeholders involved have access. That means they have to know how to work with the programme and they have to have the programme logically. Um, yes. But as I have just said, I have just anticipated this a little bit. They also have to know how to work with it. And that is exactly the problem. We have stakeholders who are not familiar with Jira and Confluence because they have never worked with it. That means that although Jira Confluence makes life easier for me and the programming is also dependent on a ticket system, they have to work with some kind of ticket system, otherwise the implementation just doesn't work, does it? But the problem is that our customer, for example, doesn't work with Jira and Confluence, so we practically have to meet the requirements of the collection of info up to the point of refinement, that is, up to the point where we are practically in close exchange with the customer, we have to fall back on common programmes. That means Word, Excel, PowerPoint. And that makes my life a lot harder because for the programming later on and for the implementation I need the stuff on Confluence and Jira means I have a lot of effort because I have to keep documents in sync and that works. It doesn't work any differently for the others. So that's quite the same for Design, that we just have the challenge. We have to communicate in a certain way with the client in our case, and in doing so we need a different format for the programming or for the implementation. And because of that, we just have a lot of copy paste.

Interviewer 00:39:03,050-00:39:09,910

And there is no function now that you say you do the whole thing in the conference and export an Excel list from it.

Ms Smith 00:39:11,150-00:40:09,550

Well, that would. That wouldn't work all the time. So in and of itself, of course, I can now out. I don't know. But if things are just already in contours, then it also doesn't make much sense to somehow pull that back, because the problem is. Suppose. I would now say okay, I won't write any more user stories in PowerPoint format, but just do it directly in Confluence. Then again the problem is, even if I then download that and somehow manage to convert it again into a reasonably good format in the PDF so that I can then share that again with the client, then there are still the editing and possibilities are more limited than if they just have it as a PDF. So the problem is simply that I, yes,

that the client somehow finds working with PowerPoint. Maybe it's easier. Or finds it more pleasant.

Interviewer 00:40:12,250-00:40:21,150

So the editing of the possibilities of the exported files is just not given. In the form in which the client just wants to do it. Yes, exactly.

Ms Smith 00:40:21,170-00:40:44,520

So suppose I could now quite easily, but that's, well that just doesn't work. Assuming that you could now simply export user stories, again in PowerPoint, then that would of course be something else. But then you would have the problem again. The feedback from the customer must ultimately end up in Confluence. So exactly.

Interviewer 00:40:45,630-00:41:13,710

So I'm spinning a bit about aspects or functions that would help you if it were possible to say that you have your PowerPoint and your tickets are already created there, I'll say in that sense, your PowerPoint is uploaded, your tickets are created automatically and you can always upload changes to them. That would be something that is not currently available.

Ms Smith 00:41:14,550-00:43:27,880

Let's put it a bit differently I think I can believe that very much and what a relief for me really. Yeah, so first of all formatting is copy pasted. Yes, that would be super. Great, good. Yes. And also just. And that surprises me every time that that's not possible, because both Jira is a product of entlassen, which is the same company, and they don't manage that, that we don't create tickets from within Jira, that the formatting is taken over. Yes, that means formatting transfer once with copy paste. For example, if you transfer from Burn or Excel or PowerPoint, whatever, to Confluence and then also transfer the formatting when you transfer the end product content within Atlas. That is a huge relief. And the second thing that would also be a huge relief is when I have created these tickets in Confluence. Because we work in cycles, as I said, because we work according to Scrum, I have a link for the ticket in Jira in every user story in Confluence. That's very good. That's really very, very good, I have to say, because it makes the work easier. However, the problem is that the user story itself, which is in the table, is not linked. That means, let's say we have to synchronise a work package because of a certain development. And a ticket changes, then I always have to change it twice. I have to adapt it once to Confluence. And since it's not the content that's linked, but there's just a virtually a link for the ticket. I can access the ticket directly, but I still have to manually change the ticket again. So I have to do the reverse.

Interviewer 00:43:28,570-00:43:32,890

So it's sort of like a link there, but the changes are not synchronous.

Ms Smith 00:43:33,460-00:43:34,120

Exactly.

Interviewer 00:43:34,690-00:43:35,200

It always has to.

Ms Smith 00:43:35,200-00:44:03,060

Everything has to be done manually. But I think those are the two biggest things. That could help me personally in my work, so if that were possible, the transfer of formatting and that that's just an actual synchronicity. I think those

would actually be the two biggest things. The biggest. So the biggest factors where you could really save time in my work.

Interviewer 00:44:05,360-00:44:53,240

And synchronise. And actually that is also synchronising just from the formatting. Yes. Yes, I can definitely understand that. I imagine that would be very, very time-consuming. Exactly. And you have already talked a bit about communication, which is now also covered by these aspects of documentation communication. Now we want to talk about this in more detail. We have already discussed my first question a bit. How is communication done internally or externally? Well, the, let's call it the Confluence dilemma, certainly also has to be mentioned here.

Ms Smith 00:44:54,080-00:45:24,370

Yes, definitely. But you still have to say that. So via Jira and Conference, communication is practically indirect, because what you upload there is made available. It becomes visible to the other stakeholders. Visible, known. This means that in any case, of course, meetings are very important, you can be a bit more precise, they are mainly workshops and jour fixe appointments. That simply means weekly appointments.

Interviewer 00:45:27,180-00:45:27,540

Yes.

Ms Smith 00:45:28,980-00:46:14,810

Otherwise tasks. That is internal communication, for example via Jira and Conflicts again. But of course also in internal appointments. It doesn't matter if they are ladies or fixed dates or even an internal workshop that you have. And deadlines are also mainly communicated via Confluence. Whereby? Jira No, that is communicated via Confluence, simply because Confluence also allows you to create different tables, for example. That means it's just a relatively good tool. Oh, my goodness, communicating deadlines.

Interviewer 00:46:15,170-00:46:22,490

Okay, but the two above play together a bit. You can create links there. Quasi.

Ms Smith 00:46:23,120-00:46:41,470

Exactly. Whereas, of course, for the appointment that one makes now. Would one now of course not create a ticket on Kira. So that actually has deadlines. It's just something to do with Confluence. Exactly. But of course you can also link to a calendar. In Confluence, so in Constance, you can really do all kinds of things. So that is.

Interviewer 00:46:43,210-00:47:00,770

From where? Okay. Now we have also talked about internal communication on tasks. Are there aspects that are more difficult or easier in the language? Is it possible to classify this in a general way?

Ms Smith 00:47:02,540-00:47:05,210

Okay, we are now on internal communication.

Interviewer 00:47:05,600-00:47:05,920

Exactly.

Ms Smith 00:47:06,140-00:47:11,360

This question Which aspects are easier and which aspects are more difficult, if any?

Interviewer 00:47:11,580-00:47:20,950

Exactly. You're also welcome to start with external communication. As you like. Now was just to start with either kind.

Ms Smith 00:47:22,760-00:48:16,530

Yes. Which aspects? It's really difficult to say now because again there are five. I think generally it's so on. Just what external communication is talking about. External communication. It's always more difficult. The less clarity there is, if that makes sense. So that's just, that plays into what I said above. So the clearer it is. A stakeholder knows what he needs, the easier it is to reach an agreement.

Interviewer 00:48:18,420-00:48:25,980

Yes, it goes like that on a communication base. Yes, yes, thank you. Yes.

Ms Smith 00:48:26,550-00:48:55,410

And then internally I think um, that is then logically taken further. Because if you have the feeling that a topic is very, very well grasped, that is of course also much, much easier. To communicate this to the design and then ultimately to the programming, the more complex the topic is or the more obscure it is, perhaps the more difficult it is to pass on this topic.

Interviewer 00:48:57,240-00:48:58,710

No, that definitely makes sense.

Ms Smith 00:49:00,000-00:50:21,110

I really have to say that I have the feeling that the last thing we discussed, the programmes, play a very important role because the fewer different programmes you have or the better the programmes you work with are understood by everyone, the easier it is to communicate. Because if I imagine, for example, that everyone in our project knows how to work with Confluence and Jira, we wouldn't be able to use all of MS Office, but nevertheless, we could simply reduce a great deal of work, because, as I said above, I spend a great deal of my time copying and pasting and restoring formatting that I've actually already done, or rather, getting it practically right again. So that means. With, the fewer programmes you need, the better, I think. Fewer different programmes you need and the better. The people who just work together in the programme or in the project, the more they know about it.

Interviewer 00:50:21,470-00:51:01,040

Yes, and that definitely makes sense. So while we're on this communication internally and externally, at some point a task. Yes, times like that, I'll say stamped as done. Is there anything internally, a guideline or similar procedure, let's say, when a task is considered done? So we first have external people and can we then discuss this a little bit, I guess there are differences or not? Then we can also discuss it together.

Ms Smith 00:51:02,120-00:54:56,740

So I think a very appropriate example of that. I thought of it earlier because we had already touched on it a little bit. If you drop a stone into the water, for example, there's this ripple that gets wider and wider towards the outside. I think that's more or less how it is. This means that we are, as I said, in agile software development. That means software development according to Scrum. The first wave, I would say, is the requirement, the survey. And we are practically in this first wave. That may sound strange, but it is actually considered done when what I have recorded has

been implemented in the frames. In. And then it continues, of course, because I then check again whether the design has understood it the way I meant it. Then it's presented to the client and the client says. Yes, it fits, doesn't it? No, it doesn't fit for us. So there are actually already two waves. We have one where I go over it again and say yes, that's how I understood it from the customer. I think it's been implemented well. We can present it to the client. And the second wave is that the customer says yes, the next wave fits. If the client now says okay, yes, that this topic, this sub-area is fully covered. That fits. So as I said, the third wave comes. What we have here can vary from project to project. In our case, this is the release. That means that you only go up one level on the ladder and then some team leaders or higher persons are invited to participate with you. That people, the stakeholders, who are not quite so involved in the project, practically look at it with a fresh head and verify it again. Yes, does that fit? Is it right? That's understandable. And then the next wave. I think we are now at the fourth, is that we say we are going into refinement. In MINT, the stakeholders from programming, programming, design, user research, requirements surveys come again. So all these people come together again and say OK, yes, now it fits. It can now go into development. This means that this is also another step where people say yes, this is now ready. Then comes the next wave. There is the programming. That means the programming. They then also start to implement it. So they look at the tickets? And work through this ticket. And they also have internal quality assurance, where someone looks at this ticket and checks what has been implemented and then says yes, it fits, so it is finished or not. And then we move on to the general quality assurance. That means that people from the design, from the technical side, that is, all the people, all the stakeholders, look at it and say yes, we're going to test the whole thing now. And that fits in, that is actually the last step, because then it actually goes into the roll out and roll out means live environment.

Interviewer 00:54:57,140-00:54:57,530

Okay.

Ms Smith 00:54:58,360-00:55:15,560

Exactly. So those were. So there's a lot of points. And as I said, in every step for every wave there's practically a point where people then come together and say it's done. At least this part of the step.

Interviewer 00:55:18,710-00:55:36,170

Yes, so it's always the various stakeholders relevant to the phases who come together and more or less agree to put it into the next phase. Then I say.

Ms Smith 00:55:36,710-00:55:41,300

That is exactly what the process step is, that it can move to the next process step.

Interviewer 00:55:43,520-00:56:27,090

I would just document that for a moment. Speaking of documenting. Is something documented in the various phases, so that you can say okay, here it is, it's done, or does it sort of drag on until the roll-out and everyone writes it down for themselves? I would say that it has now been finally discussed and that everything that has not been noted is then logically not recorded, because it is done.

Ms Smith 00:56:29,040-00:58:29,610

There are deadlines for each of these, the different process

steps that I have just mentioned. That means that we have the requirement collection, then we have the release in min. Then it goes into the implementation and then we are in the quality assurance. There are fixed deadlines for us people, for example, when we are through with the requirements. That's what happens in the workshops. Yes, the requirement collection. And when we get to the point where we say okay, now it fits, it is completely collected. So the topic is now simply finished. So that's the point. This is documented accordingly in the protocol. In this case, it is documented in the minutes. The last adjustments that may have to be made are made. And then we go into the scheduling for the release and the release is a set date. This means that it is a deadline where these extra external or uninvolved stakeholders, I'll just call it that, are not completely uninvolved. But they are, as I said, looking at it again with a fresh head and this is an appointment where they are presented with it. They also get the documents sent to them in advance. That means they can have a look at it, see if there are any unclear points. Are there any questions we need to ask? Then we get it presented to us once and after that they have a week. To make comments or requests for changes or anything else. And if this one week has passed and no feedback has been received, then it is clear that the subject has been approved. And there is also a document where this is documented. It is an official document that is also signed by the people who were involved. Where it says okay. Yes, this work package. This sub-area is now approved as a subject.

Interviewer 00:58:30,960-00:58:37,250

The whole thing is then formally quasi again. In the document exactly in the document.

Ms Smith 00:58:37,610-00:58:41,720

Exactly in a document it is recorded and.

Interviewer 00:58:42,260-00:58:46,250

This document is then also uploaded again, isn't it?

Ms Smith 00:58:46,640-01:00:56,110

No, the document is actually not uploaded, it is a document. It is sent by email to the stakeholders of the handover, because the handover does not concern all stakeholders, for example design or programming would not be included. It actually goes, I would say, to the technical project management, to the project management, and it comes from the customer, from the client. And similarly, not exactly the same. But it is similar with refinement. This also means that we agree on a fixed date. On this date it is clear that this part of the project has already gone through the technical approval. And it's really just a matter of taking another look at the whole thing. It means that only a certain group of people are in the technical approval process. But Feynman actually involves stakeholders from all areas. That means from the programming, from the design, from the technical requirement collection. Practically everyone comes back to the table and says OK, we've understood everything. This is also sent a week in advance. That means it can be checked. Questions can be worked out and then clarified again in the unit. That means the goal of the refinement is. To get everything completely ready for implementation. After the refinement, all the topics that have been discussed are finally incorporated. This is then sent around again. With the request to go through everything again, to check it. And if there is no more feedback, the email goes around again. Okay, there was no feedback. So the issue is

considered closed. This means that the topic then moves on from the PowerPoint.

Interviewer 01:00:57,860-01:00:58,040
In.

Ms Smith 01:00:58,270-01:01:07,930
Confluence and Kira and once the tickets are created on Kira, then that's open to programming to pull those tickets into Sprint as well.

Interviewer 01:01:09,530-01:01:09,960
Um.

Ms Smith 01:01:16,460-01:01:49,400
Then of course the documentation for the programming. It's the tickets. That means tickets are moved from in progress or to you in progress. Internal quality assurance. And then? Then you have to do the programming very precisely. And that is practically the official documentation from their side, because it can be traced exactly where which ticket is. And then, logically, it means that it has been implemented.

Interviewer 01:01:49,940-01:01:53,660
Can I think of it as something like in Kanban there or what exactly.

Ms Smith 01:01:53,660-01:01:56,620
That is quite accurate.

Interviewer 01:01:57,560-01:01:58,040
Okay.

Ms Smith 01:01:59,230-01:02:19,060
Very good one has to be so Kanban wise? Is it the only one in Scrum Board? Not really the only one. But the biggest difference is that the Sprint Board, so Kanban Board doesn't work with sprints, but this Scrum Board, there you just work according to sprints, so that.

Interviewer 01:02:21,090-01:02:25,300
Exactly. So you can similarly.

Ms Smith 01:02:25,960-01:03:01,330
That's right. And then we just have the last step. That one is not really the last step. But the next step is quality assurance. And in quality assurance, of course, everything is documented. It depends on what you are working with. Whether you want to document it in Excel or in another programme. But then, of course, it has to be very precise. The user stories and the wireframes have to be checked against what has actually been implemented. And here, of course, everything must be documented, no matter in what form.

Interviewer 01:03:01,930-01:03:03,790
So whether implemented or not.

Ms Smith 01:03:05,090-01:03:05,420
Exactly.

Interviewer 01:03:06,320-01:03:07,960
Okay, so I have to exactly.

Ms Smith 01:03:07,980-01:03:35,500
And logically everything has to be checked again for plausibility and so on. That means quality assurance. It's not just one group of people doing it, it has to be checked by different people. Yes, it has to be checked by different people for different things, because of course you can

check for You are you ex. But you can also check for logic. You can check for function. So there are different tests.

Interviewer 01:03:36,580-01:03:37,000
Okay.

Ms Smith 01:03:37,600-01:03:40,780
And all of that has to be documented, no matter how you check now.

Interviewer 01:03:41,200-01:03:41,470
Yes.

Ms Smith 01:03:43,310-01:04:22,670
And of course there has to be a final meeting where they look at it and say okay, this has to be checked now, because this check has to go back into the development. If necessary, it has to be reworked again if it was not OK. And then it goes back to testing until you actually say, and there is also another deadline for this, where you actually say, okay, yes, now the product is actually good. That is exactly what we wanted. It can now actually go into rollout. So that means that everything is actually documented, constantly in some form or other.

Interviewer 01:04:23,110-01:05:27,840
In various forms and is clear. Okay, now we've been relatively much on these requirements have to be in agreement and that's already a bit forward into the next section that I'd like to talk about. And that is interdisciplinary cooperation. It is often a question of requirements that one makes of the other, so to speak. And then it has to be checked again whether these requirements are implemented in the way they were set. I have already included quality control as part of the user research to check whether the design and programming meet the requirements. So once, as was described at the very beginning, that you check the designs again to see whether your requirements are also included, or also the somewhat formal, comprehensive quality assurance, then at the end I would have included it here. Are there any others? Checks.

Ms Smith 01:05:29,390-01:06:28,450
No, it doesn't really all happen in these cycles. Because as I said, quality control is carried out by a wide variety of, let's say, stakeholders and not in general. Everything is described as a stakeholder who is somehow part of the project. The various checks are carried out and logically my work is also checked in this way. My work is actually checked in every single workshop, because in every single workshop where we discuss the current status, we can logically only implement and present with the design what I have recorded beforehand. So that means it actually works in every single workshop. I checked to see if I had what the experts wanted to tell me in practice. Did I absorb it correctly? Did I understand it correctly? Yes, and so it was implemented accordingly.

Interviewer 01:06:29,500-01:06:35,830
And here? So that's what you would see in the wireframes, so to speak.

Ms Smith 01:06:36,550-01:06:56,050
Exactly. And of course the user stories are also written at a certain point and then also sent out and would logically also be reviewed by the technical staff. This means that feedback would then come in the form of comments by email or otherwise.

Interviewer 01:06:58,030-01:07:06,130

So the requirements then come in the form of comments, either verbally or just in writing. Well, all the changes.

Ms Smith 01:07:08,450-01:07:55,990

Exactly. Depending on the communication. If we are in a workshop right now, that happens logically verbally. But that is also recorded again via the protocols. It happens yes. Comment. Let's say we send out wireframes so that they can be checked in advance. Then comments are made and we either check them in advance and incorporate them, or if there are still open questions on our part, because that can of course happen, they are practically discussed again in the meetings. Or is it pure communication via email or, logically, can it also be communication? Via Confluence. Or communication can also take place within the tickets with comments and other things.

Interviewer 01:07:58,000-01:08:03,070

Tickets or just in the, let's say, MS Office files?

Ms Smith 01:08:04,150-01:08:05,080

Exactly. Yes.

Interviewer 01:08:06,600-01:08:47,189

Okay, so is there the famous question again Are there some things that are easier for you in terms of requirements that are put aside? And which ones are more difficult? Of course, it will most likely depend on the wording and as clear and precise the whole thing is, as you explained earlier, the easier it is to implement. But is there anything else you can say? Well, when this and that happens, it always becomes difficult, because then I have to combine so many things somehow or or.

Ms Smith 01:08:47,490-01:10:23,140

Nah, not really, because I think absolute okay. So what's absolutely important is when you realise that you can't overview a topic anymore because it's too big, then you haven't divided it far enough into smaller work packages. This means that when you realise that a topic is so big and somehow can no longer be properly grasped, then it is usually worthwhile to simply divide it into smaller work packages until you realise Ah, okay, now you can actually have a comprehensive overview of the topic. That's really important. Especially in larger projects it is impossible. You can't have a. Assuming it really is a larger product that is to be implemented, is it impossible to work out the complete product in one workshop? Yes, of course not. And that happens all the time. And that's what the Scrum approach is for. Yes, I wouldn't say it was developed for that purpose. But with the idea that, of course, especially in software development, which is very agile. You can't foresee everything, that is, you can't develop things, you can't just take them. That means you simply have to remain flexible. And if you realise that a topic is bigger than you imagined at the beginning, or perhaps more complex, then you may have to look at it again and perhaps subdivide it.

Interviewer 01:10:24,640-01:10:33,370

Well. That definitely sounds sensible. Okay, did we jump a bit on the topics?

Ms Smith 01:10:34,090-01:10:34,270

Yes.

Interviewer 01:10:35,050-01:11:18,550

Nah, nah, it's all good. So, it's all good for me. Um. I just

have to check a little bit whether I have taken it all in correctly. If you now ask yourself what requirements the user research places on the work results of the other disciplines, i.e. the design, the price and the programming with the final software, in inverted commas, I have now heard that the requirements are implemented there. The requirements are to be implemented comprehensively, as understood by the customer.

Ms Smith 01:11:20,610-01:12:15,480

Food. As understood by the client and as demanded by the client. Maybe he Yes, just like you from the stakeholders. I would actually. Ah yes, nope, it's actually more about the customer here. Because we also have the appointments, like in MINT, for example, where all the stakeholders come together again. No, these appointments are there so that everyone involved can get an understanding of the topic. To get an understanding of the topic. That it is practically ensured that really. That what was actually demanded by the customer, that it was correctly collected by from the user research and correctly implemented by the design, so that it can also be implemented by the programming in exactly the same way.

Interviewer 01:12:17,160-01:12:24,570

So before understood correctly, I call it conceived correctly in design?

Ms Smith 01:12:25,260-01:12:28,170

Exactly. And then also implemented correctly.

Interviewer 01:12:29,210-01:12:36,960

And properly understood they would be according to the customer's wishes? Or requirements.

Mrs Smith 01:12:38,320-01:13:46,110

So let's say we get this right, yes we have to get this out of the. So we have to understand that properly. So we have to understand the customer requirements correctly. Only then can the design be implemented correctly and only then can the programme be technically implemented accordingly. Correctly in inverted commas. But at the end of the day, of course, it's important that the customer has a product that meets their expectations and that they can then work with. That is of course the most important thing. And accordingly, of course, very important. You have to assume that we are raising the I we are raising requirements correctly, of course. But then the requirement for design and programming would be that the implementation is in accordance with the requirements that have been raised. So that would actually be the thing. The requirement is formulated in one sentence.

Interviewer 01:13:50,120-01:13:53,700

That sounds understandable.

Ms Smith 01:13:55,120-01:14:13,780

Exactly. And you could even now write after that In brackets corresponding to the clients will be the client's request or demands of the client or something. Yes, of course. Of course that's what it says now. Contains that, yes, practically, but still. Yes.

Interviewer 01:14:15,380-01:14:41,540

Exactly. The whole thing is then discussed in the middle. Quality control or quality assurance or the other process described in detail before is checked and feedback is given here, if I have understood it correctly, again via the respective written form or verbally.

Ms Smith 01:14:43,210-01:15:05,640

Exactly. But then that is also recorded in protocols and other things. So logically everything should be recorded as completely as possible. Because if you just say something in the meeting, you can assume that nobody will remember it until the next meeting. That's why documentation is incredibly important.

Interviewer 01:15:07,590-01:15:16,320

And these logs of changes that have to be made now, they are then also on Confluence, aren't they? In what way?

Ms Smith 01:15:17,100-01:16:01,450

Yes No, because that is still in the request itself, in the request elevation. And there we are purely in the internal history. That means requirement. We are, of course, in exchange with the customer for a very high level of data collection, but that is the way the requirement is collected. An elevation to the design is internal for us. That means that this is really purely internal communication and therefore it doesn't have to go to the external part of Confluence, but, for example, internally used current account. Of course, we also create tickets for things that still have to be done anyway. Yes.

Interviewer 01:16:08,450-01:16:42,560

Okay. Here. Then on my piece of paper, as long as the last question again asks the opposite view now, of course the requirement, user research would make certain demands on the disciplines involved. But on the other hand, these disciplines also make demands on the results of the user research. Yes.

Ms Smith 01:16:42,950-01:16:43,400

Exactly.

Interviewer 01:16:44,190-01:16:50,630

Can you verbalise them like that, what they are? Or is that also very dependent?

Ms Smith 01:16:50,740-01:17:57,670

Yes you can actually because the requirements for family that's a bit doubled now. The requirements for the requirements survey is that I cover topics. I have to cover them in full. That is exactly what is important. Above all, it must be made comprehensible. It really must be formulated in a way that is fully comprehensible. And for me it always depends on who I'm communicating with, because communication between me and the design logically looks different from communication between me and the programming at its core. Whereas you can generally say that communication between me and the design are mostly wireframes. Um, and the communication between me and the programming is usually more like tickets.

Interviewer 01:17:58,630-01:17:59,290

In Jira?

Ms Smith 01:17:59,500-01:19:44,960

Yes Jira, just the user stories. We can, apart from the tickets, it's, it's just, these are the user stories because here are in the tickets so. Exactly. Of course, the users have to correspond directly with the briefings. Of course, that's very, very important. But yes, of course. At the end of the day, that's what's required. So, I have to understand what the client is telling me. I have to understand that. I have to understand the customer, I have to understand, What does the customer want? I might have to. I have to think about

what the. What is the best way to say this? You have to think about what actually? So how can the theme be implemented well? The question is, how can that be? You simply have to think through processes logically. This means that the client may have an idea of something, but may be stuck in his old programme. That means that as an outsider you simply have the chance to see things a little more impartially or more clearly. And perhaps you can use this to come up with other approaches to solutions. Yes, that means you really have to think along with them. And. And to prepare things as comprehensibly and efficiently as possible. Because at the end of the day, the result must be an optimal solution that actually makes the work easier.

Interviewer 01:19:45,380-01:20:19,050

Yes exactly. And here then my last question We have now already talked about how adjustments are usually reported back. Can you think of an ideal form or do you prefer one of those or is the most ideal form not used at all? But you say if it was reported back one way or the other, that would be much better for me. Can you think of a. Yes ideal form for feedback of adjustments.

Ms Smith 01:20:20,580-01:21:53,460

Indeed. I have to say. It's not the case in our project now or in the project I'm working in now and it hasn't been tested yet. What I could imagine, though, is that we have many different stakeholders. Because we have many different stakeholders who should and must all be kept up to date, it would actually make the work easier if we could map everything in a programme that the stakeholders all have access to and that all stakeholders, as I mentioned earlier, who are familiar with it, who also understand it. Meaning. From Florence, unfortunately, can. So can very, very much can incredibly much. Unfortunately not. Not everything I would wish for, but still accepted. We are right now in a project where we use Confluence. All right, that means in the sense of who actually for me. So if we were to say, in our project, we would actually use Confluence for communication, that wouldn't be a problem in and of itself, because PowerPoint can be uploaded in Confluence, everything can be uploaded. And good.

Interviewer 01:21:53,640-01:21:59,670

They have to be created again and then you have different communication channels again.

Ms Smith 01:22:00,450-01:23:00,510

I think in everything it's not possible. So certain things, for example wireframes, you can't design on Confluence, it just doesn't work. Then you have to work with the fact that you have to upload these files. But for example, not to make tables in Excel, but to make them directly in Confluence. Not to write user stories in PowerPoint, but to do it directly in Confluence. So these would really be things if you could practically reduce the platform or the programmes where possible, maybe not everywhere, but possibly there. Then I think. Yes, that would be. That would be quite a big relief. Because Confluence, for example, offers the possibility of writing comments and even processing comments. So, that means, theoretically, everything would be there.

Interviewer 01:23:03,690-01:23:12,240

And what is the reason that this still has to run via PowerPoint and Excel or other tools?

Ms Smith 01:23:12,390-01:24:05,180

The familiarisation effort because as I said if the stakeholders don't feel confident to work with the

programme or if. If it is simply said there is. We don't have enough time for training, then it doesn't take place or there may be a lack of access. That is another point. It has already failed. So there are many different reasons for this. Because, unfortunately, everyone has MS Office. And I don't know anyone who doesn't have it. So it's very, very easy. There's no need for training and nothing at all. Well, but accordingly.

Interviewer 01:24:10,260-01:24:36,010

Yes, yes, I understand that. Okay, then I have actually ticked everything off my list. All that's left for me to do is to thank you and ask you if you have any further comments that you would like to make or that you would like to give me on the way, but which I haven't asked you now.

Ms Smith 01:24:38,500-01:26:16,080

I think the only thing I can think of, I mean, I can speak now from my point of view practically the point of view of requirement collection. But because I am involved in other parts, I think that especially when it comes to efficient working. That is actually always the case. So the better the communication goes, the better the project goes. That's been my experience. And that is also the last point. Communication has to happen somehow. Of course it does. Communication in. Communication in workshops is of course great, because you can achieve results incredibly quickly. But as soon as it comes to documentation, you simply have to share content. So I really notice that very strongly, and I don't think it's only in my field! If it were

really possible to work with fewer programmes than with more, and if these programmes really covered what you need for your daily work and did it efficiently, I think you could save a lot of working time. And that's my opinion. Very much.

Interviewer 01:26:17,630-01:26:25,220

Right. So I hope I can come up with a solid proposal for that.

Ms Smith 01:26:27,250-01:26:28,990

Yes, I think so too. Exactly.

Interviewer 01:26:31,460-01:26:52,880

All right. Then, if you don't have any further comments, I would like to finish the protocol or the recording, so to speak, and say goodbye to you and thank you again for taking so much time to describe the whole thing to me again in detail from your point of view and from your approach.

Ms Smith 01:26:54,080-01:26:58,710

Yes, I hope it was helpful. Yes, I have enjoyed myself here very much.

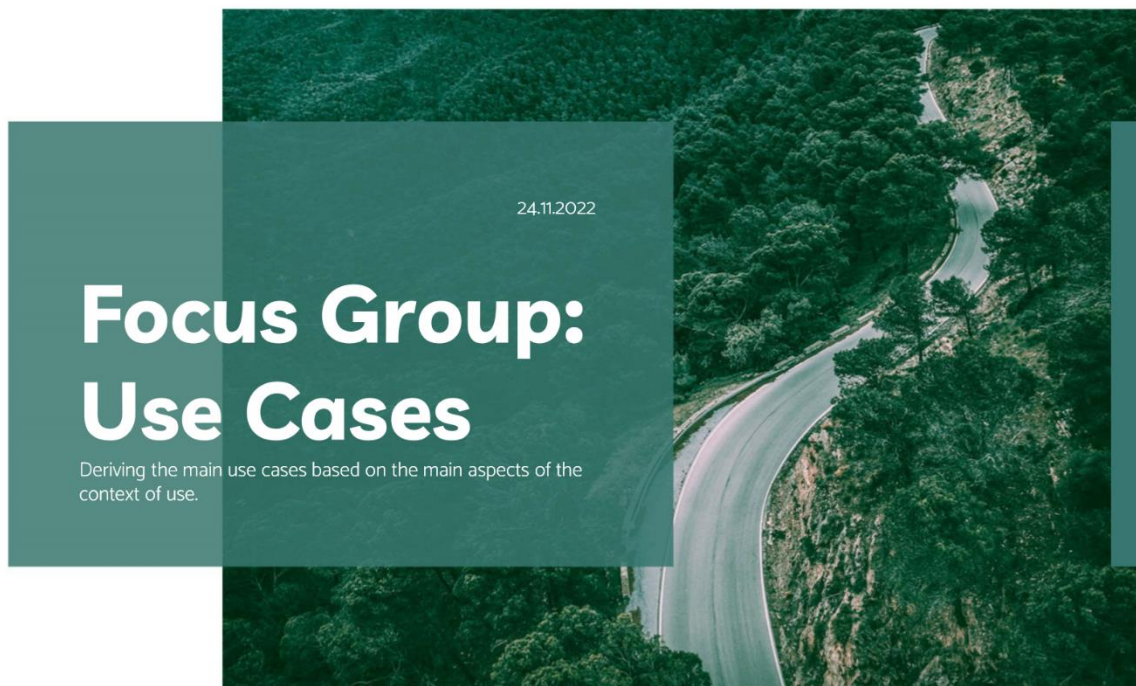
Interviewer 01:26:58,730-01:27:15,860

Really, those were some insights that I just didn't hear in the other interviews. It's quite clear, but that was a different discipline. Thank you. Then I wish you a good day and would say goodbye to the interview.

Ms Smith 01:27:16,750-01:27:18,770

Exactly. Thank you very much too.

Appendix 4: Formatted documents after focus group discussion



INTERVIEW FINDINGS

The main aspects of every discipline mentioned in interviews were taken as a guidance for finding the main use cases our solution should cover.

ADDITIONAL ISSUES

Additional aspects can be included to define further use cases. Chosen aspects can also be exchanged if they do not seem so important.

PLAN FOR THIS
WORKSHOP

ADDING REMARKS

In order to comprehensively understand, formulate and map the use cases, we want to explore the main aspects in more detail, record comments and connect information.

DERIVING USE CASES

Based on today's results, I will formulate the main use cases in detail. This will form the basis for our next meeting and the further priorities the aspects to be mapped in wireframes



PLAN OF THIS WORKSHOP

Colour Coding for post-it's, finding origin & corresponding use cases:



USER RESEARCH
Best if everyone uses one tool for exchanging information.

Ticket function etc. necessary for programming
Familiar use of MS Office (training effort for stakeholders)
Documentation, synchronicity and compatibility

The trend towards one tool is currently gaining ground among SMEs

Parallel data storage often leads to inconsistencies and high manual effort for synchronisation.

Imagination often not given (visual input necessary) especially for complex processes

Why everyone still wants PP: Most cannot express themselves adequately for implementation
Urge to see "what would it look like if ... ?" in PP

Common language probably not only to be regulated via tool

This also depends on the company mentality (waterfall vs. agile).

"Agile" is often misused to define requirements less precisely

"It's great that we develop in an agile way, then we can decide at the end".
Process is often not properly understood

Depends on reasons for change and how long they will be allowed to continue

Exchange becomes easier the better you know each other (and disciplines)

Requirements of the (end) customer must be met in spite of everything

Leads to compromises & iterations

Gets complex to overview especially for novice users

Data management in the background among developers often logical in exchange, not necessarily comprehensible for Uxler, because not on the surface. For them, the interface is "easy", but programming in the background is "difficult".
Different levels of discussion about the same topic

Jira (not suitable for surveys are coined in tickets) & Confluence often both used

Jira develops more and more interfaces

Use Case 1

USER RESEARCH

Design and programming must be able to implement elicited requirements.

Requirements elicitation must be complete and understandable. "Complete and comprehensible" have subject-dependent meanings. Requirements implementation automatically checked via working basis of WS (wireframes and user stories)
Checking requirements for correctness and completeness is important

Challenges for design & programming on different levels

An overview of what requirements depend on (what is influenced by what, also in the case of changes) would be very helpful.

Agile links cannot currently be created with tools

Data often available in local files

As with programming with inheritance On requirements etc. Transferable process possible?

"Inheritances / silos" create dependencies that are difficult to keep track of in extensive projects (What no longer works when I change xy?).

"Development only needs to be able to implement what it can".

Use Case 2

USER RESEARCH

Task complexity depends on the customer's explanation skills and how much clarity they already have about their expectations and wishes.

Only in UX-related projects, less in the connection of backend systems where a visualisation of communication models is needed (who needs which data, when, how, from where).

Separation of these issues is important in large projects

Aspects cannot be imagined must be shown in screens

Better than verbal are sketches that the client can use to communicate their requirements.

Use Case 2

USER RESEARCH

MS Office documents such as Word, Excel and PowerPoint will always be needed when communicating with clients.

Most of the computer users know MS Office
Reduced training effort and willingness to learn or let employees learn new tools

1. customers who deal with software development usually do not do it permanently, mostly they are key users. They usually have no other tools at their disposal (especially Excel, and no know-how about settings, import, export, etc.).

2. especially PowerPoint: to convey and document diversity of information, similar to "written on a blackboard".

Familiar operation

Use Case 6

DESIGN

Non-disclosure agreements slow down processes.

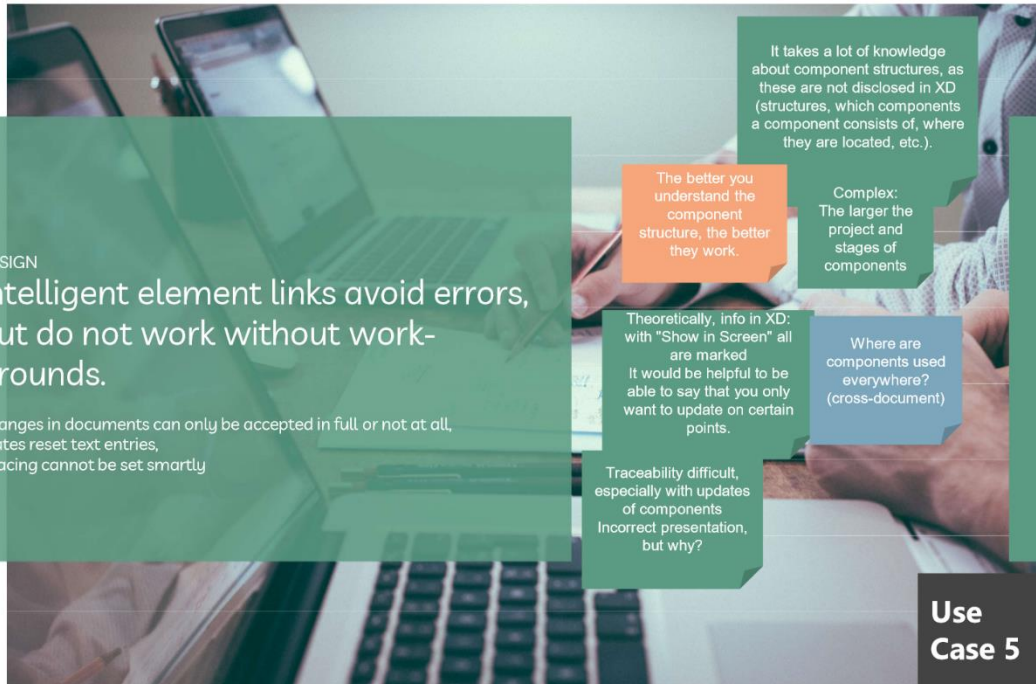
Communicating via client-internal, "secure" systems and individuals is more time-consuming than direct communication.
Security exclusion of clouds prevents simultaneous work in a document and makes file management necessary to find most recent files and still have access to older design versions.

Internal tools often complicated and not very functional (work arounds necessary).

Legal necessities cannot be eliminated - it is important to clarify these beforehand!

Use graphic design to sell things
explain things - make things look
better, make people like it, make
people do things you want them to do
change the world. **Not the Internet**

Use Case 1



DESIGN

Intelligent element links avoid errors, but do not work without work-arounds.

Changes in documents can only be accepted in full or not at all, States reset text entries, Spacing cannot be set smartly

It takes a lot of knowledge about component structures, as these are not disclosed in XD (structures, which components a component consists of, where they are located, etc.).

The better you understand the component structure, the better they work.

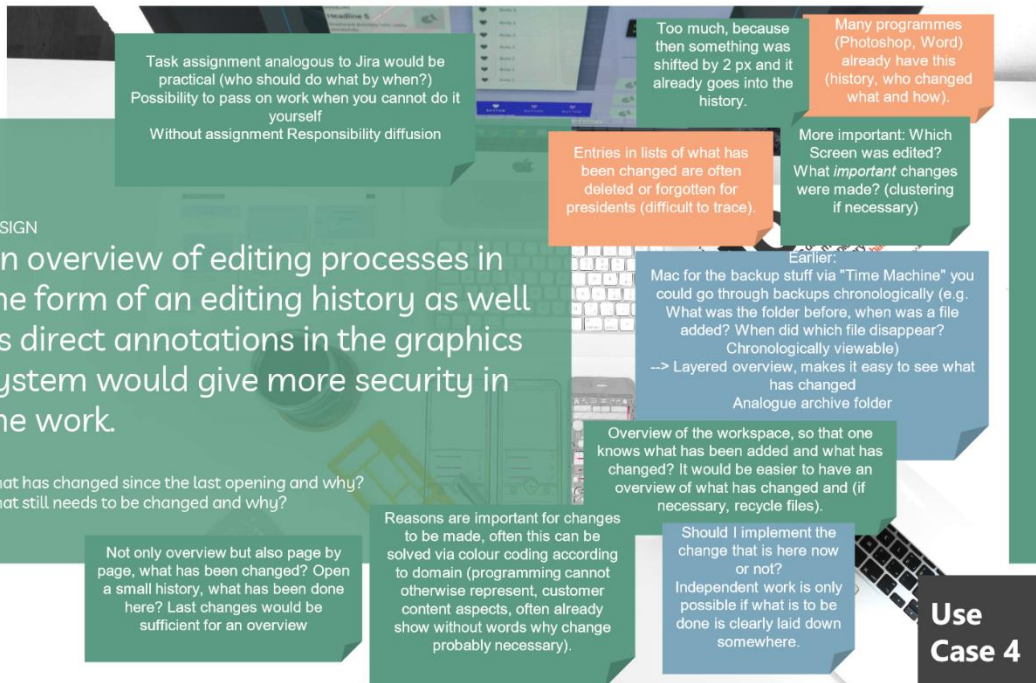
Complex: The larger the project and stages of components

Theoretically, info in XD: with "Show in Screen" all are marked It would be helpful to be able to say that you only want to update on certain points.

Where are components used everywhere? (cross-document)

Traceability difficult, especially with updates of components Incorrect presentation, but why?

Use Case 5



DESIGN

An overview of editing processes in the form of an editing history as well as direct annotations in the graphics system would give more security in the work.

What has changed since the last opening and why? What still needs to be changed and why?

Task assignment analogous to Jira would be practical (who should do what by when?) Possibility to pass on work when you cannot do it yourself Without assignment Responsibility diffusion

Too much, because then something was shifted by 2 px and it already goes into the history.

Many programmes (Photoshop, Word) already have this (history, who changed what and how).

Entries in lists of what has been changed are often deleted or forgotten for presidents (difficult to trace).

More important: Which Screen was edited? What important changes were made? (clustering if necessary)

Earlier: Mac for the backup stuff via "Time Machine" you could go through backups chronologically (e.g. What was the folder before, when was a file added? When did which file disappear? Chronologically viewable) -> Layered overview, makes it easy to see what has changed Analogue archive folder

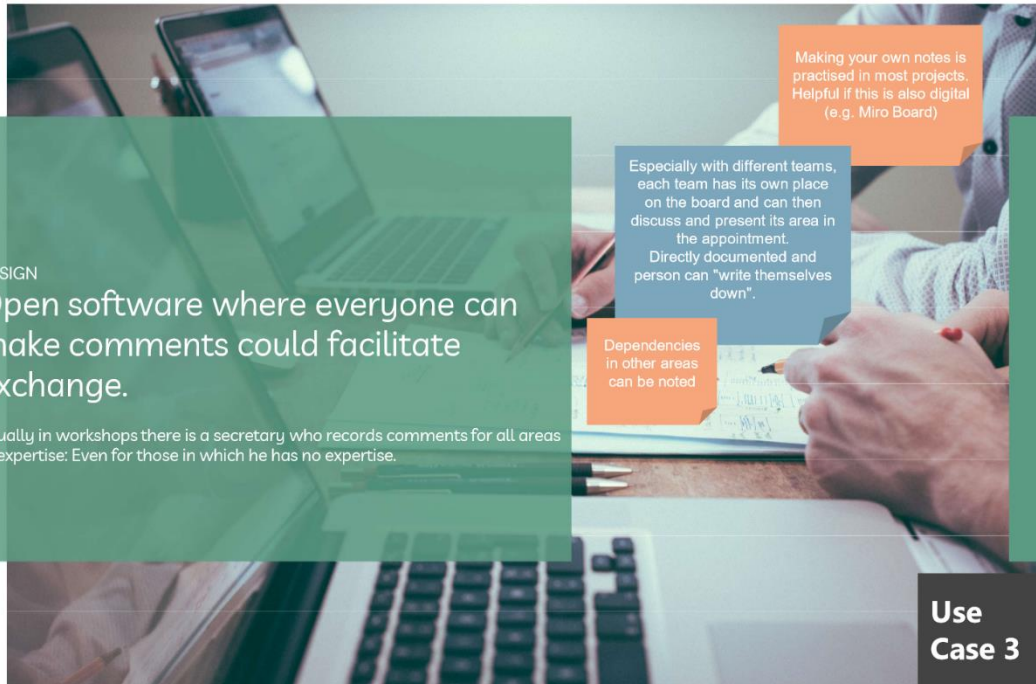
Overview of the workspace, so that one knows what has been added and what has changed? It would be easier to have an overview of what has changed and (if necessary, recycle files).

Not only overview but also page by page, what has been changed? Open a small history, what has been done here? Last changes would be sufficient for an overview

Reasons are important for changes to be made, often this can be solved via colour coding according to domain (programming cannot otherwise represent, customer content aspects, often already show without words why change probably necessary).

Should I implement the change that is here now or not? Independent work is only possible if what is to be done is clearly laid down somewhere.

Use Case 4



DESIGN

Open software where everyone can make comments could facilitate exchange.

Usually in workshops there is a secretary who records comments for all areas of expertise: Even for those in which he has no expertise.

Making your own notes is practised in most projects. Helpful if this is also digital (e.g. Miro Board)

Especially with different teams, each team has its own place on the board and can then discuss and present its area in the appointment. Directly documented and person can "write themselves down".

Dependencies in other areas can be noted

Use Case 3



DESIGN

Exchange takes place via comments in documents, emails and online tools. In addition, ideas are discussed in WS and agreed with the different stakeholders.

Programming (concept vs. feasible) and professionalism (concept vs. everyday practices) can contribute comments. Design and RE are usually agreed upon beforehand. Adaptations are incorporated

The more tools, the more difficult it is to synchronise, especially when comments contradict each other.

Sometimes changes are sent by people who have no continuous involvement in the project (and thus do not know what has already been discussed or may be reconsidered).

To see things like this, people have to make their own notes in a whiteboard. **Notes Board**

Reasons are important for changes to be made, often this can be solved via colour coding according to domain (programming cannot otherwise represent, customer content aspects, often already show without words why change probably necessary).

Use Case 3

DESIGN

Programmers want to use existing standard elements, but designers want to see their concept implemented.

Compromise is found in coordination.
Late feedback that something does not work usually means a lot of adaptation work.
Design and UR work out topics with the same views.

True!

- In software, changes often have a higher risk, impulses to change have to come from outside
- Proposals need to be discussed with programming before exact incorporation
- Designers need to know about what might be difficult (still need to consult if it helps user)
- Lower willingness to "learn" or open up new things
- Cost-benefit consideration important
- Programmers must be willing to compromise and embrace new designs
- Features have to be developed customer-driven (do we know that the customer really needs xy?)
- Implementation frameworks cannot be influenced by programmers. If there is no option there is no option.

Use Case 2

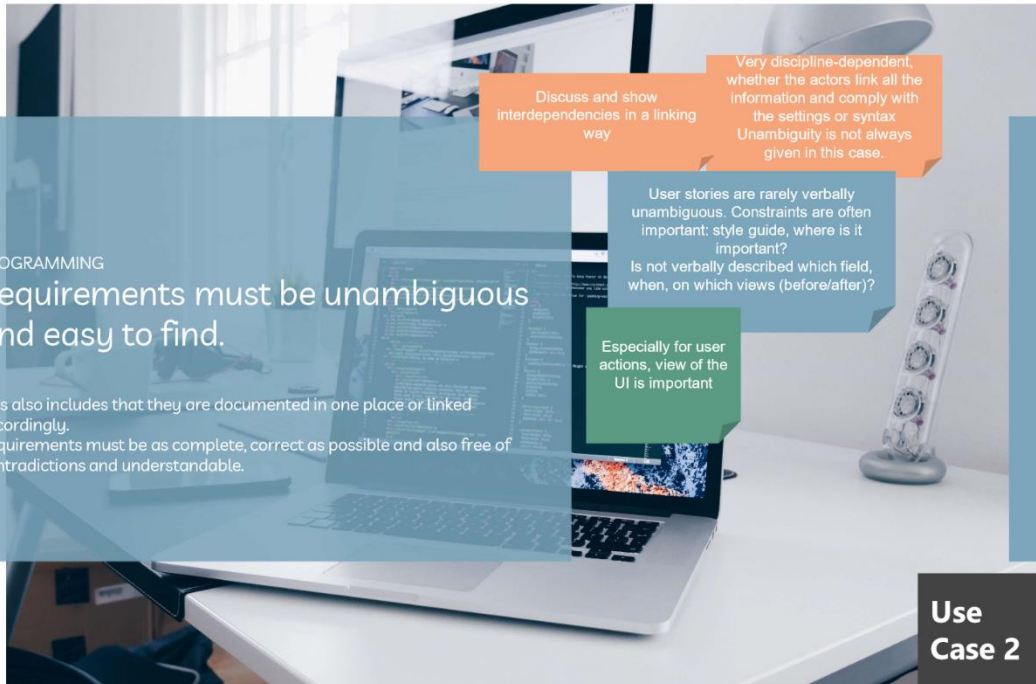
PROGRAMMING

A compromise must be found between individual design and programming effort.

Designers must have a sense of what is possible within the development environment.
Customer requirements must be reflected in the programmed application.

- If templates already existed as CSS, processes could be facilitated. However, the development environment must be taken into account here (tool dependencies, which data formats are optimal).
- Autocode only works for what is shown. Background is not "seen" = not taken into account. Animations can be intercepted better via autocode. Autocode also has to be considered from a licensing point of view (Can I sell it? Do I have to pay a licence fee? Or does the client?).
- Figma a little more relaxed, but basically autocode difficult.
- UI prototype as a template practically.
- Error correction difficult
- Legal examination possible
- Most of the time, autocode as a template is hardly "readable" / helpful

Use Case 2



PROGRAMMING

Requirements must be unambiguous and easy to find.

This also includes that they are documented in one place or linked accordingly. Requirements must be as complete, correct as possible and also free of contradictions and understandable.

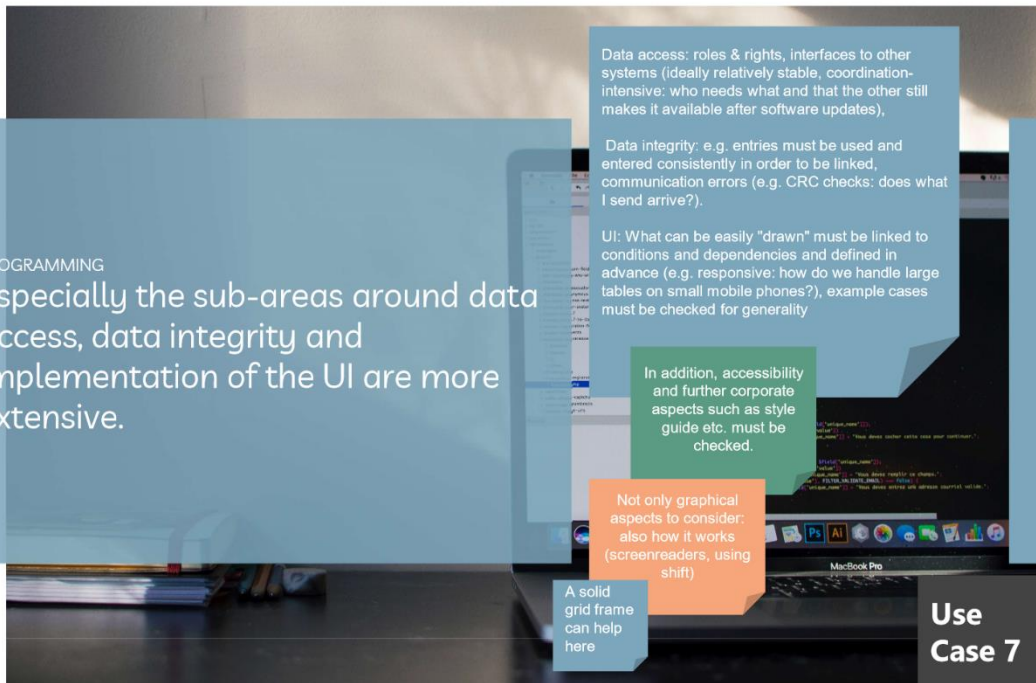
Discuss and show interdependencies in a linking way

Very discipline-dependent, whether the actors link all the information and comply with the settings or syntax. Unambiguity is not always given in this case.

User stories are rarely verbally unambiguous. Constraints are often important: style guide, where is it important?
Is not verbally described which field, when, on which views (before/after)?

Especially for user actions, view of the UI is important

Use Case 2



PROGRAMMING

Especially the sub-areas around data access, data integrity and implementation of the UI are more extensive.

Data access: roles & rights, interfaces to other systems (ideally relatively stable, coordination-intensive: who needs what and that the other still makes it available after software updates),

Data integrity: e.g. entries must be used and entered consistently in order to be linked, communication errors (e.g. CRC checks: does what I send arrive?).

UI: What can be easily "drawn" must be linked to conditions and dependencies and defined in advance (e.g. responsive: how do we handle large tables on small mobile phones?), example cases must be checked for generality

In addition, accessibility and further corporate aspects such as style guide etc. must be checked.

Not only graphical aspects to consider: also how it works (screenreaders, using shift)

A solid grid frame can help here

Use Case 7

THANK YOU!

THANK YOU FOR PARTICIPATING!

NEXT STEPS

Fri, 25.11

Mon, 28.11

Wed, 30.11

Mon, 12.12

Mon, 19.12

PROPOSAL

NEEDS & REQUIREMENTS

Appointment for consultation with [REDACTED]

PRIORITISE USE CASES (USE CASES II)

Supplement information with [REDACTED] use cases already formulated if necessary.

FIRST SCRIBBLES ON THE BASIC STRUCTURE (SCRIBBLES I)

Complete and create sketches with [REDACTED]

PRIORITISE USE CASES AND ELEMENTS

Prioritise the use cases and determine the elements and states, which should be predefined in the tool (e.g. buttons, ...) with [REDACTED]

WIREFRAMES FOR USE CASES (SCRIBBLES II)

Creating processes as they are then to be tested in the prototype with [REDACTED]

Note: Participant names have been blackened.

Appendix 5: Formatted documents after prioritisation workshop

Ausdruck

Sonntag, 12. März 2023
15:42



INTERVIEW FINDINGS

The main aspects of every discipline mentioned in interviews were taken as a guidance for finding the main use cases our solution should cover.

FOCUS GROUP ASPECTS

Additional aspects were included to define further use cases. They have been summarized and accomplish requirements and main statements of interviews.

PRIORIZING USE CASES

In order to create wireframes that fit to the most important use cases, we want to prioritize the derived aspects to guide further development.

CREATING WIREFRAMES

Based on today's results, I will start to create a first visual and content concept to iteratively further develop.

Presente Use Cases

The use cases presented were derive according to the following example from:

<https://www.usability.gov/how-to-and-tools/methods/use-cases.html>

Middleweight Laundry Use Case
Basic Flow

Use Case 1	Do laundry
Actor	Housekeeper
On Wednesdays, the housekeeper reports to the laundry room. She sorts the laundry that is there. Then she washes each load. She dries each load. She folds the items that need folding. She throws away any laundry item that is irrevocably shrunken, soiled or scorched.	
Alternative Flow 1	If she notices that something is wrinkled, she irons it and then hangs it on a hanger.
Alternative Flow 2	If she notices that something is still dirty, she rewashes it.
Alternative Flow 3	If she notices that something shrank, she throws it out.

Overview

7 main use cases were derived and formulated for the different (concerned) user groups.

Use Case 1	View domain-relevant information and take domain-relevant actions
Use Case 2	Managing requests of different working areas
Use Case 3	Writing, assigning and viewing comments
Use Case 4	Making adjustments
Use Case 5	Managing object design
Use Case 6	Exchanging project data
Use Case 7	Managing programming aspects

Use Case 1																							
View domain-relevant information and take domain-relevant actions																							
Interviews Main Statements	Best if everyone uses <u>one</u> tool for exchanging information. Non-disclosure agreements slow down processes.																						
User Requirements	<table border="1"> <tr> <td>R01</td> <td>The user must be able to pass on information to other users on the Interactive System.</td> </tr> <tr> <td>R05</td> <td>The user must be able to overview all information on the interactive system.</td> </tr> <tr> <td>R21</td> <td>The user must be able to overview pending tasks on the interactive system.</td> </tr> <tr> <td>R22</td> <td>The user must be able to recognise deadlines for pending tasks on the interactive system.</td> </tr> <tr> <td>R27</td> <td>The researcher must be able to recognise all information from meetings on the interactive system.</td> </tr> <tr> <td>R28</td> <td>The user must be able to enter all information from meetings into the interactive system.</td> </tr> <tr> <td>R32</td> <td>The PMO must be able to see from the interactive system how much time and budget are currently available for a project.</td> </tr> <tr> <td>R40</td> <td>The user must be able to overview the project structure on the interactive system.</td> </tr> <tr> <td>R42</td> <td>The head of programming must be able to keep track of upcoming tasks on the interactive system.</td> </tr> <tr> <td>R43</td> <td>The Head of Programming must be able to identify available capacities on the interactive System.</td> </tr> <tr> <td>R06</td> <td>The user must be able to enter information on the interactive system.</td> </tr> </table>	R01	The user must be able to pass on information to other users on the Interactive System.	R05	The user must be able to overview all information on the interactive system.	R21	The user must be able to overview pending tasks on the interactive system.	R22	The user must be able to recognise deadlines for pending tasks on the interactive system.	R27	The researcher must be able to recognise all information from meetings on the interactive system.	R28	The user must be able to enter all information from meetings into the interactive system.	R32	The PMO must be able to see from the interactive system how much time and budget are currently available for a project.	R40	The user must be able to overview the project structure on the interactive system.	R42	The head of programming must be able to keep track of upcoming tasks on the interactive system.	R43	The Head of Programming must be able to identify available capacities on the interactive System.	R06	The user must be able to enter information on the interactive system.
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R43	The Head of Programming must be able to identify available capacities on the interactive System.																						
R06	The user must be able to enter information on the interactive system.																						
Focus Group Aspects	<p>Enable domain-specific views of overarching issues and domain-specific actions.</p> <p>Process understanding (e.g., work packages, interrelationships, meaning of 'agile')</p> <p>Uniform understanding of different topics</p> <p>Enable visualisation (e.g. screens, sketches, communication models)</p>																						

Use Case 1

View domain-relevant information and take domain-relevant actions

Precondition: The tool knows from which domain the user comes and which information (role system) and actions (rights system) must be provided.

Actuator: Customers, User Researcher, Designer, Programmer

Description: When opening the application, a domain-specific view is displayed in which the customer can overview the topics relevant to him. Within the different topics, he can perform actions relevant to him.

Prioritized aspects to be mapped in wireframes:

(Different) domain-linked actions and view for (different) users in all aspects of the system:
Tool structure / navigation,
Viewing overviews (e.g., tasks, deadlines, process)

Use Case 2

Managing requests of different working areas

Interviews
Main Statements

- Design and programming must be able to implement elicited requirements.
- Task complexity depends on the customer's explanation skills and how much clarity they already have about their expectations and wishes.
- Programmers want to use existing standard elements, but designers want to see their concept implemented.
- A compromise must be found between individual design and programming effort.
- Requirements must be unambiguous and easy to find.

User Requirements

- R02 The designer must be able to recognise from the interactive system which aspects surround an application to be developed.
- R03 The designer must be able to recognise from the interactive system which framework conditions the development environment places on the design.
- R23 The user must be able to overview all requirements on the interactive system.
- R39 The researcher must be able to recognise from the interactive system whether requirements collected are complete from the customer's point of view.
- R41 The programmer must be able to recognise from the interactive system which general functions an application must fulfil.
- R46 The programmer must be able to recognise current wireframes on the interactive system.
- R47 The programmer must be able to recognise from the interactive system which graphic aspects he needs to create.
- R48 The programmer must be able to recognise from the interactive system which function certain elements must have.
- R29 The researcher must be able to document requirements on the interactive system.
- R30 The researcher must be able to link requirements on the interactive system.

Focus Group
Aspects

- Proper documentation (+ linking) essential
- Finding without having to search (central) as a major goal.
- Recognising connections.
- Recognise dependencies (where does this play in and what is influenced when I change something).
- Coordinate requirements of design + programming / compromise

Managing requests of different working areas

Precondition: Initial meetings with the client have been held.

Actuator: User Researcher

Description: After the first meetings, the user researcher documents the requirements in the system. In addition, dependencies between requirements are documented. After documentation, the requirements are passed on to the customer for review.

Alternative flow 1: At a later stage of the project, a combination of verbal requirements with graphic elements is created.

Alternative flow 2: A query to the customer regarding a requirement is necessary. (see UC 3)

Precondition: Initial requirements have been collected and documented.

Actuator: Customer

Description: After the initial requirements have been collected and documented, the customer surveys them.

Alternative flow 1: The customer wants to change a requirement (see UC 3)

Alternative flow 2: The customer wants to delete a request (see UC 3)

Alternative flow 3: The customer wants to add a request (see UC 3)

Precondition: Initial requirements have been collected, documented and corrected if necessary.

Actuator: Designer

Description: After the initial user research has been completed, the designer surveys the requirements and creates a rough concept based on this. In the rough concept, requirements are linked to implementation aspects.

Alternative flow 1: The designer documents requirements on the part of the design in writing in addition to the visual representation (colours, spacing, etc.).

Alternative flow 2: The designer does not understand a requirement. (see UC 3)

Alternative Flow 3: The designer does not understand a relationship between requirements. (see UC 3)

Precondition: An initial rough design has been created by the designer and confirmed by the client.

Actuator: Programmer

Description: After the first rough concept has been created, the programmer inspects the concept and the associated requirements. In addition, requirements that cannot necessarily be represented visually (e.g. development environment) are inspected. The programmer decides on a suitable development environment and comments on which aspects can or cannot be implemented in it.

Alternative flow 1: The programmer does not understand a requirement. (see UC 3)

Alternative flow 2: The programmer does not understand a relationship between requirements or requirements and graphic element. (see UC 3)

Alternative flow 3: The programmer does not understand a graphic element. (see UC 3)

Prioritized aspects to be mapped in wireframes:

Overview of requirements
View requirements in detail

See the connections between requirements and aspects dealt with, including graphical aspects.

Be able to recognise completeness of requirements elicitation

Writing, assigning and viewing comments

Interviews
Main Statements

- Open software where everyone can make comments could facilitate exchange.
- Exchange takes place via comments in documents, emails and online tools. In addition, ideas are discussed in WS and agreed with the different stakeholders.

User Requirements

R19 The user must be able to see on the interactive system which comments are relevant to him or her.

R20 The user must be able to address comments to other users on the interactive system.

R37 The PMO must be able to see from the interactive system the completeness of the task as perceived by the client.

Focus Group
Aspects

- Disciplines can present and add their own notes ("Miro principle")
- Identifiability from which domain notes come contributes to the understanding of the commentary

Use Case 3

Writing, assigning and viewing comments

Precondition: System information that serves as a basis for comments is available in the system.

Actuator: Customers, User Researcher, Designer, Programmer

Description: After information is in the system, the user selects an information unit and writes a comment on it.

Precondition: System information that serves as a basis for comments is available in the system.

Actuator: Customers, User Researcher, Designer, Programmer

Description: After information is in the system, the user selects an information unit and writes a comment on it.

Prioritized aspects to be mapped in wireframes:

Comment on project data in a targeted manner

Address comments according to responsibility

Recognise relevant comments

Use Case 4

Making adjustments

Interviews
Main Statements

- An overview of editing processes in the form of an editing history as well as direct annotations in the graphics system would give more security in the work.

User Requirements

R08	The designer must be able to work on the interactive system with several people at the same time.
R14	The designer must be able to see on the interactive system what changes have already been made to the designs.
R15	The designer must be able to recognise from the interactive system for what reason why there have been certain changes to the design.
R16	The designer must be able to see from the interactive system which changes are needed.
R17	The designer must be able to recognise on the interactive system where changes are needed in the design.
R18	The designer must be able to recognise from the interactive system the reason why certain changes to the design are needed.
R35	The designer must be able to select on the interactive system that requirements have been implemented.
R36	The user must be able to overview the implementation status of requirements on the interactive system.
R45	The head of programming must be able to see from the interactive system which tasks have already been completed.
R49	The programmer must be able to recognise from the interactive system which changes in the developed application are needed.
R50	The programmer must be able to recognise from the interactive system where changes in the developed application are needed.

Focus Group
Aspects

- View required changes (To Dos) and their reasons (see also: Set comments).
- Task assignment (date and person cf. Jira)
- Domain of the comment author indicates reason for change
- Carry out change vs. discuss internally (visible)
- View already integrated changes (Done) and their reasons
- Traceability through chronological display of changes (clarity important: general vs. details)

Use Case 4

Making adjustments

Precondition: The adaptation of documented requirements is necessary due to a meeting or comment.

Actor: User Researcher

Description: After a meeting or posting of a written comment, the researcher inspects it. He adjusts the already documented requirements according to the notes. To do this, he changes the description, adds a link to another requirement and a graphic element, and deletes an existing link to a requirement. The edited comment is marked accordingly.

Alternative flows: possible according to (see UC 3).

Precondition: Adaptation of documented requirements is necessary due to a meeting or comment.

Actuator: Designer

Description: After the necessity of an adjustment to the graphical representation has been documented (cf. comments), the designer overviews this for his work areas by getting an overview of when which work area has to be discussed in WS and which comments are available.

Alternative flows: possible according to (see UC 3).

Precondition: Programming adjustment is necessary due to a meeting or comment.

Actuator: Programmer

Description: After a meeting or the posting of a written comment, the programmer reviews it. Then adjustments are made accordingly and their degree of implementation is marked.

Alternative flows: possible according to (see UC 3).

Precondition: An adaptation of documented requirements has been made.

Actor: User Researcher

Description: After an adjustment has been made, the researcher can view the history of changes and their reasons.

Alternative flows: possible according to (see UC 3).

Precondition: An adjustment of the graphical representation has been carried out.

Actuator: Designer

Description: After an adjustment has been made to the graphical representation, the designer reviews it by both getting an overview and specifically viewing certain changes and their reasons.

Alternative flows: possible according to (see UC 3).

Precondition: An adjustment of the programming has been carried out.

Actuator: Programmer

Description: After an adjustment has been made to the programming, the programmer overviews it and decides according to the implementation status of the tasks which adjustments will be made next.

Prioritized aspects to be mapped in wireframes:

Being able to track reasons for changes and change requests

See exactly where changes are needed
Apply changes to selected (same) representations

Use Case 5

Managing object design

Interviews
Main Statements

- Intelligent element links avoid errors, but do not work without work-arounds.

User Requirements

- R12 The designer must be able to transfer changes to all states of an element on the interactive system.
- R13 The designer must be able to select on the interactive system for which elements changes are to be applied.
- R09 The designer must be able to select reference elements for multiple representations on the interactive system.
- R11 The designer must be able to recognise the needed space between elements on the Interactive System.

Focus Group
Aspects

- Define and apply properties (spacing, colours)
- Link to other elements (component creation)
- Link to verbal requirement criteria such as user stories, properties (see also UC 2)
- Identify where elements are used everywhere
- Change elements
- Project changes vs. changes in parts of the project
- Identify the consequences of a change
- Apply changes to elements in representations/components selectively

Use Case 5

Managing object design

Precondition: Project elements were created in the graphics programme.

Actuator: Designer

Description: After the designer has created project elements in the graphics programme, he uploads them to the system and defines important properties (TBD what does programming need how).

Precondition: Project elements have been revised in the graphics programme.

Actuator: Designer

Description: After the designer has revised project elements in the graphics programme, he replaces them in the system and corrects important properties.

Precondition: Screens or elements of a specific work package must be revised.

Actuator: Designer

Description: The designer adjusts screens within a work package. He does not edit the elements globally, but locally within a work package. He makes this change on one screen and decides to which screens it should be transferred.

Prioritized aspects to be mapped in wireframes:

Set properties for objects (graphical/behavioural)

View the use of objects

Be able to edit object data (graphically/behaviourally) for project or sub-areas

Use Case 6

Exchanging Project Data

Interviews
Main Statements

- MS Office documents such as Word, Excel and PowerPoint will always be needed when communicating with clients.

User Requirements

R04 The user must be able to export information in different formats (e.g., MS Office formats, tickets) on the interactive system.

R33 The researcher must be able to select information references for multiple display on the interactive system.

R34 The user must be able to select different display options for information (e.g., tables, tickets) on the interactive system.

Focus Group
Aspects

- MS Office tools: widespread use, familiar (thus "simple") operation
- Diversity for information presentation

Use Case 6

Exchanging Project Data

Precondition: Data exchange via local files has taken place.

Actuator: User Researcher

Description: After data has been exchanged via local files, the User Researcher inserts them into the system.

Prioritized aspects to be mapped in wireframes:

Upload and download documents

Integrate uploaded information into the system in a comprehensible way

Integrate system information to external systems

Use Case 7

Managing programming aspects

Interviews
Main Statements

- Especially the sub-areas around data access, data integrity and implementation of the UI are more extensive.

User Requirements

R44 The programmer must be able to recognise from the interactive system which standardised interfaces can be used.

Focus Group
Aspects

- Manage data access, data integrity and UI implementation.
- Data access: roles & rights, interfaces to other systems (ideally relatively stable, coordination-intensive: who needs what and that the other still makes it available after software updates).
- Data integrity: e.g. entries must be used and entered consistently in order to be linked, communication errors (e.g. CRC checks: Does what I send arrive?)
- UI: What can be easily "drawn" must be linked to conditions and dependencies and defined in advance (e.g., responsive: how do we handle large tables on small mobile phones?), example cases must be checked for generality.
- Accessibility and corporate aspects must be checked.

Use Case 7

Managing programming aspects

Precondition: A design template has been created and the associated component list is complete.

Actuator: Programmer

Description: The programmer inspects the design template and displays the currently focused information. These concern various role-specific views, sources of information such as key lists or interfaces to other systems, and other programming notes (e.g. suggestions for using standardised interfaces).

Prioritized aspects to be mapped in wireframes:

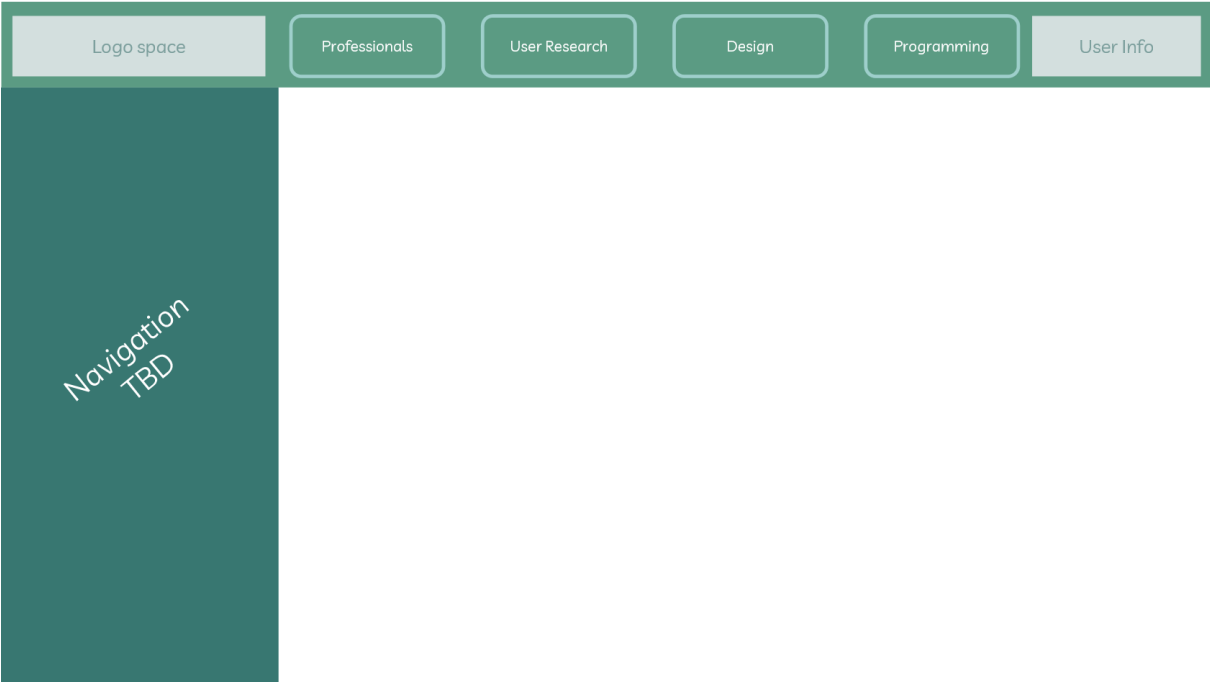
View object data in detail

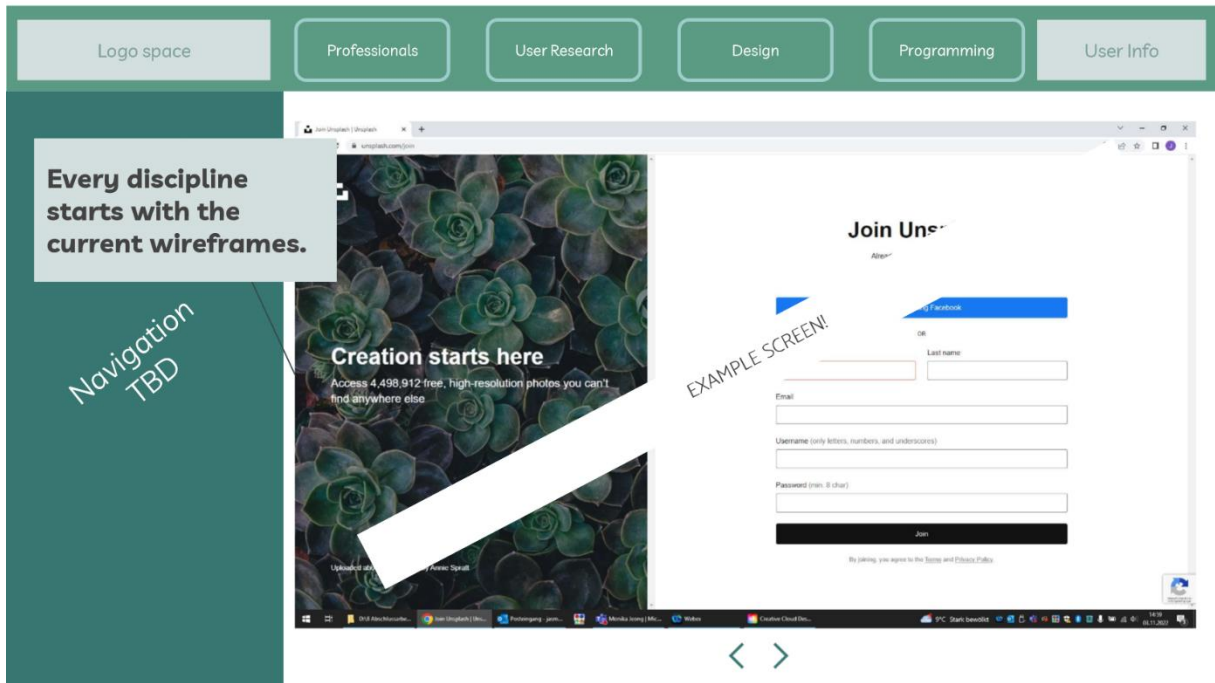
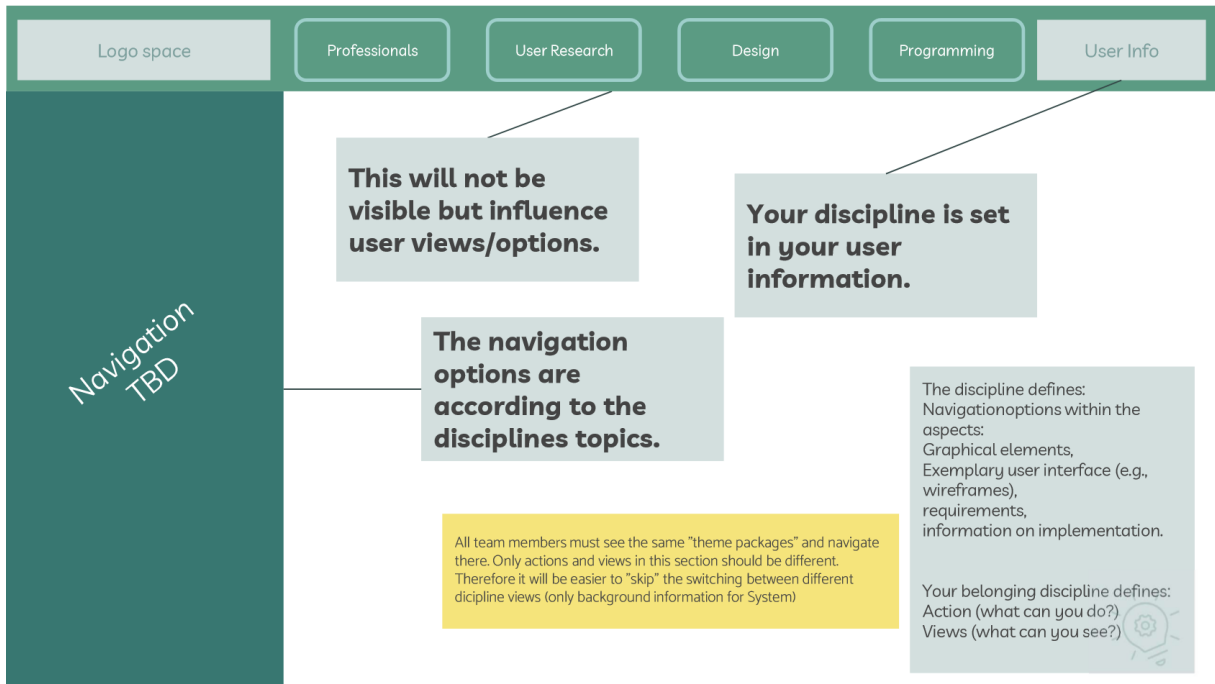
View graphical aspects in detail

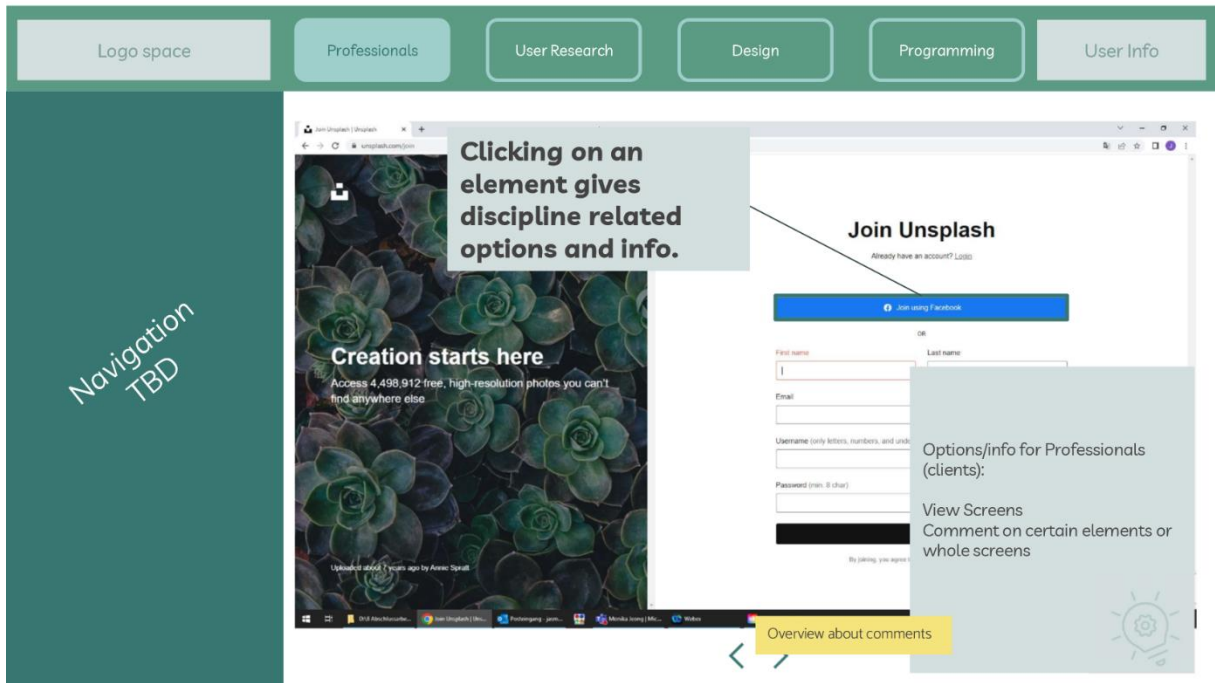
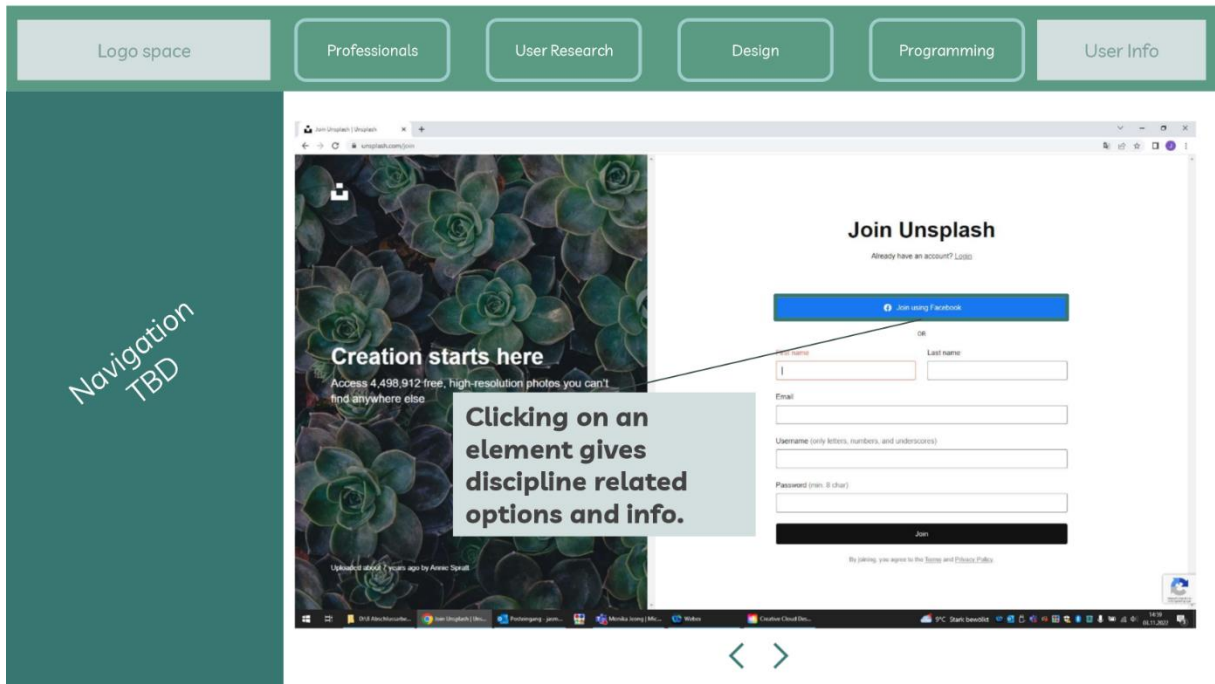
Overview: Graphical representation and data of used objects

Security regarding accessibility of implemented graphics / sizes / fonts

EXPERT ROUND 1







Logo space Professionals User Research Design Programming User Info

Navigation TBD

Clicking on an element gives discipline related options and info.

Join Unsplash
Already have an account? [Login](#)

Join using Facebook

OR

First name: Last name:

Email:

Username (only letters, numbers, and underscores):

Password (min. 8 char):

By joining, you agree to our Terms of Service and Privacy Policy

Options/info for User Researchers:
View Screens
Comment on certain elements or whole screens

Overview about comments, linking User Requirements (enable from both sides: here and in Requirements section)

< >

Logo space Professionals User Research Design Programming User Info

Navigation TBD

Clicking on an element gives discipline related options and info.

Join Unsplash
Already have an account? [Login](#)

Join using Facebook

OR

First name: Last name:

Email:

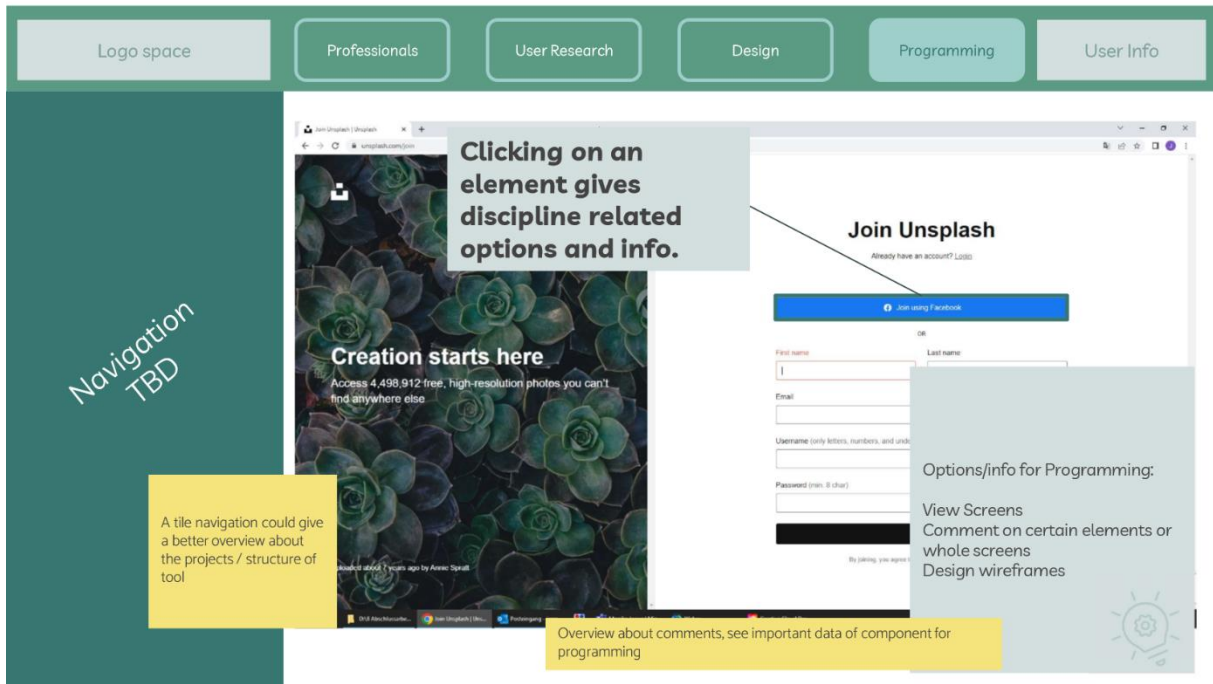
Username (only letters, numbers, and underscores):

Password (min. 8 char):

By joining, you agree to our Terms of Service and Privacy Policy

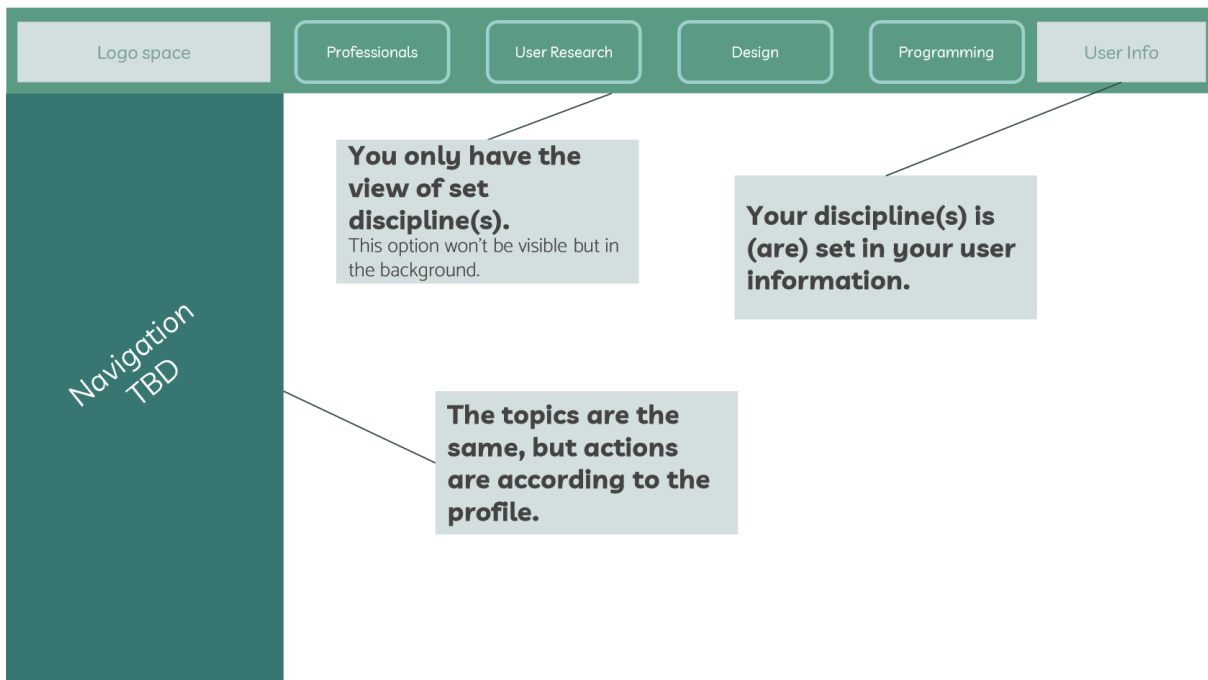
Options/info for Designers:
View Screens
Comment on certain elements or whole screens
Design wireframes

Overview about comments, linking User Requirements (enable from both sides: here and in Requirements section), using elements from element list



EXPERT

ROUND 2



**Possible Navigation
1**



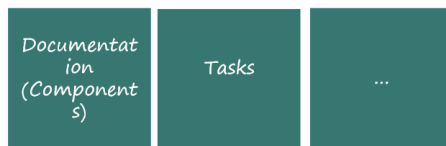
< PROJECT 1

*Project Information
e.g., current to-dos, requests, next meetings, ...*

Work Packages



General



< **PROJECT 1 > WORK PACKAGE 2**

Documentat
ion

Tasks

Comments

User
Research

Wireframes

Notes &
Sketches

Overview

Logo sp **Possible Navigation 2** User Research Design Programming User Info

Project 0

Project 1:

- **Work Package 2:**
- **Wireframes**
(Sub-topics, if applicable)
- User Research
(e.g., User Stories)
(Sub-topics, if applicable)
- Element list
(Sub-topics, if applicable)
- Work Package 3
- Work Package 4
- Work Package 5

Go with Option 2 because: more screen space by collapsing navigation, higher focus on current content, faster "jumping" into other topics

Creation starts here
Access 4,498,912 free, high-resolution photos you can't find anywhere else.

EXAMPLE SCREEN!

Join Unse
Aten

or Facebook

OR

Last name

Email

Username (only letters, numbers, and underscores)

Password (min. 8 char)

Join

By joining, you agree to the Terms and Privacy Policy.

Add Small Screen Previews

Logo space Professionals User Research Design Programming User Info

Wireframes

Creation starts here
Access 4,498,912 free, high-resolution photos you can't find anywhere else.

Clicking on an element gives discipline related options and infos.

Join using Facebook

OR

First name: Last name:

Email:

Username (only letters, numbers, and underscores):

Password (min. 8 char):

Join

By joining, you agree to the Terms and Privacy Policy.

Navigation: < > [Yellow buttons]

Logo space TBD: Cluster Action? Search Design Programming User Info

Wireframes

Modes:
See (Only look at Screens),
Edit (Comments, Links)

- Comment on elements or whole screens
- see other comments and link to User Research
- Link to own notes, scribbles, images

Join Unsplash
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Join using Facebook

OR

First name: Last name:

Email:

Username (only letters, numbers, and underscores):

Password (min. 8 char):

Join

By joining, you agree to the Terms and Privacy Policy.

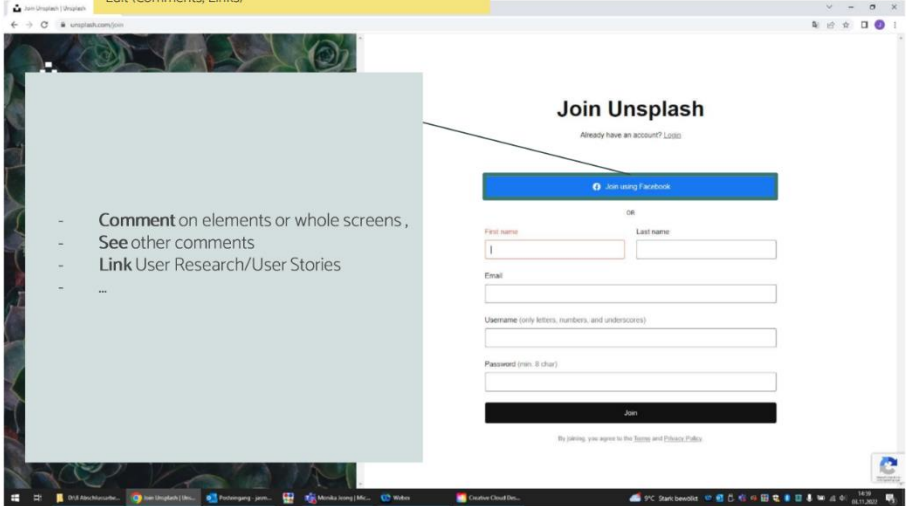
Navigation: < > [Yellow buttons]

Logo space
TBD: Cluster Action?
Search
Design
Programming
User Info

Wireframes

Modes:
 See (Only look at Screens),
 Edit (Comments, Links)

- Comment on elements or whole screens,
 - See other comments
 - Link User Research/User Stories
 - ...



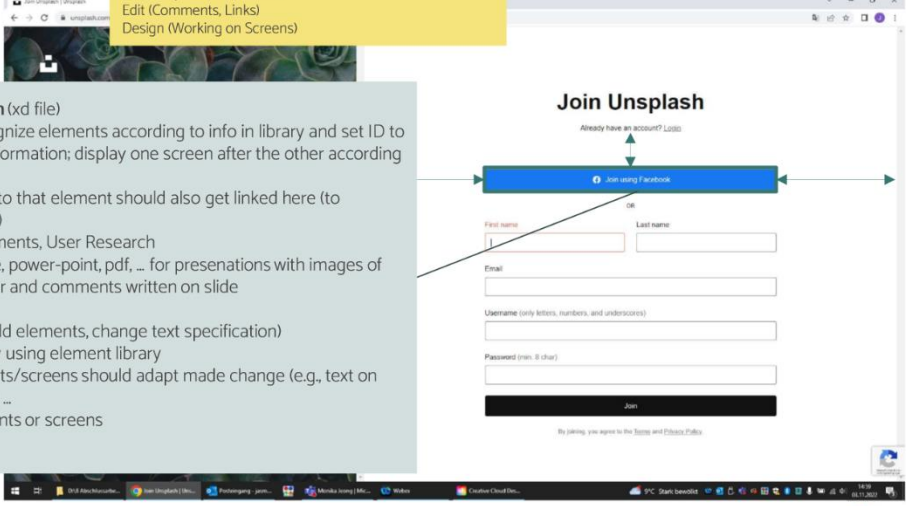
<
>

Logo space
TBD: Cluster Action?
Search
Design
Programming
User Info

Wireframes

Modes:
 See (Only look at Screens),
 Edit (Comments, Links)
 Design (Working on Screens)

- Upload initial design (xd file)
 System should recognize elements according to info in library and set ID to display deposited information; display one screen after the other according to screen name
 If User Story linked to that element should also get linked here (to make them callable)
 - View and Link comments, User Research
 - Download xd, image, power-point, pdf, ... for presentations with images of screens in right order and comments written on slide
 - Rearrange Screen
 (Replace, remove, add elements, change text specification)
 - Rework Elements by using element library
 select which elements/screens should adapt made change (e.g., text on button, deleted line), ...
 - Comment on elements or screens
 - ...



<
>

Logo space

TBD: Cluster Action?

Search

Design

Programming

User Info

Modes:
See (Only look at Screens),
Edit (Comments, Links, Data)

Wireframes

Join Unsplash

Already have an account? Login

Join using Facebook

OR

First name:

Last name:

Email:

Username (only letters, numbers, and underscores):

Password (min. 8 char):

Join

By joining, you agree to the Terms and Privacy Policy

- See information necessary to implement element:
Element ID (linked to list), colour, size, distances, states, linked action, behaviour, ... If pictograms font then which letter, download element file (processable)
- Comment on elements or screens
- View comments
- See User Research linked to screen
- ... ?

Logo space

Professionals

User Research

Design

Programming

User Info

User Research

image exchange

Focus on wireframes section first because this is where all the information must come together when this is more clear, discuss User Research section

- See, Comment User Research/User Stories
- ...

Logo space Professionals User Research Design Programming User Info

User Research

User Story Map: Website for image exchange

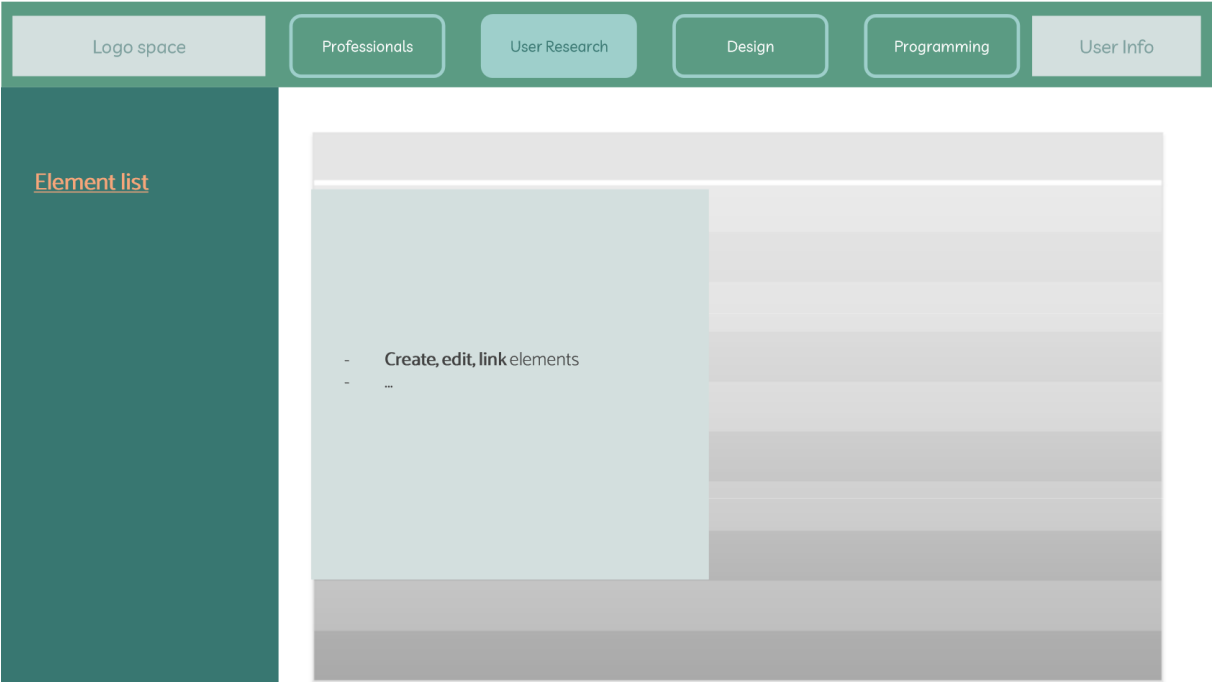
- Document, Edit User Research/User Stories
- Link them to Screens / Elements
- ...

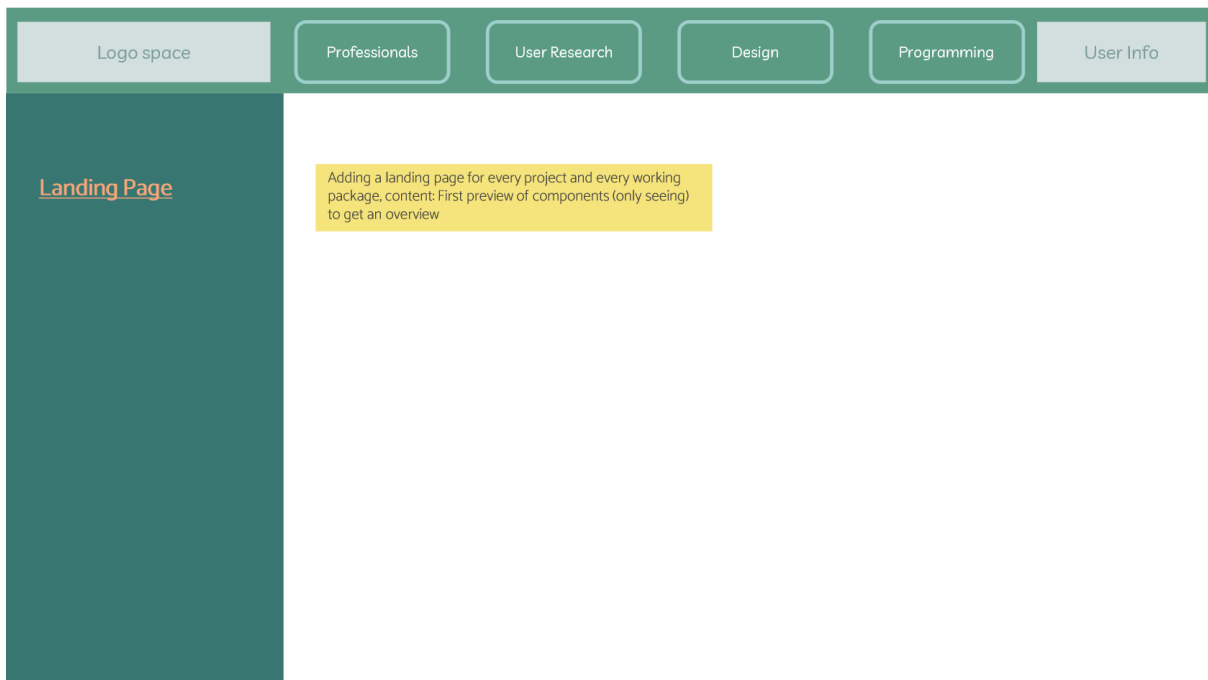
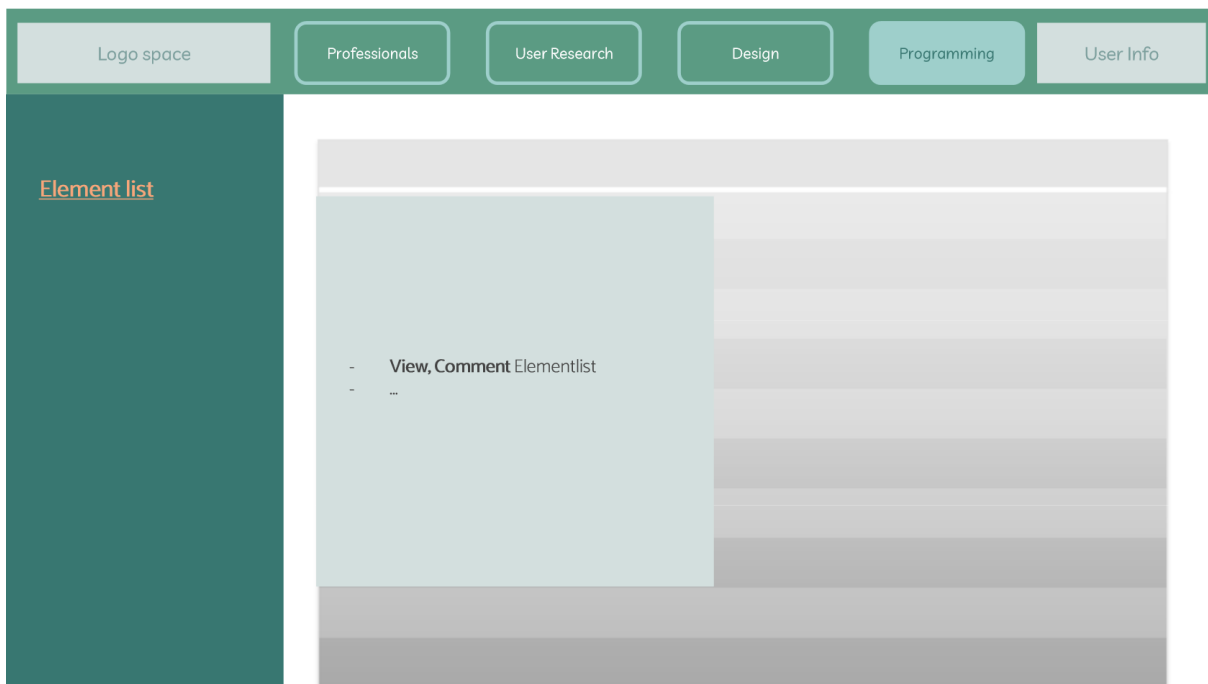
Logo space Professionals User Research Design Programming User Info

Element list

Content of List:
ID, Name, Preview, Description of how it works or what it does, possible states or state that is shown, areas where component belongs to (e.g., navigation bar), Use Cases that are related to this component, User Research, graphic information like colours used, thickness of lines, distances that need to be considered

- View, Comment Elementlist
- ...



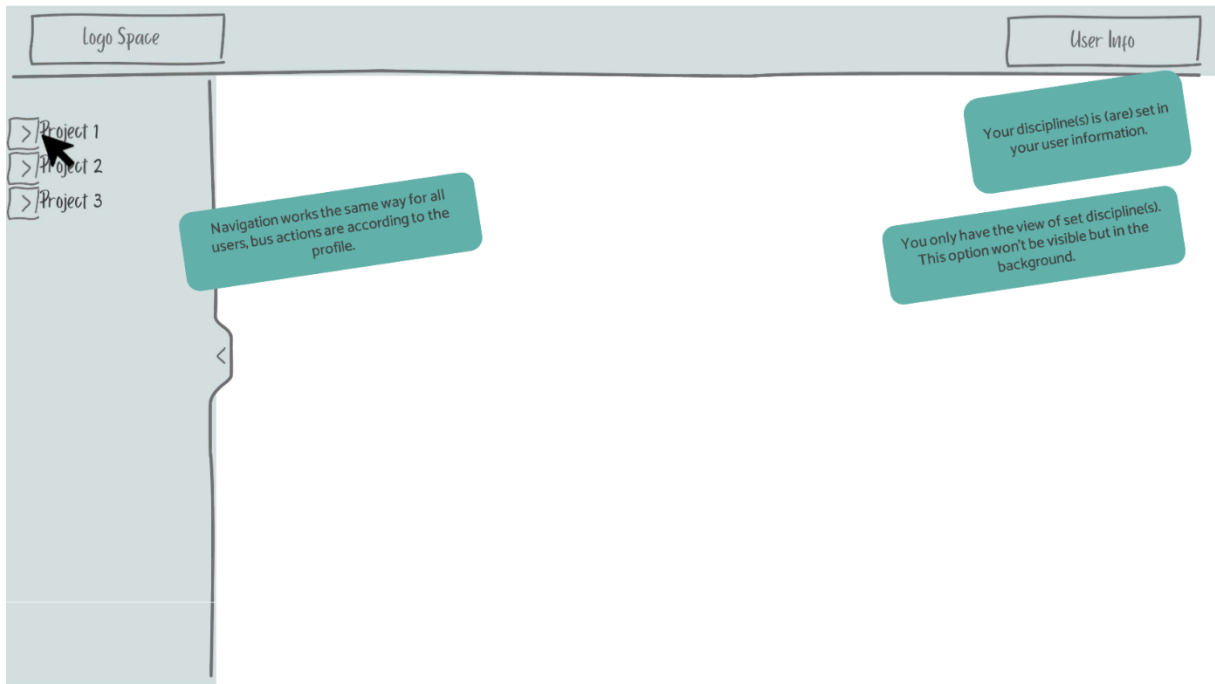


EXPERT

ROUND 3

Colour Coding

- Discipline colours: **User Research**, **Design**, **Programming**
- Active Colour: **Active Item**







SECTION: GENERAL

Option 1 for "General"

- Project 1
 - General
 - Work Package 1
 - Work Package 2
 - Work Package 3
- Project 2
- Project 3

User Info

ID	Name	Image	Function (short)	State	Linked Areas	Linked Use Cases	Requirements	Details
10.10.01	Download		Downloads shown image as PNG	active	Content area	Work package 1 Use Case 1 Work package 2 Use Case 2	Requirement 1234 Requirement 33	ⓘ
10.10.02	Save		Saves changes on pages	active	Content area	Work package 1 Use Case 1 Work package 2 Use Case 2	Requirement 134 Requirement 15	ⓘ

Option 2 for "General"

- Project 1
 - General
 - Work Package 1
 - Requirements
 - Wireframes
 - Components
 - Work Package 2
 - Work Package 3
- Project 2
- Project 3

User Info

Overview Project:
Overview of which work package is currently in which project step with the option of jumping to the work package (lands on the general page of the AP).

Concept	Subject release	Refinement	Development (software)	Testing	Still to start
AP 1 AP 2	AP 3 AP 5	..			

Overview WS

Show WS dates in which contents (wireframes, protocols, ...) are discussed with the linked "documents" to call up in "presentation mode". There you can document comments and mark what they are relevant for (user research, wireframes graphically, concept wireframes ...). Here, every user should be able to download "work records" for a certain period of time: User profile, work package, change

Complete

Complete component list of the project (TBD: "card index" for standard components with "use if", name, upload image, terms of use (...))

Project Settings:
Add Team, Define and Create Project Steps, Define and Create WS Dates, Define Programming Language for Tips/Auto-Code, Define "Standard Documents".

Logo Space

- Project 1
 - General
 - Work Package 1
 - General
 - Requirements
 - Wireframes
 - Components
 - Work Package 2
 - Work Package 3
- Project 2
- Project 3

Overview Project Steps: Overview of the work package progress with the possibility to download the version history (wireframes, comments, requirements) and the acceptance protocol. The PMO can upload acceptance protocols (click on Step opens pop-up) and thus complete the step. Other documents are automatically displayed by the system: version history from different versions of the wireframes including their links to user research and comments. "Ready for internal review" after Designer has pressed this button in the wireframes and after Researcher has pressed it in User Research (for only one, if only one needed adjustments). A request for review is made by the PMO in the pop-up when Step is clicked.

Concept	Subject release	Refinement	Development (software)	Testing	Continue-development
<ul style="list-style-type: none"> Version history Latest version 	<ul style="list-style-type: none"> Version history Latest version 	<p>Version 1: 20.03.2021</p> <ul style="list-style-type: none"> Revision wireframes ready for internal review (100%) Revision research step User Research 60% 			

Xxxx

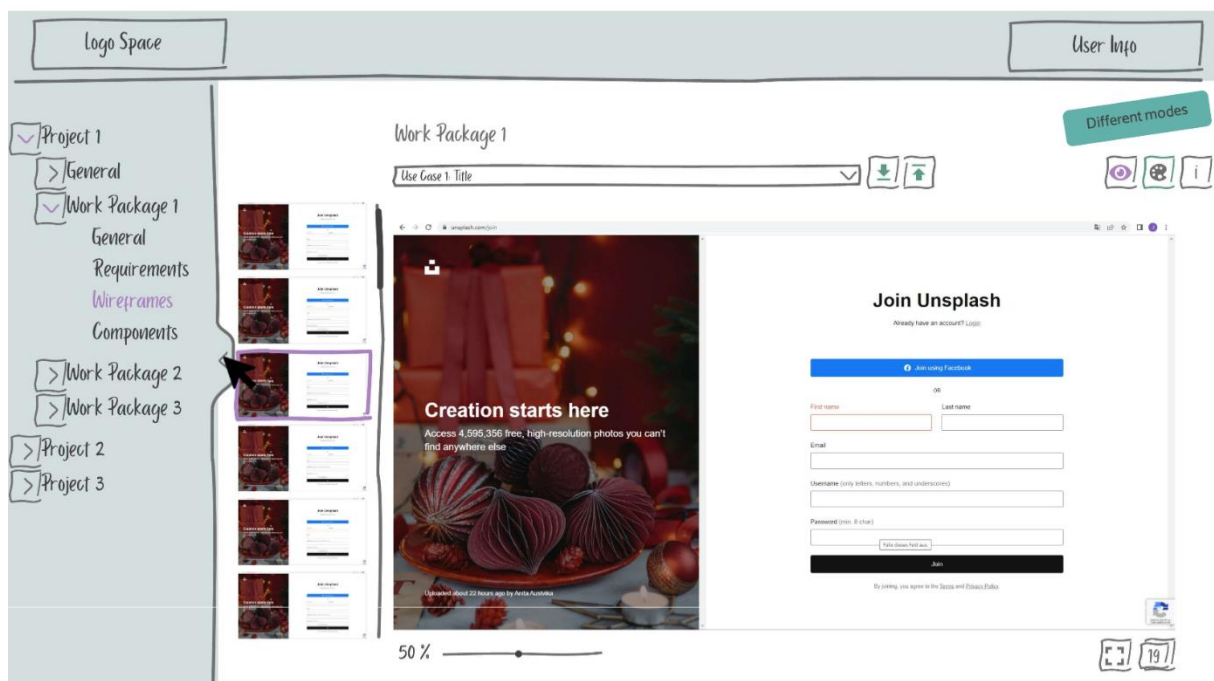
Complete component list of working package

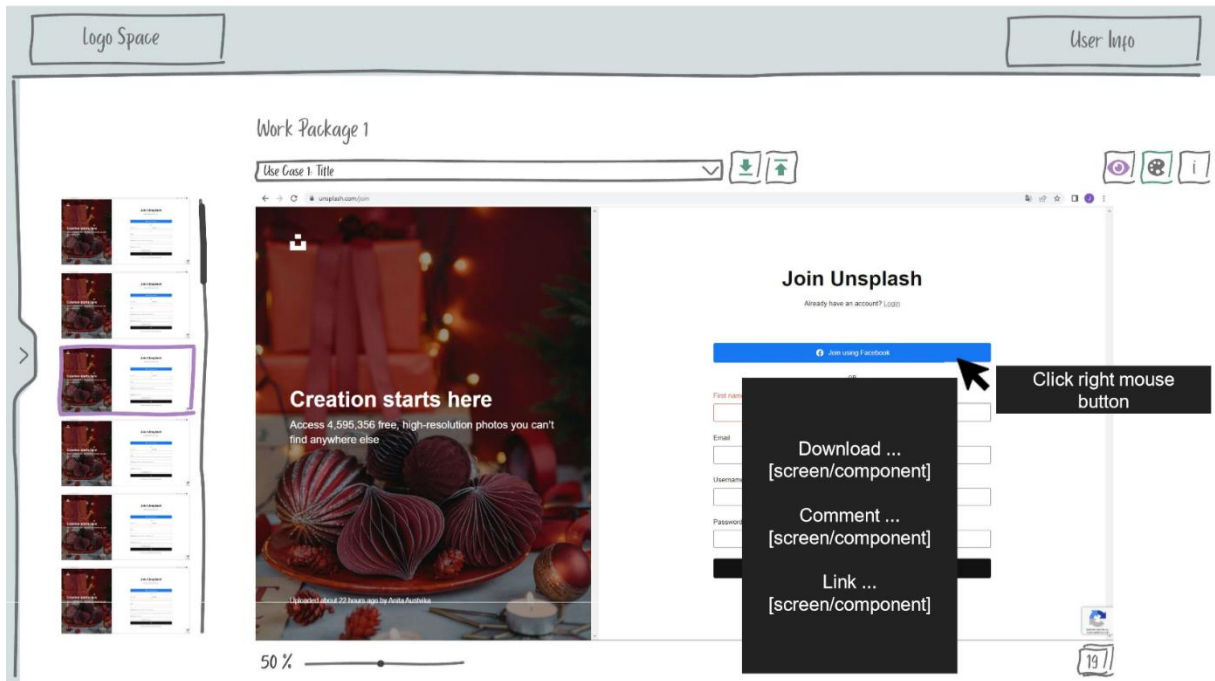
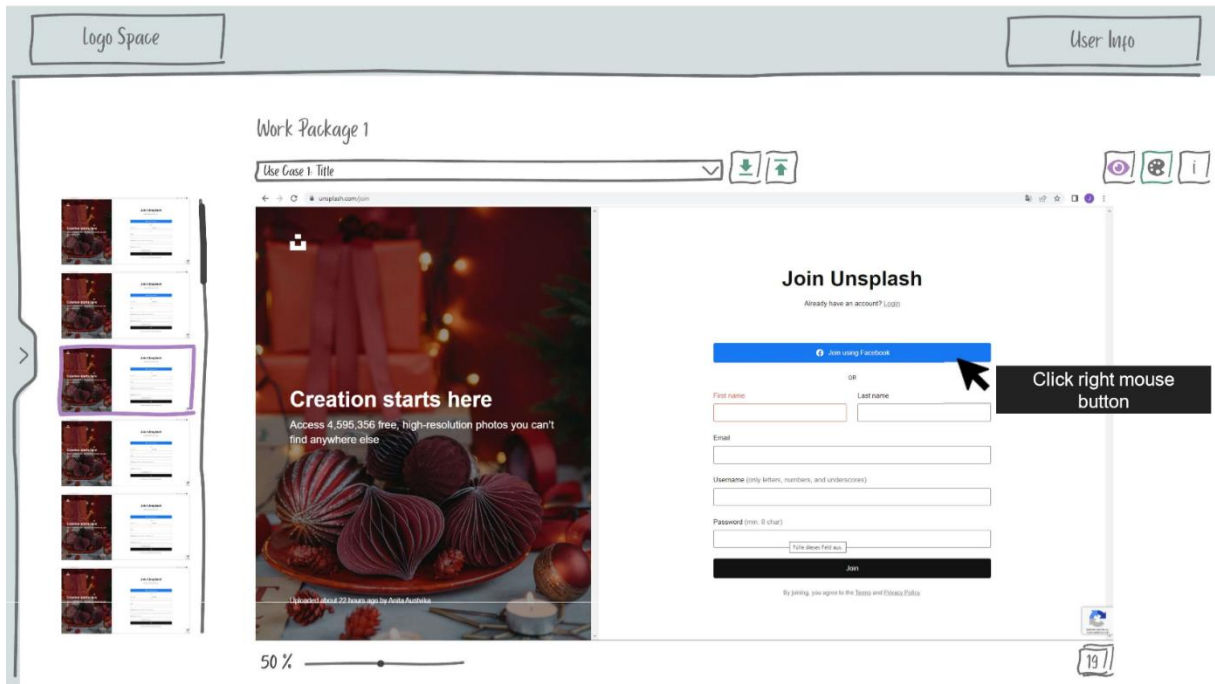
SECTION: WIREFRAMES

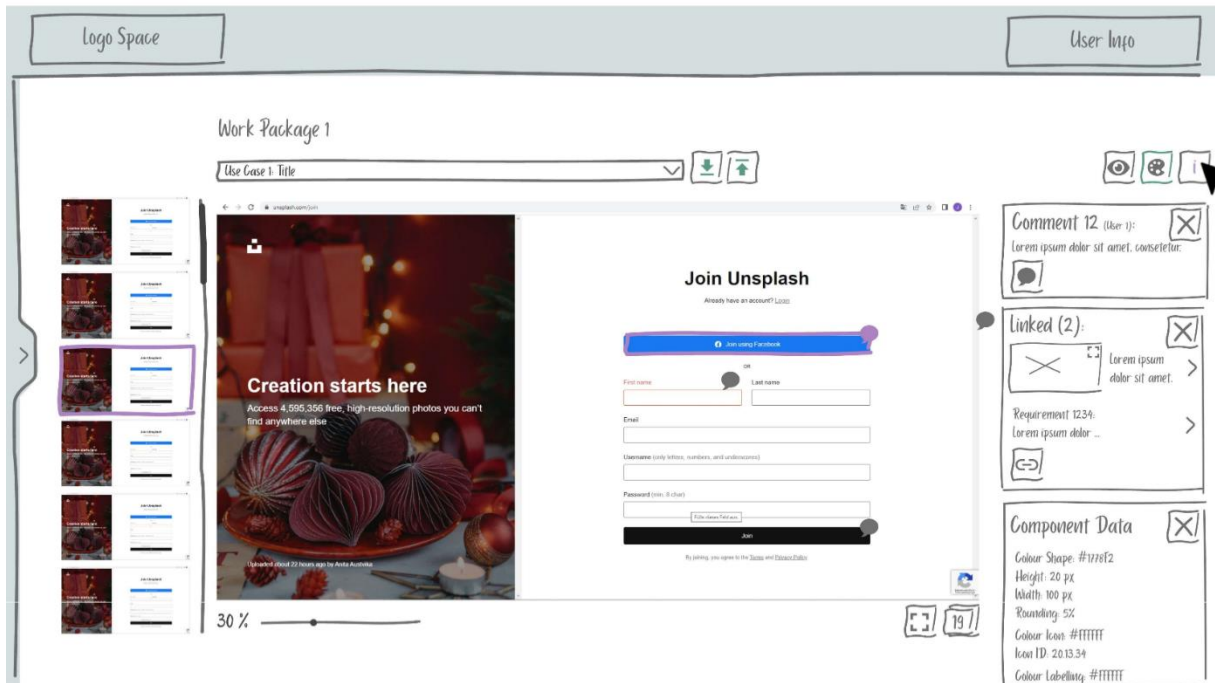
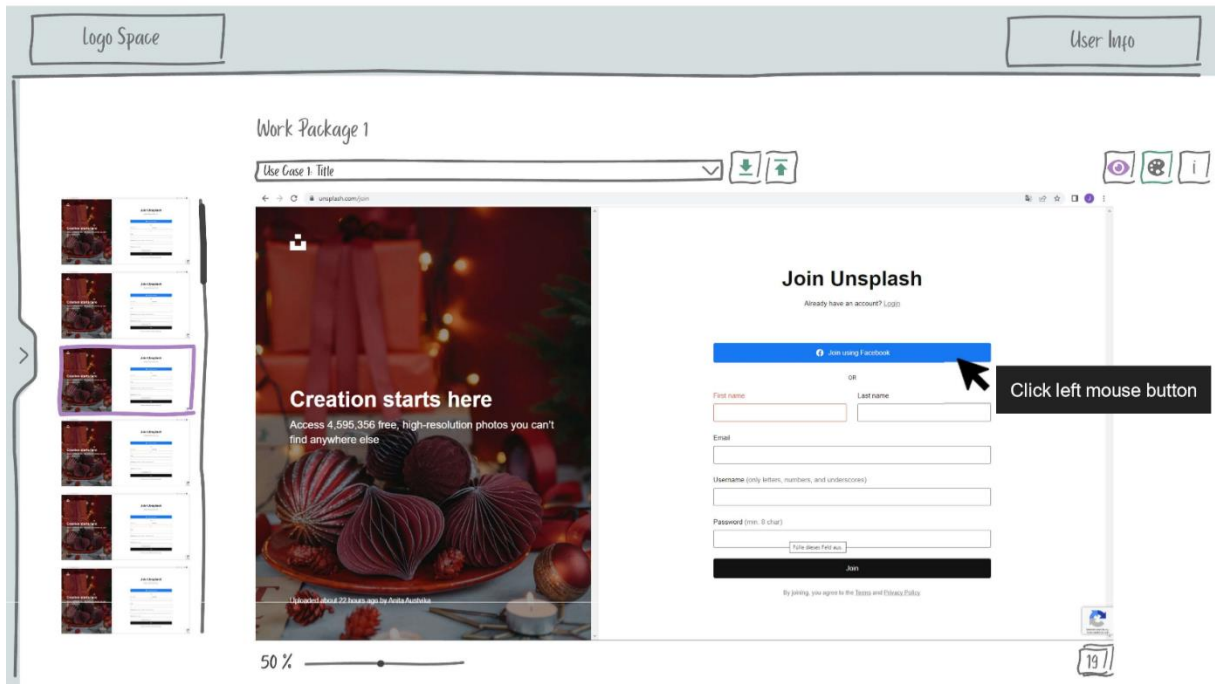
- ✓ Different modes to cluster actions related to user profile: "See", "Edit", "Design" ("Design" only available for Designers)
- ✓ General options: select one use case or see all wireframes at once, select page (similar to PP), zoom, full screen, wireframes in overview
- ✓ when modus "edit": select, if comments and/or links should be shown

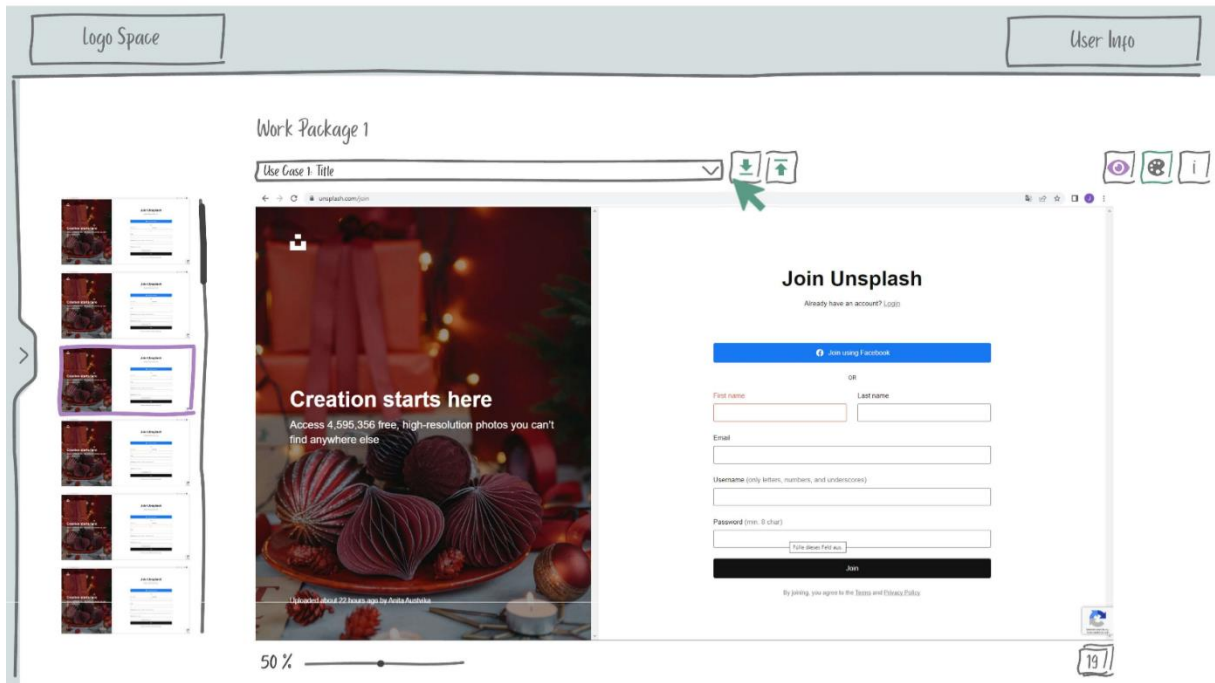
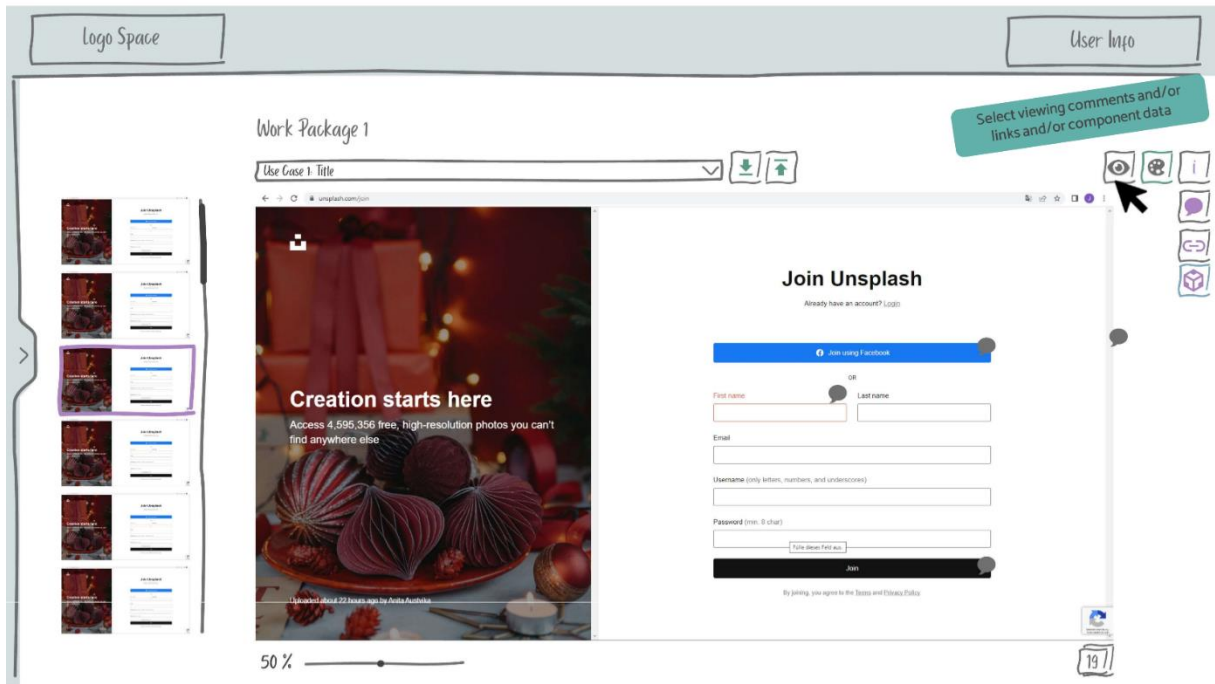
Actions:

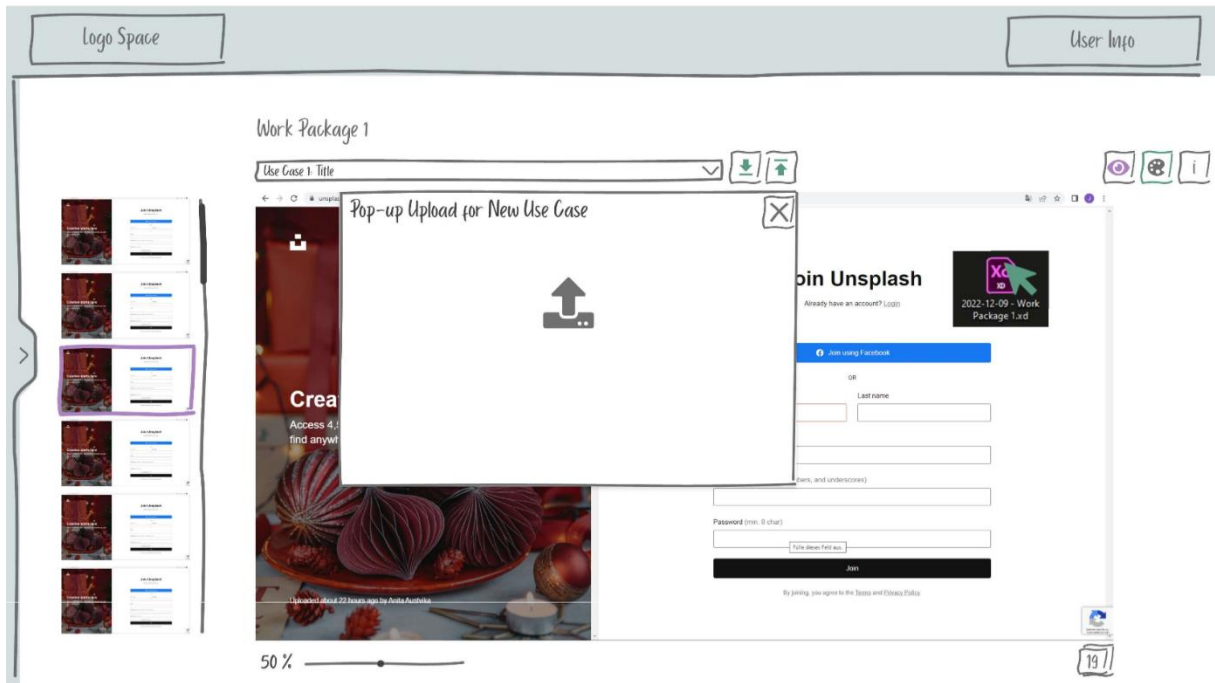
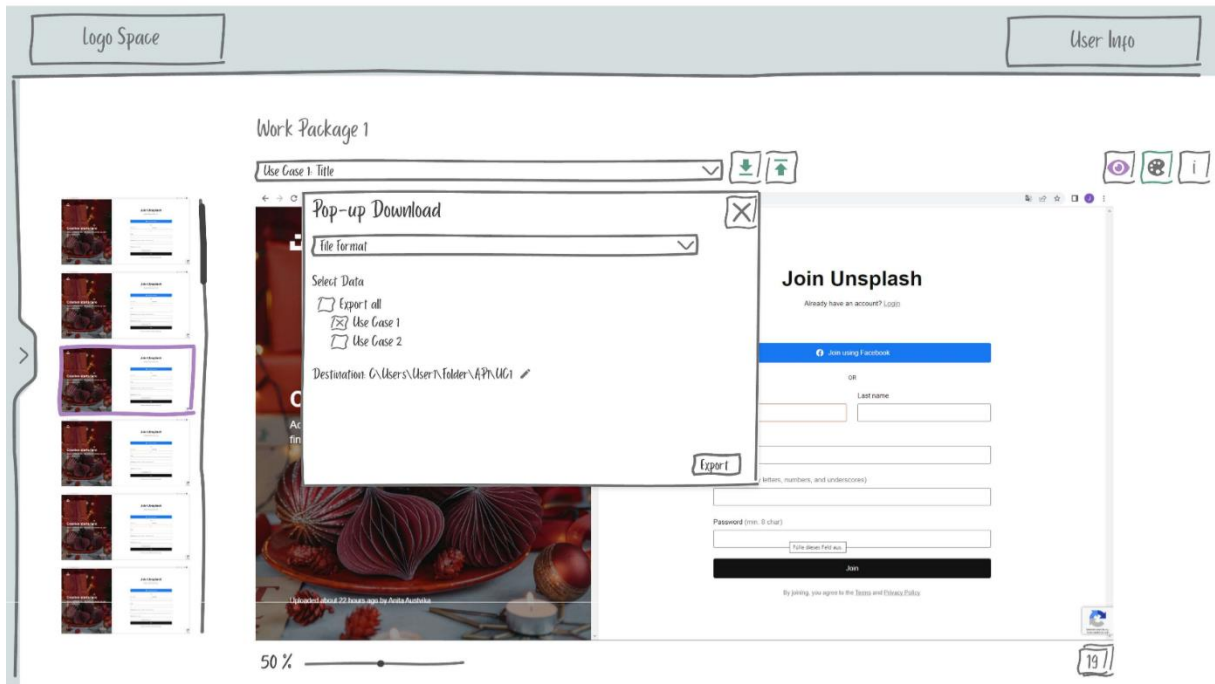
- ✓ **Professionals/ Clients, User Researcher, Designer, Programmers:**
comment on elements or whole screens, see other comments, connect to images/scribbles ...
- ✓ **User Researcher, Designer, Programmers:**
Link to User Research (based on client input "Vieraugenprinzip")
General Links should be done via Component list
- ✓ **Designer:**
Upload initial design (xd file), download screens, Rearrange Screen, Rework Elements by using element library, select which elements/screens should adapt made change (e.g., text on button, deleted line).

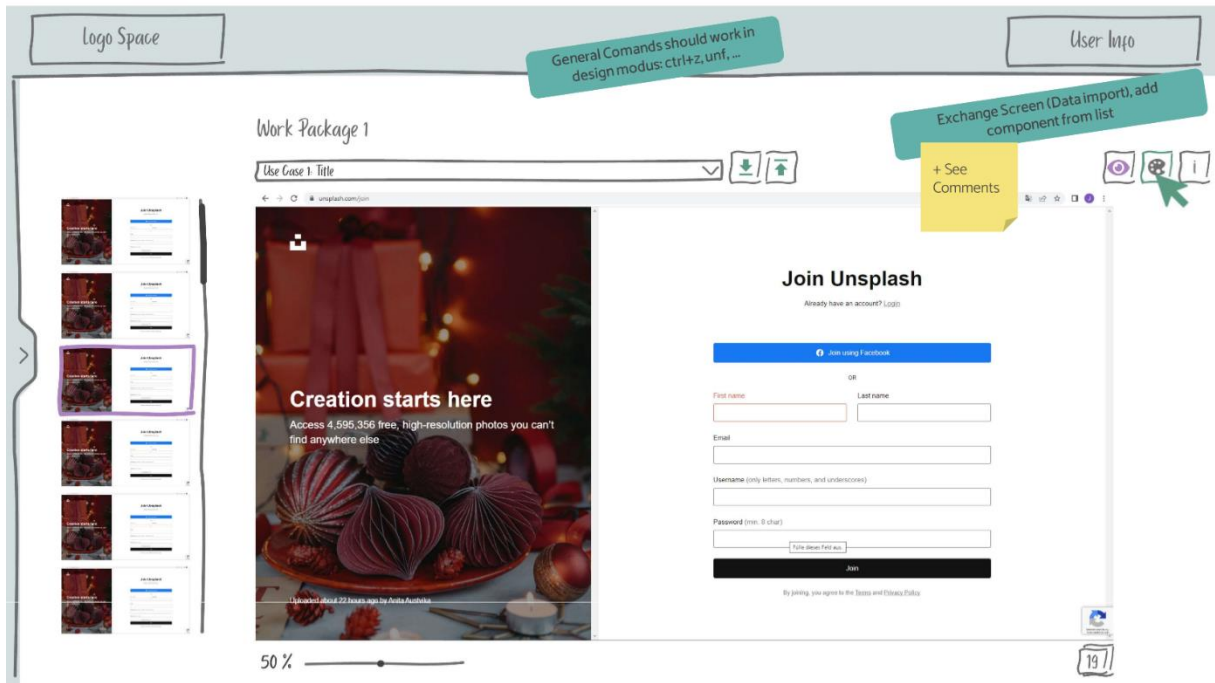
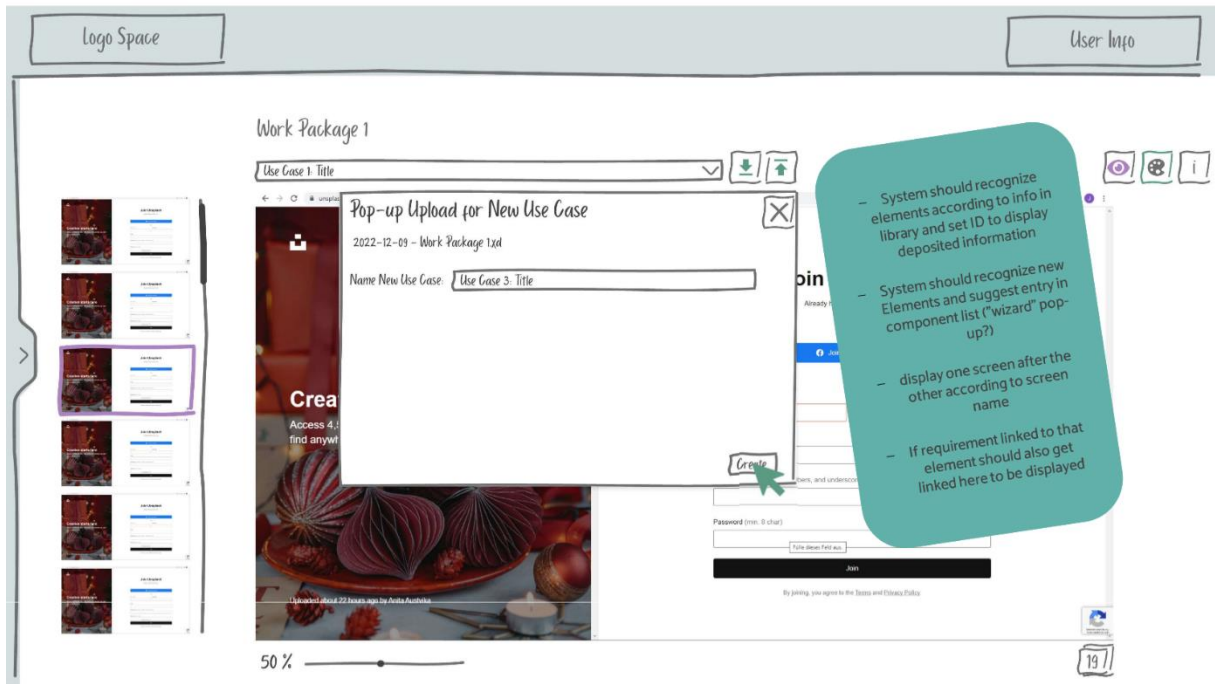


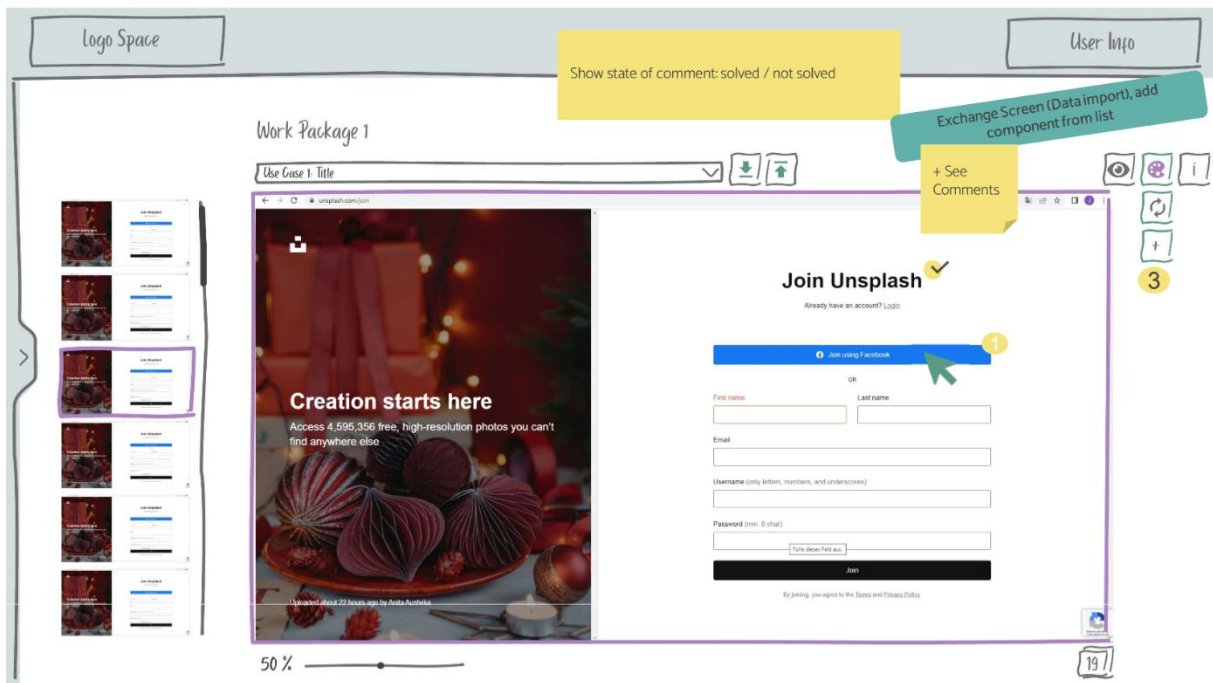
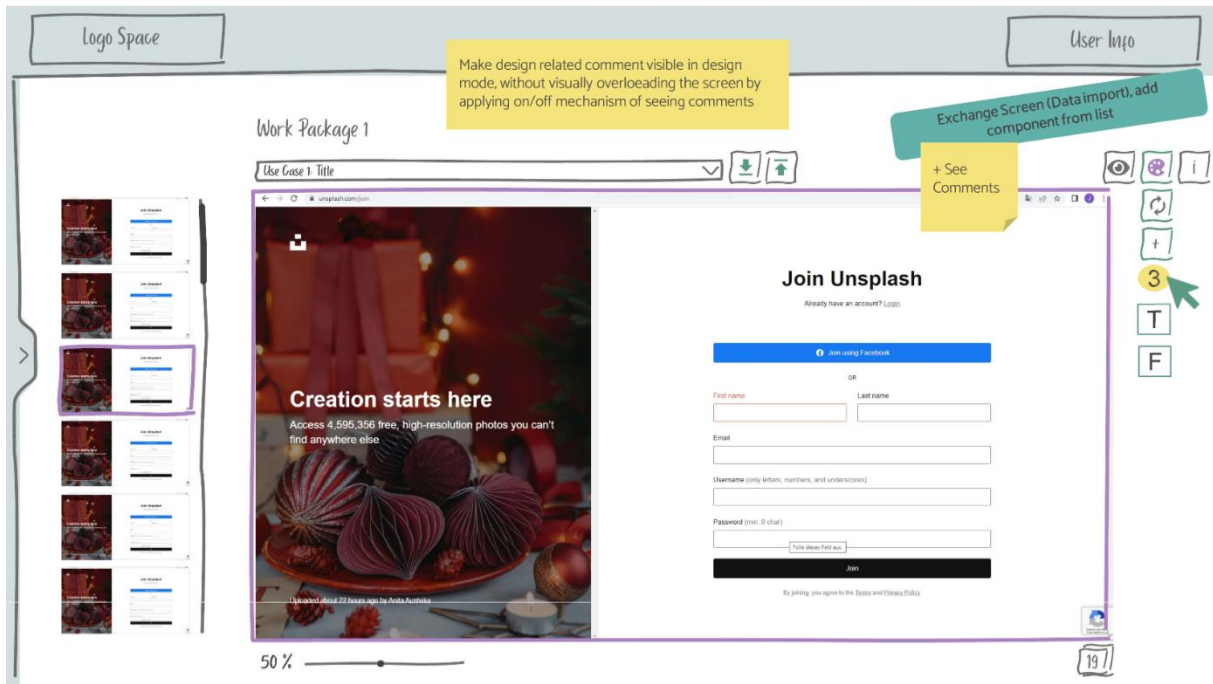


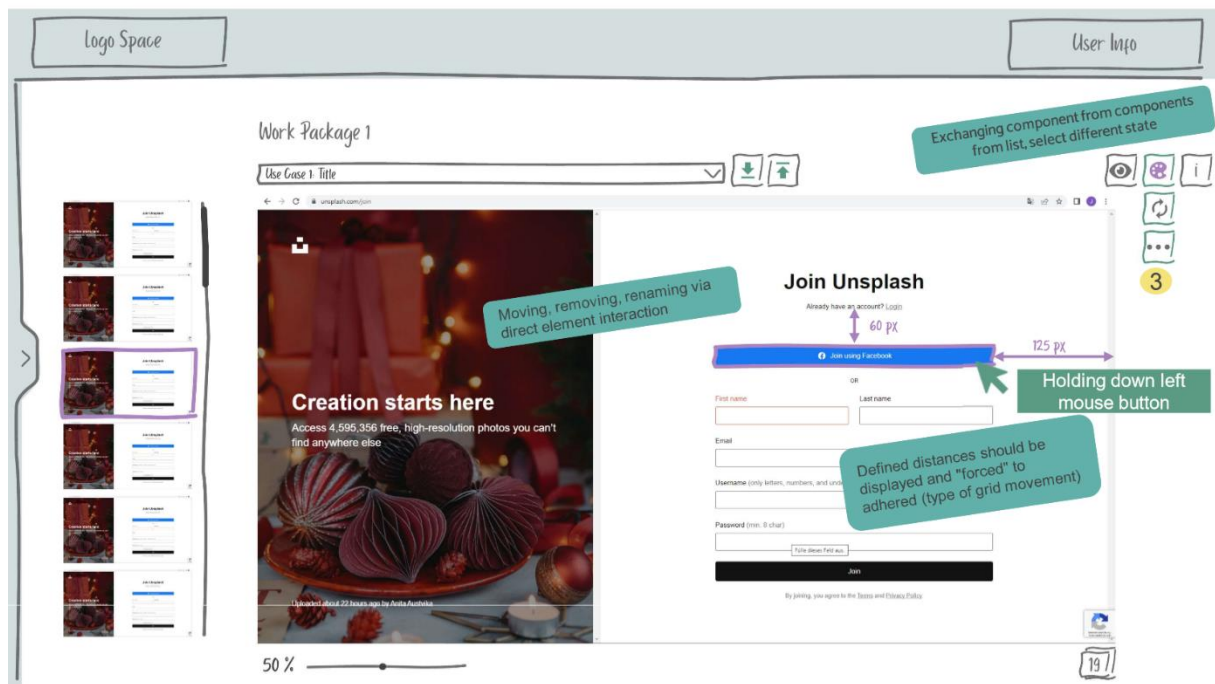












SECTION: COMPONENT LIST

Actions:

- ✓ **Professionals/ Clients, User Researcher, Designer, Programmers:**
View content, comment, link comments, see other comments
- ✓ **User Researcher, Designer**
Create, edit, link components
- ✓ **Designer:**
Edit image of component

Logo Space User Info

When setting up the components: Check for accessibility (colours, size, spacing,...)

Project 1



- > General
- Work Package 1
 - General
 - Requirements
 - Wireframes
 - Components
- > Work Package 2
- > Work Package 3

Project 2

Project 3

Work Package 1

All Use Cases



ID	Name	Image	Function (short)	State	Linked Areas	Linked Use Cases	Requirements	Details
10.10.01	Download		Downloads shown image as PNG	active	Content area	Work package 1 Use Case 1 Work package 2 Use Case 2	Requirement 1234 Requirement 33	<input type="checkbox"/>
10.10.02	Save		Saves changes on pages	active	Content area	Work package 1 Use Case 1 Work package 2 Use Case 2	Requirement 134 Requirement 15	<input type="checkbox"/>

Areas must be defined in the grid

Logo Space User Info

Work Package 1

All Use Cases

ID	Name	Image	Function (short)	State	Linked Areas	Linked Use Cases	Requirements	Details
10.10.01	Download		Downloads shown image as PNG	active	Content area	Work package 1 Use Case 1 Work package 2 Use Case 2	Requirement 1234 Requirement 33	<input type="checkbox"/>
10.10.02	Save		Saves changes on pages	active	Content area	Work package 1 Use Case 1 Work package 2 Use Case 2	Requirement 1234 Requirement 33	<input type="checkbox"/>

Logo Space

Work Package 1

All Use Cases

Search Filter Sorting

ID	Name	Image	Function (short)	State	Linked Areas	Linked Use Cases	Requirements	Details
10.10.01	Download		Downloads shown image as PNG	active +	Content area	Work package 1 Use Case 1 Work package 2 Use Case 2	Requirement 12.34 Requirement 33 +	<input type="checkbox"/>
10.10.02	Save		Saves changes on pages	active	Content area	Work package 1 Use Case 1 Work package 2 Use Case 2	Requirement 12.34 Requirement 33	<input type="checkbox"/>

First push reveals options (exchange, add, go to) to not overload the screen enabling option directly by click on element would spare this step

ID specific to the category of the component

Logo Space

User Info

Work Package 1

All Use Cases

ID	Name	Image
10.10.01	Download	
10.10.02	Save	

Details: 10.10.01 Download

Show Graphic Info Show Dimensioning

Download CSS template or similar

Download PNG

Notes on barrier-free implementation:
Alternative content (Description of the image)
Labeling (icons with function)

Logo Space

Work Package 1

All Use Cases

ID	Name	Image	Func.
10.10.01	Download		Downloads st...
10.10.02	Save		Saves change...

TBD:
Content shown on "first sight" vs. content on closer look

Linked UC + User Research: On details page, because that will be very many

Missing:
Component type (screen grid, input, output, ...), "validities" for the inputs (syntax notes, How to enter a date?, Wv digits must have serial number, key lists), search/filter/sort,
Display elements that do not yet have an accessible description (= alt. tag)

Different roles probably need to be able to see different things in the table

Example of "card index" for standard components with:
 Element: Drop-Down
 Element category: Selection object (automatic)
 "Use if": fixed (e.g. radio buttons) or define.
 Properties:
 States: [must be gone through and edited with "Next", if necessary set selection to "does not exist"].

Name,
 Upload image,
 Colours: (read from PNG)
 Spacing:

Accessibility check (button)

General use: "Click on element
 Use Accessible: Selection with "Tab" keyboard

Barrier-free representation: Old tags

Create a template for "standard objects" that every software has (e.g. buttons) according to Desk Research TBD: Workshop date!

Example of "card index" for standard components with:
 Element: Drop-Down
 Element category: Selection object (automatic)
 "Use if": fixed (e.g. radio buttons) or define.
 Properties:
 States: [must be gone through and edited with "Next", if necessary set selection to "does not exist"].

Name,
 Upload image,
 Colours: (read from PNG)
 Spacing:

Accessibility check (button)

General use: "Click on element
 Use Accessible: Selection with "Tab" keyboard

Barrier-free representation: Old tags

According to Desk Research Create template for objects TBD: Workshop date!

SECTION: User Research

TBD
Similar to Wireframe Section

Actions:

- ✓ Professionals/ Clients, **User Researcher**, Designer, Programmers:
View User Research, comment, link comments, see other comments
- ✓ **User Researcher**, Designer:
Link User Research (to screens, components, other User Research)
- ✓ **User Researcher**:
Create, edit and download User Research

The screenshot shows a software interface with a sidebar on the left and a main content area. The sidebar contains a tree view with the following items: Project 1 (checked), General (expanded), Work Package 1 (checked), General, Requirements, Wireframes, Components, Work Package 2 (expanded), Work Package 3 (expanded), Project 2 (expanded), and Project 3 (expanded). The main content area has a header with 'Logo Space' on the left and 'User Info' on the right. Below the header, there is a 'Work Package 1' section with a dropdown menu for 'Use Case 1: Title'. The main content is a 'User Story Map: Website for image exchange'. It is organized into three columns: 'Activities', 'Steps', and 'Details'. The 'Activities' column has two dark teal boxes with 'Lorem ipsum dolor'. The 'Steps' column has a row of seven teal boxes with 'Lorem ipsum dolor sit amet'. The 'Details' column has two rows of teal boxes with 'Lorem ipsum dolor sit amet'. The bottom of the map shows a grid of teal boxes with 'Lorem ipsum dolor sit amet'.

Logo Space

User Info

- Project 1
 - General
 - Work Package 1
 - General
 - Requirements
 - Wireframes
 - Components
 - Work Package 2
 - Work Package 3
- Project 2
- Project 3

Work Package 1

Use Case 1 Title ▼ ⬇

+ **User Story Map: Website for image exchange**

Activities:

Steps:

Details:

Lorem ipsum dolor sit amet.	Lorem ipsum dolor sit amet.				
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Requirements 1234:

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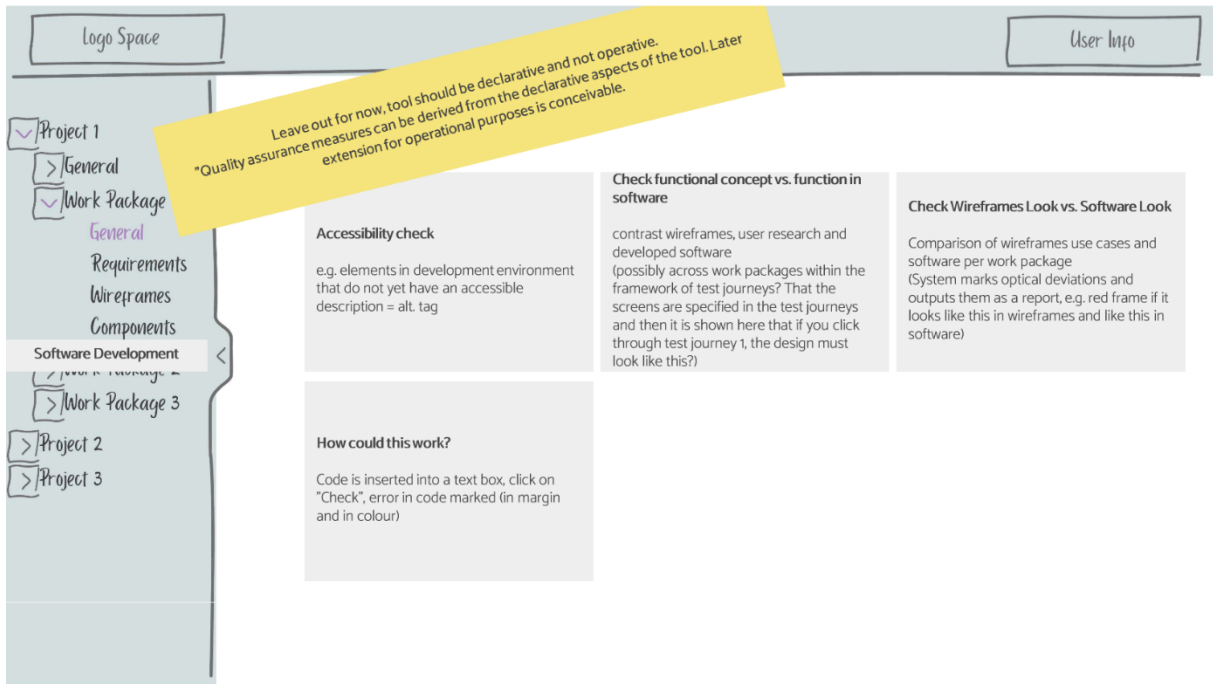
⌂

Linked (2):

✕
✕
lorem ipsum... >

Requirement 134:
Lorem ipsum dolor ... >

SECTION: Software

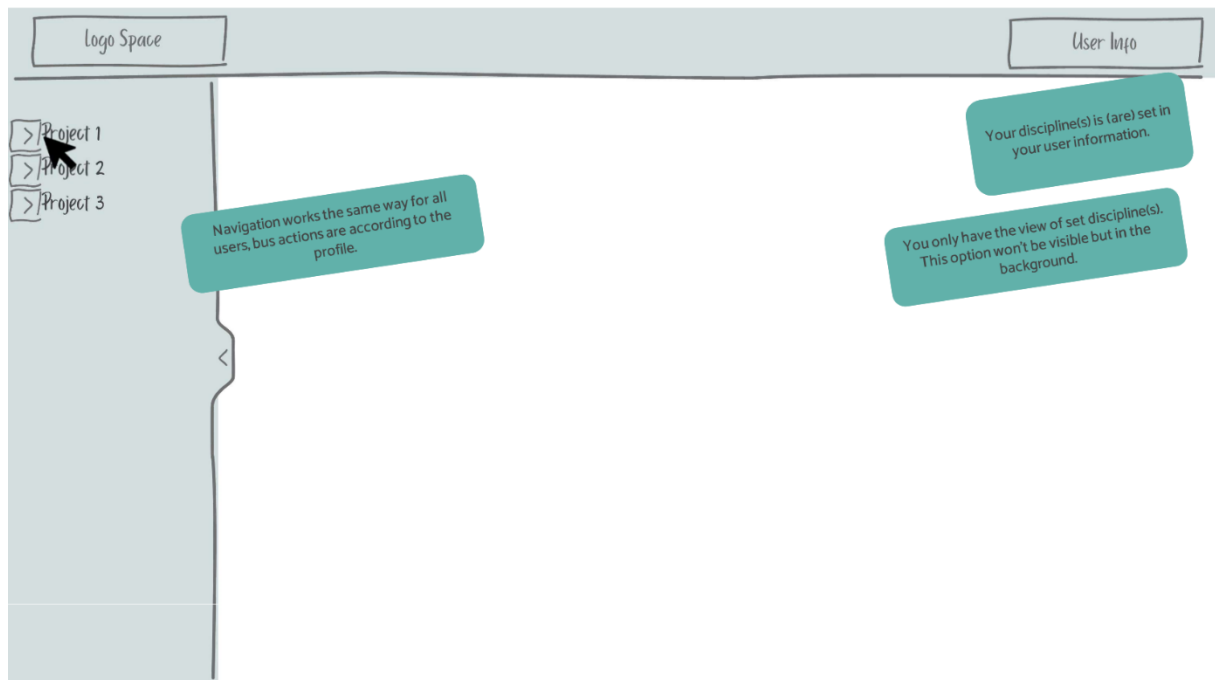


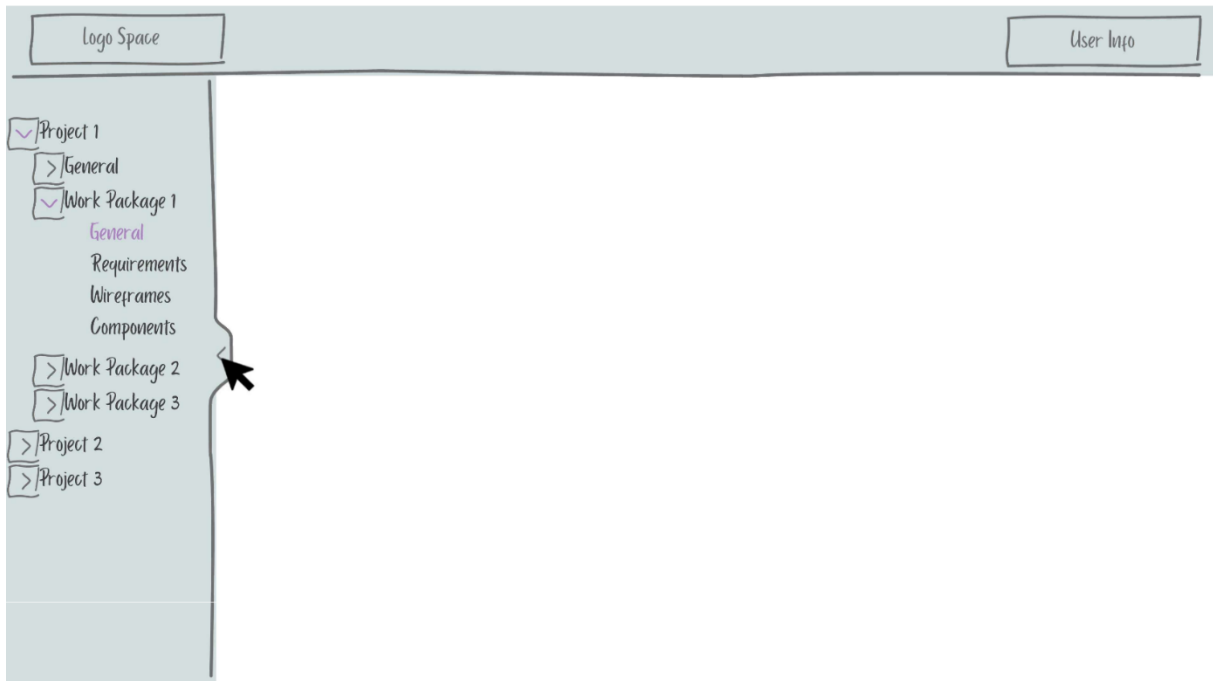
EXPERT

ROUND 4

Colour Coding

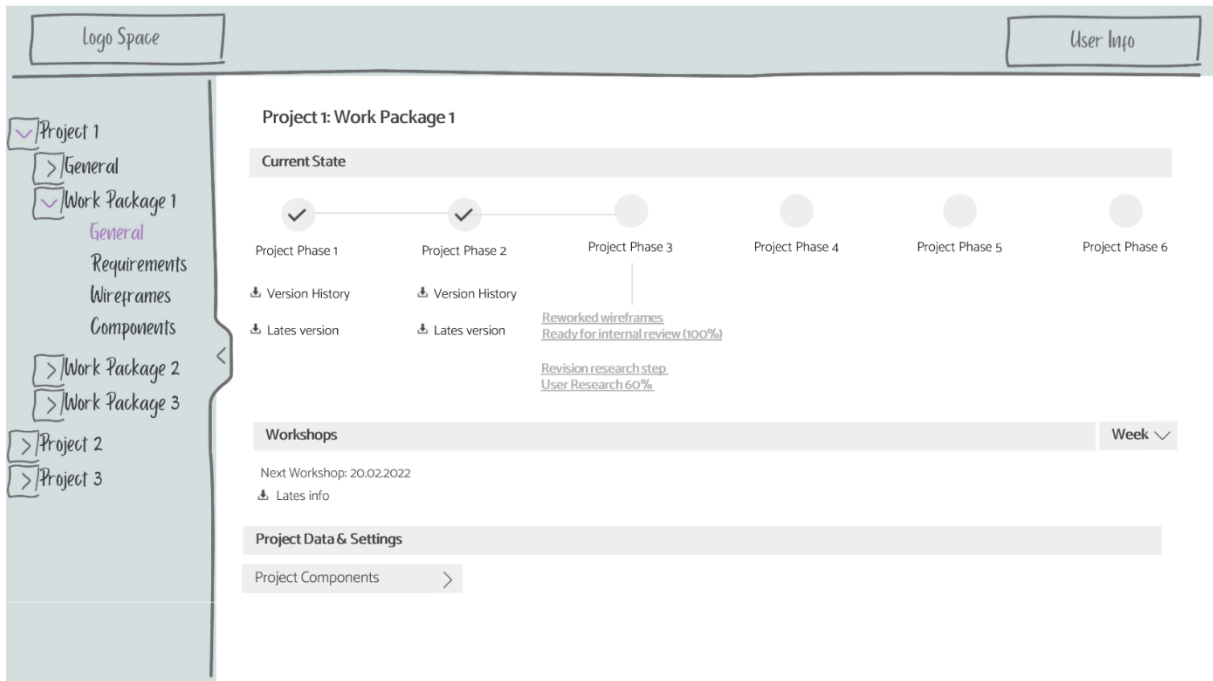
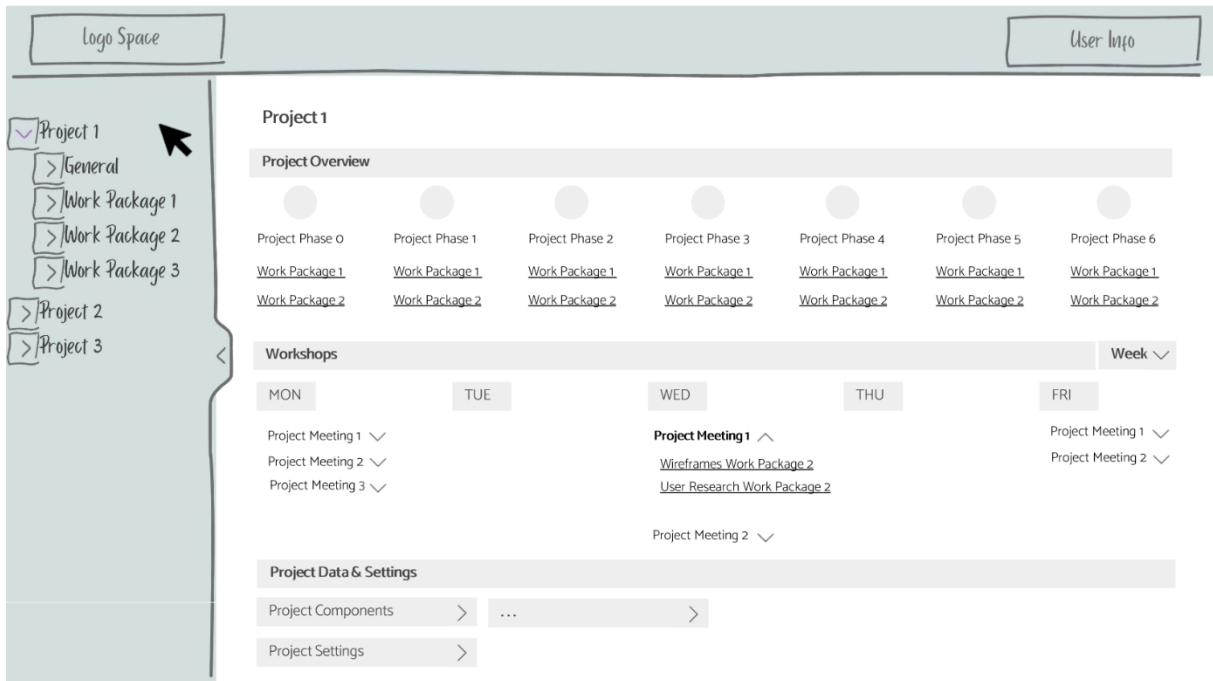
- Discipline colours: **User Research**, **Design**, **Programming**
- Active Colour: **Active Item**



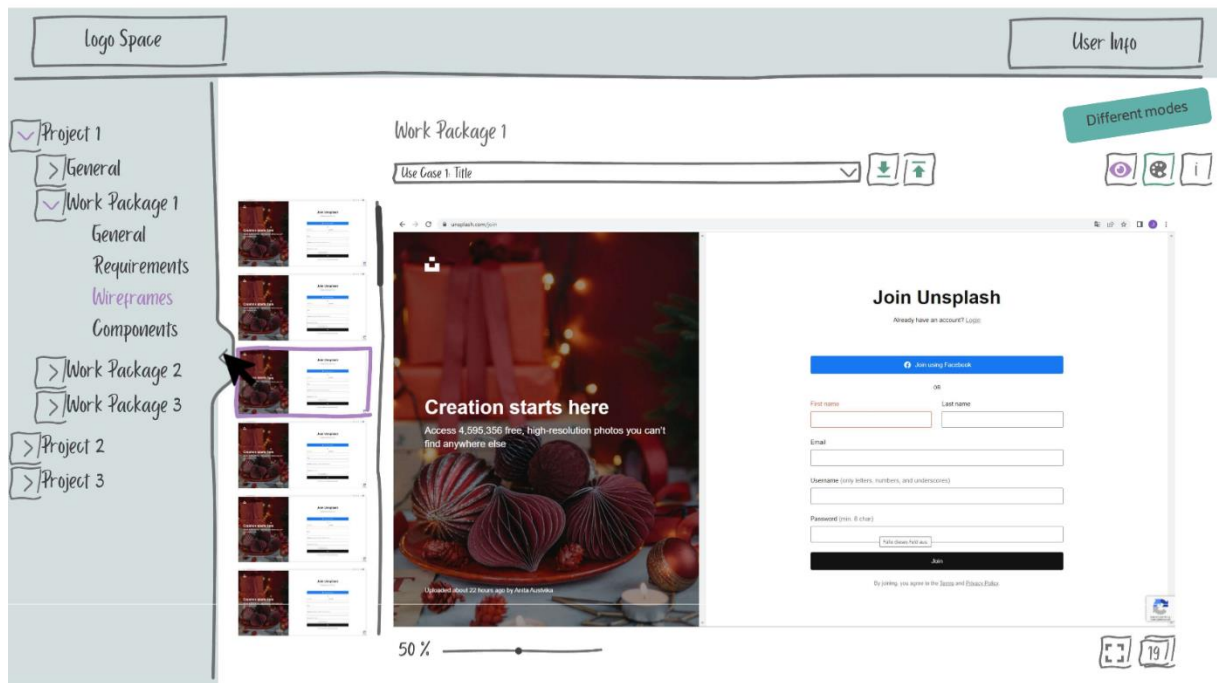


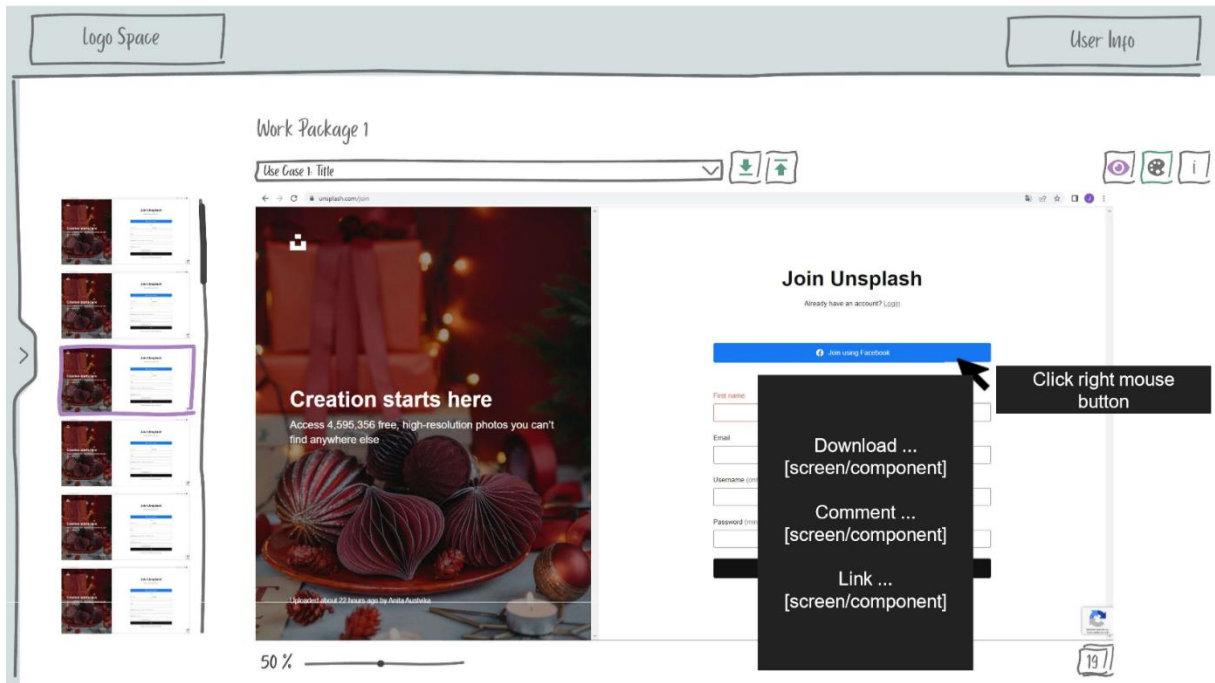
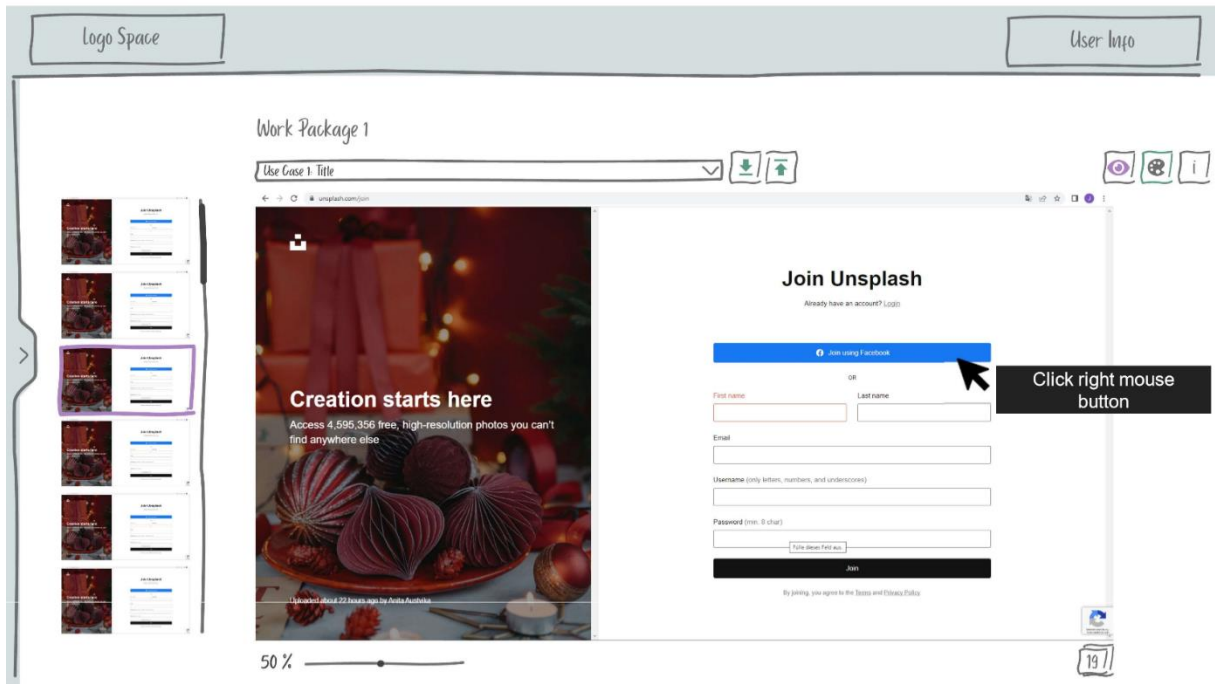


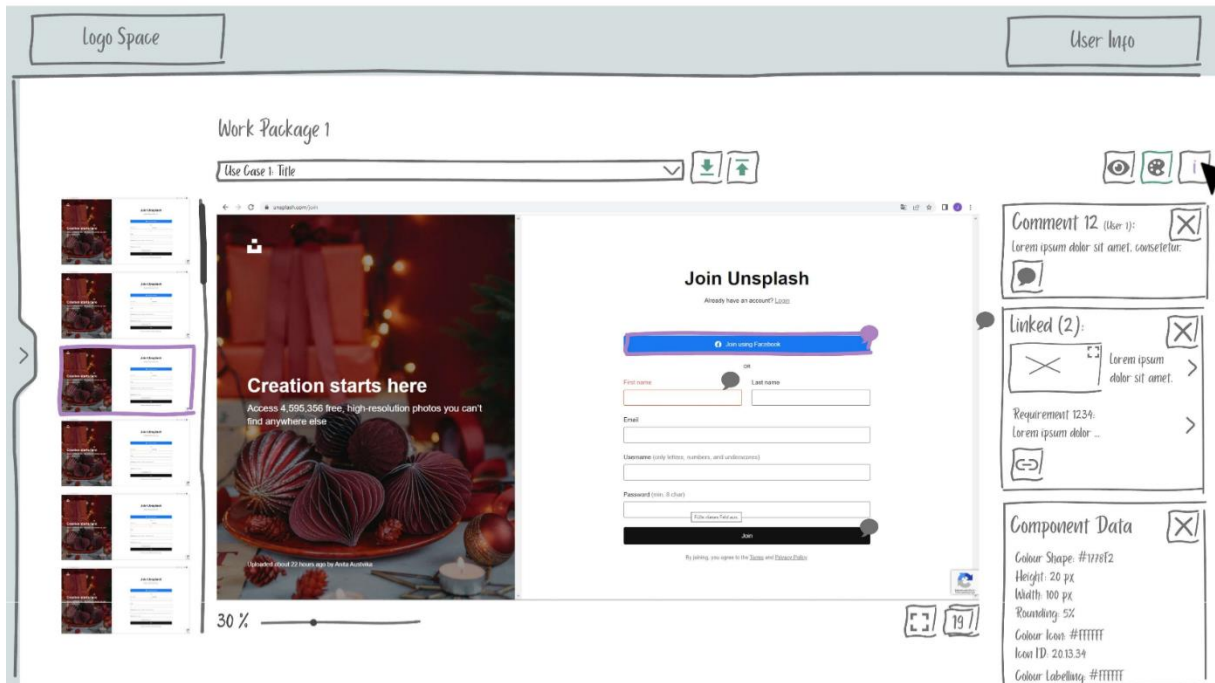
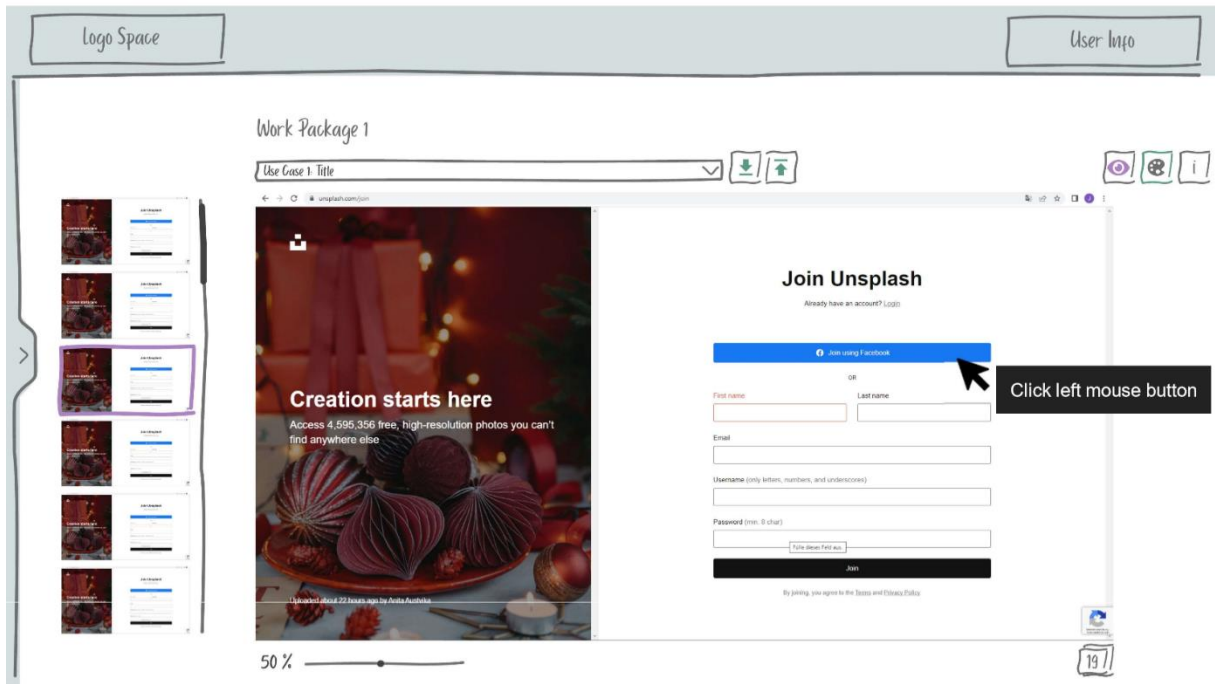
SECTION: GENERAL

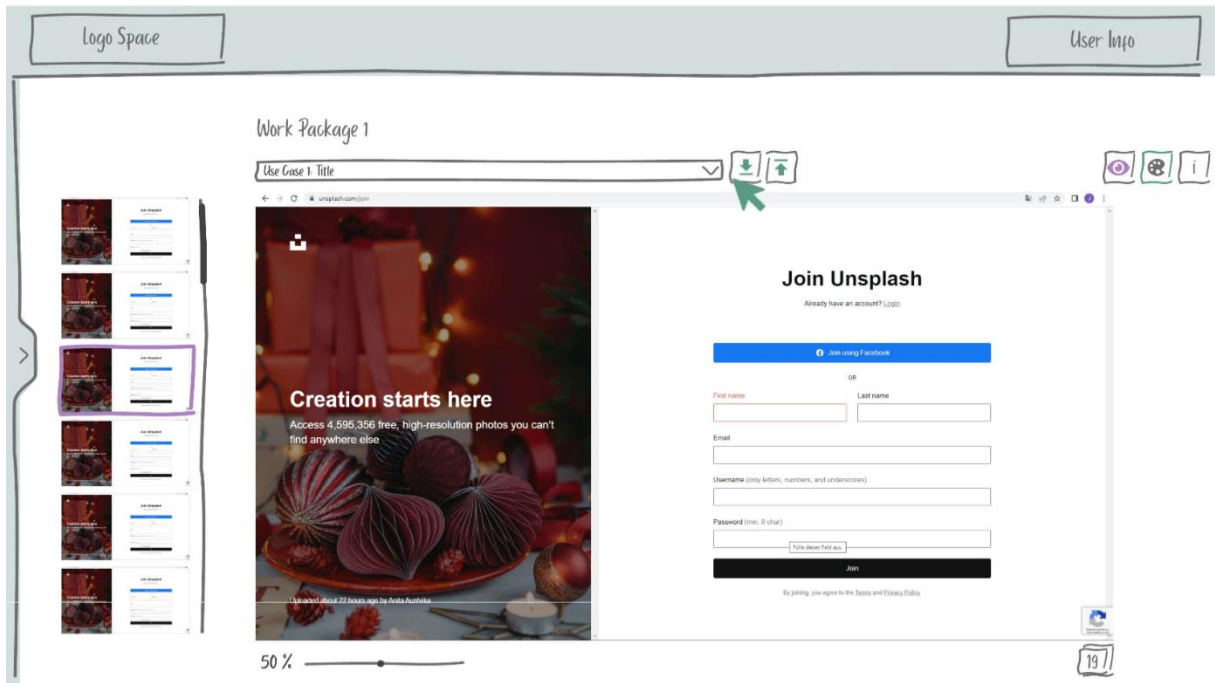
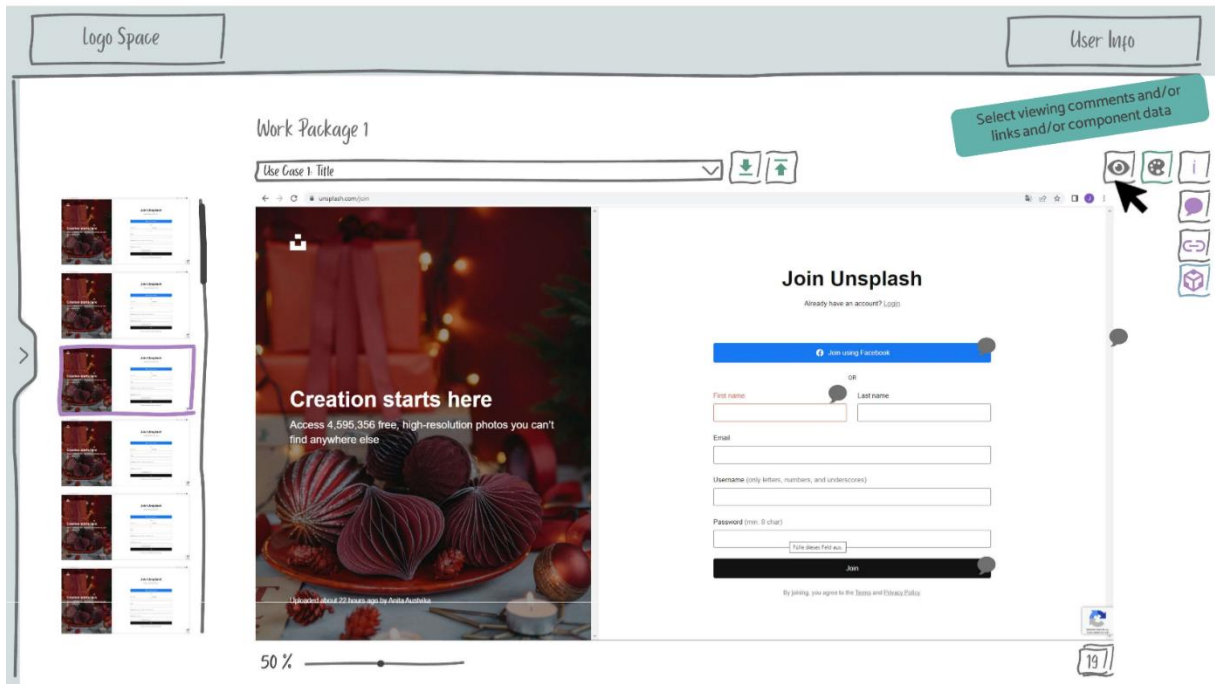


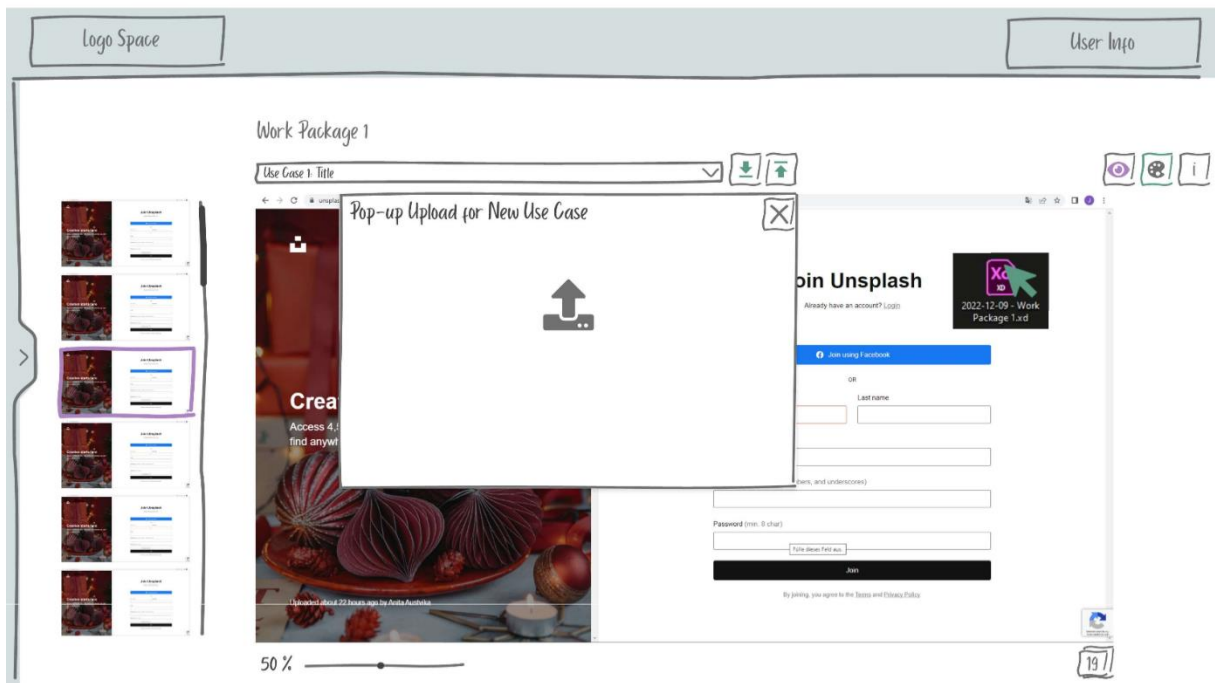
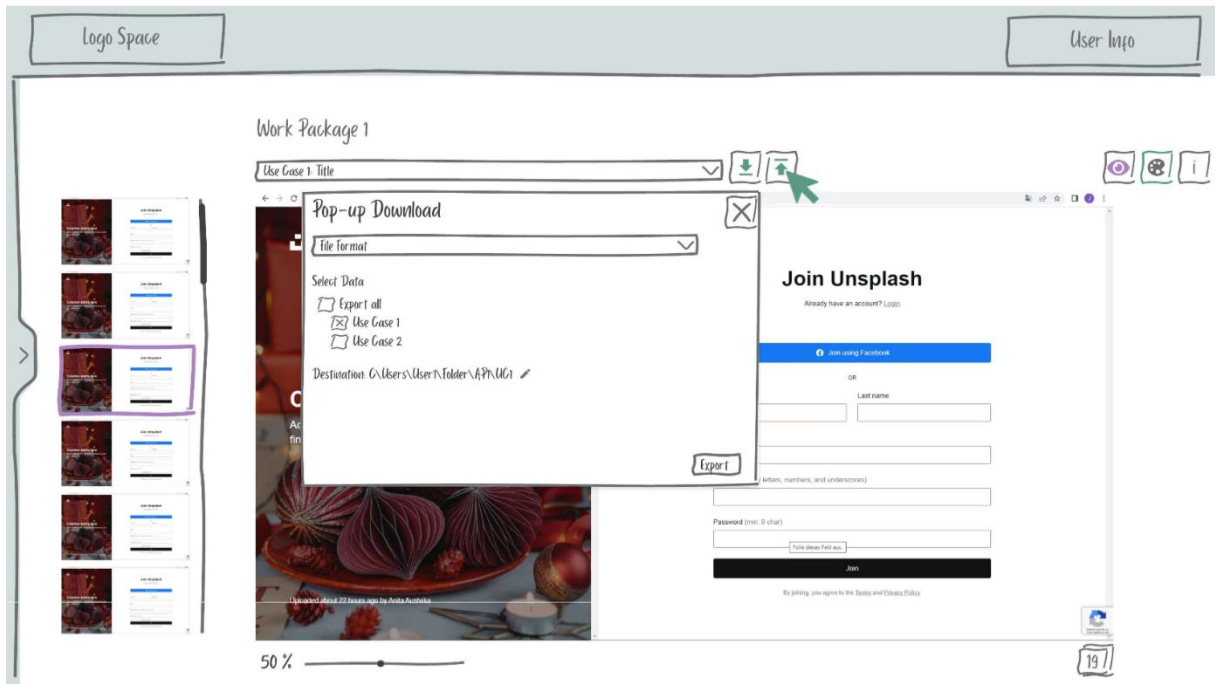
SECTION: WIREFRAMES

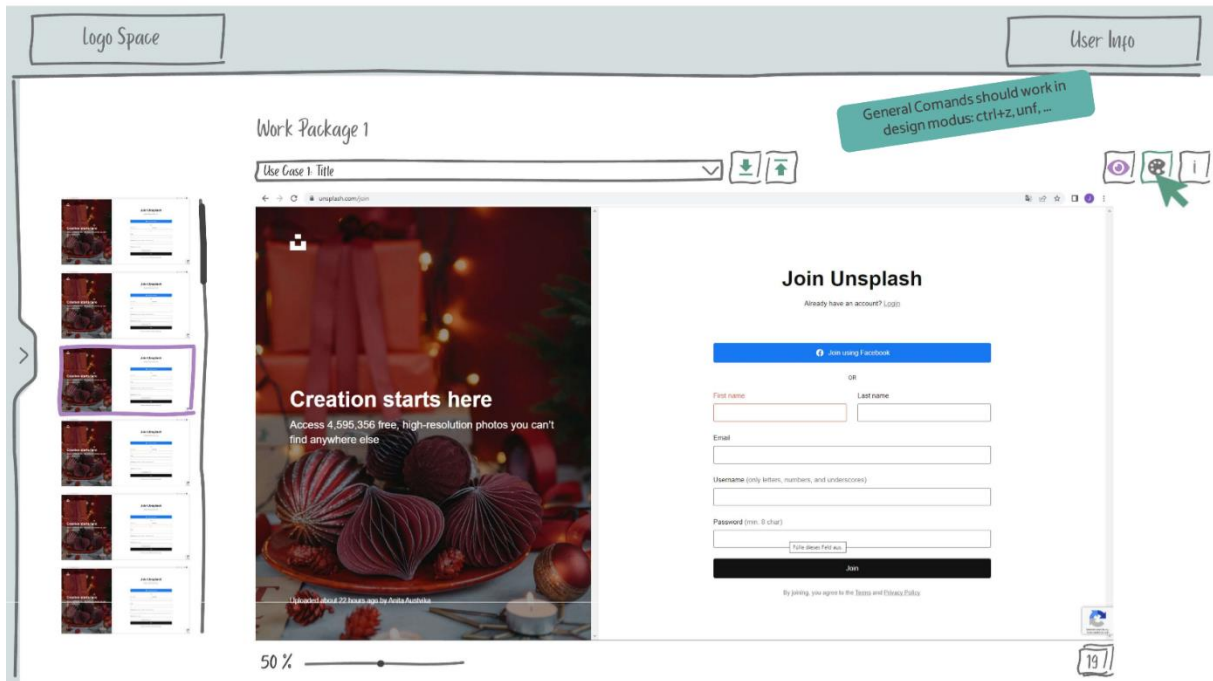
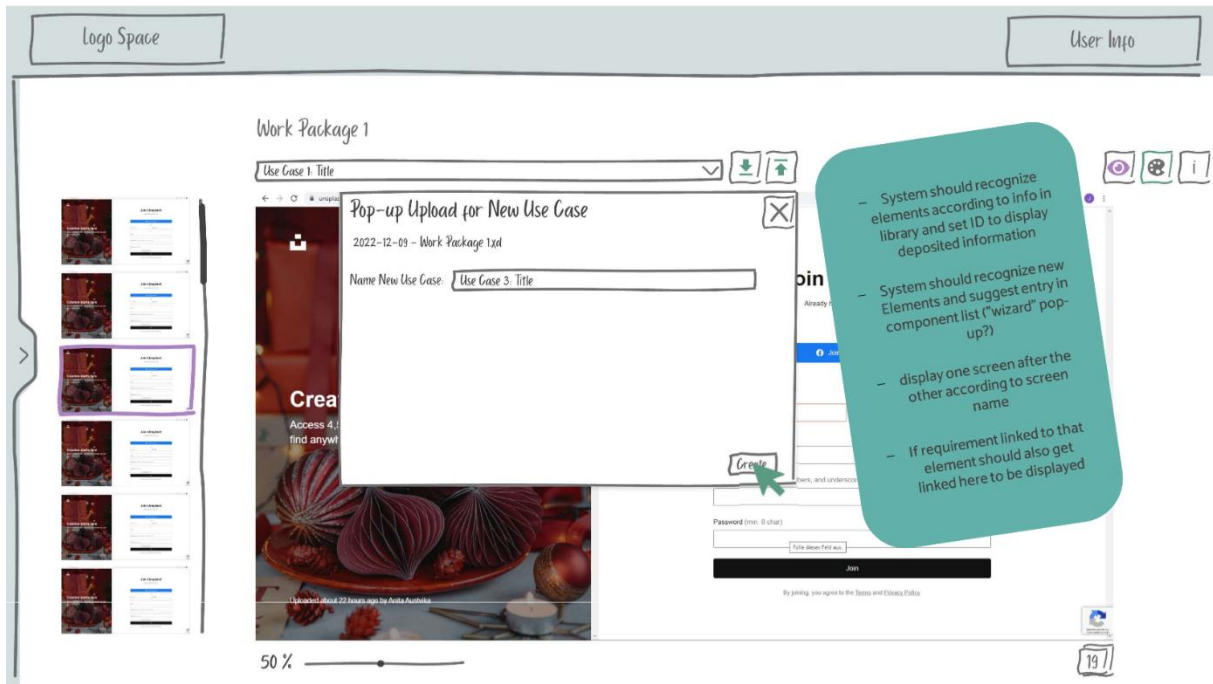


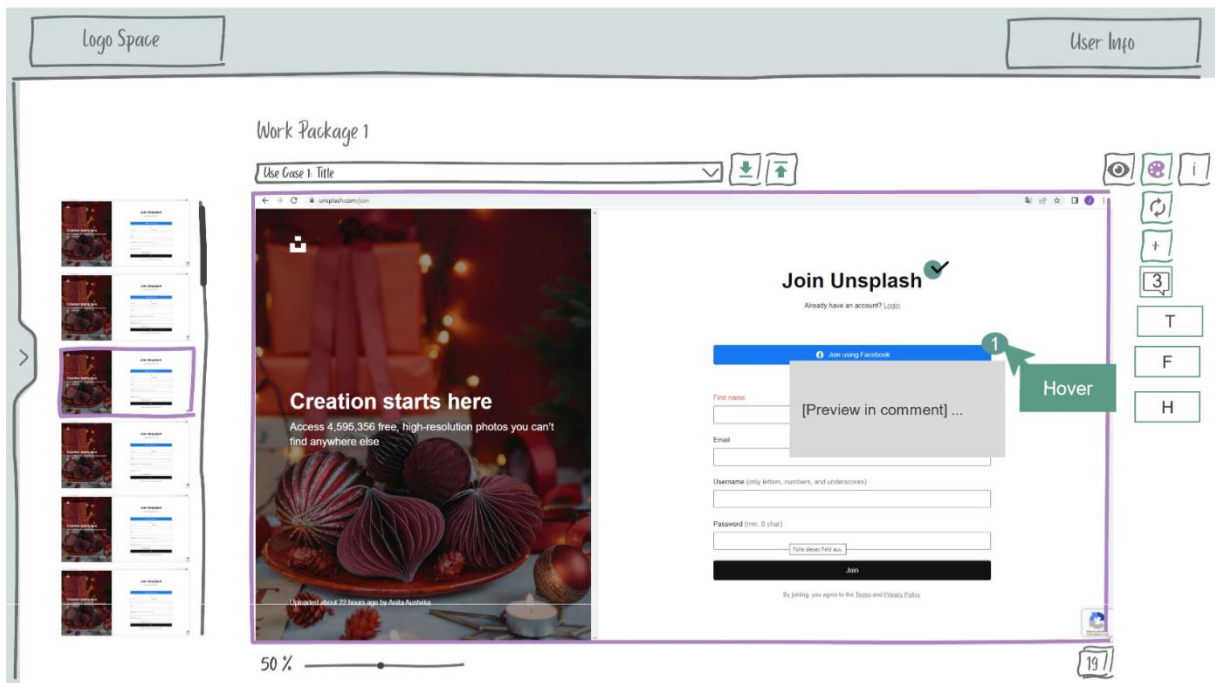
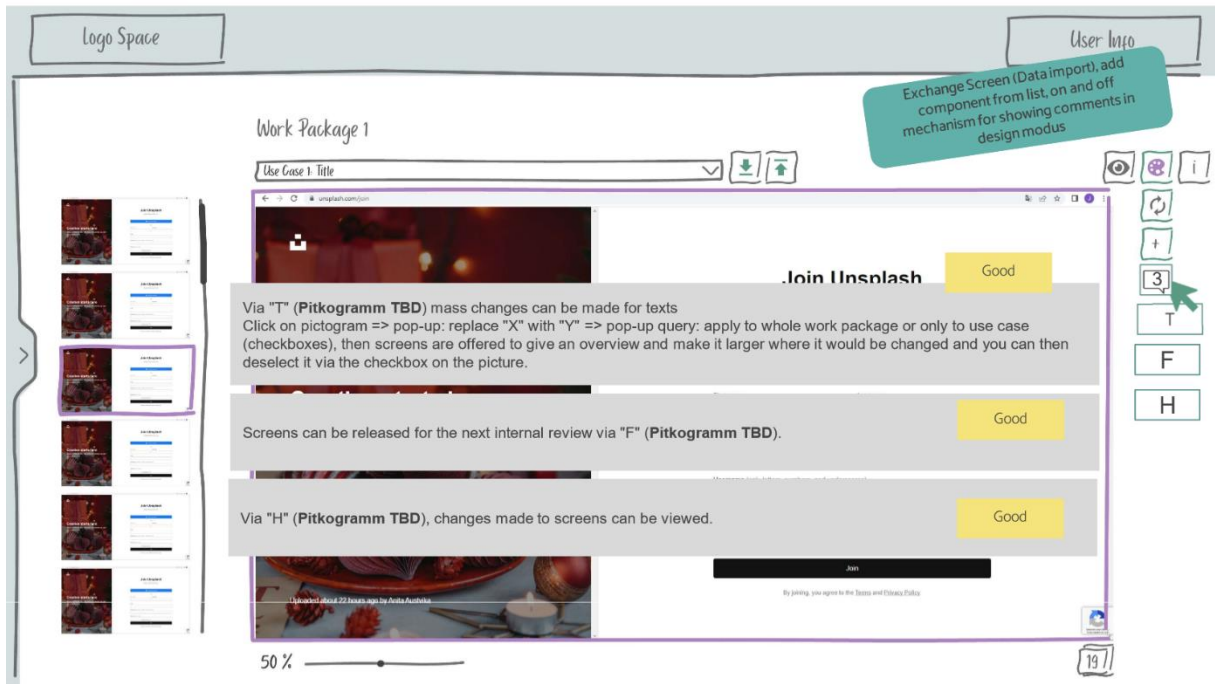


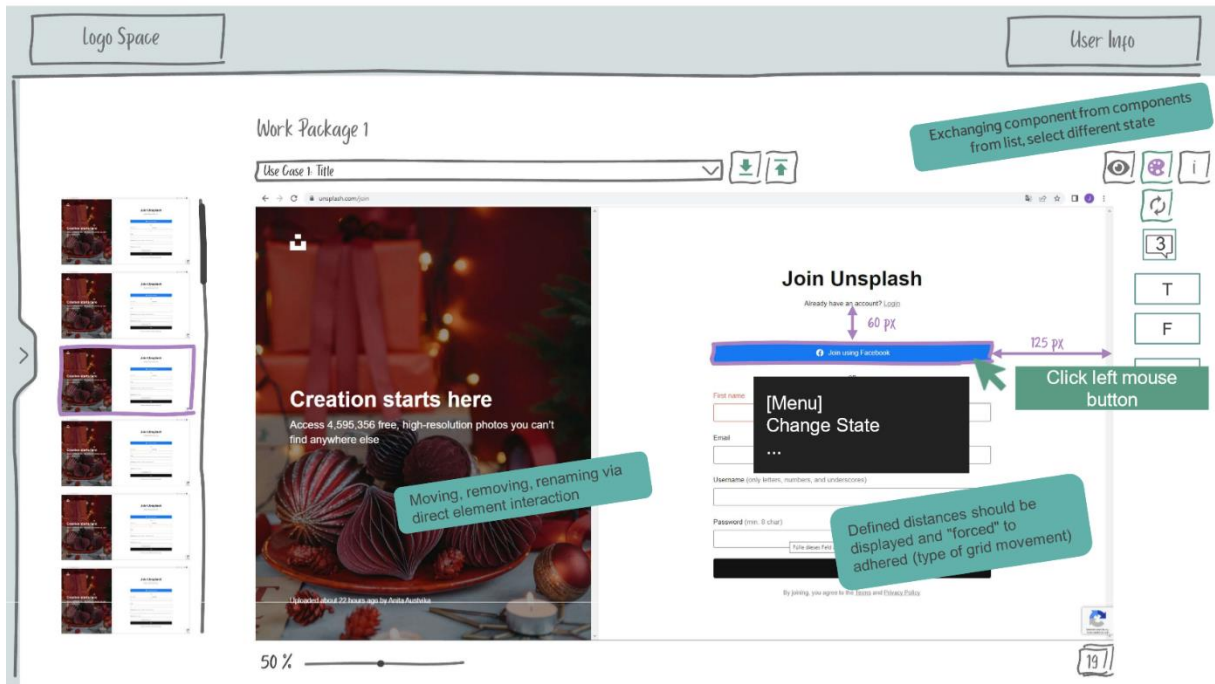












SECTION: COMPONENT LIST

Logo Space User Info

Work Package 1

All Use Cases ↓

Search slot Filter Sorting

ID	Category	Type	Name	Image	Function (specific)	State	Linked Area
10.10.01	Action Object	Button	Save		Save entries	Active	Area 1
10.10.02	Action Object	Button	Create		Creating a new entry	Active	Area 1
10.20.01	Action Object	Icon	Delete		Delete an entry	Active	Area 1
10.20.02	Action Object	Icon	Close		Close a Window	Active	Area 2
10.10.01	Selection object	Drop-Down	Drop-Down		Selection from key list (work package specific)	Active	Area 1

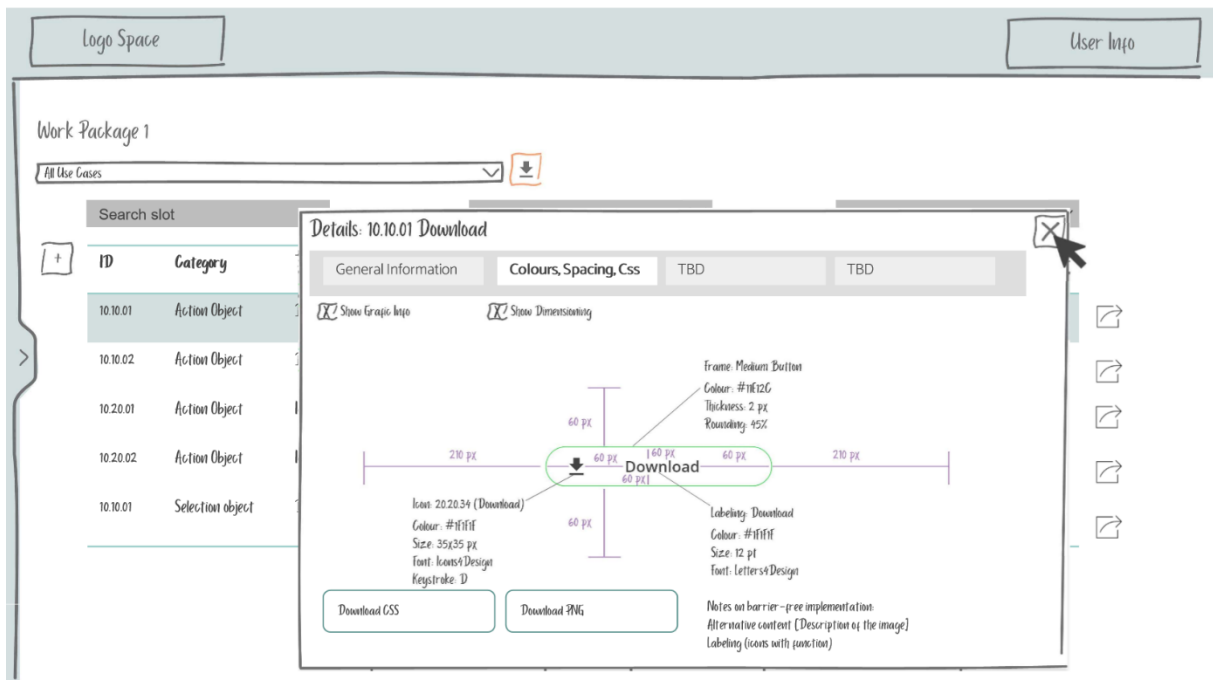
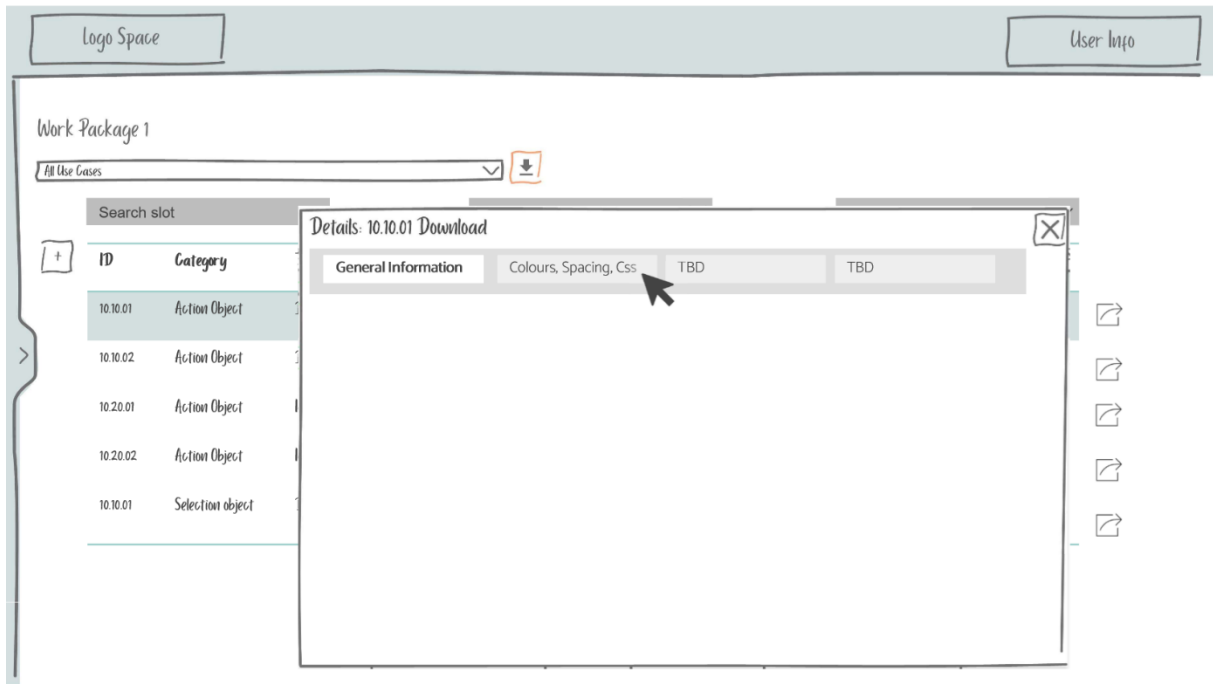
Logo Space User Info

Work Package 1

All Use Cases ↓

Search slot Filter Sorting

ID	Category	Type	Name	Image	Function (specific)	State	Linked Area
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10.20.01	Action Object	Icon	Delete		Delete an entry	Active	Area 1
10.20.02	Action Object	Icon	Close		Close a Window	Active	Area 2
10.10.01	Selection object	Drop-Down	Drop-Down		Selection from key list (work package specific)	Active	Area 1



Logo Space User Info

Work Package 1

All Use Cases ↓

Search slot Filter Sorting

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10.20.02	Action Object	Icon	Close		Close a Window	Active	Area 2
10.10.01	Selection object	Drop-Down	Drop-Down		Selection from key list (work package specific)	Active	Area 1

SECTION: User Research

TBD
Similar to Wireframe Section

Logo Space
User Info

- Project 1
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 - General
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 - Work Package 3
- Project 2
- Project 3

Work Package 1

Use Case 1 Title

User Story Map: Website for image exchange

Activities:	<div style="background-color: #333; color: white; padding: 5px; margin-bottom: 5px;">Lorem ipsum dolor</div> <div style="background-color: #333; color: white; padding: 5px;">Lorem ipsum dolor</div>																												
Steps:	<div style="background-color: #2e7d32; color: white; padding: 5px; margin-bottom: 5px;">Lorem ipsum dolor sit amet.</div> <div style="background-color: #2e7d32; color: white; padding: 5px; margin-bottom: 5px;">Lorem ipsum dolor sit amet.</div> <div style="background-color: #2e7d32; color: white; padding: 5px; margin-bottom: 5px;">Lorem ipsum dolor sit amet.</div> <div style="background-color: #2e7d32; color: white; padding: 5px; margin-bottom: 5px;">Lorem ipsum dolor sit amet.</div> <div style="background-color: #2e7d32; color: white; padding: 5px; margin-bottom: 5px;">Lorem ipsum dolor sit amet.</div> <div style="background-color: #2e7d32; color: white; padding: 5px; margin-bottom: 5px;">Lorem ipsum dolor sit amet.</div>																												
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Logo Space
User Info

- Project 1
 - General
 - Work Package 1
 - General
 - Requirements
 - Wireframes
 - Components
 - Work Package 2
 - Work Package 3
- Project 2
- Project 3

Work Package 1

Use Case 1 Title

User Story Map: Website for image exchange

Activities:	<div style="background-color: #333; color: white; padding: 5px; margin-bottom: 5px;">Lorem ipsum dolor</div> <div style="background-color: #333; color: white; padding: 5px;">Lorem ipsum dolor</div>																												
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Details:	<table border="0"> <tr> <td style="background-color: #2e7d32; color: white; padding: 5px;">Lorem ipsum dolor sit amet.</td> <td style="background-color: #2e7d32; color: white; padding: 5px;">Lorem ipsum dolor sit amet.</td> <td style="background-color: #2e7d32; color: white; padding: 5px;">Lorem ipsum dolor sit amet.</td> <td style="background-color: #2e7d32; color: white; padding: 5px;">Lorem ipsum dolor sit amet.</td> <td style="background-color: #2e7d32; color: white; padding: 5px;">Lorem ipsum dolor sit amet.</td> <td style="background-color: #2e7d32; color: white; padding: 5px;">Lorem ipsum dolor sit amet.</td> <td style="background-color: #2e7d32; color: white; padding: 5px;">Lorem ipsum dolor sit amet.</td> </tr> <tr> <td style="background-color: #2e7d32; color: white; padding: 5px;">Lorem ipsum dolor sit amet.</td> <td style="background-color: #2e7d32; color: white; padding: 5px;">Lorem ipsum dolor sit amet.</td> <td style="background-color: #2e7d32; color: white; padding: 5px;">Lorem ipsum dolor sit amet.</td> <td style="background-color: #2e7d32; color: white; padding: 5px;">Lorem ipsum dolor sit amet.</td> <td style="background-color: #2e7d32; color: white; padding: 5px;">Lorem ipsum dolor sit amet.</td> <td style="background-color: #2e7d32; color: white; padding: 5px;">Lorem ipsum dolor sit amet.</td> <td style="background-color: #2e7d32; color: white; padding: 5px;">Lorem ipsum dolor sit amet.</td> </tr> <tr> <td style="background-color: #2e7d32; color: white; padding: 5px;">Lorem ipsum dolor sit amet.</td> <td style="background-color: #2e7d32; color: white; padding: 5px;">Lorem ipsum dolor sit amet.</td> <td style="background-color: #2e7d32; color: white; padding: 5px;">Lorem ipsum dolor sit amet.</td> <td style="background-color: #2e7d32; color: white; padding: 5px;">Lorem ipsum dolor sit amet.</td> <td style="background-color: #2e7d32; color: white; padding: 5px;">Lorem ipsum dolor sit amet.</td> <td style="background-color: #2e7d32; color: white; padding: 5px;">Lorem ipsum dolor sit amet.</td> <td style="background-color: #2e7d32; color: white; padding: 5px;">Lorem ipsum dolor sit amet.</td> </tr> <tr> <td style="background-color: #2e7d32; color: white; padding: 5px;">Lorem ipsum dolor sit amet.</td> <td style="background-color: #2e7d32; color: white; padding: 5px;">Lorem ipsum dolor sit amet.</td> <td style="background-color: #2e7d32; color: white; padding: 5px;">Lorem ipsum dolor sit amet.</td> <td style="background-color: #2e7d32; color: white; padding: 5px;">Lorem ipsum dolor sit amet.</td> <td style="background-color: #2e7d32; color: white; padding: 5px;">Lorem ipsum dolor sit amet.</td> <td style="background-color: #2e7d32; color: white; padding: 5px;">Lorem ipsum dolor sit amet.</td> <td style="background-color: #2e7d32; color: white; padding: 5px;">Lorem ipsum dolor sit amet.</td> </tr> </table>	Lorem ipsum dolor sit amet.	Lorem ipsum dolor sit amet.	Lorem ipsum dolor sit amet.	Lorem ipsum dolor sit amet.	Lorem ipsum dolor sit amet.	Lorem ipsum dolor sit amet.	Lorem ipsum dolor sit amet.	Lorem ipsum dolor sit amet.	Lorem ipsum dolor sit amet.	Lorem ipsum dolor sit amet.	Lorem ipsum dolor sit amet.	Lorem ipsum dolor sit amet.	Lorem ipsum dolor sit amet.	Lorem ipsum dolor sit amet.	Lorem ipsum dolor sit amet.	Lorem ipsum dolor sit amet.	Lorem ipsum dolor sit amet.	Lorem ipsum dolor sit amet.	Lorem ipsum dolor sit amet.	Lorem ipsum dolor sit amet.	Lorem ipsum dolor sit amet.	Lorem ipsum dolor sit amet.	Lorem ipsum dolor sit amet.	Lorem ipsum dolor sit amet.	Lorem ipsum dolor sit amet.	Lorem ipsum dolor sit amet.	Lorem ipsum dolor sit amet.	Lorem ipsum dolor sit amet.
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Requirements 1234:

Lorem ipsum dolor sit amet. consectetur adipiscing elit; sed ac nisi nonummy enim sed tempor invidunt ut labore et dolore magna aliquyam erat. sed diam voluptua.

↔
💬

Linked (2):

✕

lorem ipsum...

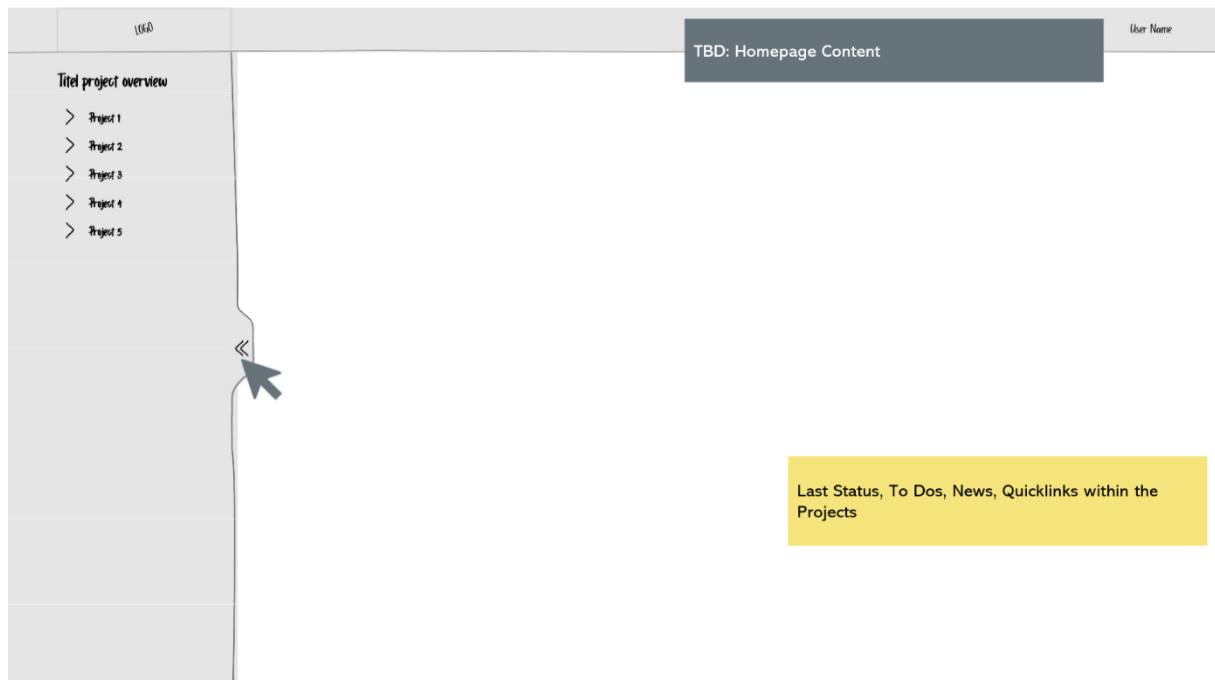
✕

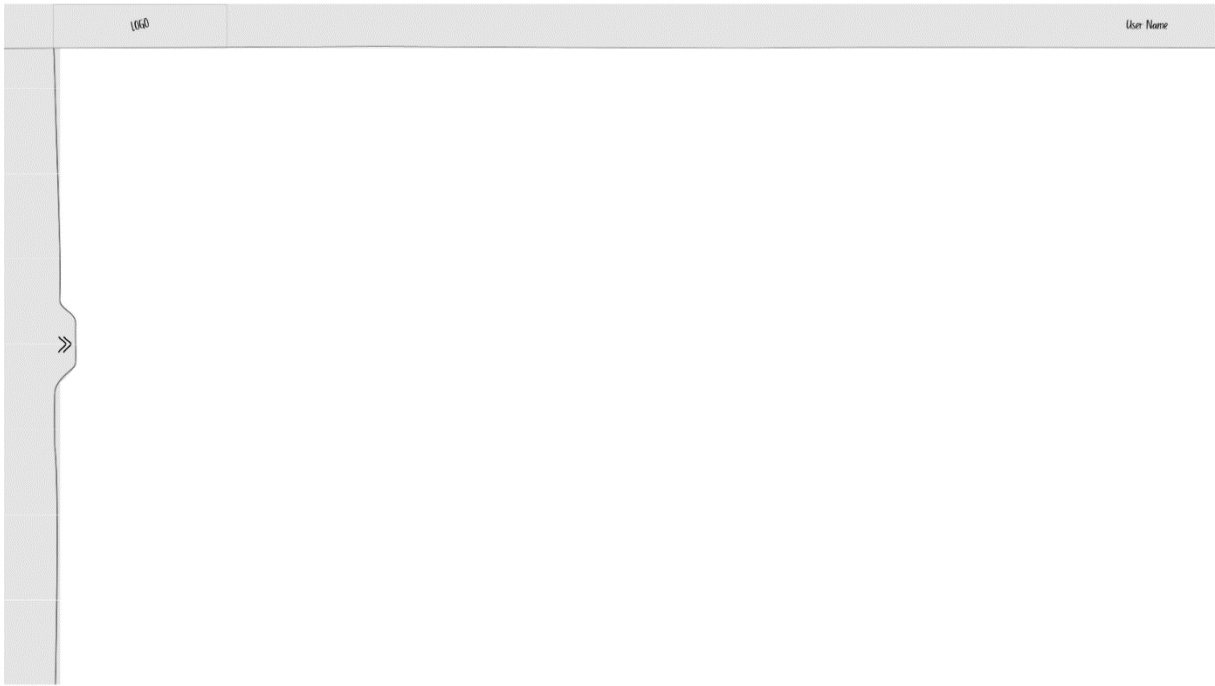
Requirement 134: Lorem ipsum dolor ...

EXPERT ROUND 5

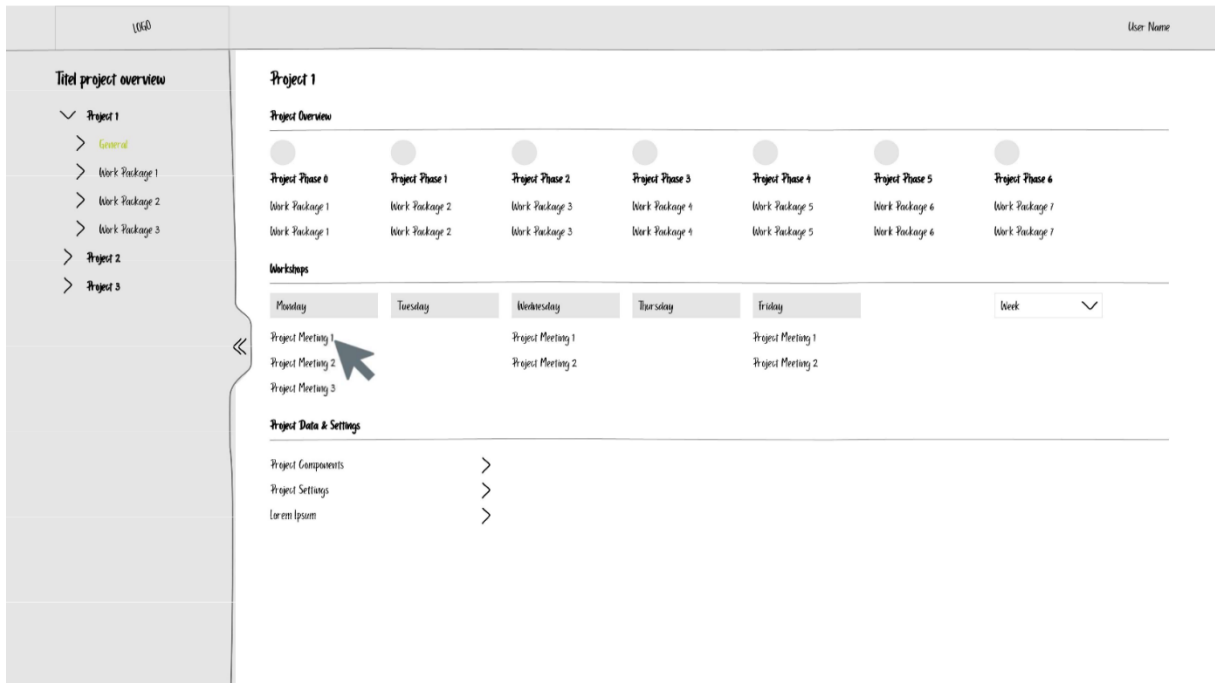
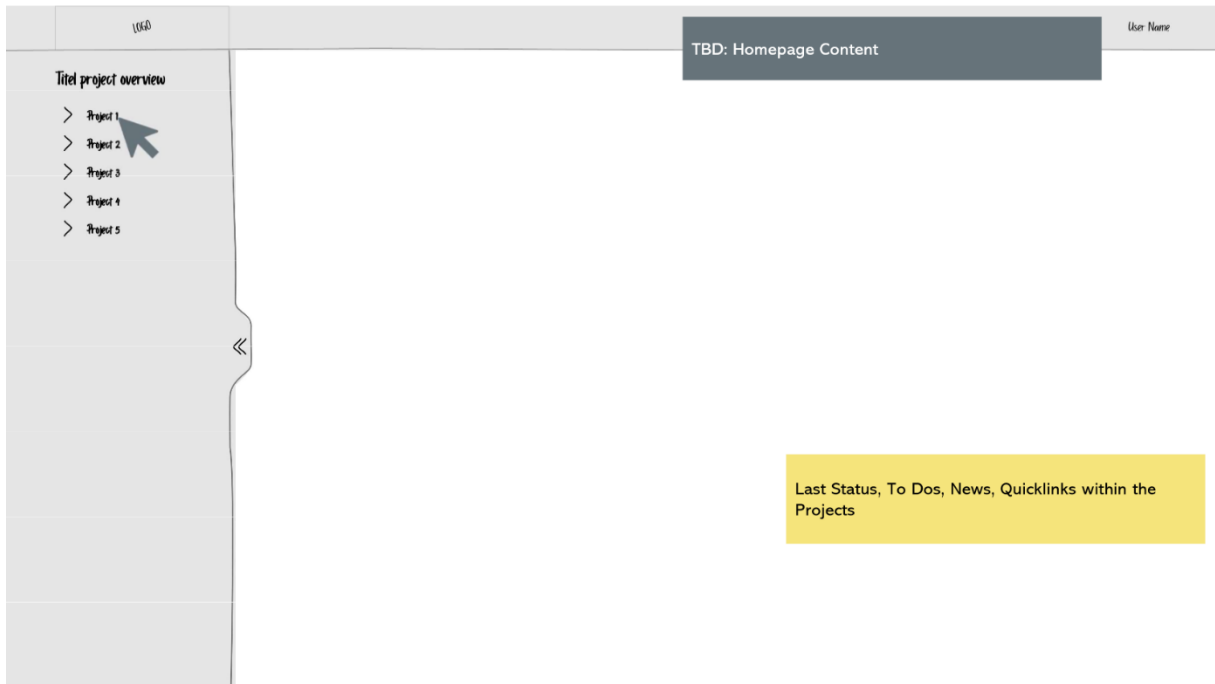
[General Section \(Home\)](#)

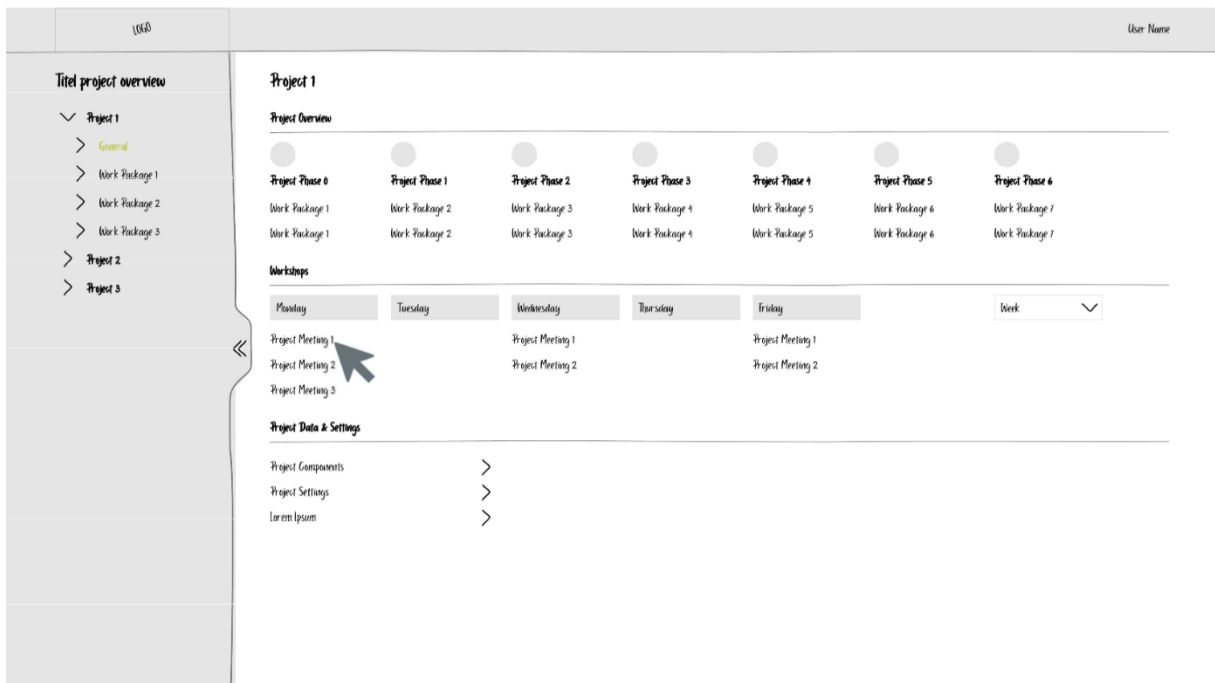
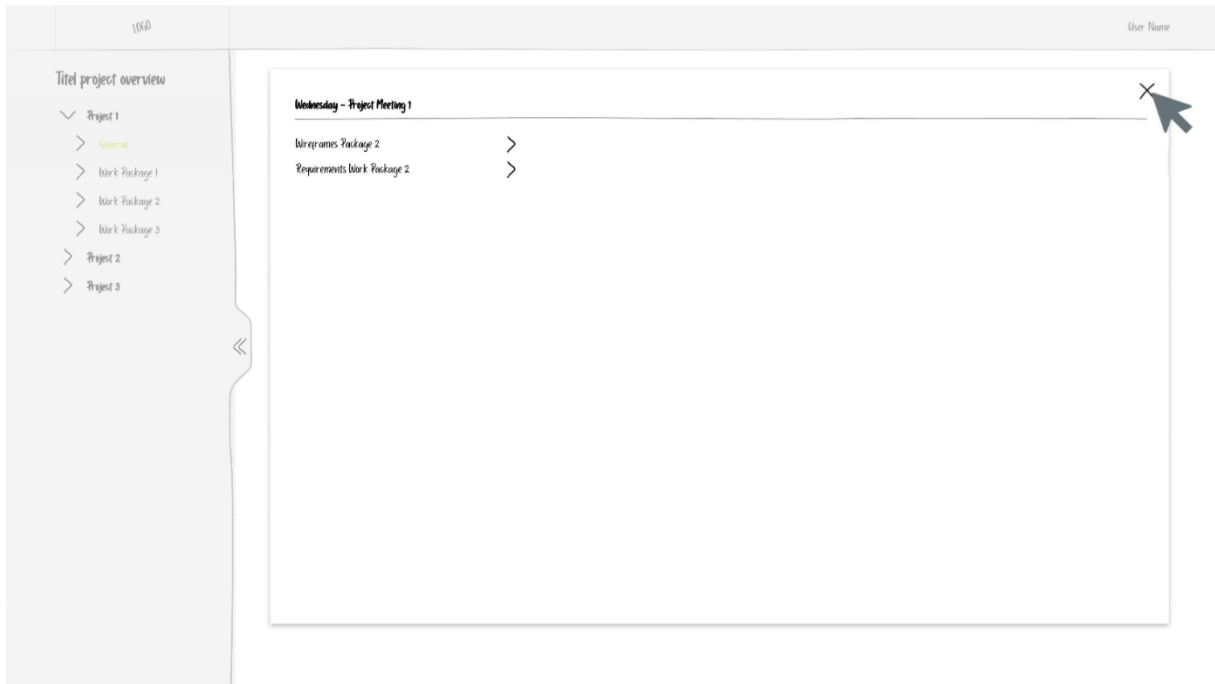
Behaviour Navigation bar



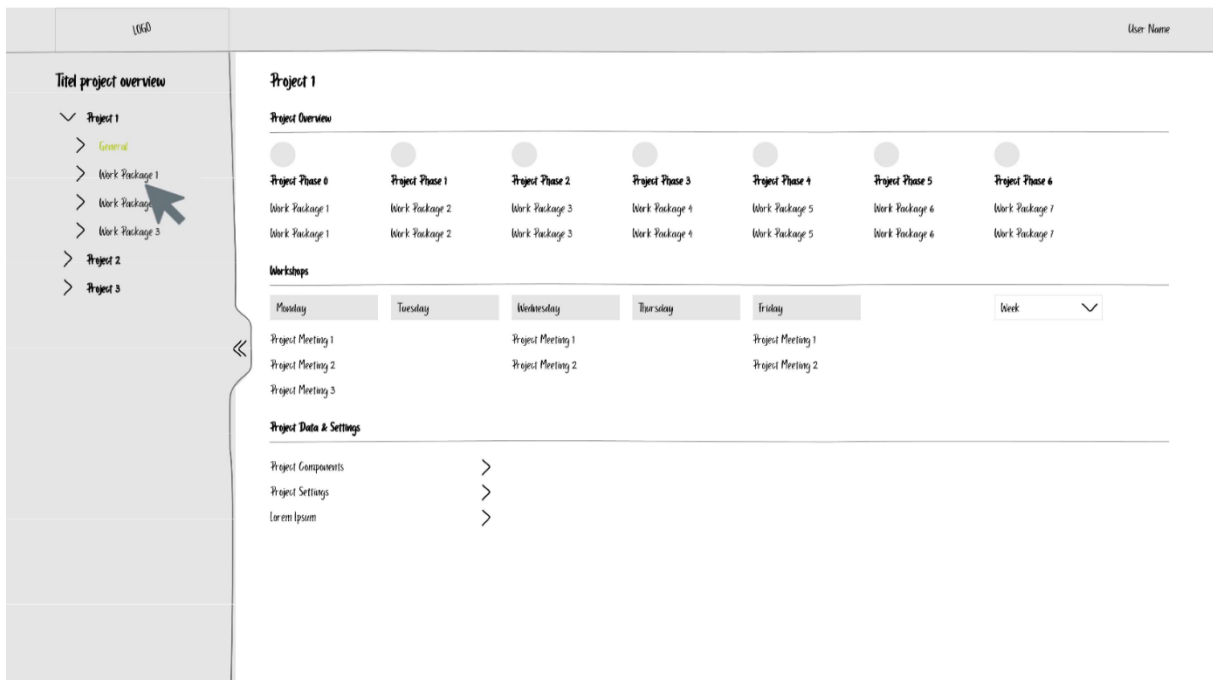


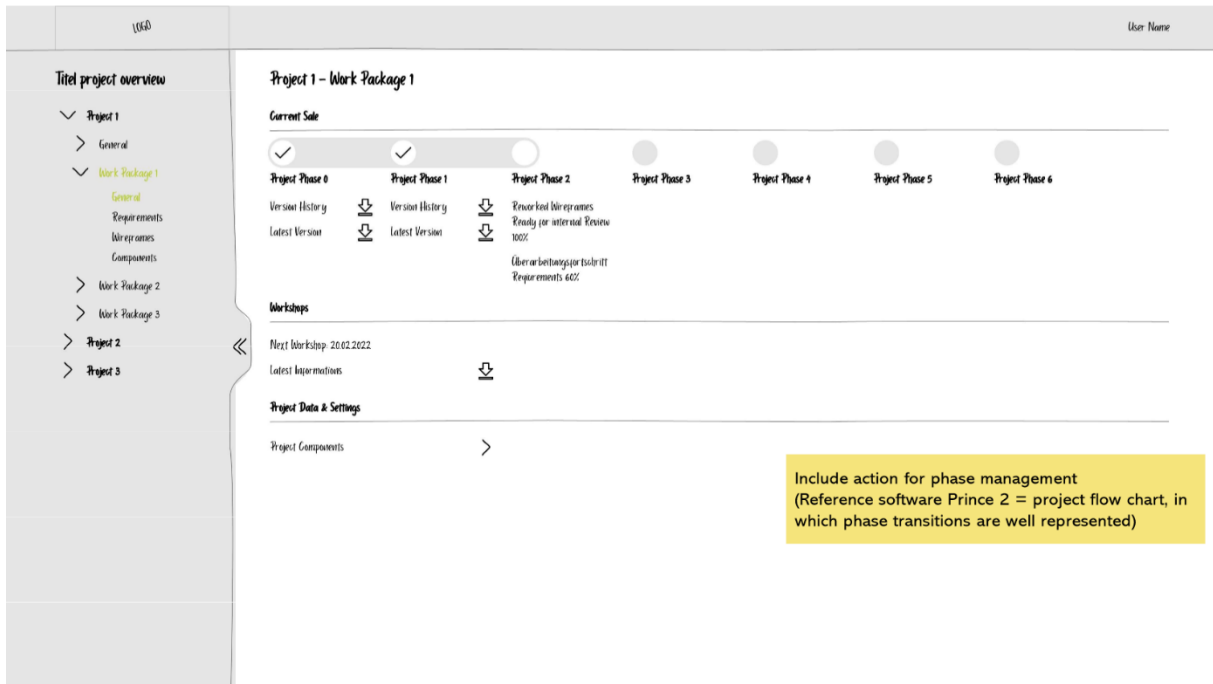
Home Project (General)





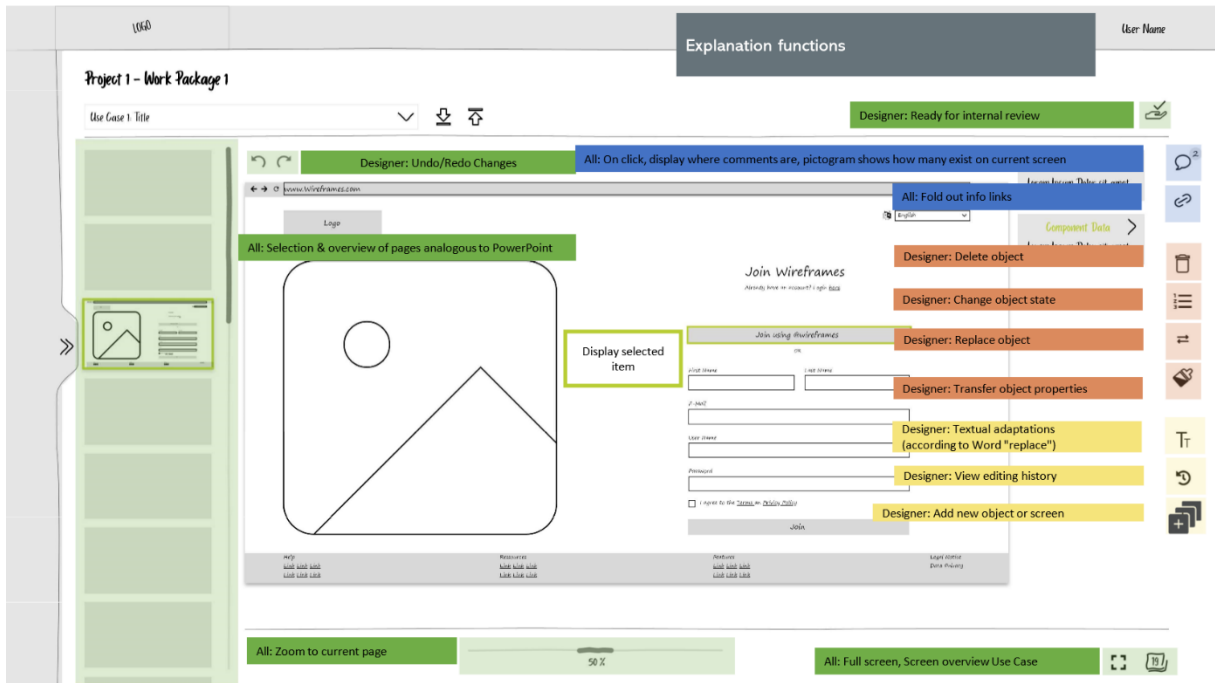
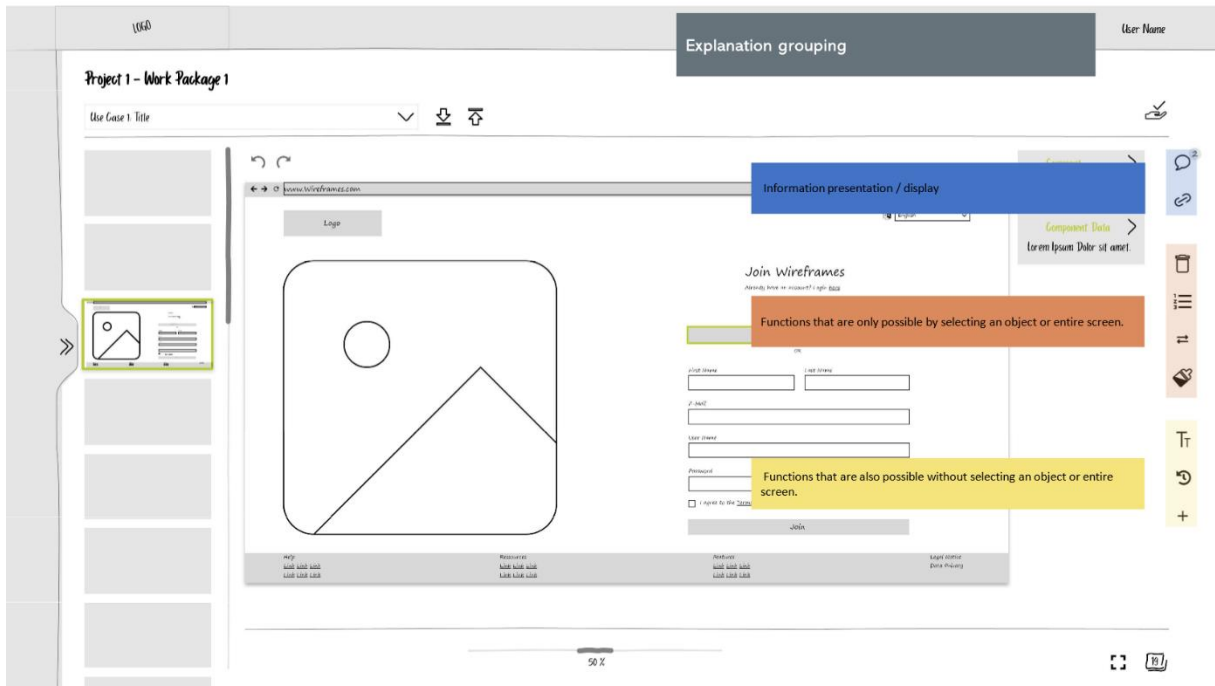
Home Project (General)



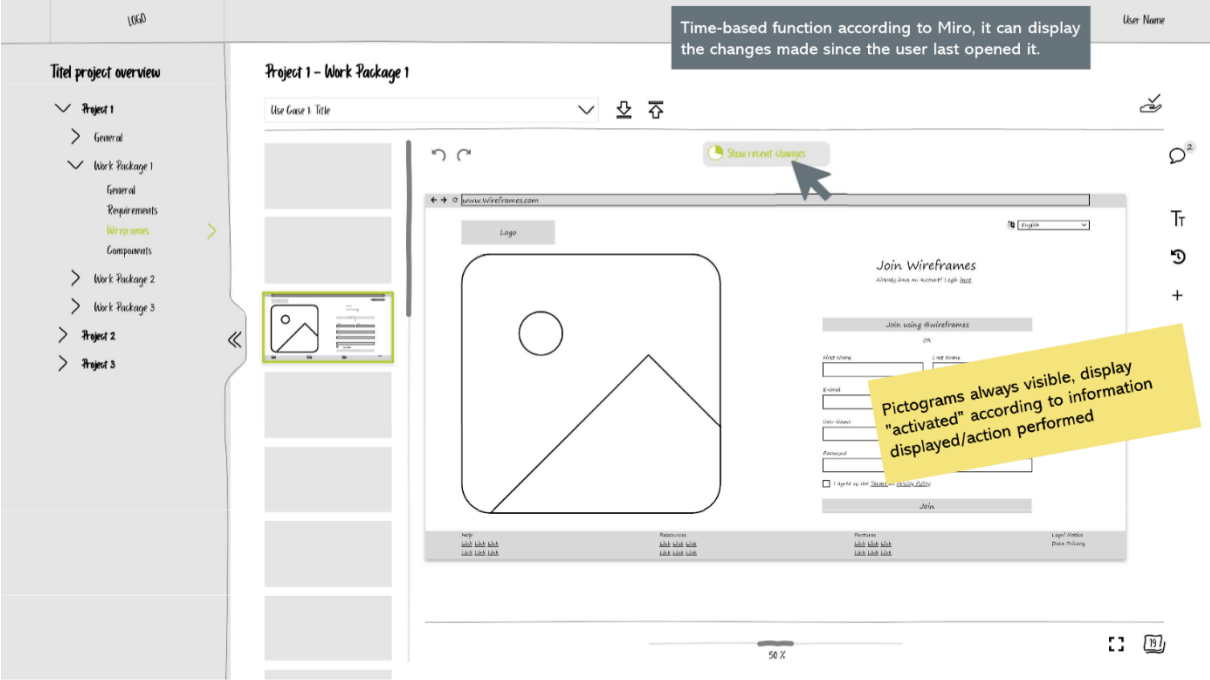


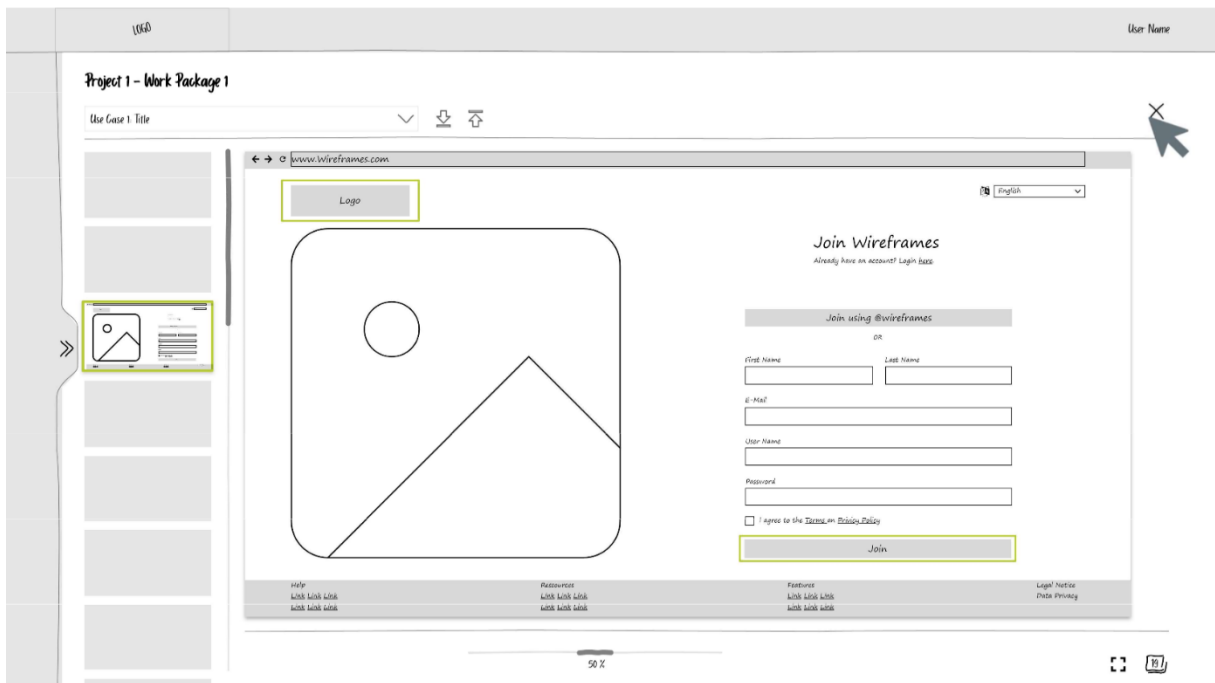
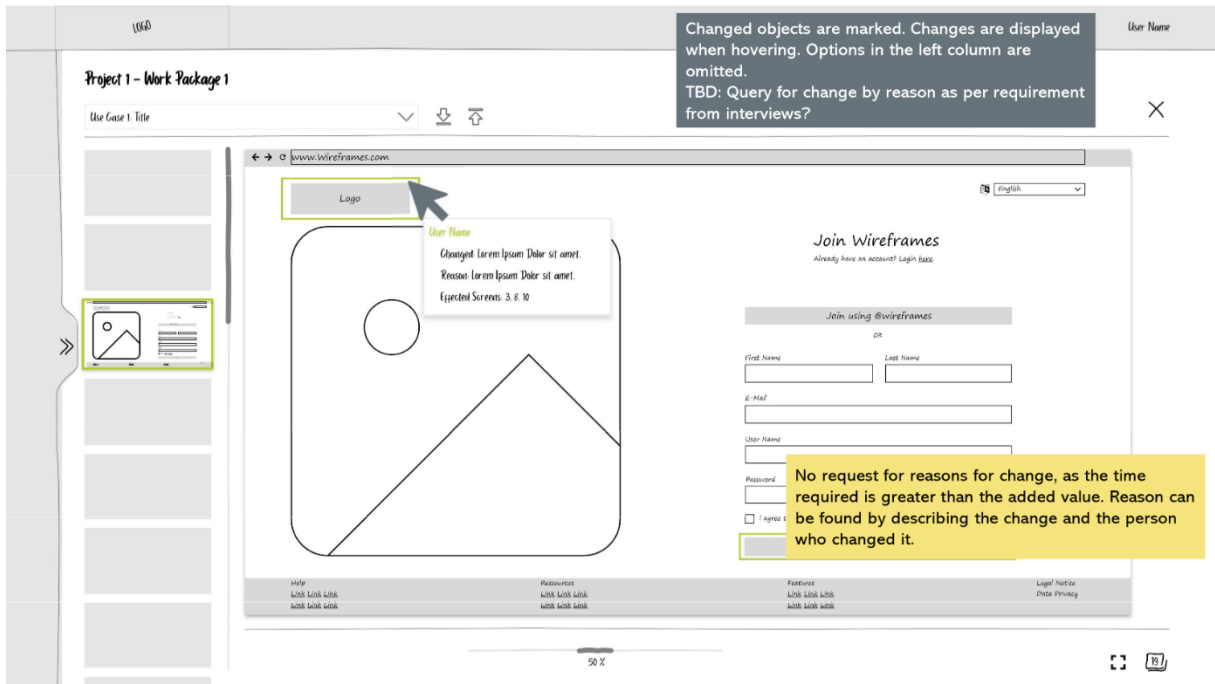
Wireframes section

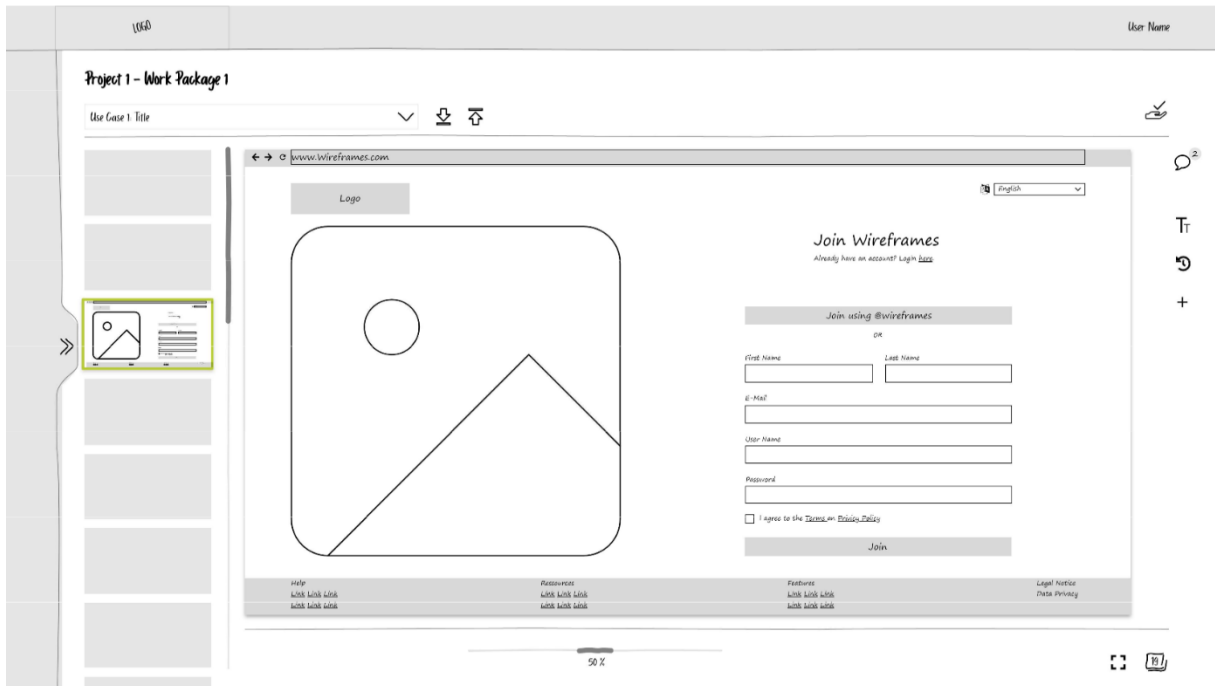
Function explanation



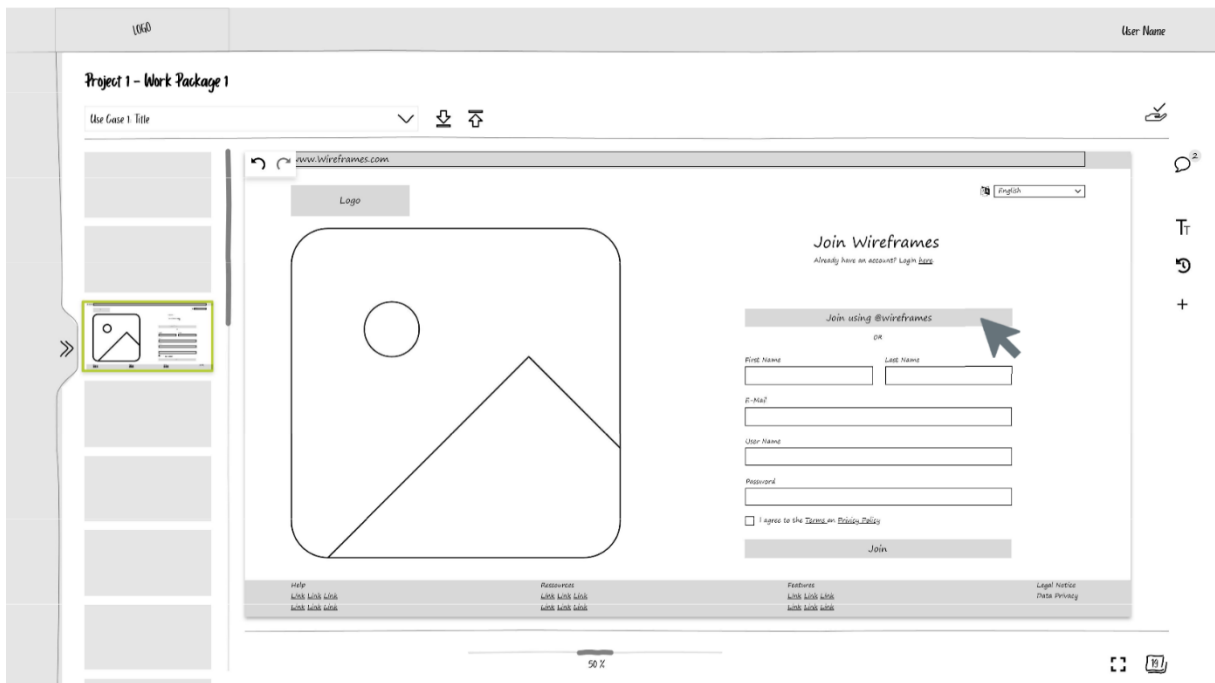
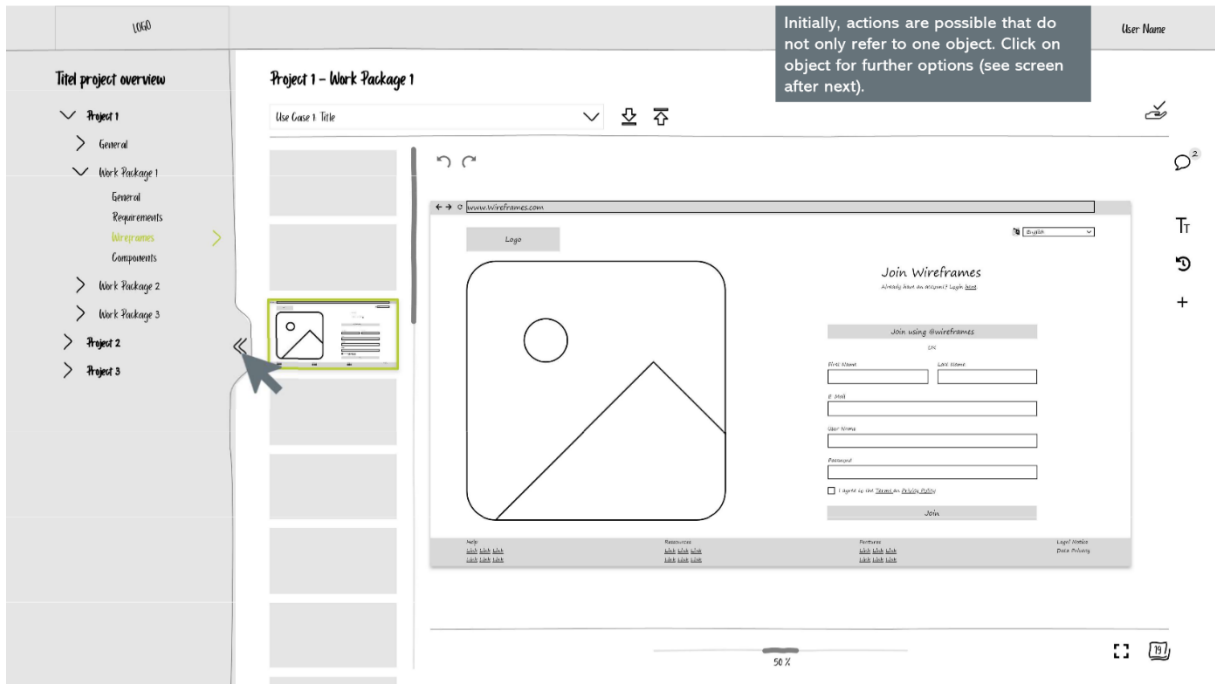
Show last changes

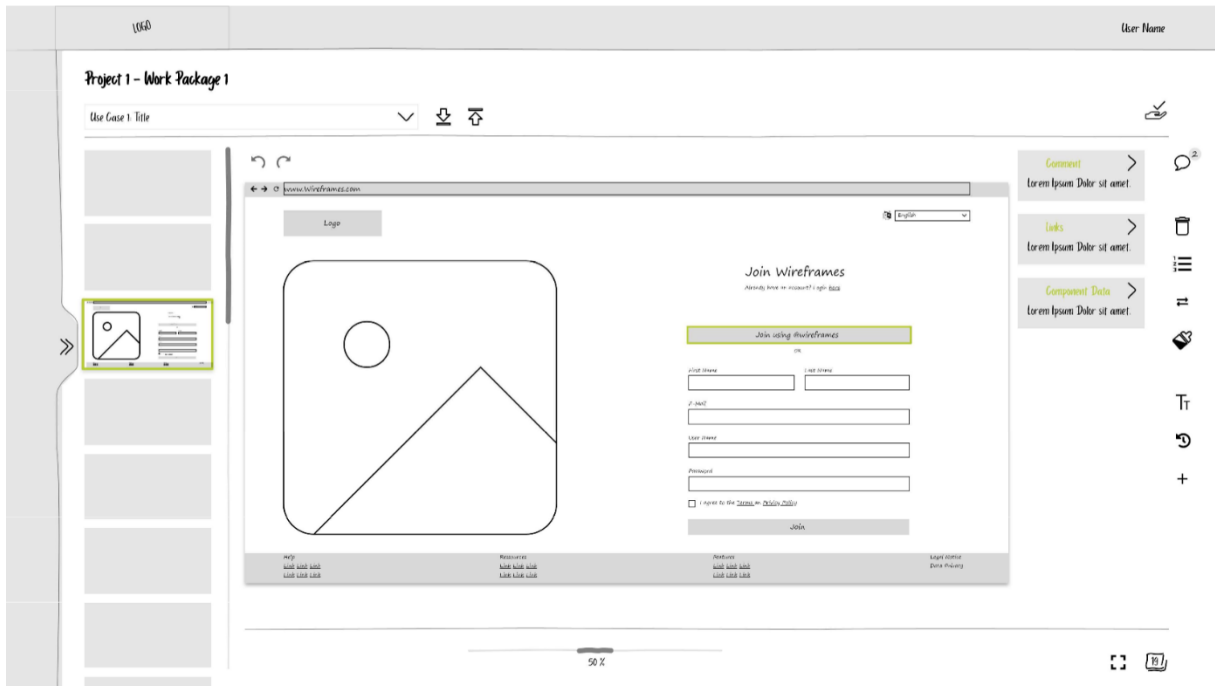




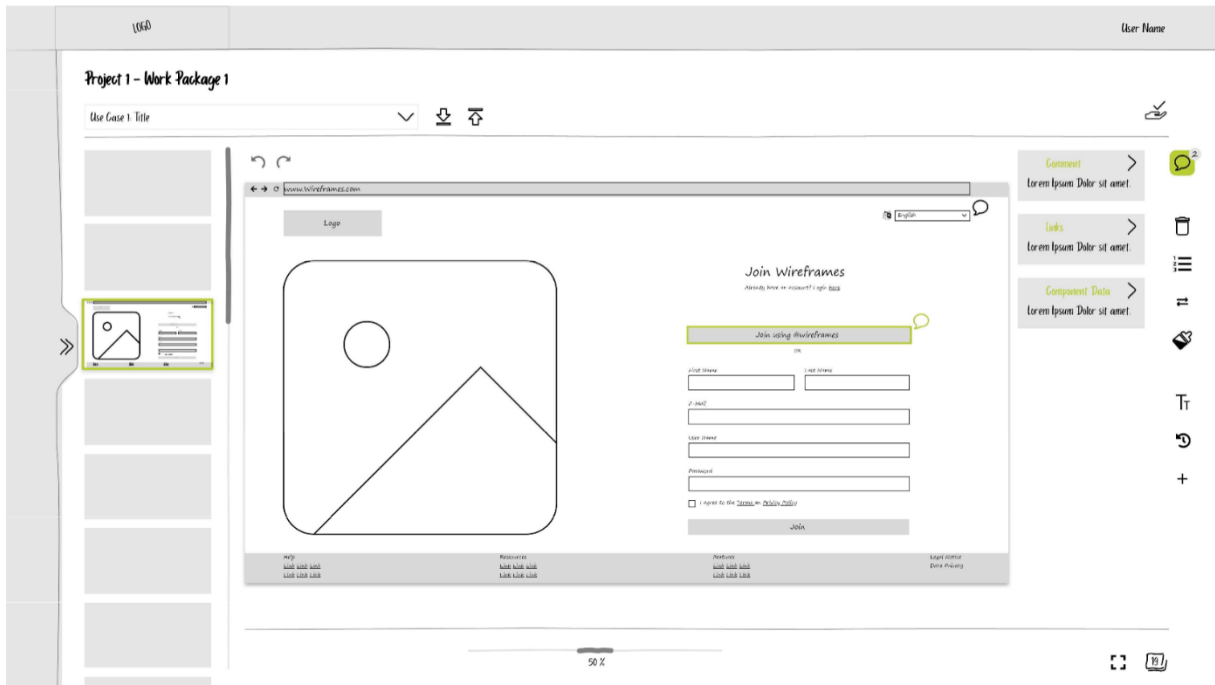
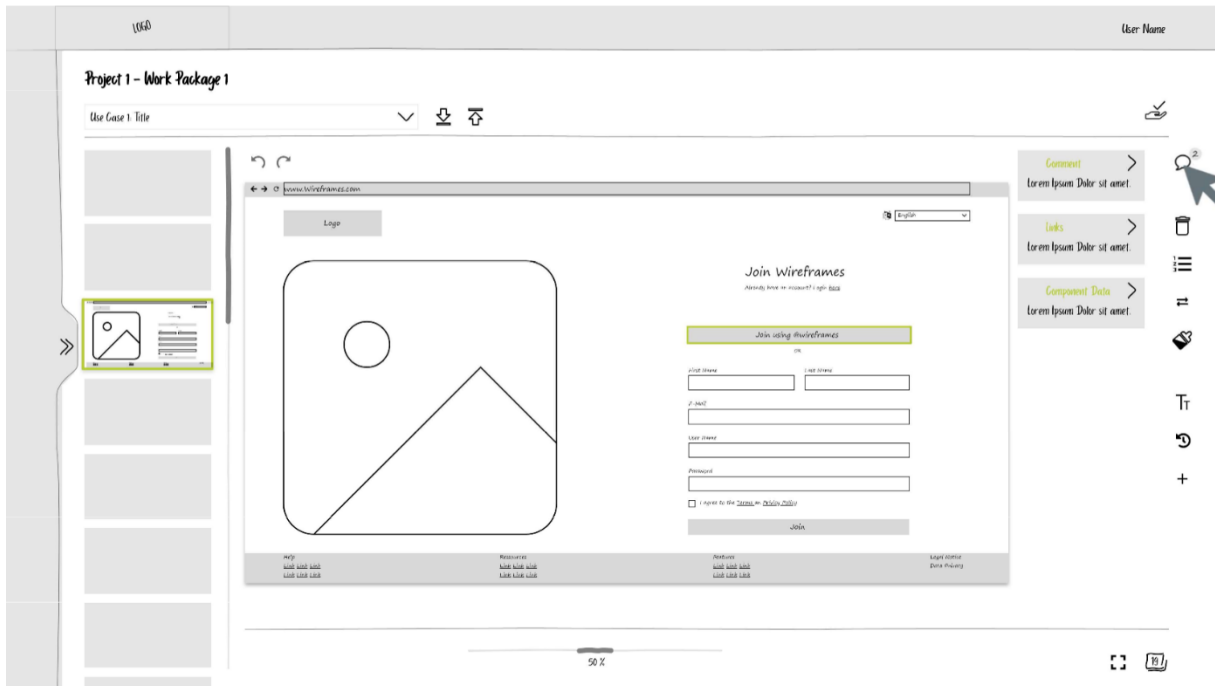


Fold in the bar,
Click object



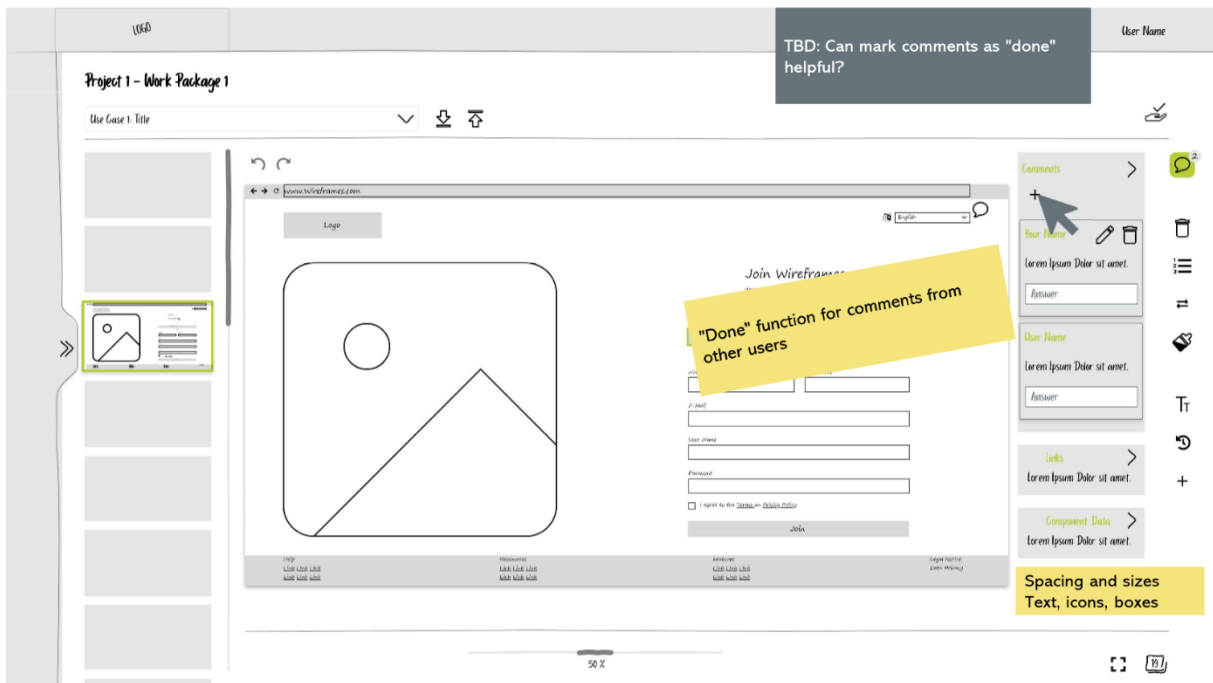


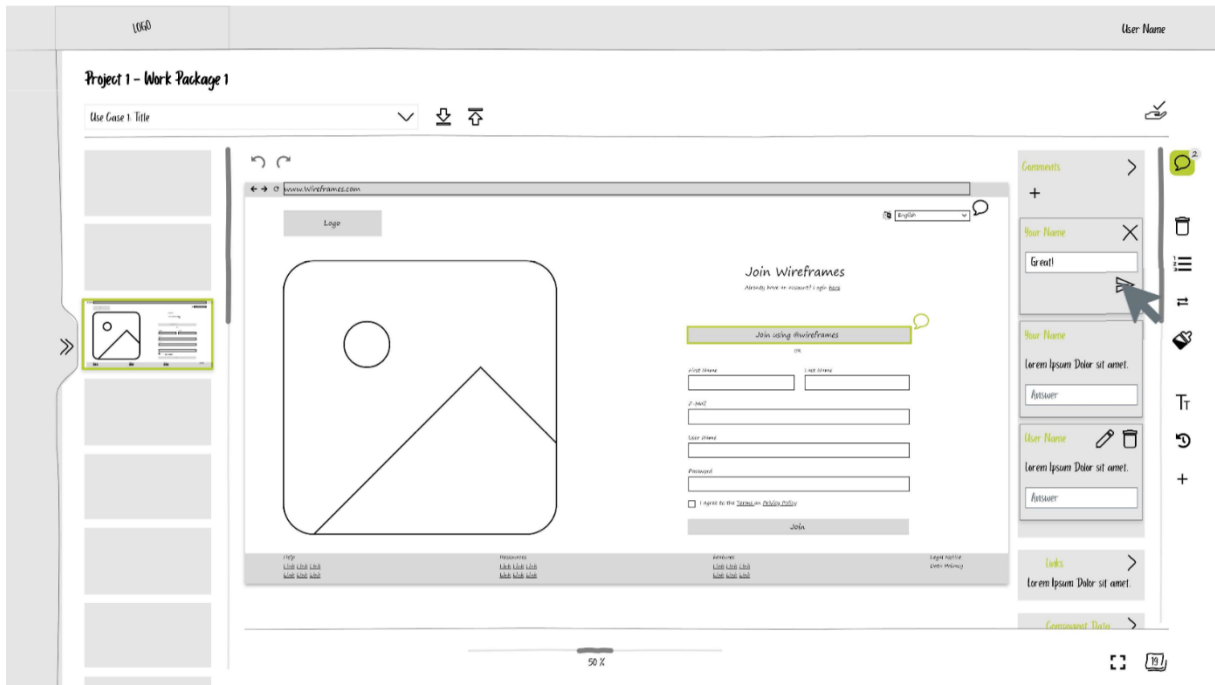
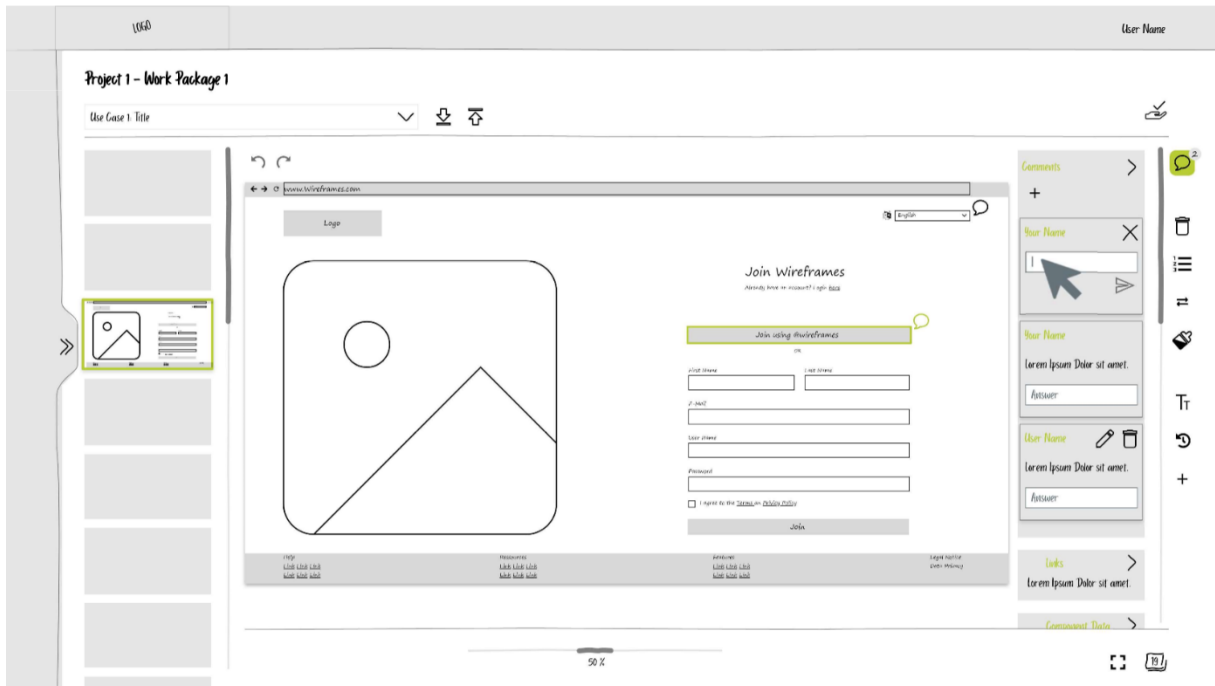
Where are comments?
(show/hide)

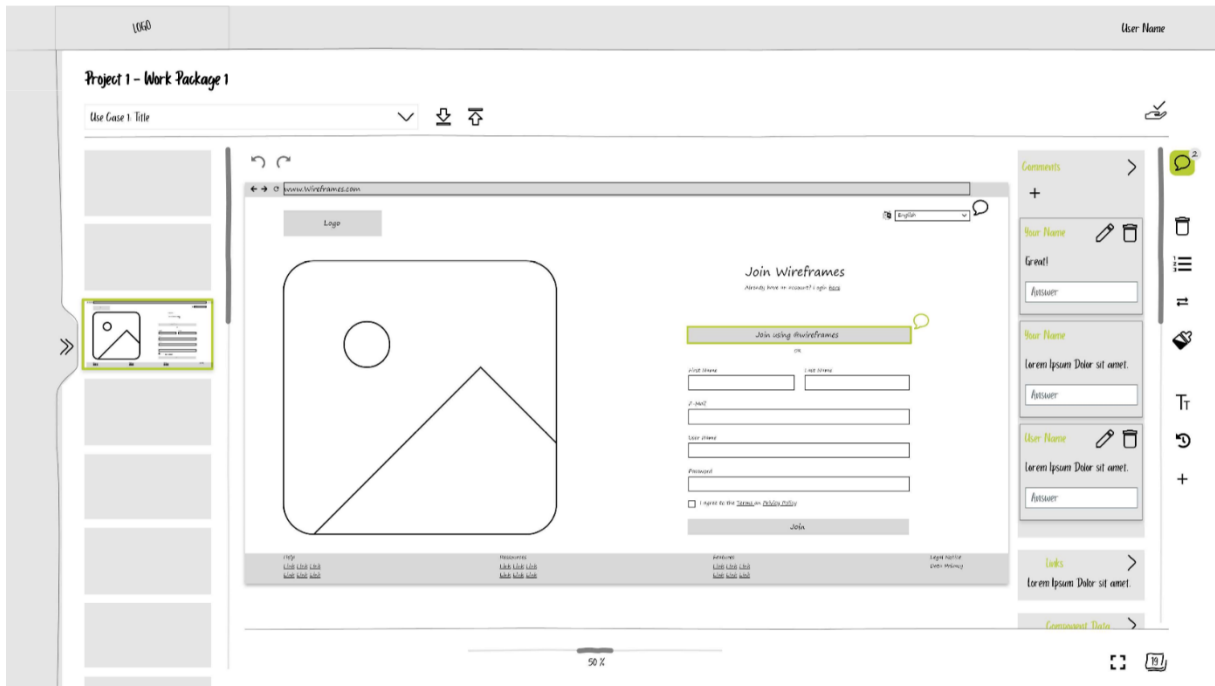


Add new comment

Further optimisation of the display is not necessary, as this is a known function with best practices.

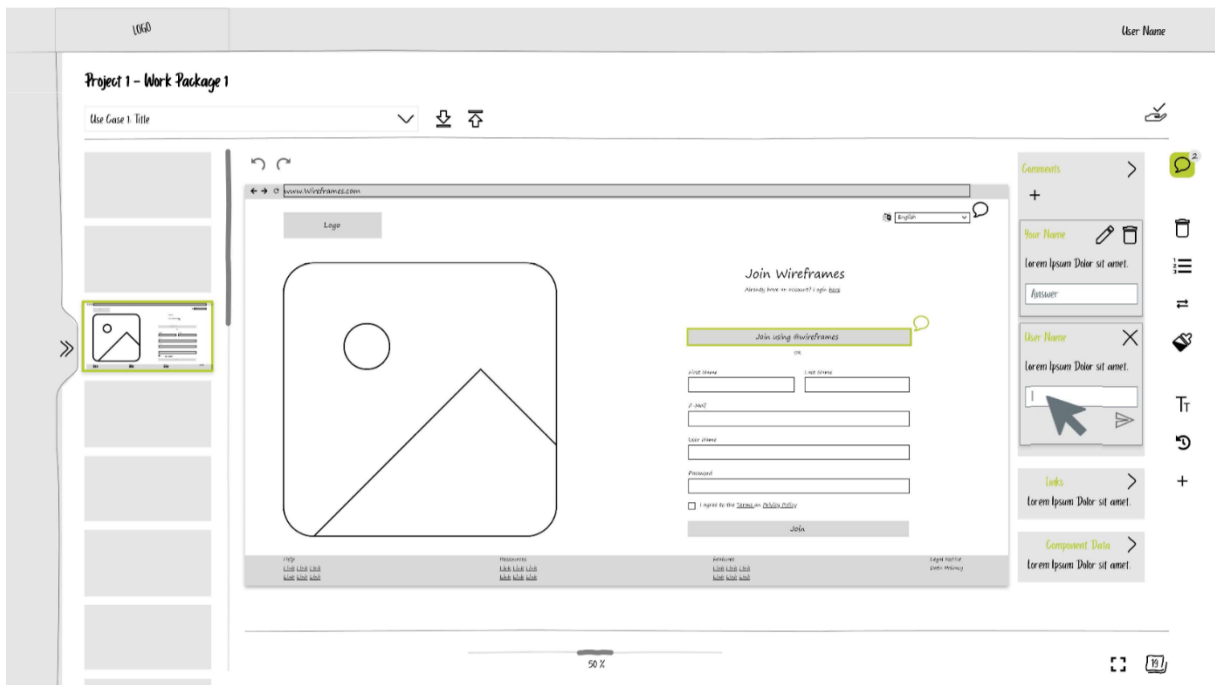
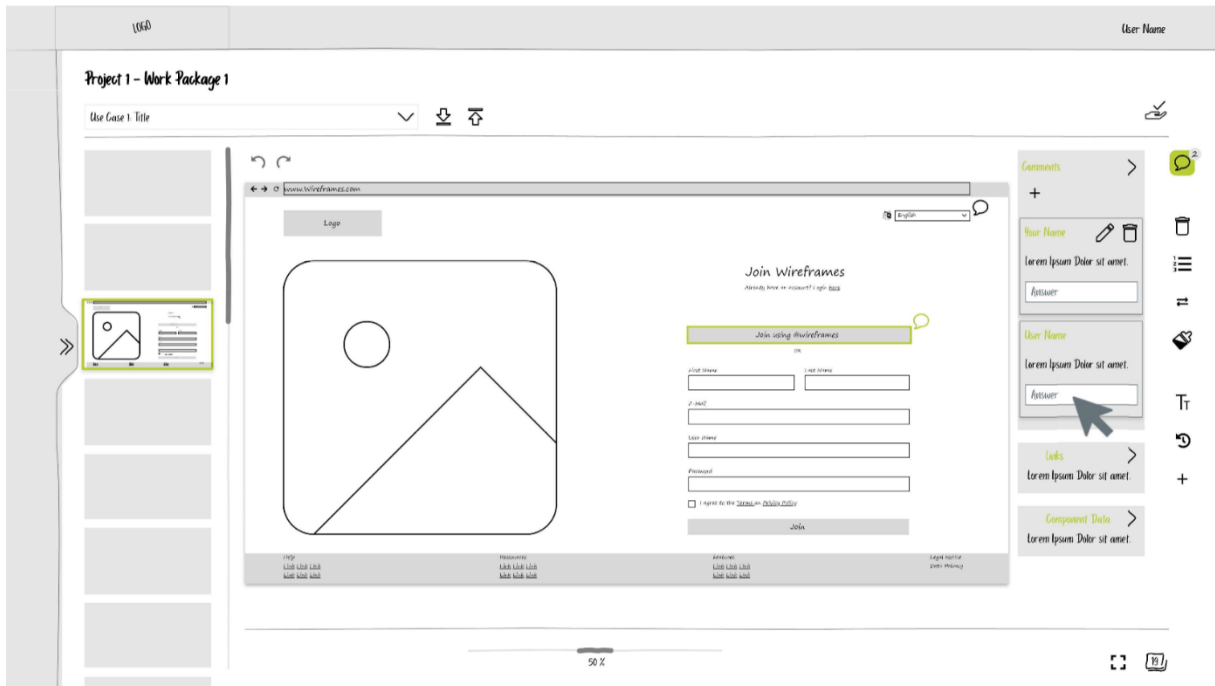


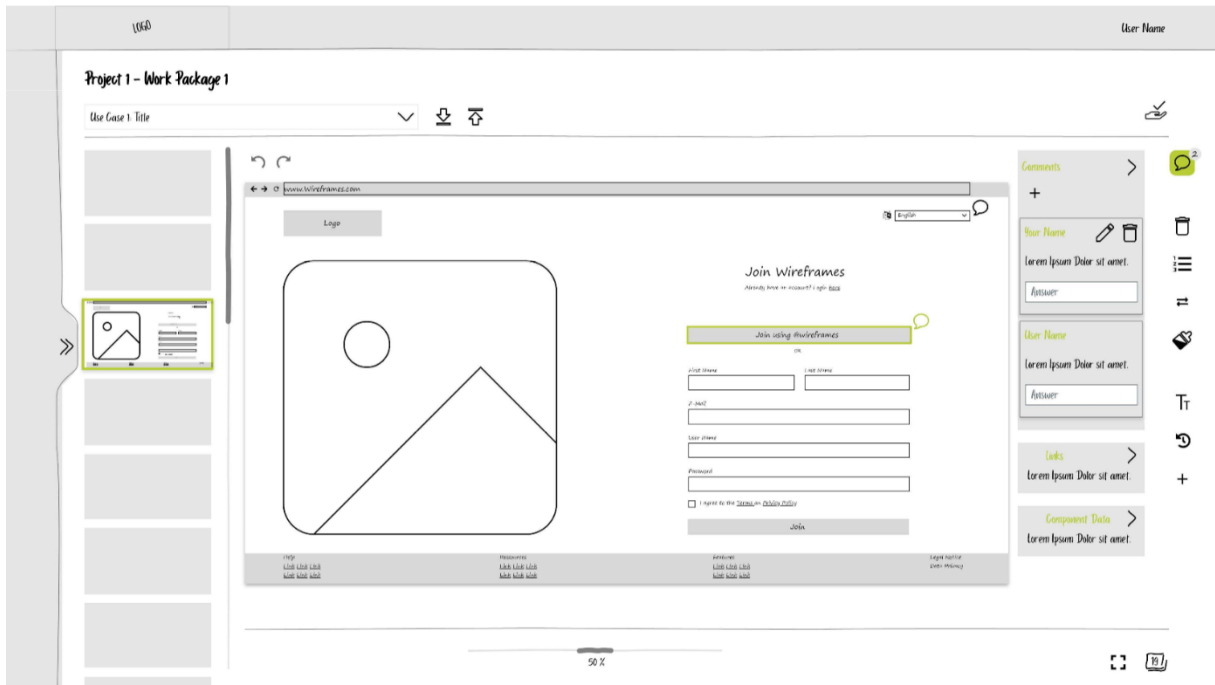
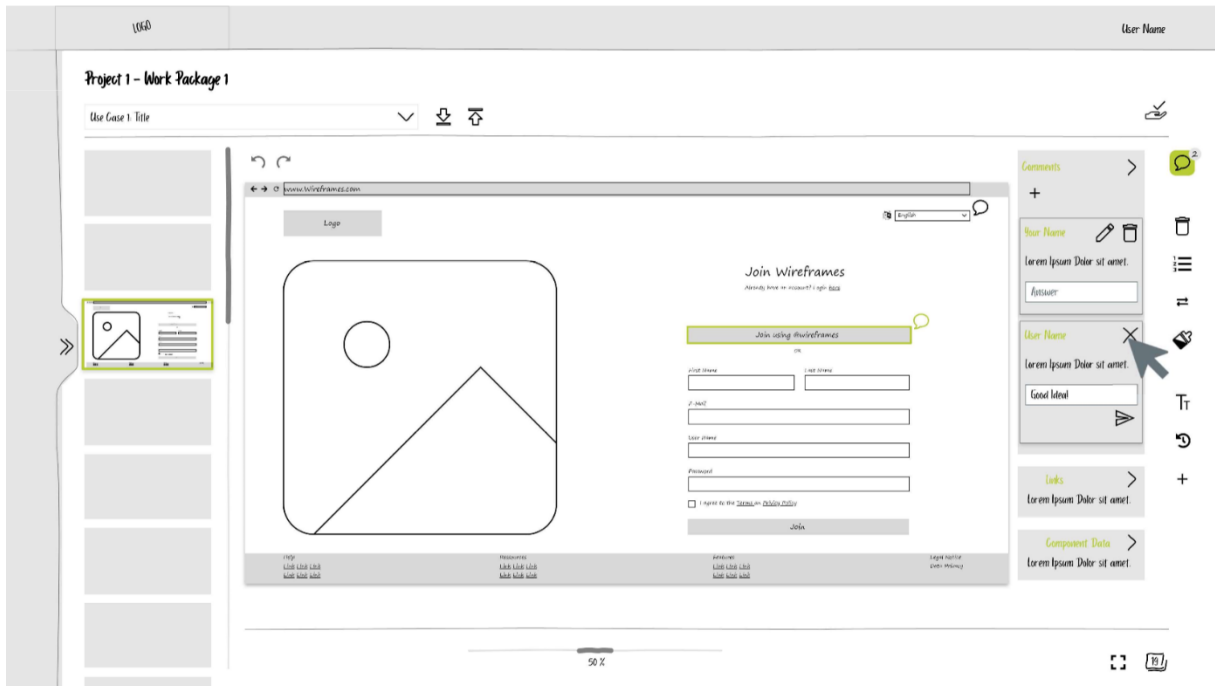




On existing comment
reply

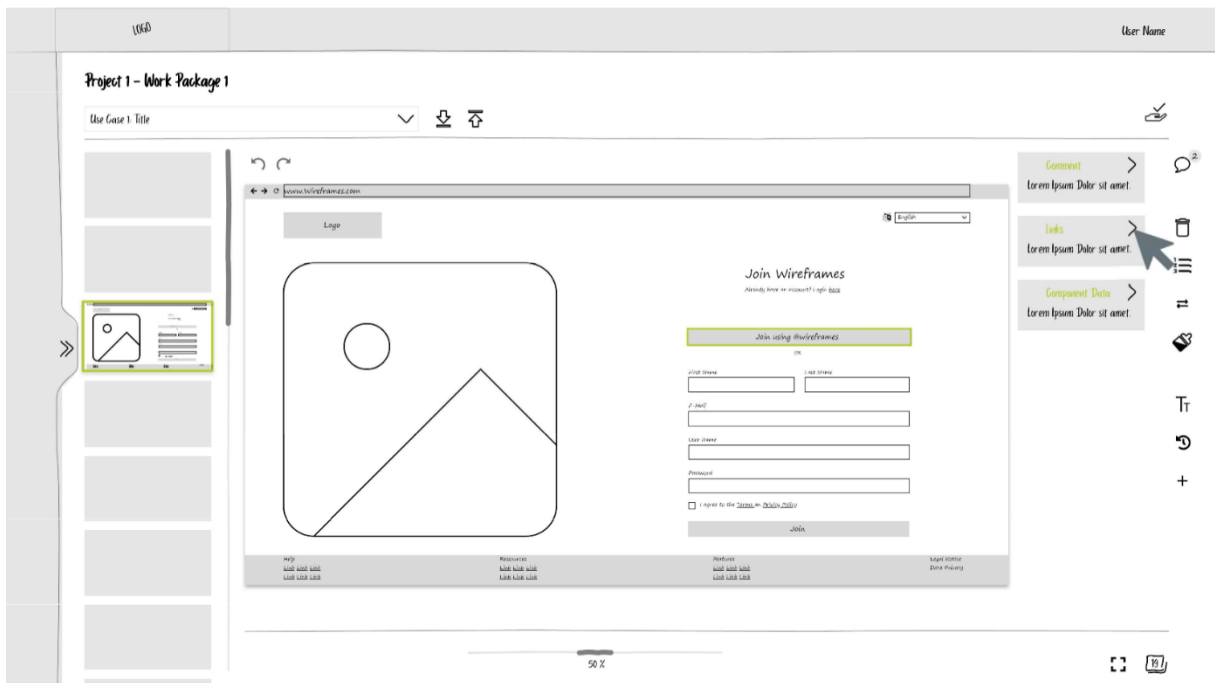
Further optimisation of the display is
not necessary, as this is a known
function with best practices.

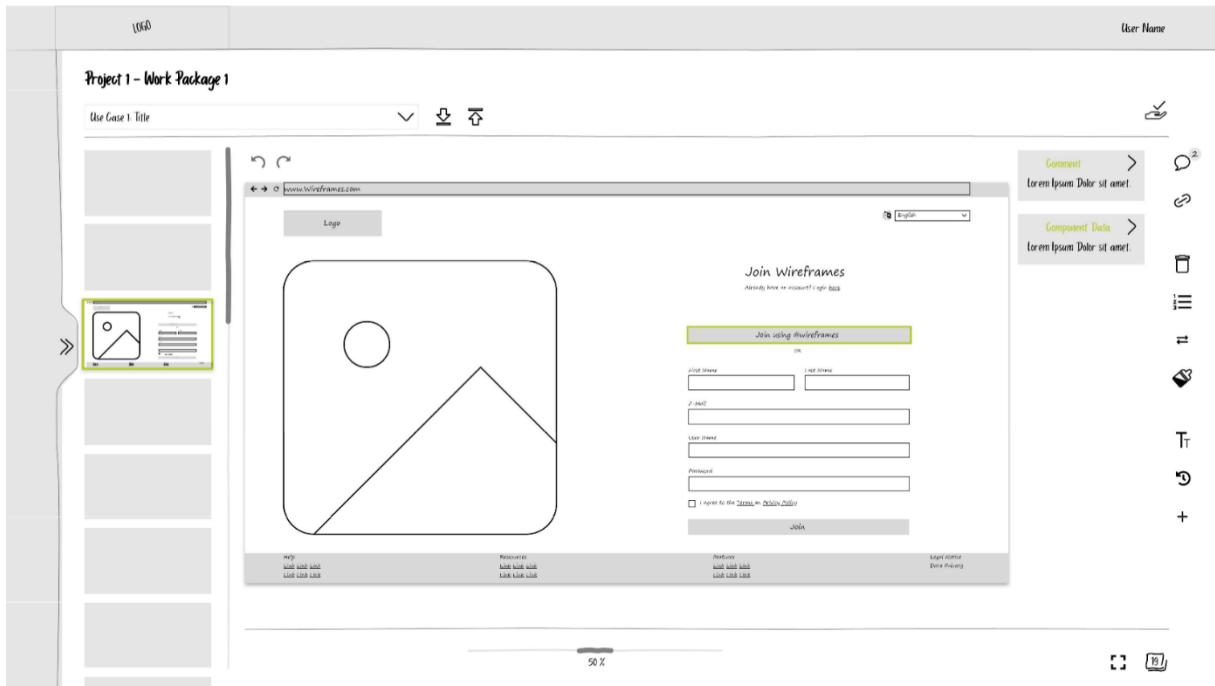




Folding in and out object information (Option 1)

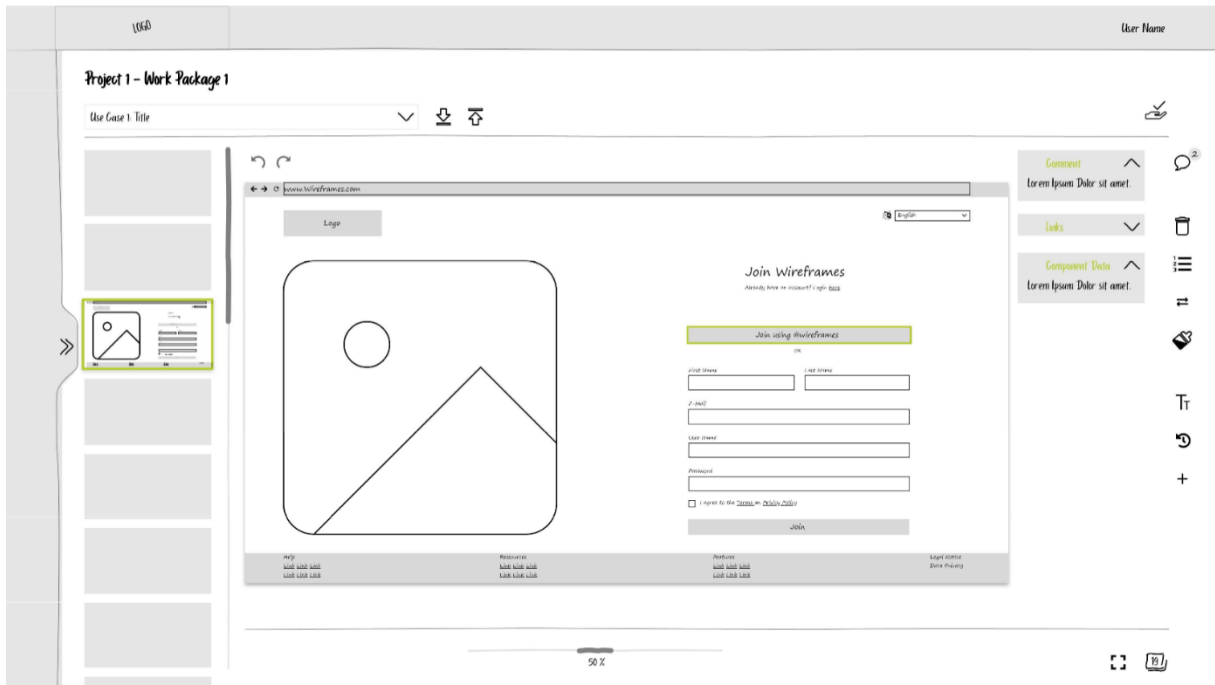
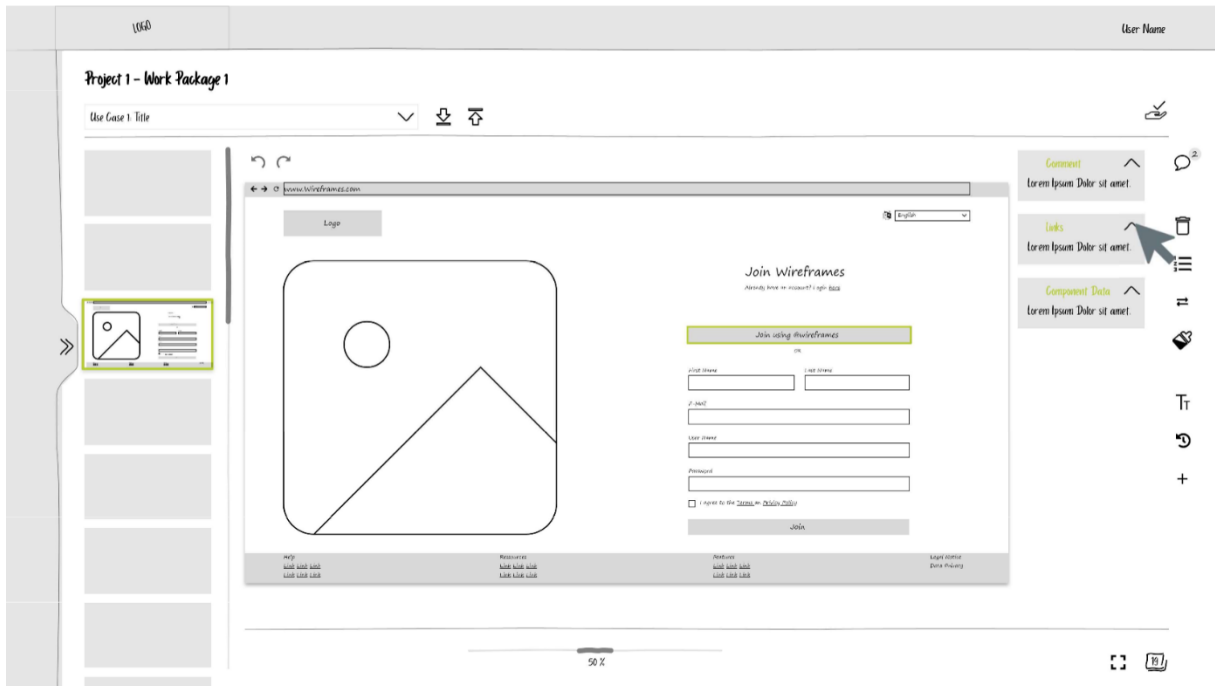
Maintain





Fold in and out object information
(Option 2)

Discard

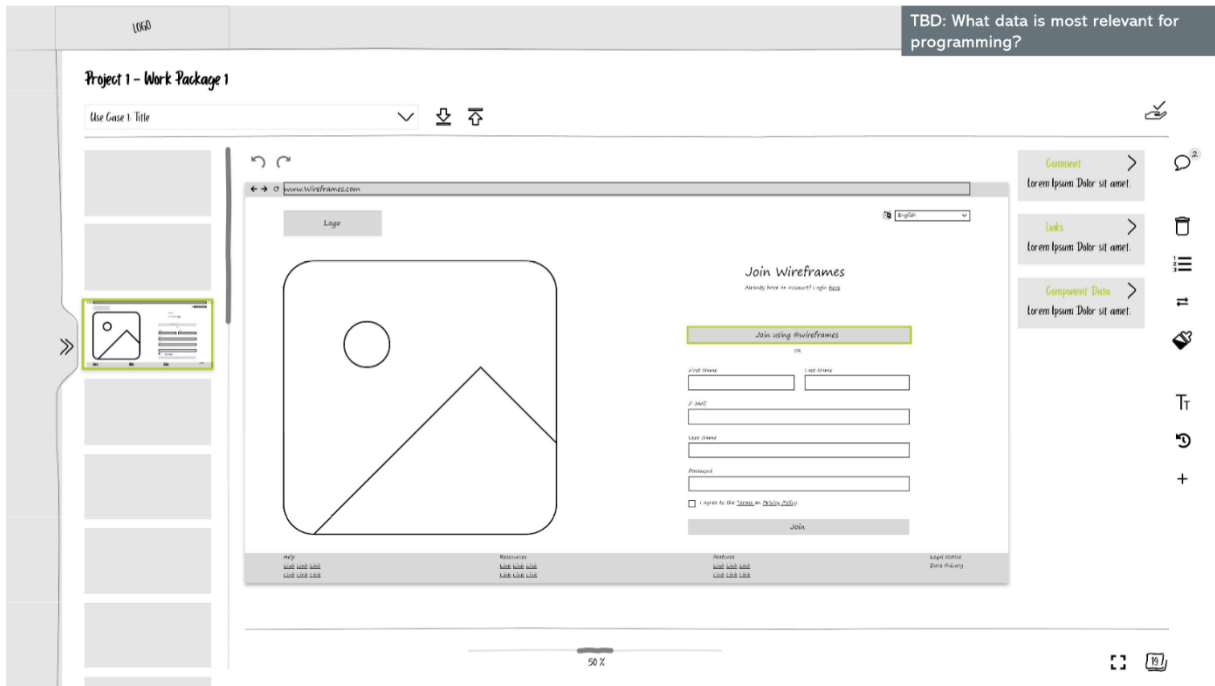


Adding a link

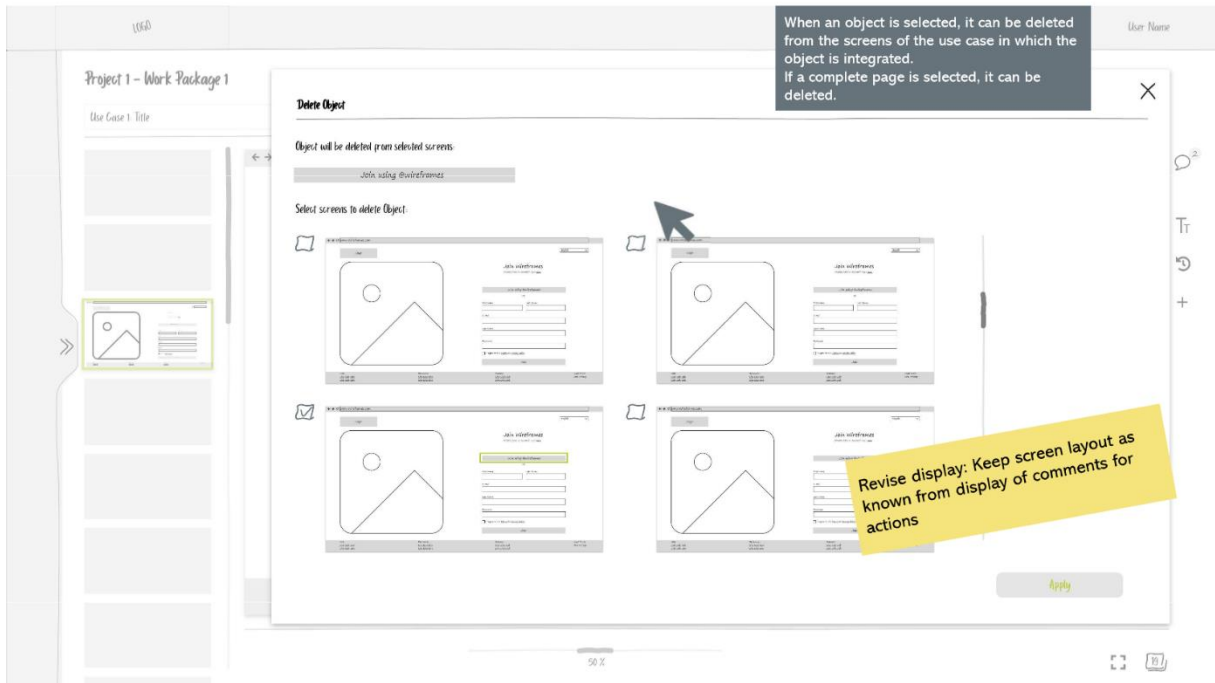
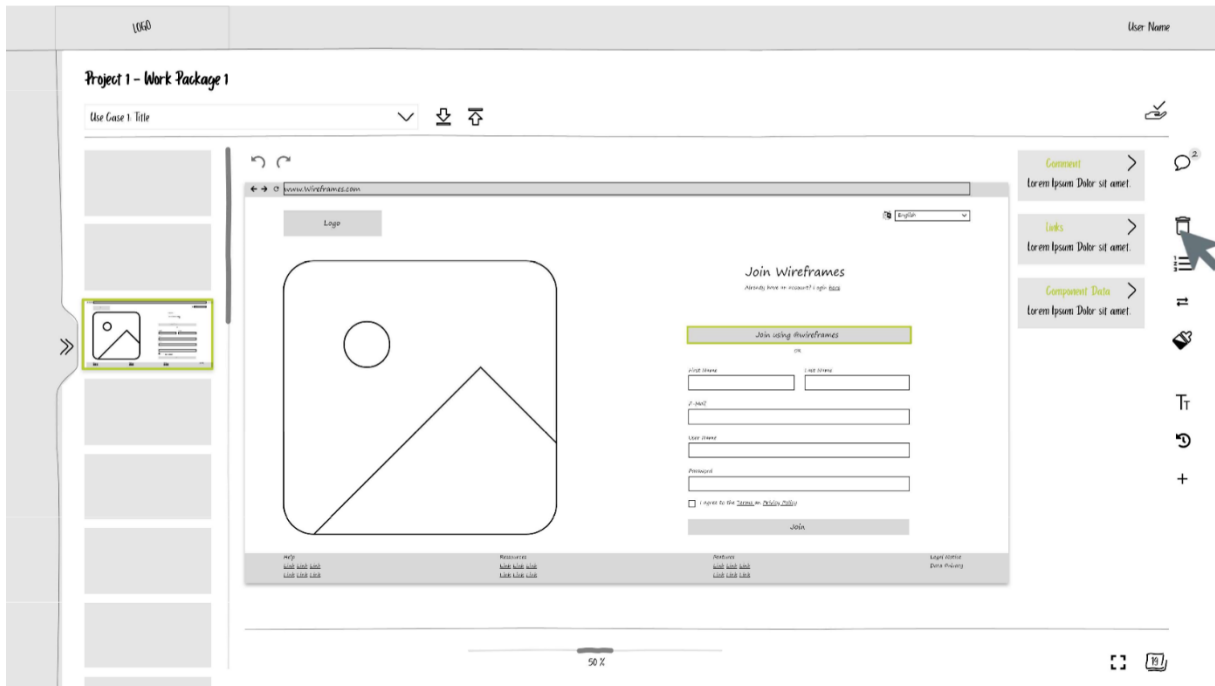
Add and sketch similar to commentary presentation to the performance.

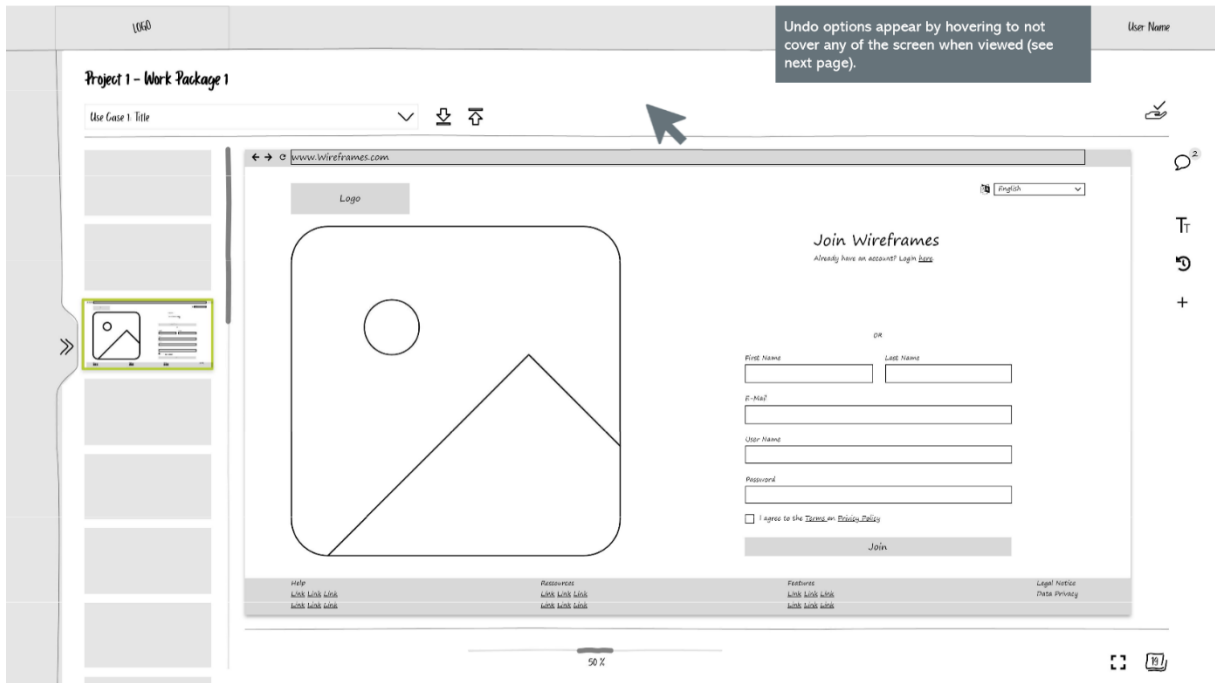
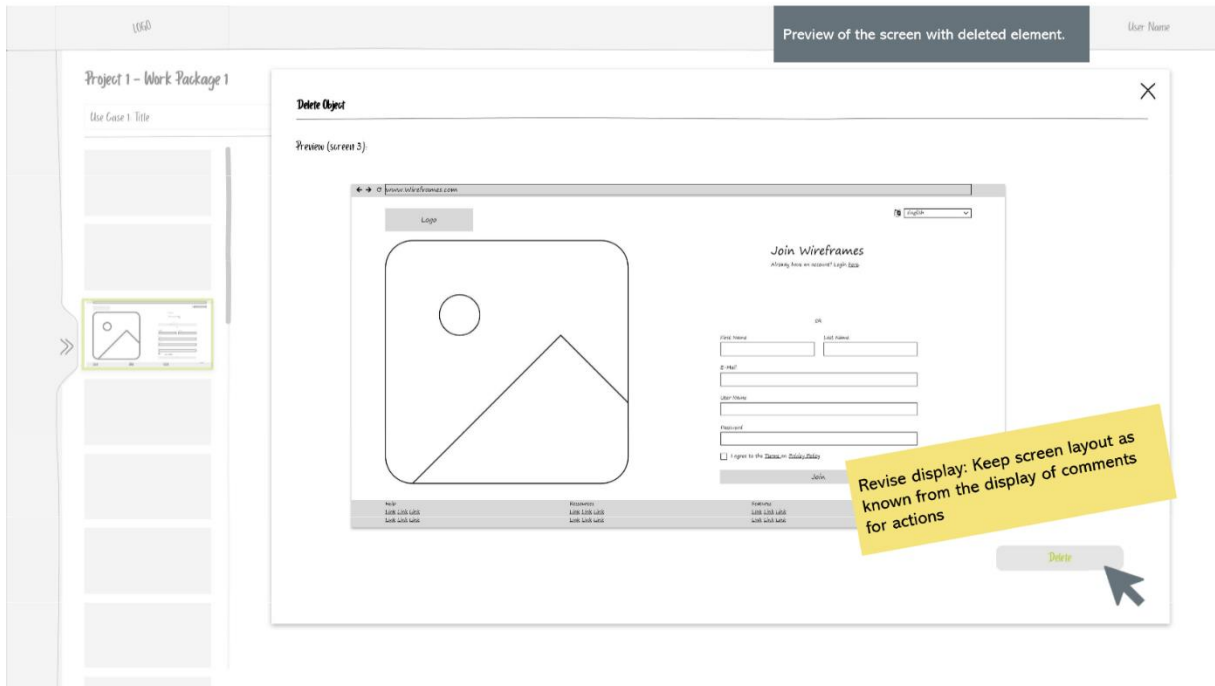
Viewing component data

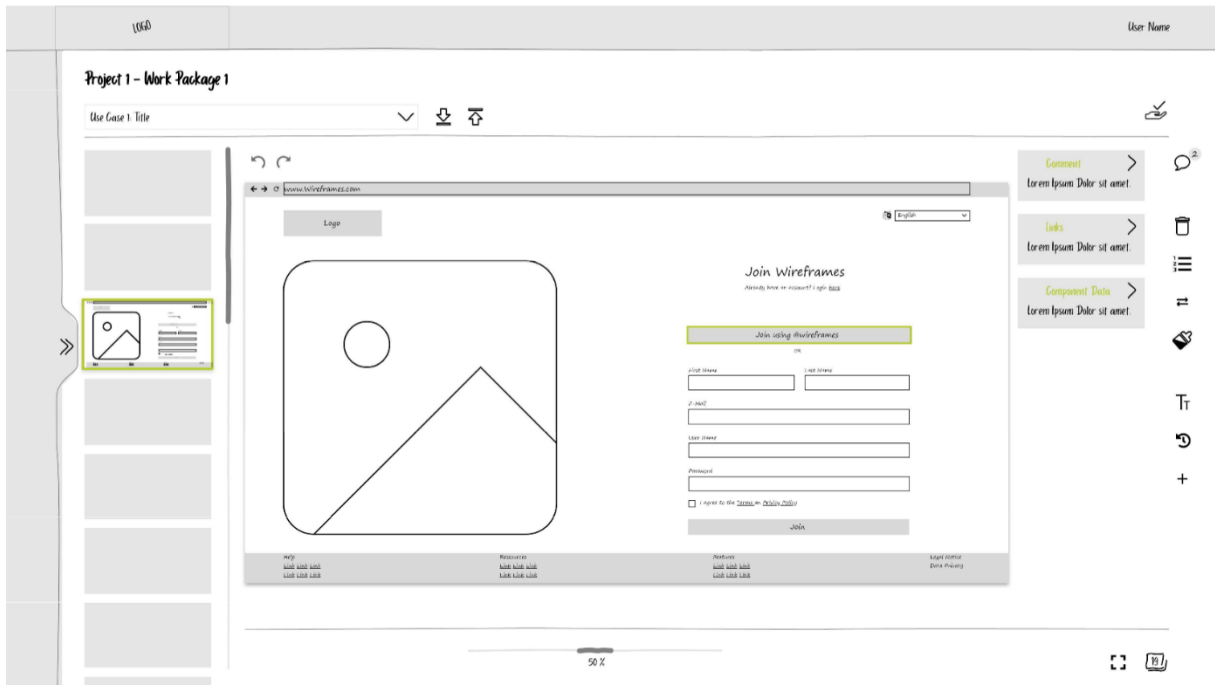
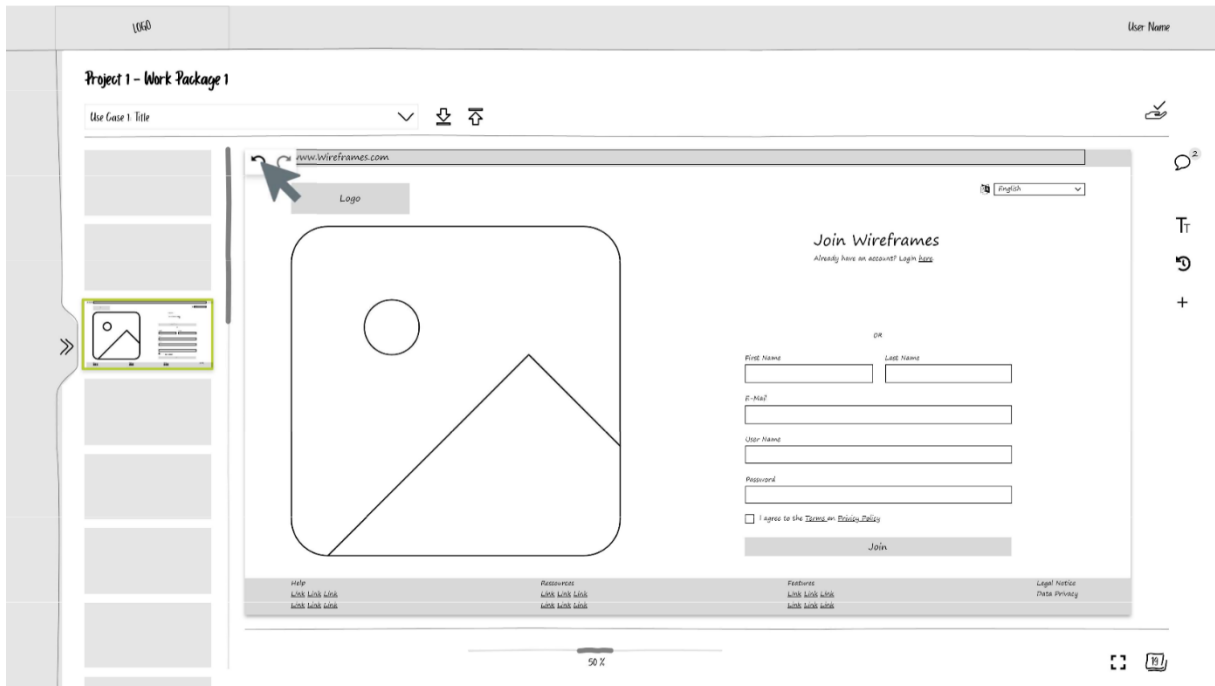
Add and sketch similar to commentary presentation to the performance.



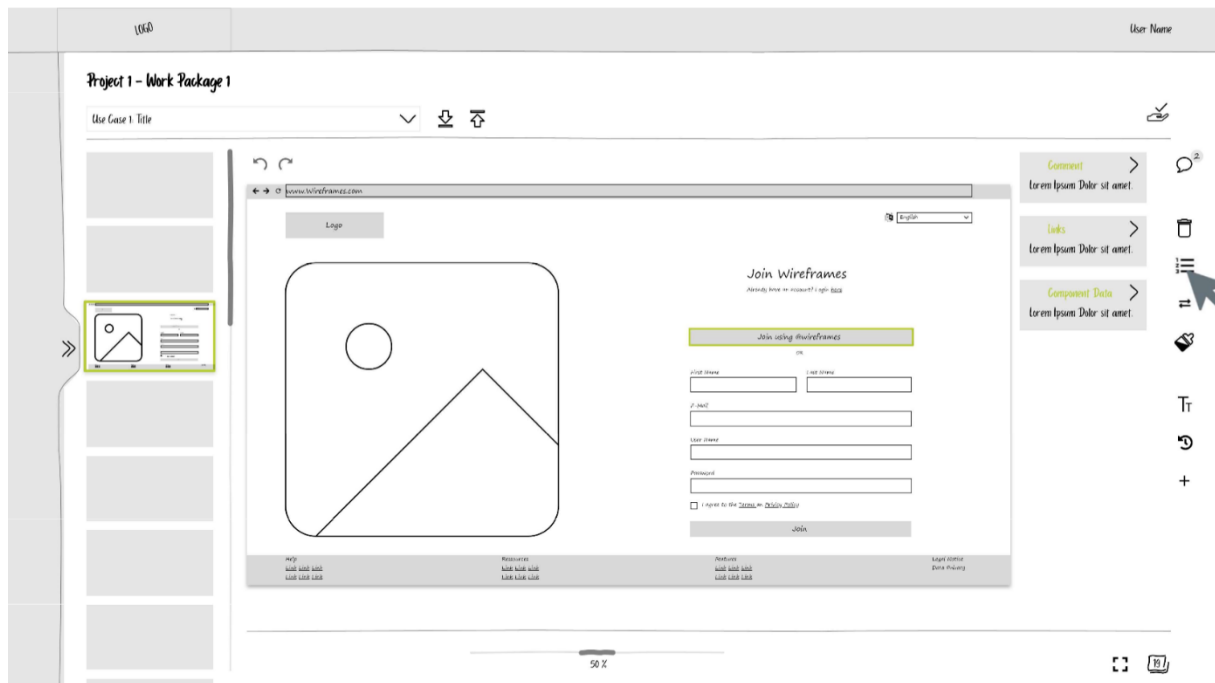
Delete object and
Undo deletion again

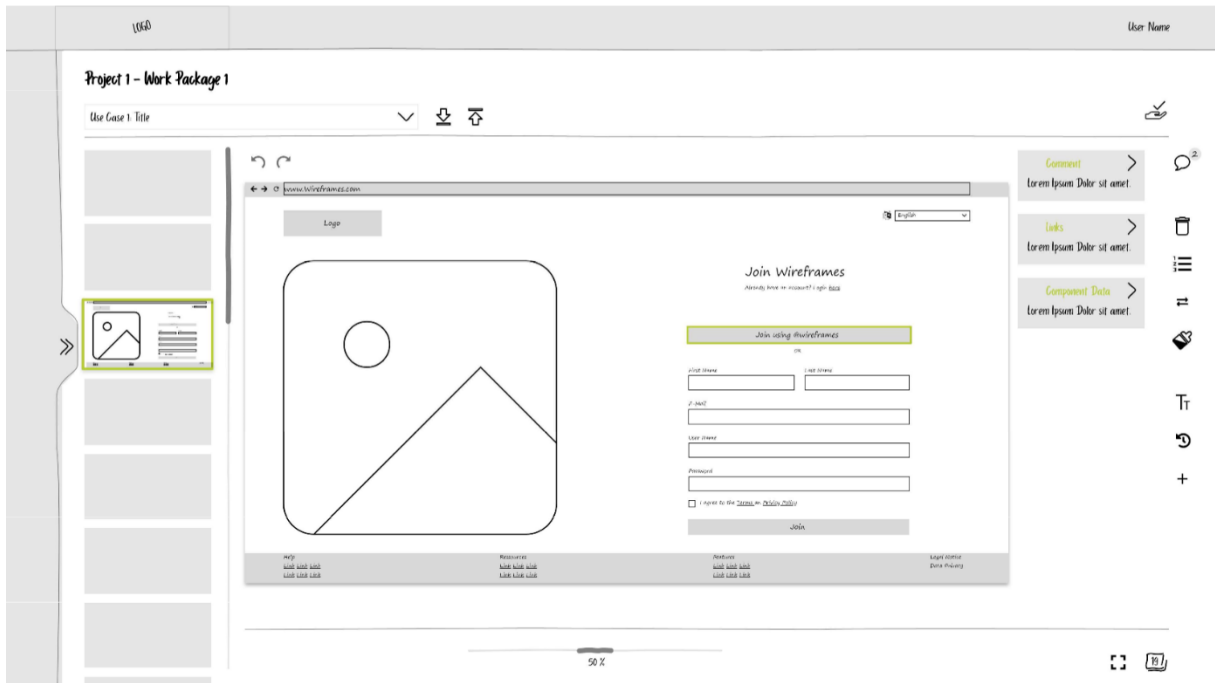
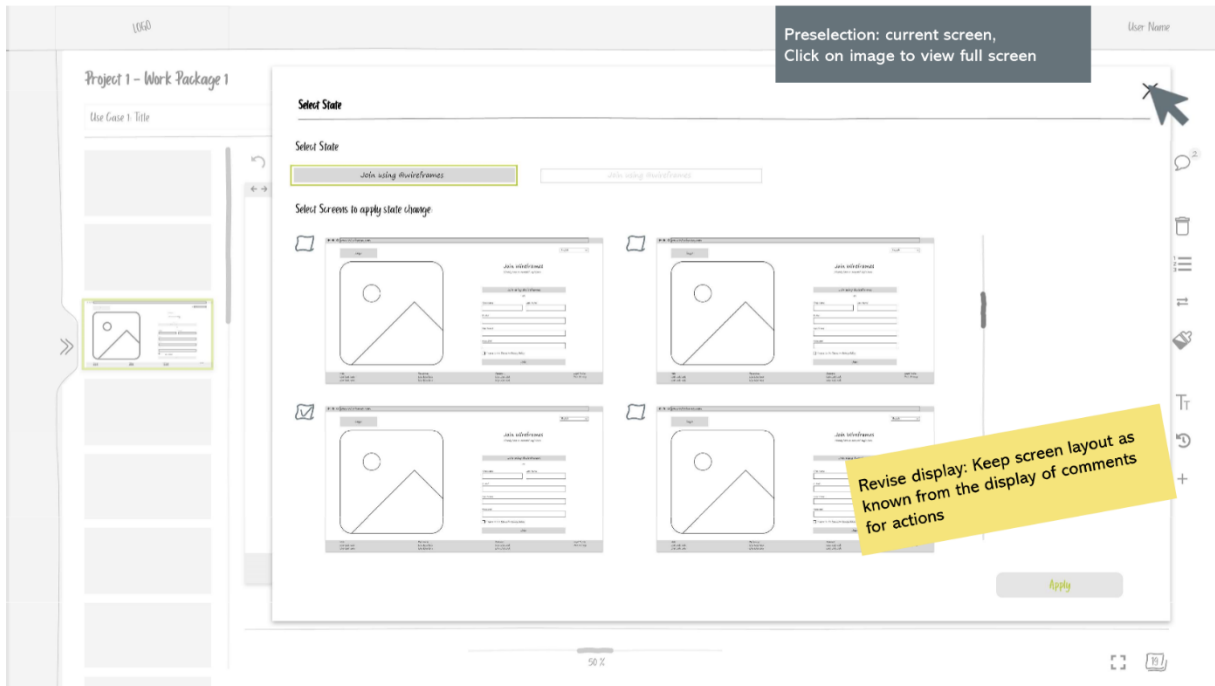






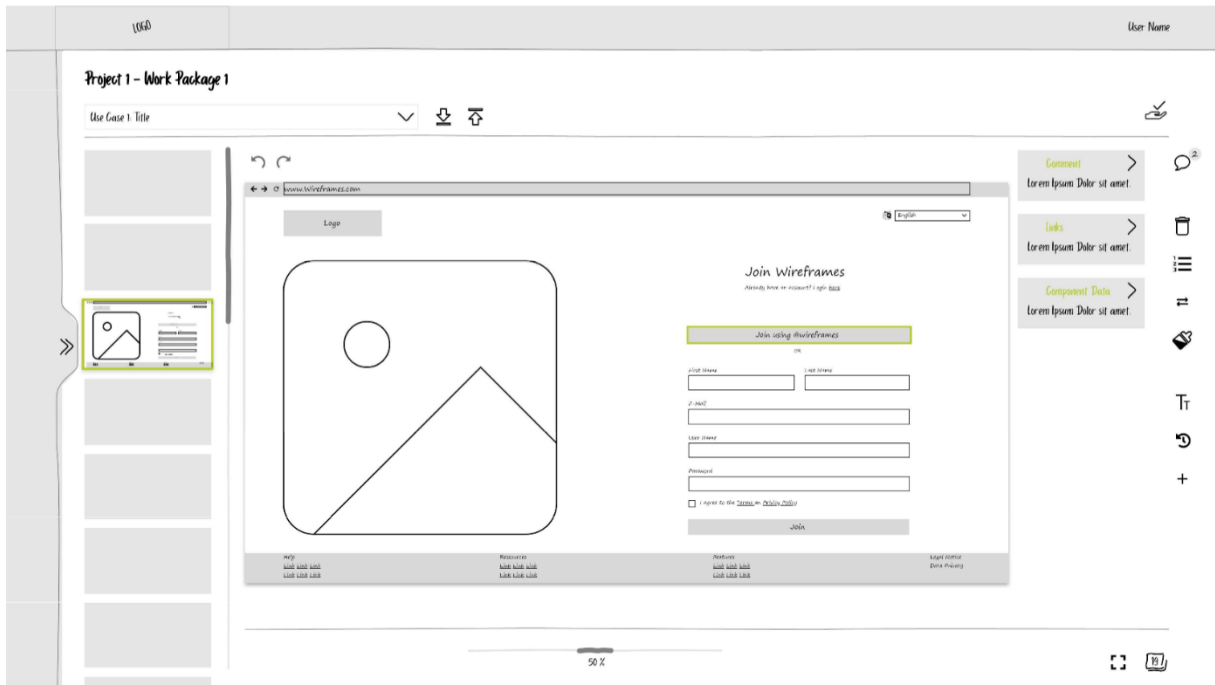
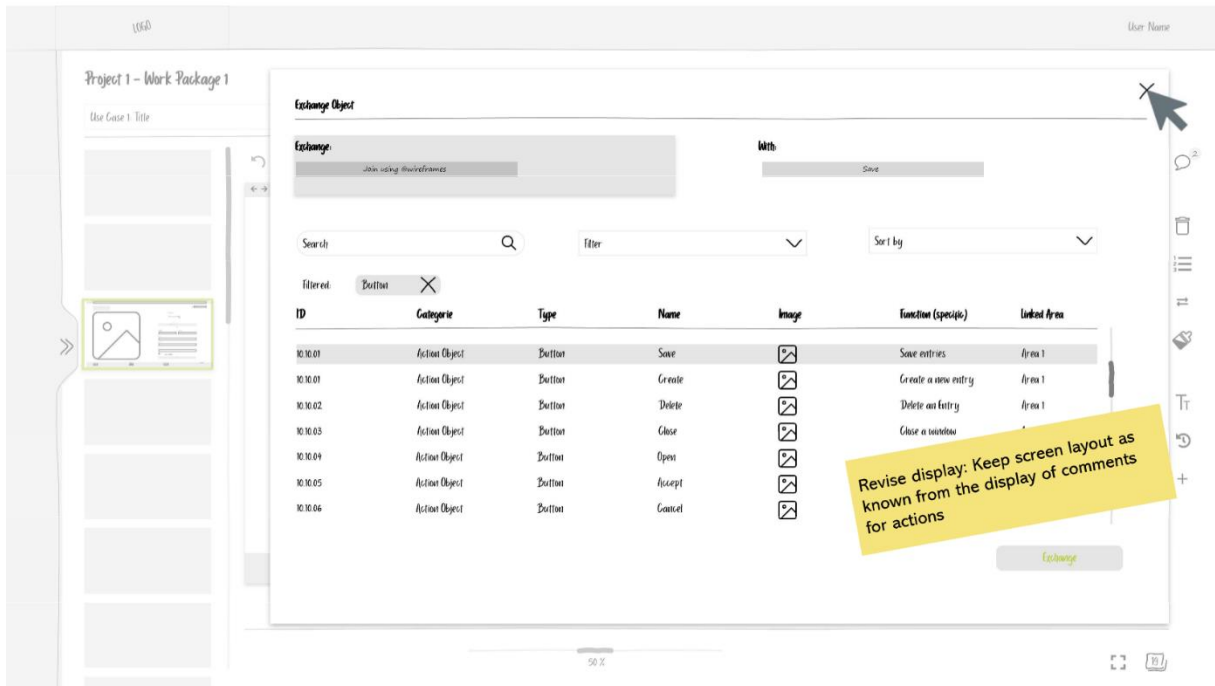
Change the state of the object



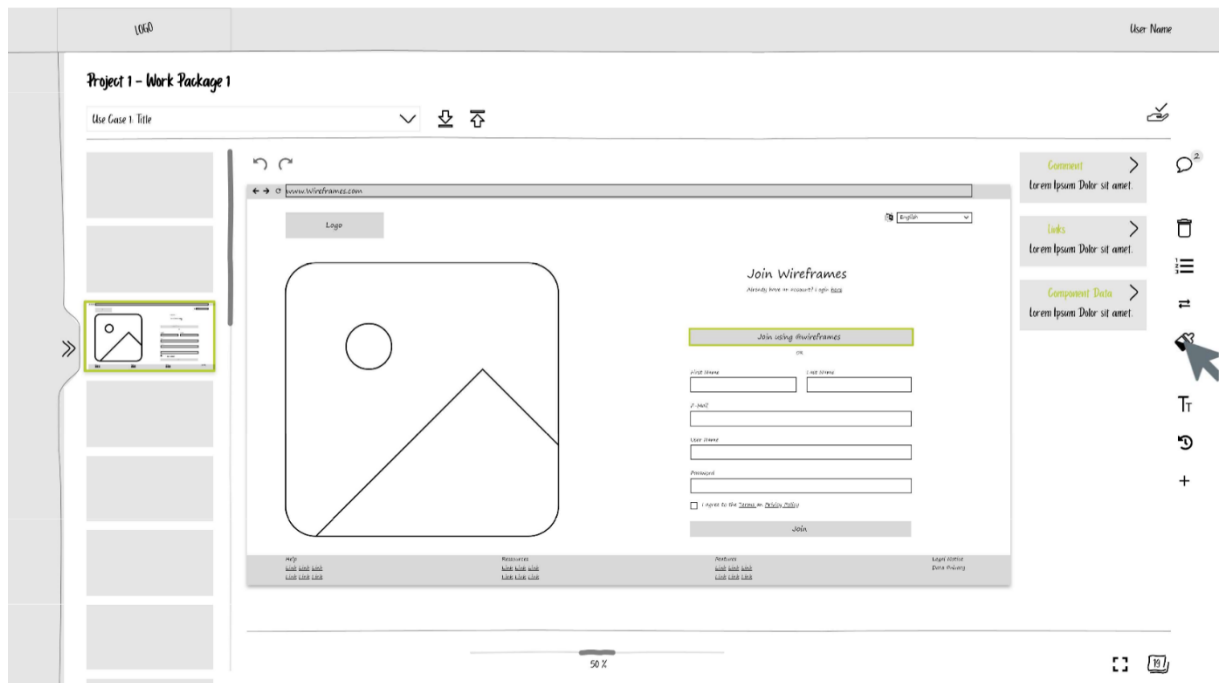


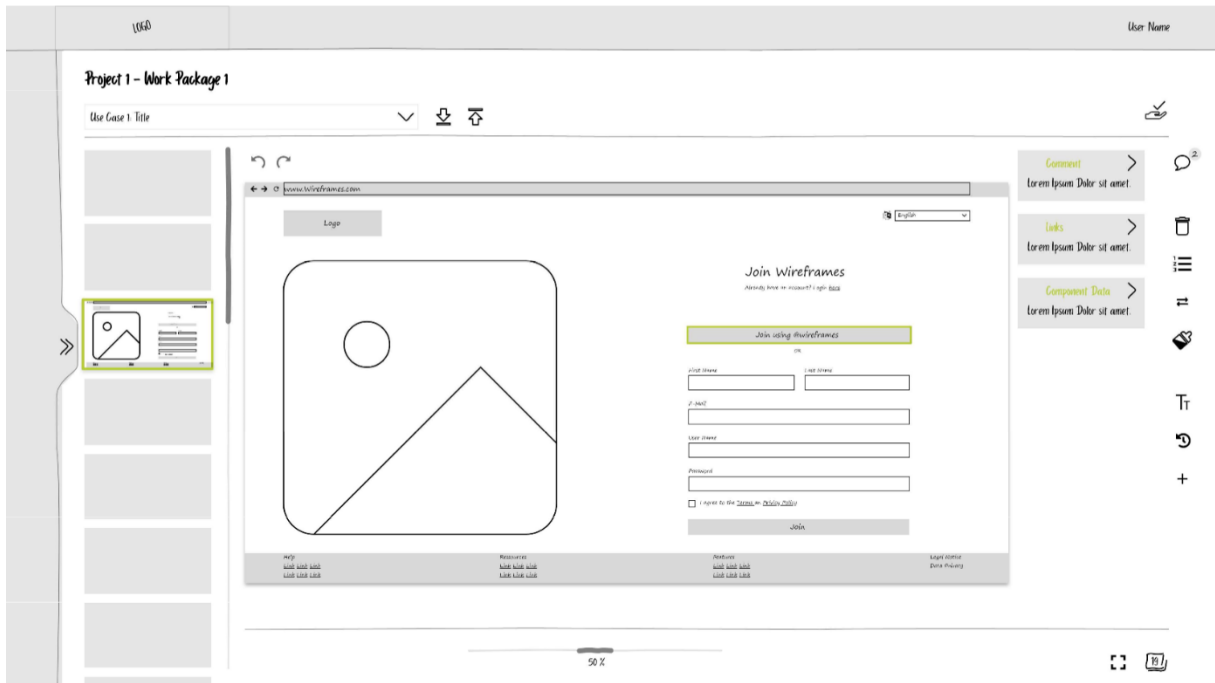
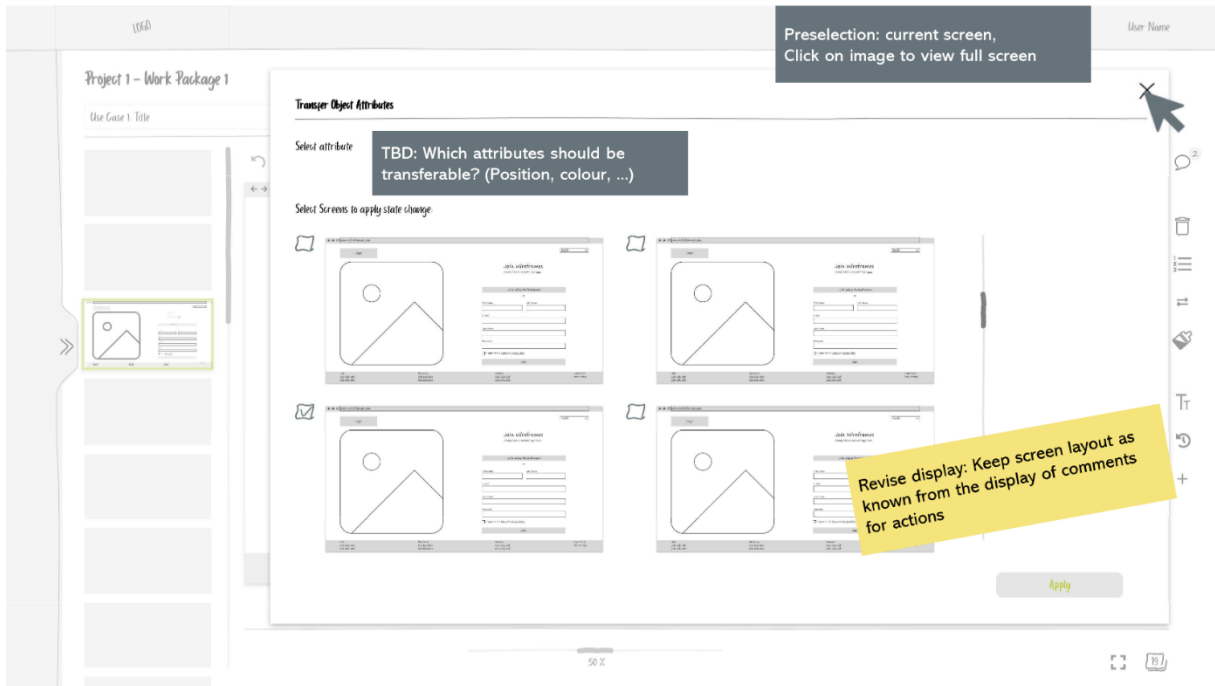
Replace object



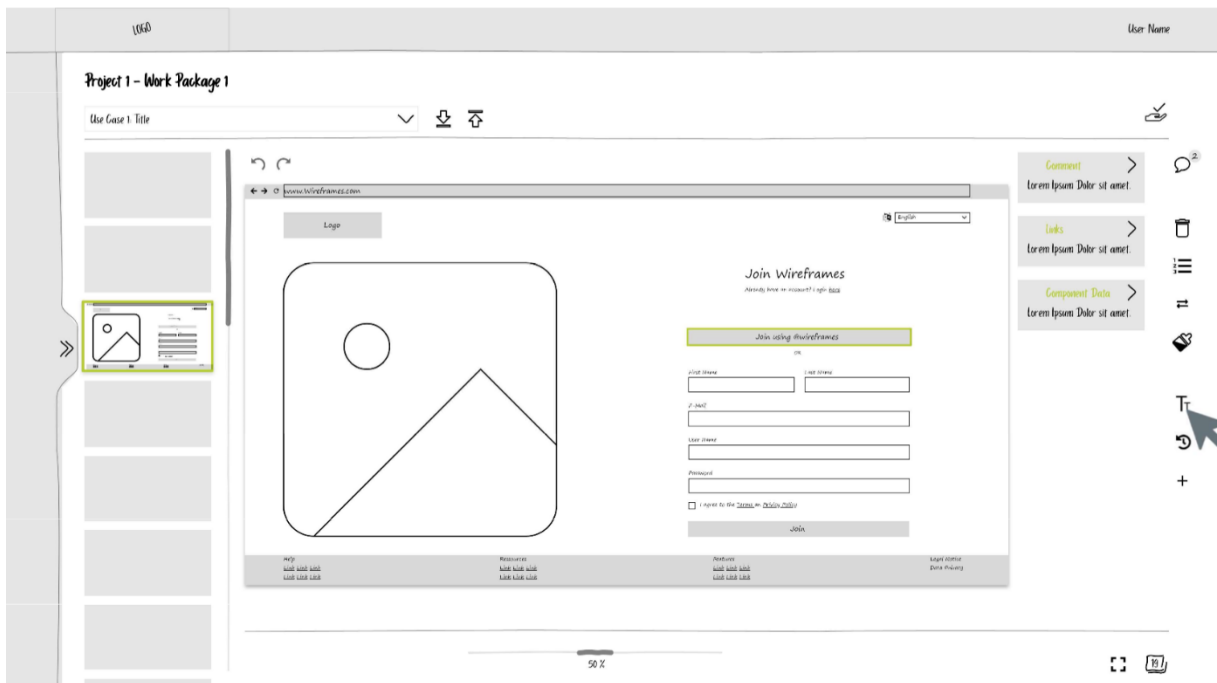


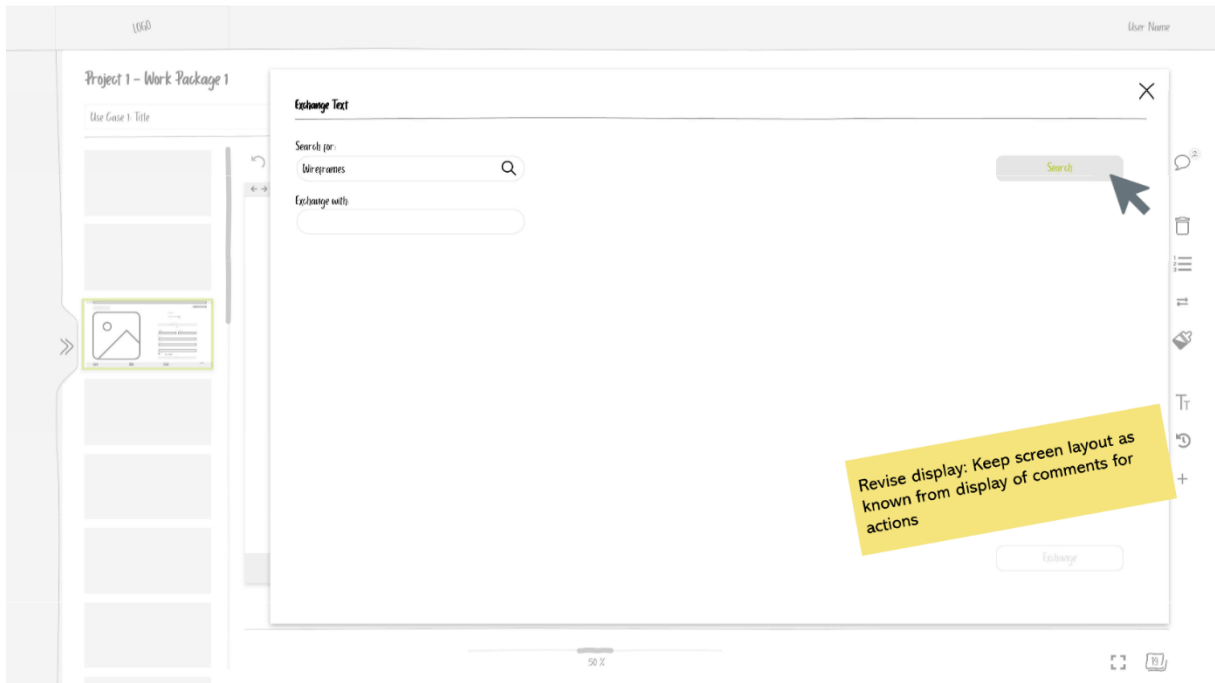
Format adjustments of an object to Transfer duplicates of the object

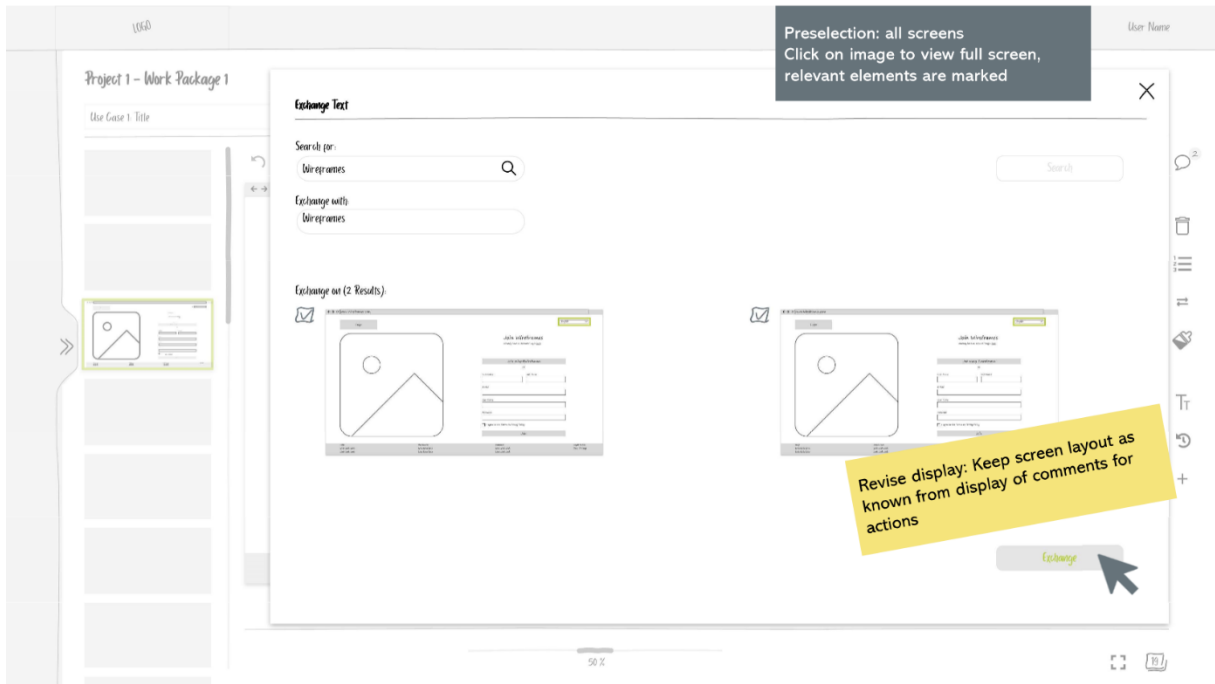




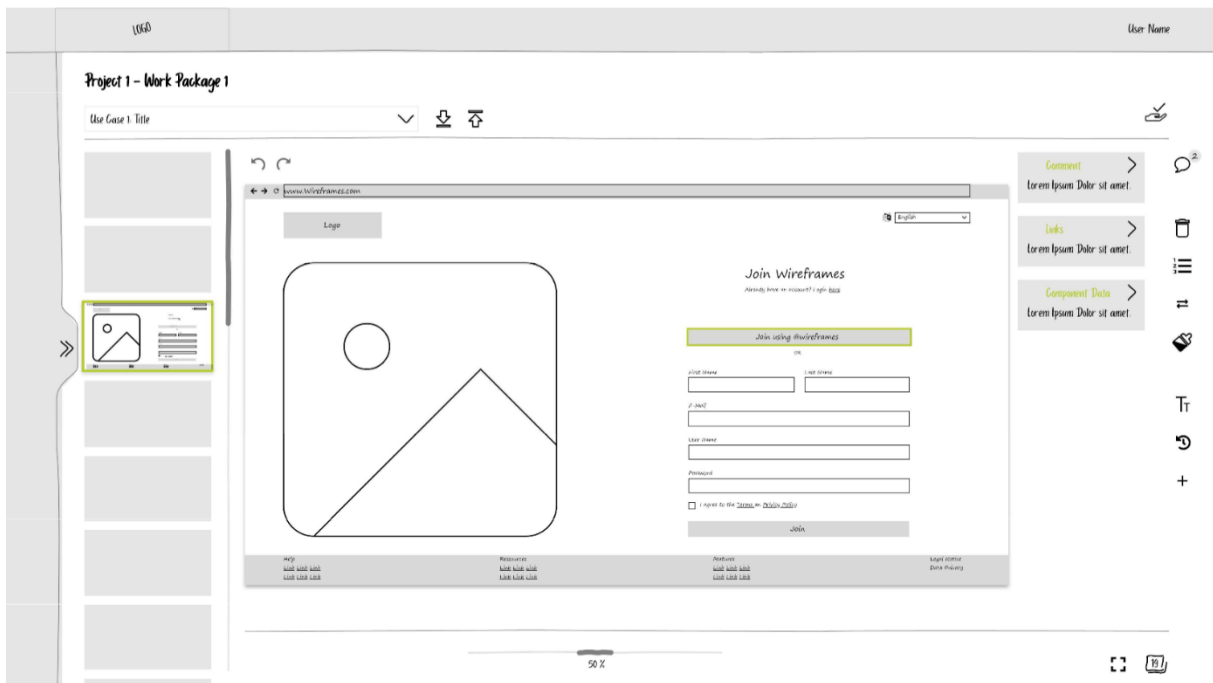
Change labels/texts

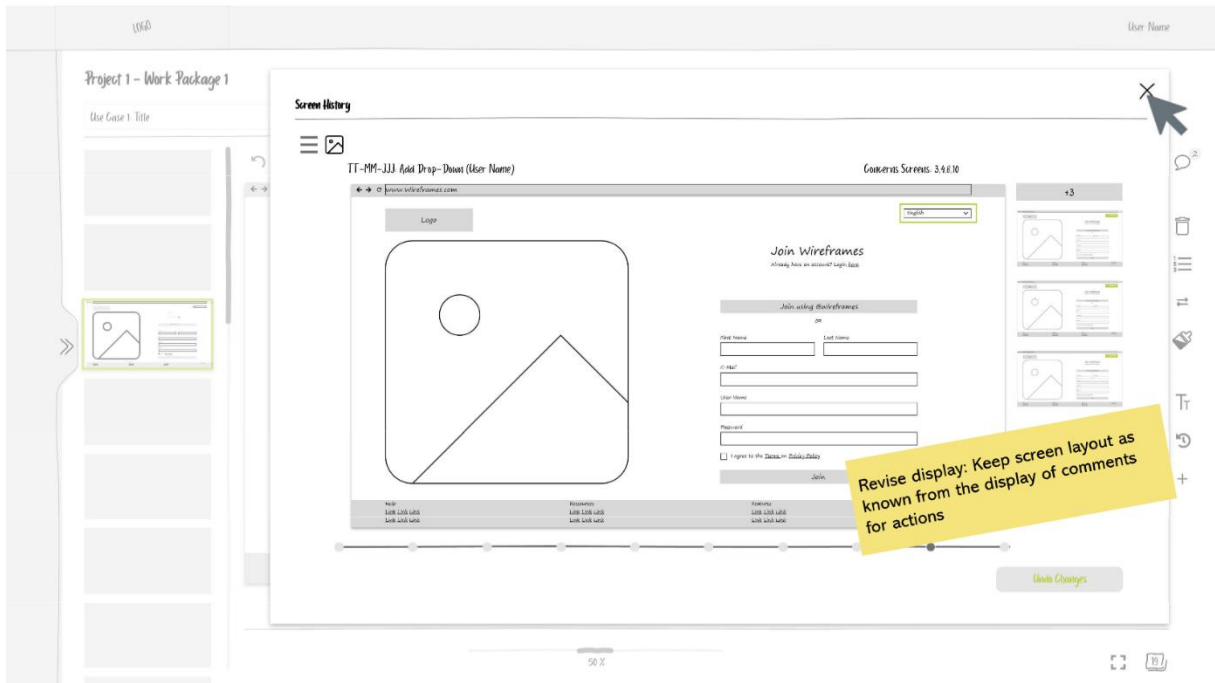
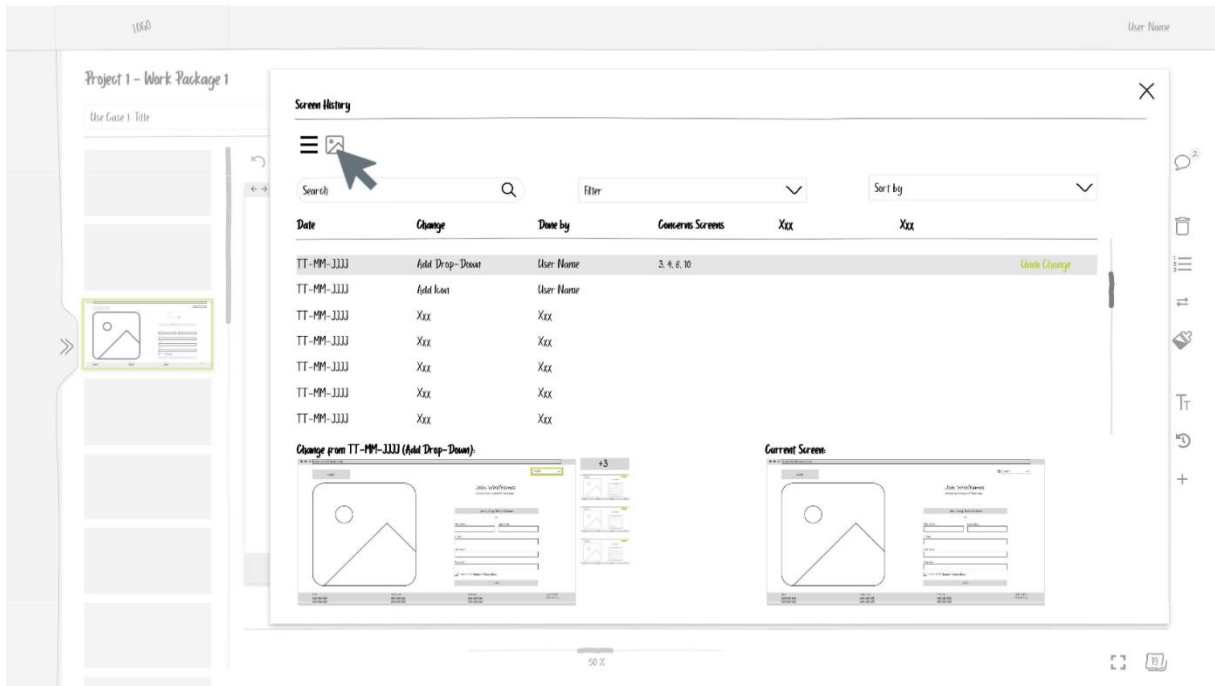


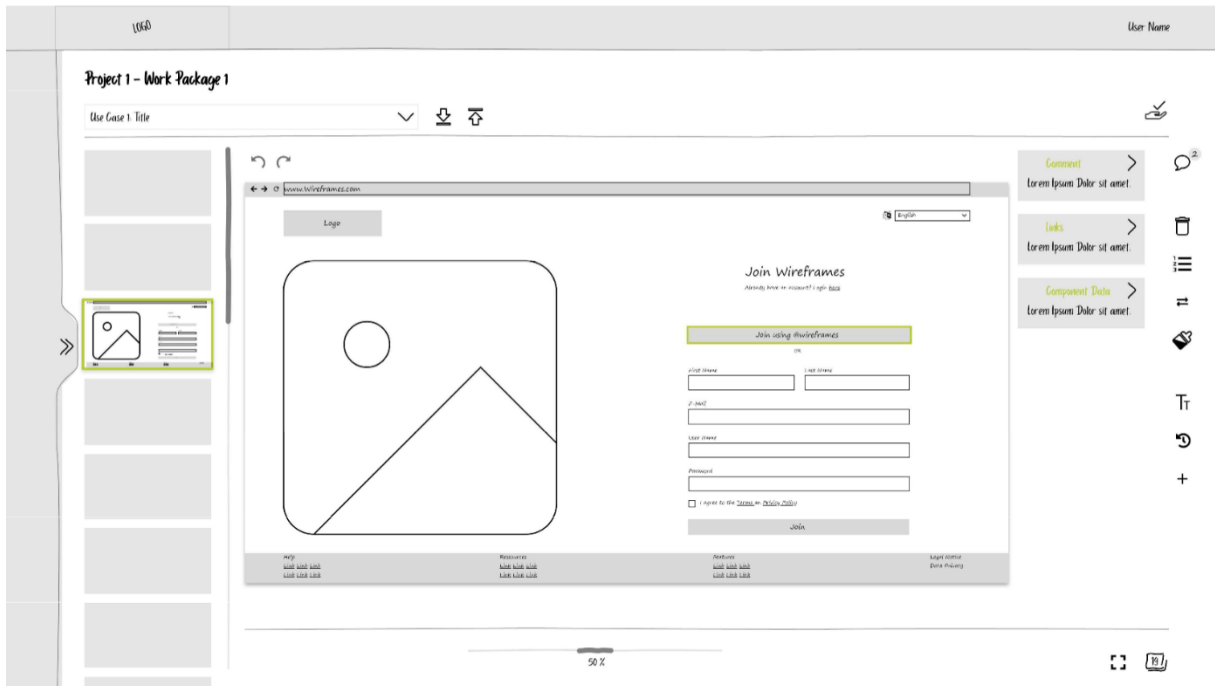




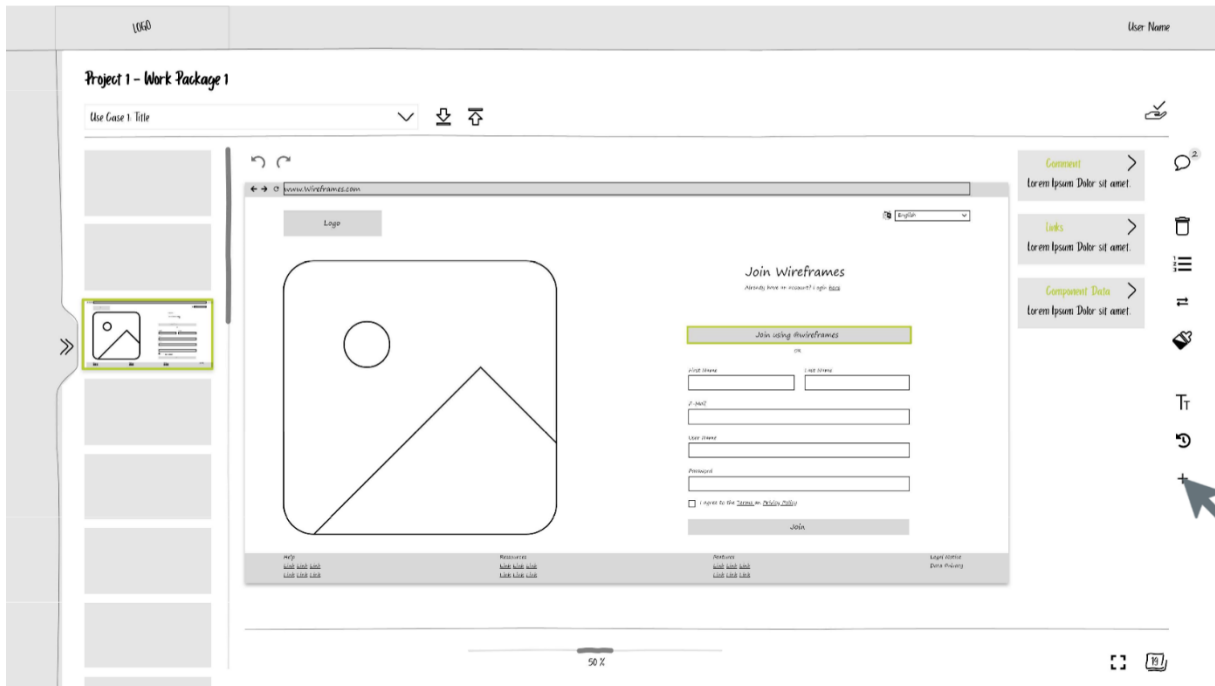
View History from Screen

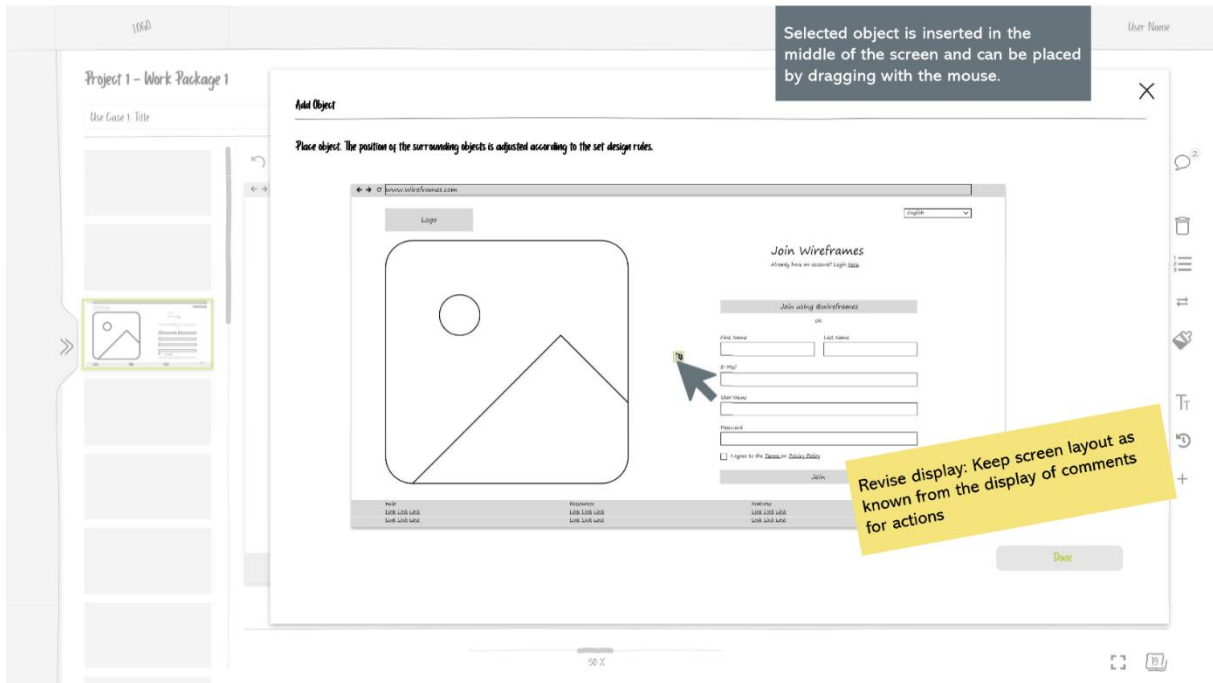
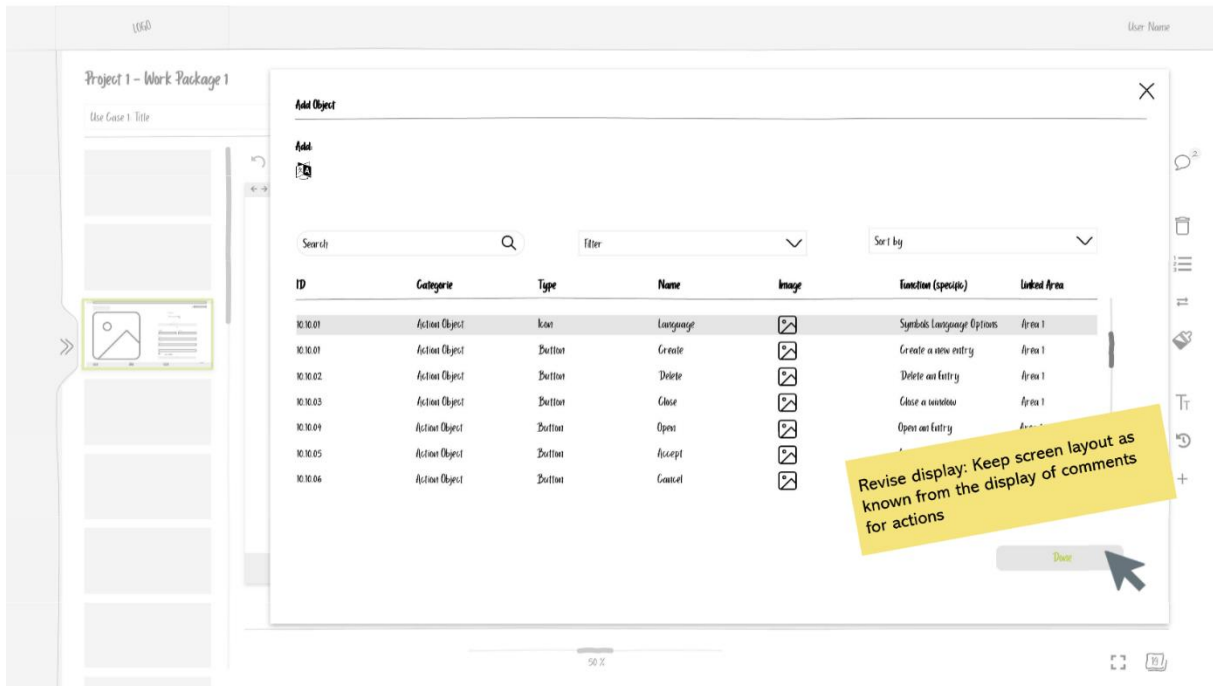


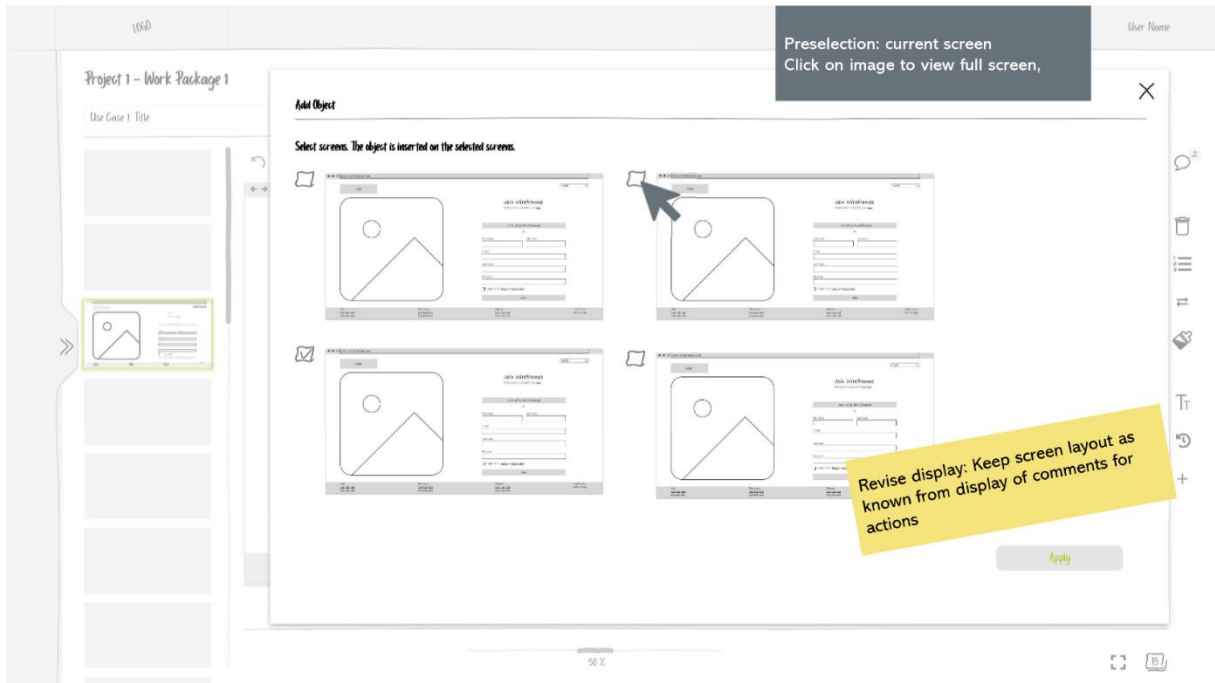
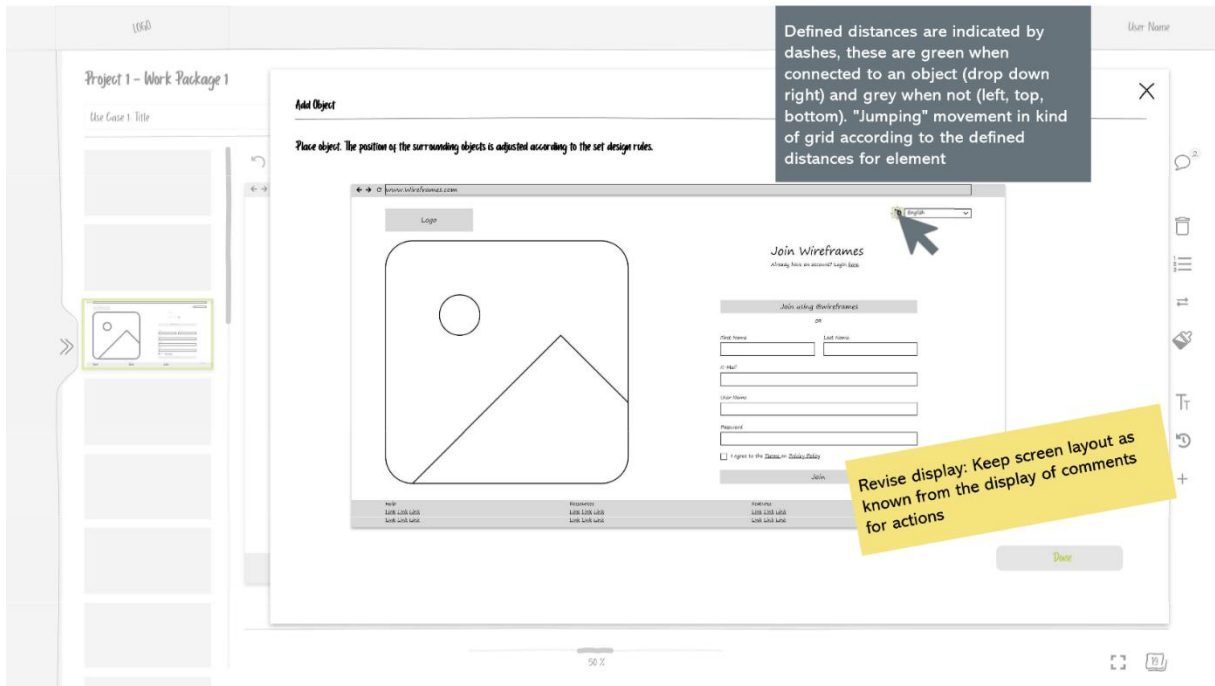


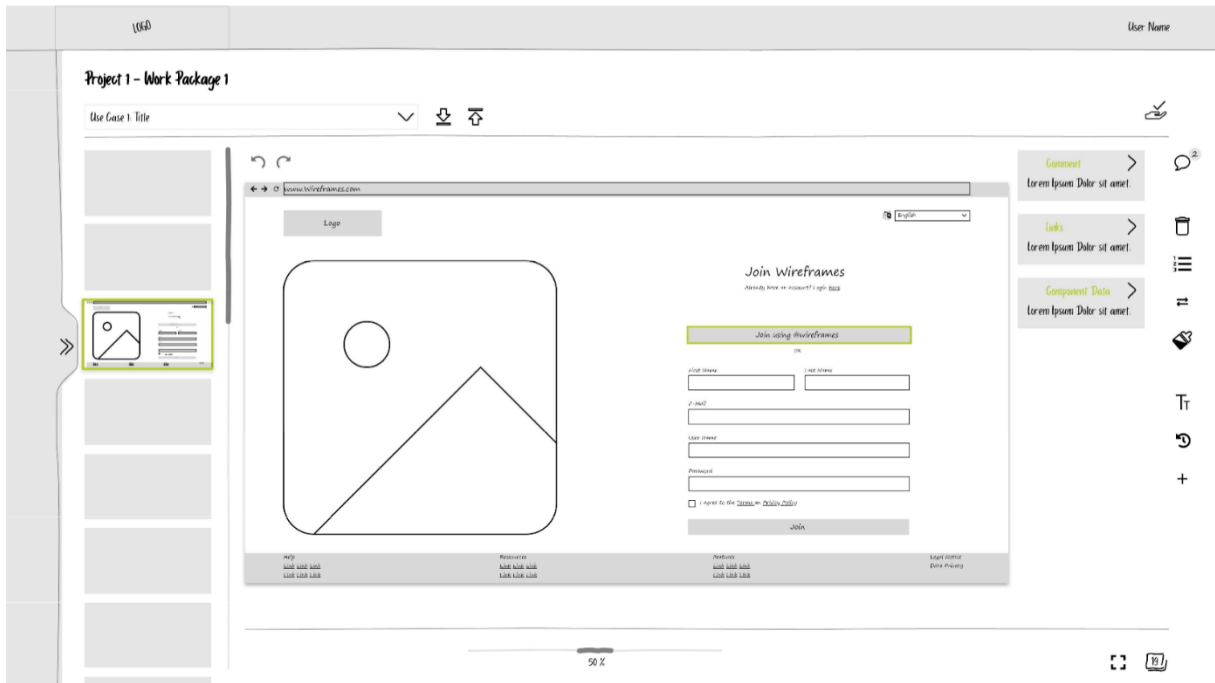
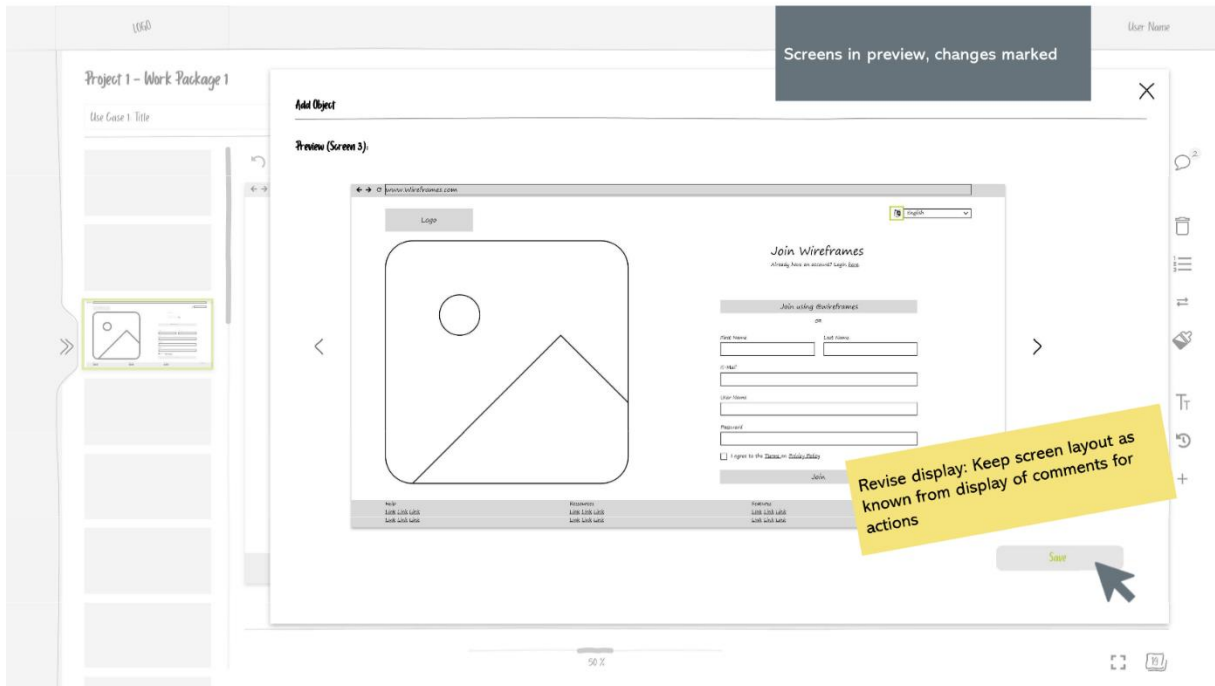


New element on screen
add

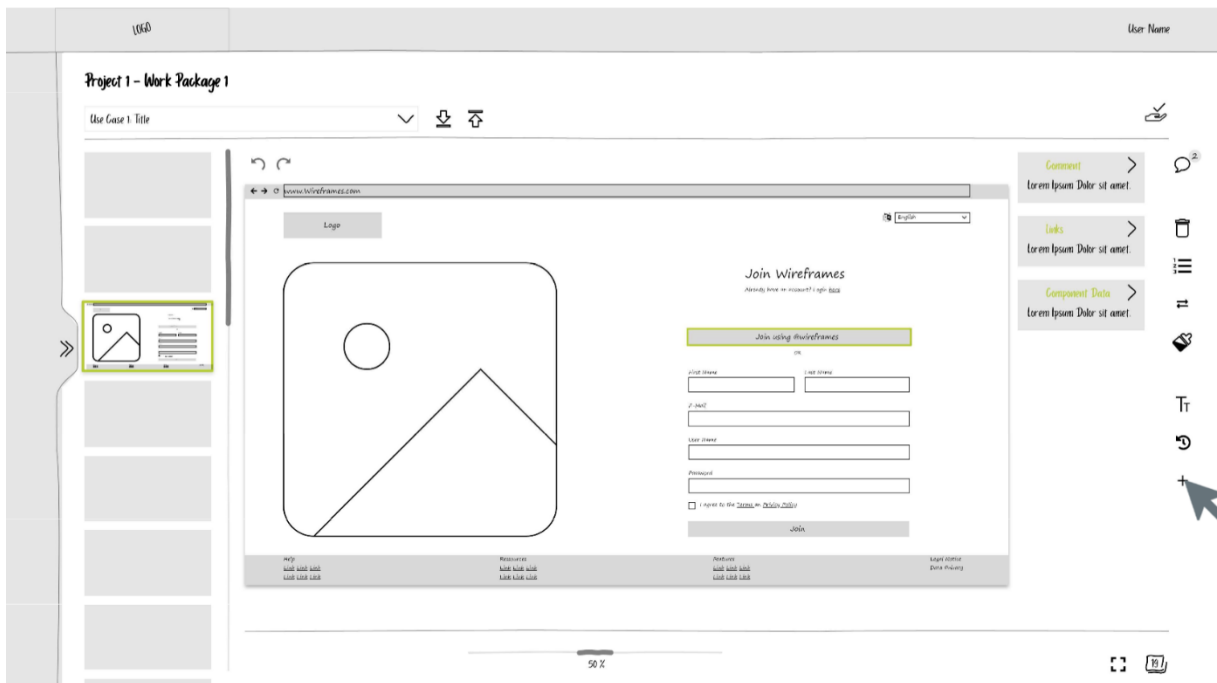


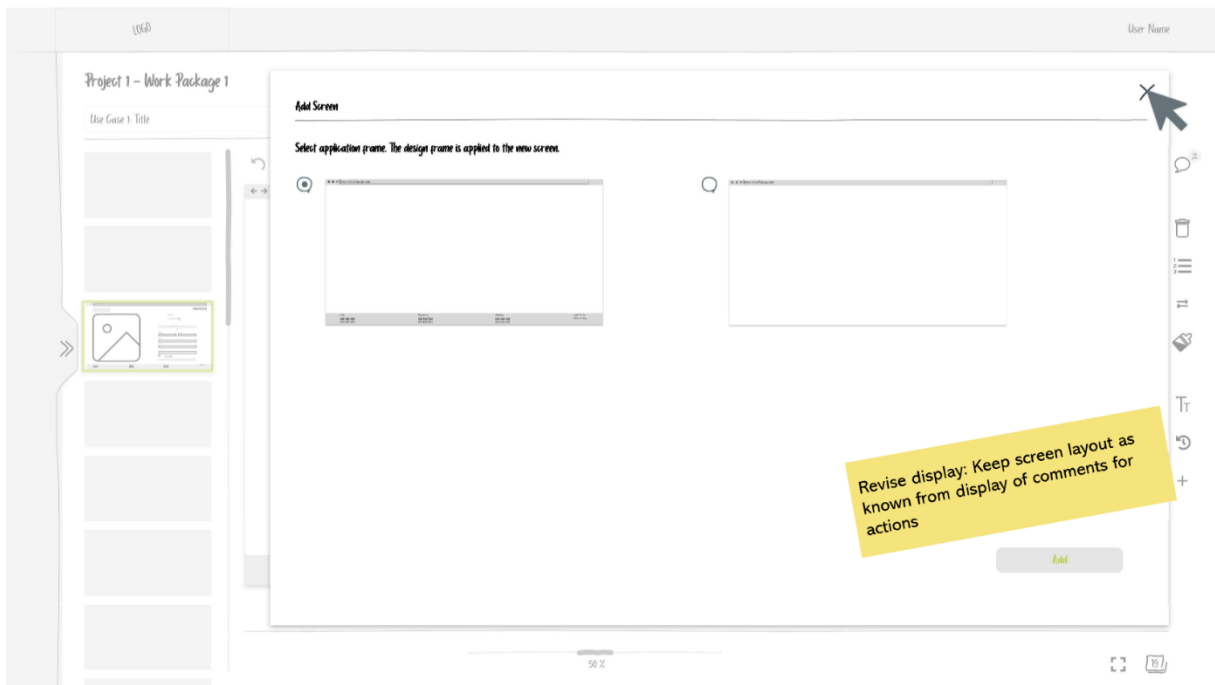


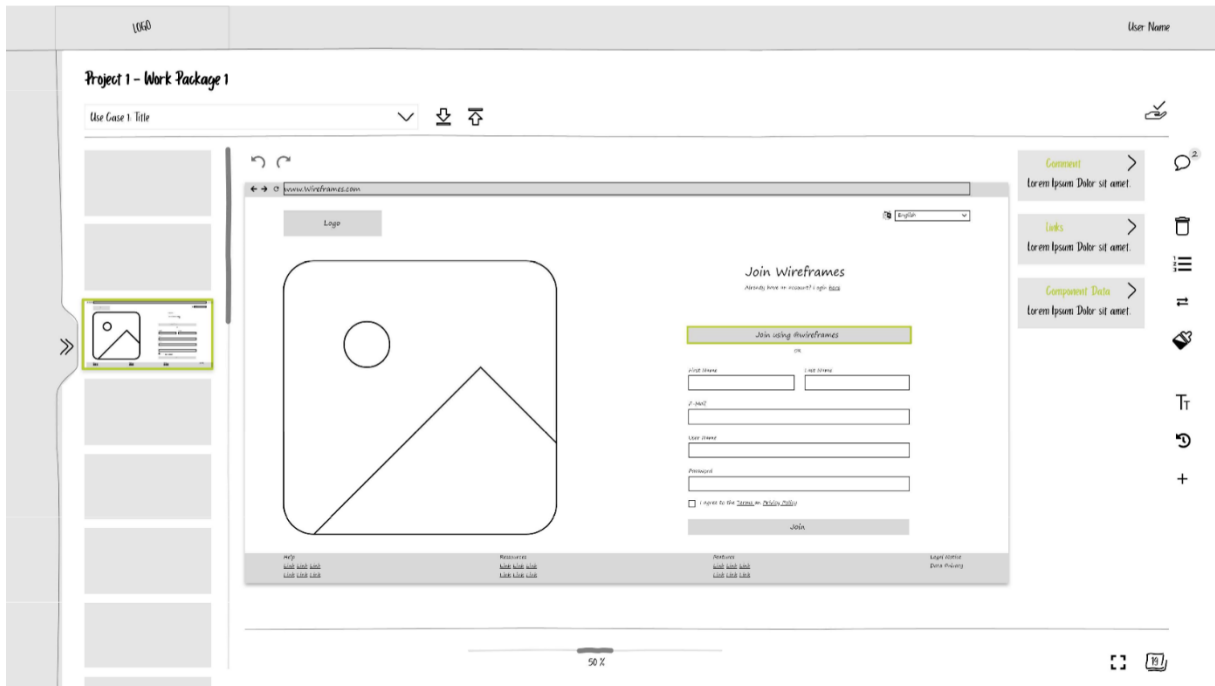




Add a new screen







Components Section

View list

The screenshot shows a software interface for project management. On the left is a sidebar titled "Title project overview" containing a tree view with the following structure:

- Project 1
 - General
 - Work Package 1
 - General
 - Requirements
 - Workpackages
 - Components
 - Work Package 2
 - Work Package 3
- Project 2
- Project 3

A mouse cursor points to the "Components" item under "Work Package 1".

The main content area is titled "Project 1 - Work Package 1" and features a "Current State" progress bar with seven phases (Project Phase 0 to Project Phase 6). Below this, there are sections for "Workshops" and "Project Data & Settings".

Current State:

Project Phase 0	Project Phase 1	Project Phase 2	Project Phase 3	Project Phase 4	Project Phase 5	Project Phase 6
Version History Latest Version	Version History Latest Version	Reworked Workpackages Ready for internal Review 100% Überarbeitung für ISIRI IT Requirements 60%				

Workshops: Next Workshop: 20.02.2022, Work: [dropdown menu]

Project Data & Settings: Project Components [arrow]

A yellow callout box at the bottom right contains the text: "Last Status, To Dos, News, Quicklinks within the Projects".

U660 User Name

Layout will be adapted

Titel project overview

- Project 1
 - General
 - Work Package 1
 - General
 - Requirements
 - Work packages
 - Components
 - Work Package 2
 - Work Package 3
- Project 2
- Project 3

Work Package 1

Project Overview

ID	Category	Type	Name	Image	Function (specific)	State	Linked Area
10.10.01	Action Object	Button	Save		Save entries	Active	Area 1
10.10.02	Action Object	Button	Create		Create a new entry	Active	Area 1
10.20.01	Action Object	Icon	Delete		Delete an entry	Active	Area 1
10.20.02	Action Object	Icon	Close		Close a window	Active	Area 1
10.30.01	Selection Object	Drop-Down	Select Colour		Select an item from list (Work Packaging list)	Active	Area 1

U660 User Name

Work Package 1

Project Overview

ID	Category	Type	Name	Image	Function (specific)	State	Linked Area
10.10.01	Action Object	Button	Save		Save entries	Active	Area 1
10.10.02	Action Object	Button	Create		Create a new entry	Active	Area 1
10.20.01	Action Object	Icon	Delete		Delete an entry	Active	Area 1
10.20.02	Action Object	Icon	Close		Close a window	Active	Area 1
10.30.01	Selection Object	Drop-Down	Select Colour		Select an item from list (Work Packaging list)	Active	Area 1

Add new object

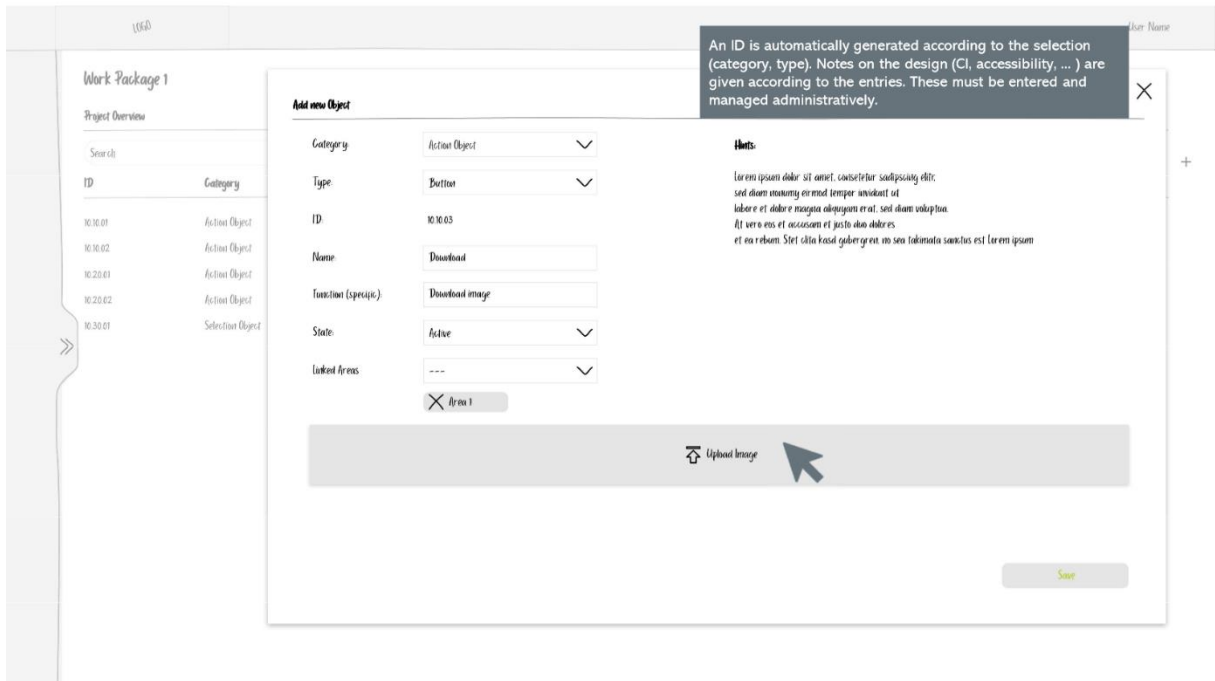
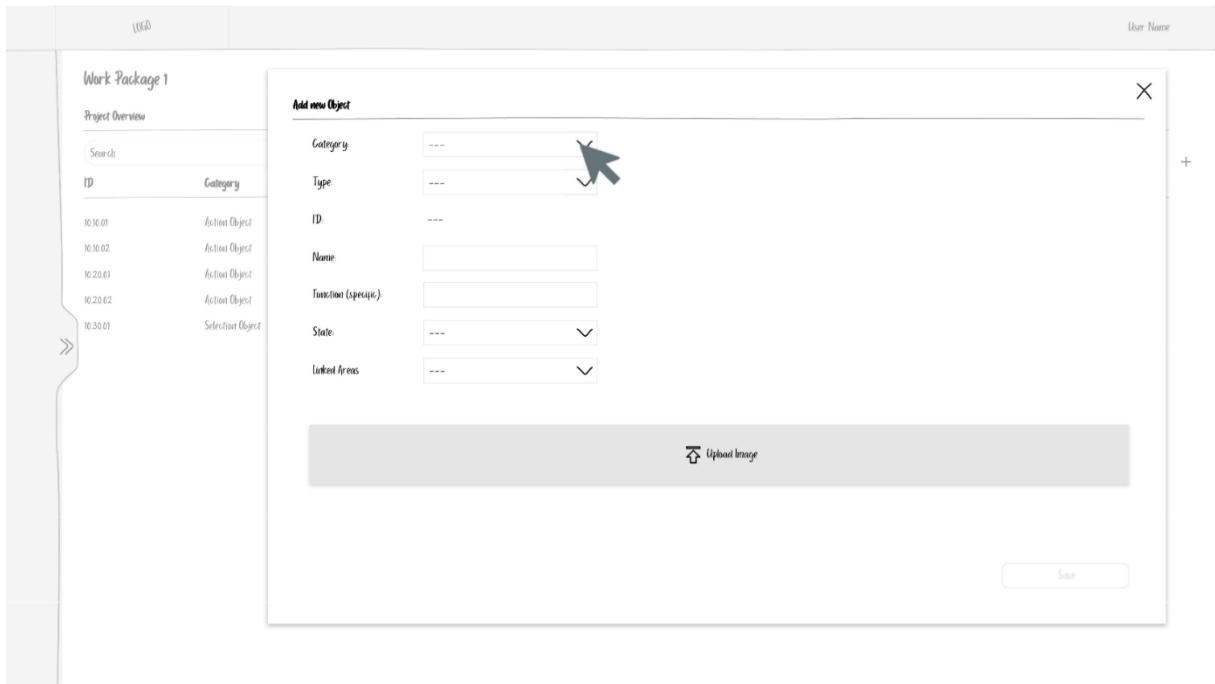
1160 User Name

Work Package 1

Project Overview

Search Filter Sort by

ID	Category	Type	Name	Image	Function (specific)	State	Linked Area	
10.10.01	Action Object	Button	Save		Save entries	Active	Area 1	
10.10.02	Action Object	Button	Create		Create a new entry	Active	Area 1	
10.20.01	Action Object	Icon	Delete		Delete an entry	Active	Area 1	
10.20.02	Action Object	Icon	Close		Close a window	Active	Area 1	
10.30.01	Selection Object	Drop-Down	Select Colour		Select an item from list (Work Package List)	Active	Area 1	



Work Package 1

Project Overview

Search

ID	Category
10.10.01	Action Object
10.10.02	Action Object
10.20.01	Action Object
10.20.02	Action Object
10.30.01	Selection Object

Add new Object

Category: Action Object

Type: Button

ID: 10.10.03

Name: Download

Function (specific): Download image

State: Active

Linked Areas: Area 1

Image:

Notes are checked after uploading the image and reported back; green = fulfilled, orange = not fulfilled, grey = cannot be checked. The existing hints are supplemented by the colours used in the object image.

Hints

- ✓ Lorem ipsum dolor sit amet, consectetur adipiscing elit.
- ✓ sed diam nonummy nibh euismod tincidunt ut
- ✓ lobore et dolore magna aliquam erat, sed diam voluptua.
- ✗ At vero eos et accusam et justo duo dolores
- et ea rebum. Sit ut laud gubergren, ut sea takimata sanctus est Lorem ipsum
- ✓ dolor sit amet.
- ✓ Lorem ipsum dolor sit amet, consectetur adipiscing elit; sed diam nonummy nibh euismod tincidunt
- lobore et dolore magna aliquam erat, sed diam voluptua.
- At vero eos et accusam et justo duo dolores.

Integrate examples for "Hints": colour check, distance check, size of button
 "Do a user survey on the recognisability of the icon with N = 10".
 Rest with placeholder

"+" For new state behind drop-down state

New field: Alternative description: automatically generated as e.g. in Word, editable

Work Package 1

Project Overview

Search

Filter

Sort by

ID	Category	Type	Name	Image	Function (specific)	State	Linked Area
10.10.01	Action Object	Button	Save		Save entries	Active	Area 1
10.10.02	Action Object	Button	Create		Create a new entry	Active	Area 1
10.10.03	Action Object	Button	Download		Download image	Active +	Area 1
10.20.01	Action Object	Icon	Delete		Delete an entry	Active	Area 1
10.20.02	Action Object	Icon	Close		Close a window	Active	Area 1
10.30.01	Selection Object	Drop-Down	Select Colour		Selection from key list (Work-Packaging list)	Active	Area 1

TBD: Replace image as centrally needed (with icon directly in table)?

No direct interactions per line, Integrate actions via action bar

Click on object line opens pop-up

Add new state

1160 User Name

Work Package 1

Project Overview

Search Filter Sort by

ID	Category	Type	Name	Image	Function (specific)	State	Linked Area
10.10.01	Action Object	Button	Save		Save entries	Active	Area 1
10.10.02	Action Object	Button	Create		Create a new entry	Active	Area 1
10.20.01	Action Object	Icon	Delete		Delete an Entry	Active	Area 1
10.20.02	Action Object	Icon	Close		Close a window	Active	Area 1
10.30.01	Selection Object	Drop-Down	Select Colour		Select an item from list (Work Package List)	Active	Area 1

Work Package 1

Project Overview

Search Filter Sort by

ID	Category	Type	Name	Image	Function (specific)	State	Linked Area
10.10.01	Action Object	Button	Save		Save entries	Active +	Area 1
10.10.02	Action Object	Button	Create		Create a new entry	Active	Area 1
10.20.01	Action Object	Icon	Delete		Delete an entry	Active	Area 1
10.20.02	Action Object	Icon	Close		Close a window	Active	Area 1
10.30.01	Selection Object	Drop-Down	Select Colour		Selection from key list (Work Packaging list)	Active	Area 1

"+" within the pop-up

Work Package 1

Project Overview

Search

ID	Category
10.10.01	Action Object
10.10.02	Action Object
10.20.01	Action Object
10.20.02	Action Object
10.30.01	Selection Object

New State 10.10.01 Save (Button)

Category: Action Object

Type: Button

ID: 10.10.01b

Name: Save

Function (specific):

State:

Linked Areas:

Upload message

Hints:
 Lorem ipsum dolor sit amet, consectetur adipiscing elit, sed diam nonummy nibh euismod tincidunt ut laoreet dolore magna aliquam erat, sed diam voluptua. At vero eos et accusam et justo duo abbreas et nec rebum. Stet illa kasd gabergret, im sea takimata sanctus est Lorem ipsum

1060

Hover enables interactions with image (delete, re-upload, rotate)

Work Package 1

Project Overview

Search

ID	Category
10.10.01	Action Object
10.10.02	Action Object
10.20.01	Action Object
10.20.02	Action Object
10.30.01	Selection Object

New State 10.10.01 Save (Button)

Category: Action Objekt

Type: Button

ID: 10.10.01b

Name: Save

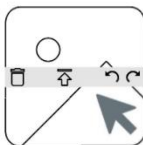
Function (specify):

State: Passiv

Linked Areas: ---

Area 1 Area 2

Image:



Save

Hints:

- ✓ Lorem ipsum dolor sit amet, consetetur sadipscing elitr, sed diam nonumy ermod tempor invidunt ut
- ✓ labore et dolore magna aliquyam erat, sed diam voluptua.
- ✗ At vero eos et accusam et justo duo dolores
- et ea rebum. Sit tilla kasd gubergren, no sea takimata sanctus est Lorem ipsum
- ✓ dolor sit amet.
- ✓ Lorem ipsum dolor sit amet, consetetur sadipscing elitr, sed diam nonumy ermod tempor
- labore et dolore magna aliquyam erat, sed diam voluptua.
- At vero eos et accusam et justo duo dolores.

1060

User Name

Work Package 1

Project Overview

Search

ID	Category
10.10.01	Action Object
10.10.02	Action Object
10.20.01	Action Object
10.20.02	Action Object
10.30.01	Selection Object

New State 10.10.01 Save (Button)

Category: Action Objekt

Type: Button

ID: 10.10.01b

Name: Save

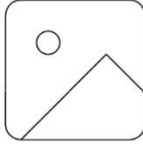
Function (specify):

State: Passiv

Linked Areas: ---

Area 1 Area 2

Image:



Save

Hints:

- ✓ Lorem ipsum dolor sit amet, consetetur sadipscing elitr, sed diam nonumy ermod tempor invidunt ut
- ✓ labore et dolore magna aliquyam erat, sed diam voluptua.
- ✗ At vero eos et accusam et justo duo dolores
- et ea rebum. Sit tilla kasd gubergren, no sea takimata sanctus est Lorem ipsum
- ✓ dolor sit amet.
- ✓ Lorem ipsum dolor sit amet, consetetur sadipscing elitr, sed diam nonumy ermod tempor
- labore et dolore magna aliquyam erat, sed diam voluptua.
- At vero eos et accusam et justo duo dolores.

Work Package 1

Project Overview

Search Filter Sort by

ID	Category	Type	Name	Image	Function (specific)	State	Linked Area
10.10.01	Action Object	Button	Save		Save entries	Active +	Area 1
10.10.01	Action Object	Button	Save		Save entries	Active	Area 1
10.10.02	Action Object	Button	Create		Create a new entry	Active	Area 1
10.20.01	Action Object	Key	Delete		Delete an entry	Active	Area 1
10.20.02	Action Object	Key	Close		Close a window	Active	Area 1
10.30.01	Selection Object	Drop-Down	Select Colour		Select an item from list (color Packaging list)	Active	Area 1

Edit data

1060 User Name

Work Package 1

Project Overview

Search Filter Sort by

ID	Category	Type	Name	Image	Function (specific)	State	Linked Area
10.10.01	Action Object	Button	Save		Save entries	Active <input type="checkbox"/>	Area 1
10.10.02	Action Object	Button	Create		Create a new entry	Active <input type="checkbox"/>	Area 1
10.20.01	Action Object	Icon	Delete		Delete an entry	Active <input type="checkbox"/>	Area 1
10.20.02	Action Object	Icon	Close		Close a window	Active <input type="checkbox"/>	Area 1
10.30.01	Selection Object	Drop-Down	Select Colour		Selection from key list (Work Package list)	Active <input type="checkbox"/>	Area 1

1060 User Name

Work Package 1

Project Overview

Search

ID	Category
10.10.01	Action Object
10.10.02	Action Object
10.20.01	Action Object
10.20.02	Action Object
10.30.01	Selection Object

Details: 10.10.01 Save (Button)

Category: Action Object

Type: Button

ID: 10.10.01

Name: Save

Function (specific):

State: Active

Linked Areas:
 Area 1

Image:

Hints:

- ✓ Lorem ipsum dolor sit amet, consetetur sadipscing elitr, sed diam nonumy ermod tempor invidunt ut
- ✓ labore et dolore magna aliquyam erat, sed diam voluptua.
- ✗ At vero eos et accusam et justo duo dolores
- et ea rebum. Sit tita kasd gubergren, no sea takimata sanctus est Lorem ipsum
- ✓ dolor sit amet.
- ✓ Lorem ipsum dolor sit amet, consetetur sadipscing elitr, sed diam nonumy ermod tempor
- labore et dolore magna aliquyam erat, sed diam voluptua.
- At vero eos et accusam et justo duo dolores.

View more info

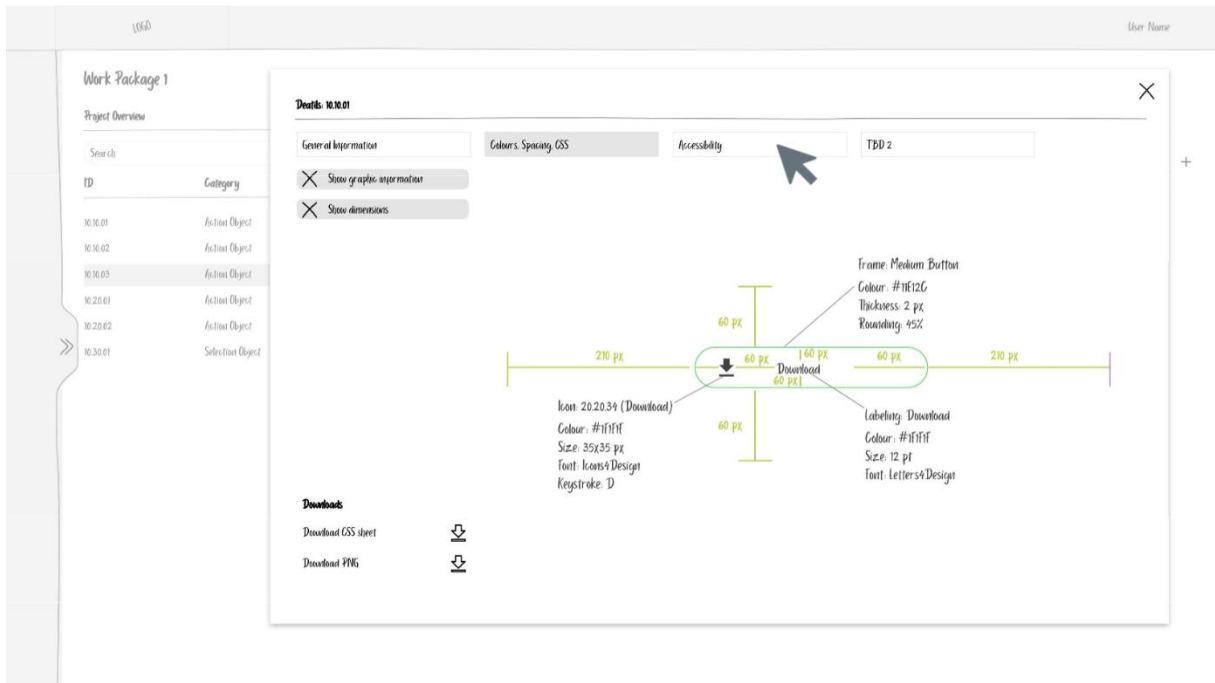
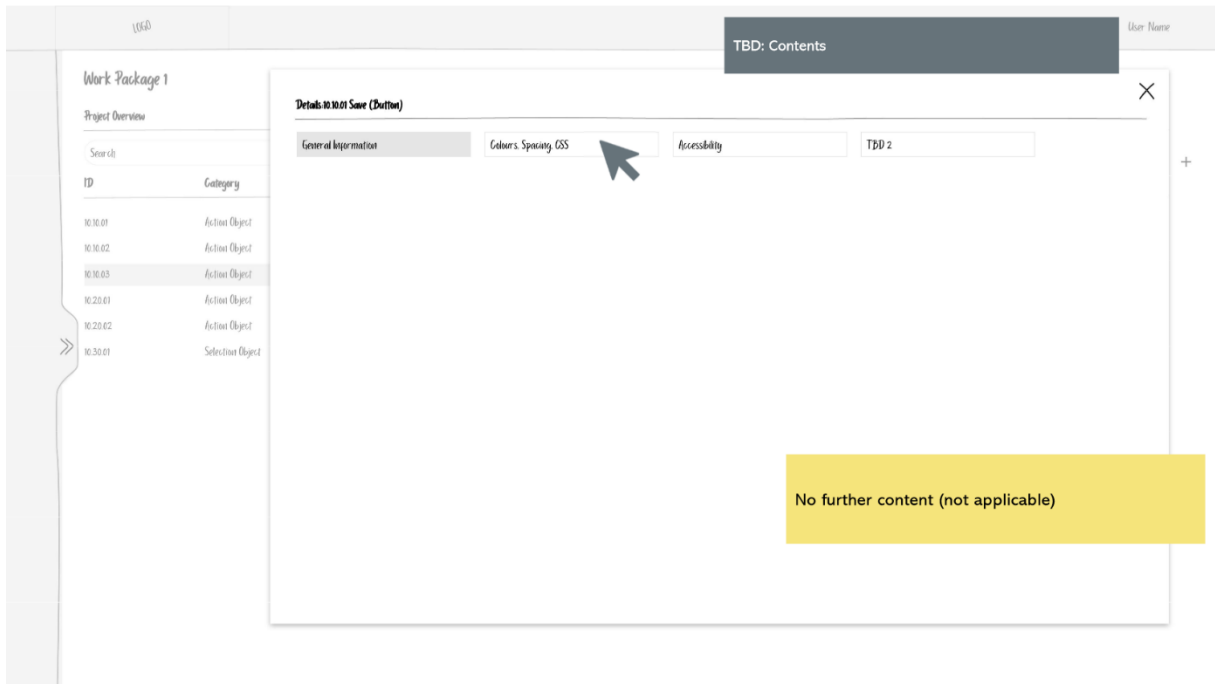
1160 User Name

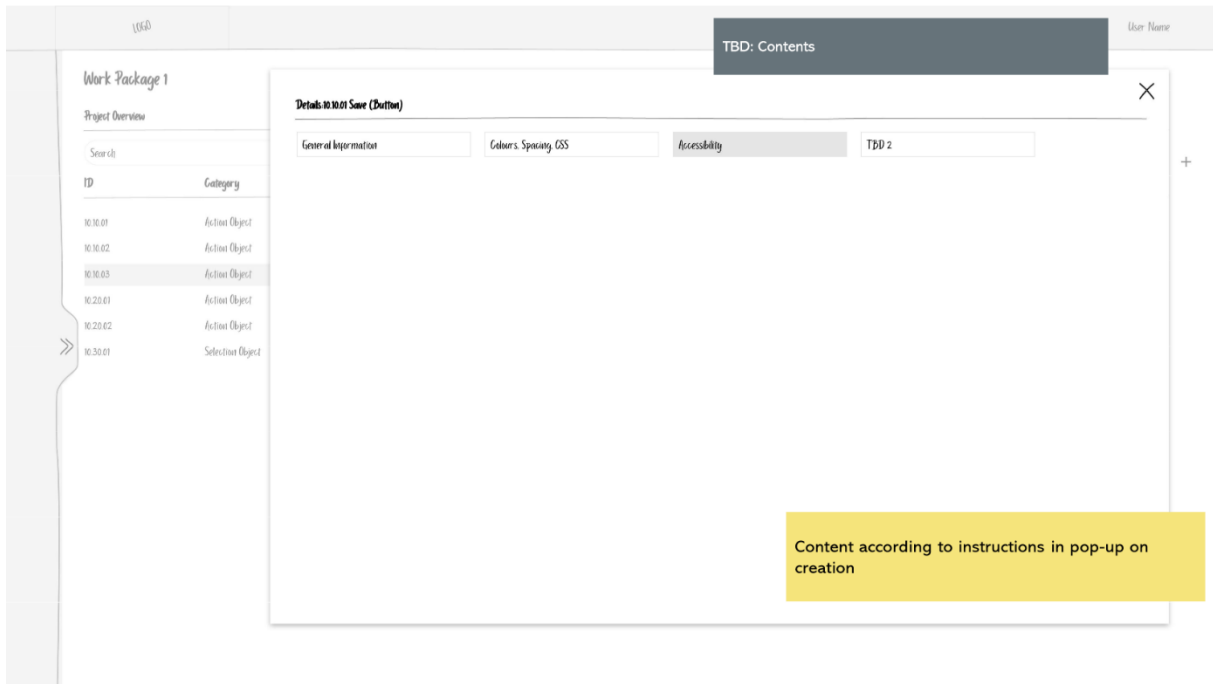
Work Package 1

Project Overview

Search Filter Sort by

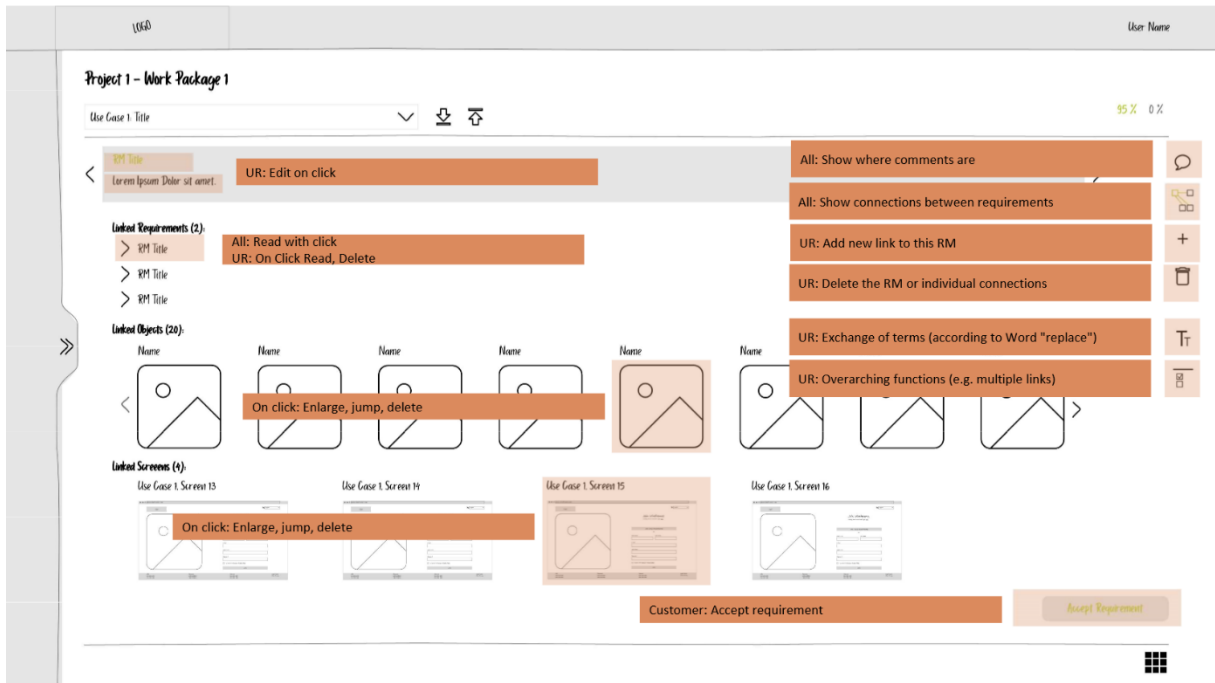
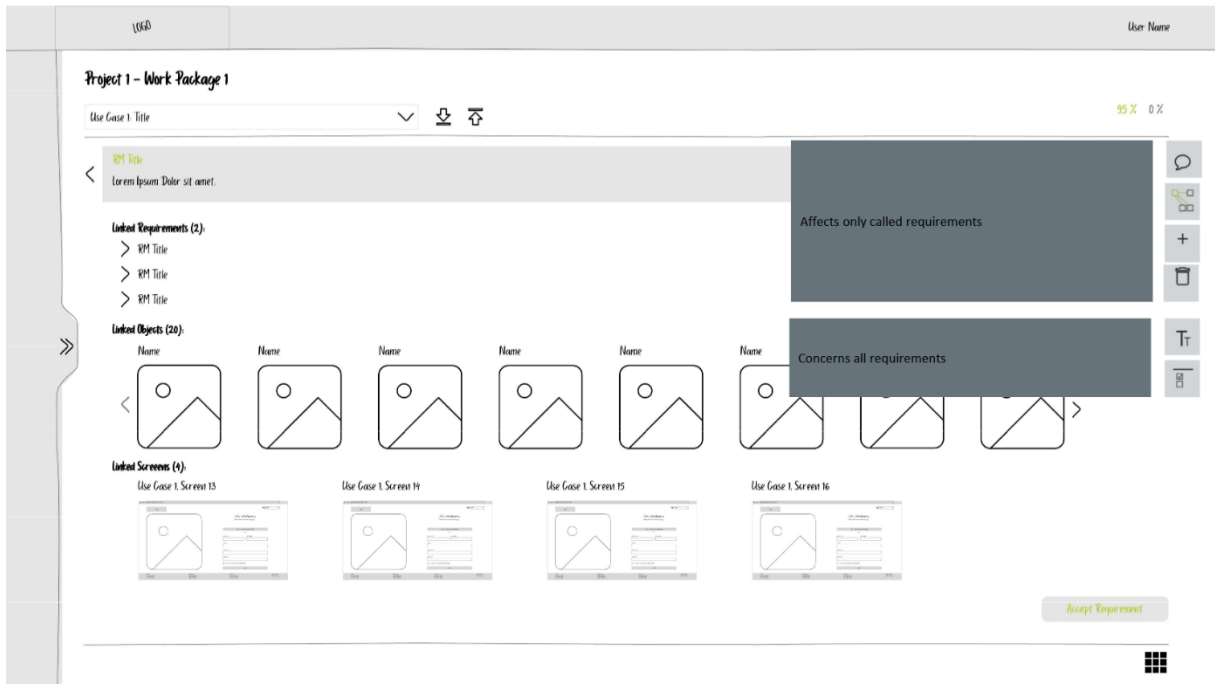
ID	Category	Type	Name	Image	Function (specific)	State	Linked Area	
10.10.01	Action Object	Button	Save		Save entries	Active	Area 1	
10.10.02	Action Object	Button	Create		Create a new entry	Active	Area 1	
10.10.03	Action Object	Button	Download		Download image	Active	Area 1	
10.20.01	Action Object	Icon	Delete		Delete an entry	Active	Area 1	
10.20.02	Action Object	Icon	Close		Close a window	Active	Area 1	
10.30.01	Selection Object	Drag-Drop	Select Colour		Selection from key list (Work-Packagegroup list)	Active	Area 1	





Requirements Section

Function explanation



Overview

The screenshot displays a software interface for project management. On the left is a sidebar titled "Title project overview" containing a tree view with the following structure:

- Project 1
 - General
 - Work Package 1
 - General
 - Requirements
 - Work packages
 - Components
 - Work Package 2
 - Work Package 3
- Project 2
- Project 3

A mouse cursor points to the "Requirements" item under "Work Package 1".

The main content area is titled "Project 1 - Work Package 1" and includes a header "TBD: Homepage Content" and a "User Name" field. Below the title is a "Current State" section with a progress bar showing seven phases:

- Project Phase 0: Active (checked)
- Project Phase 1: Active (checked)
- Project Phase 2: Incomplete (unchecked)
- Project Phase 3: Incomplete (unchecked)
- Project Phase 4: Incomplete (unchecked)
- Project Phase 5: Incomplete (unchecked)
- Project Phase 6: Incomplete (unchecked)

Under "Project Phase 2", the following details are listed:

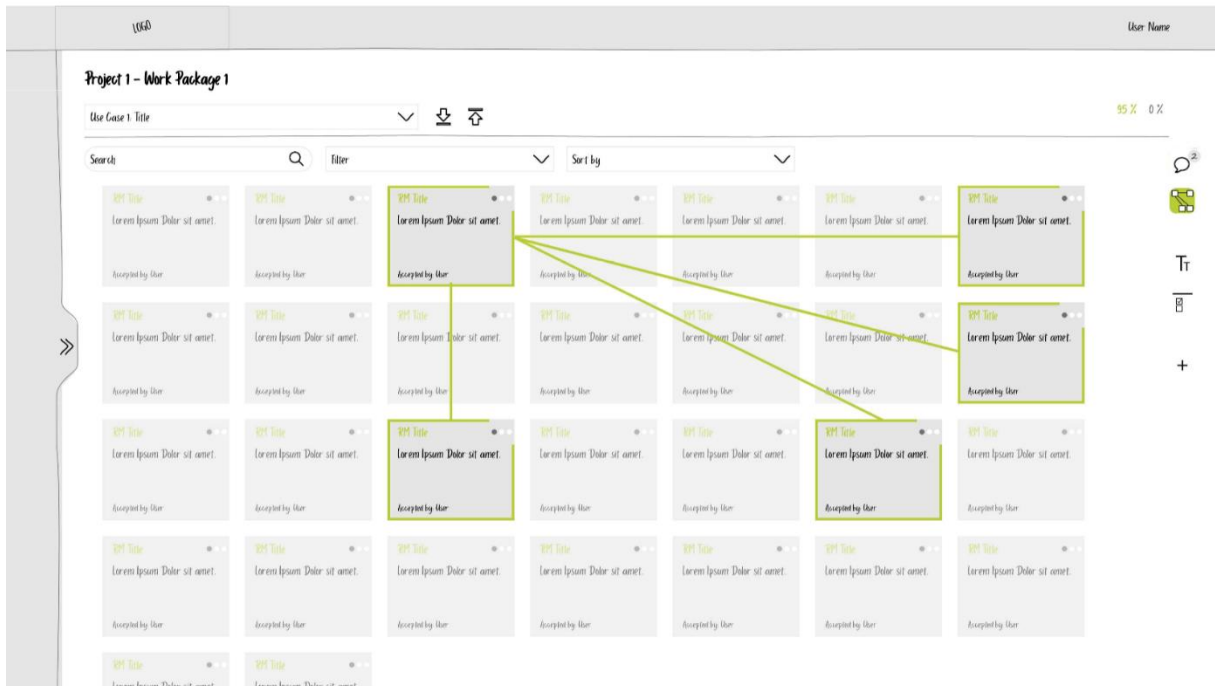
- Version History: [Download icon]
- Latest Version: [Download icon]
- Revised Work packages: Ready for internal Review 100%
- Überarbeitung für ISIRI IT Requirements: 60%

The "Workshops" section shows:

- Next Workshop: 20.02.2022
- Latest Information: [Download icon]
- Work: [Dropdown menu]

The "Project Data & Settings" section includes:

- Project Components: [Right arrow icon]

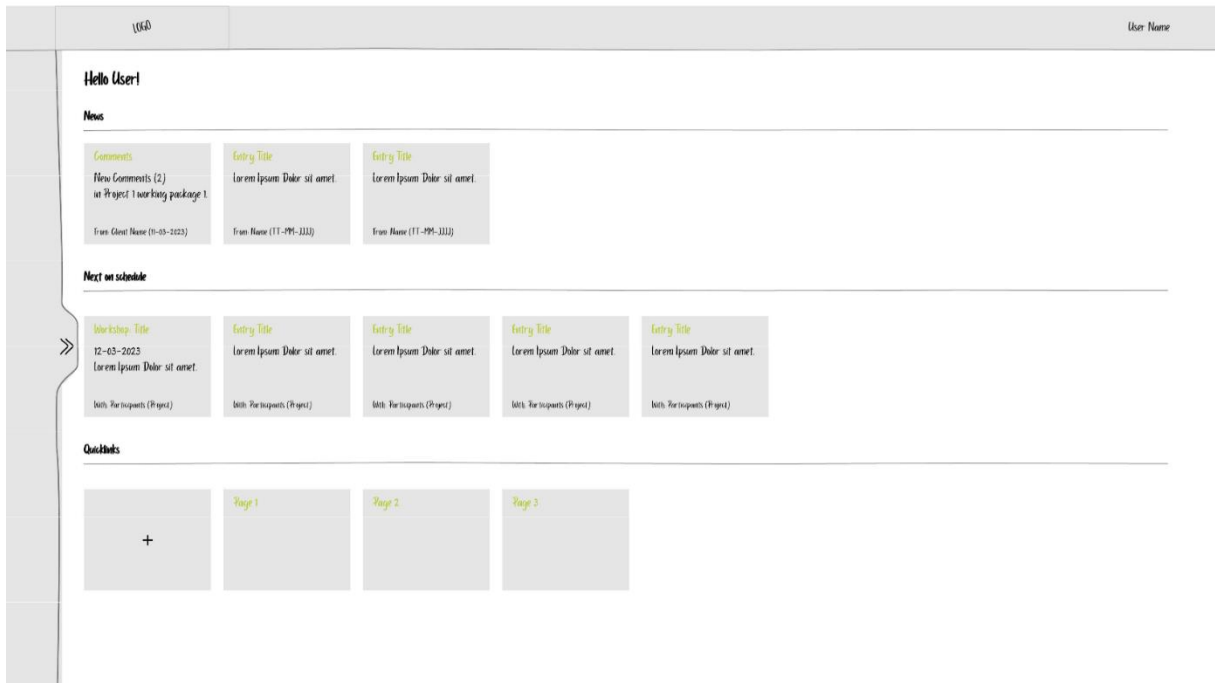
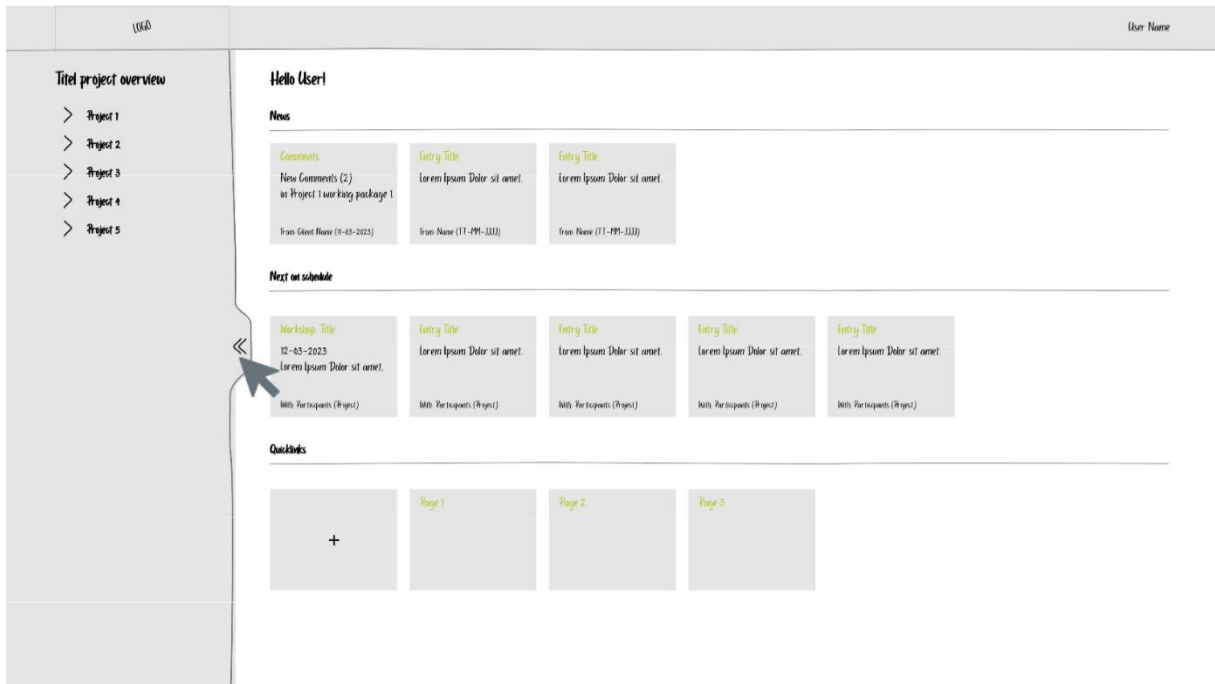


EXPERT

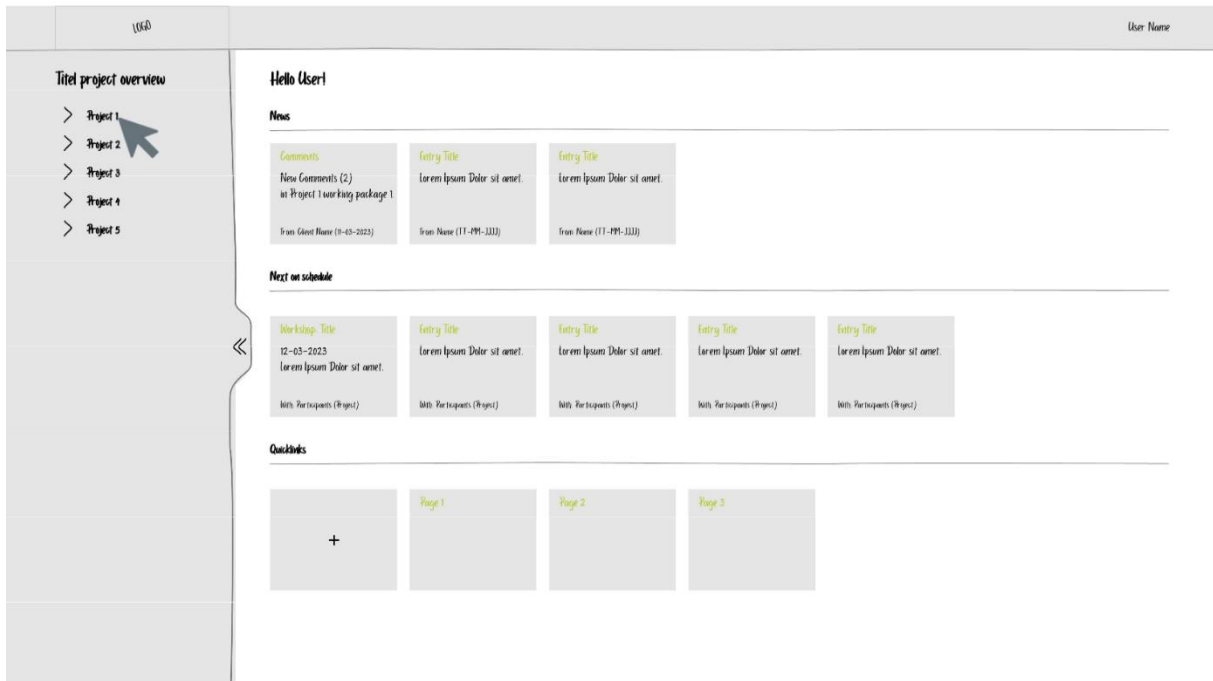
ROUND 6

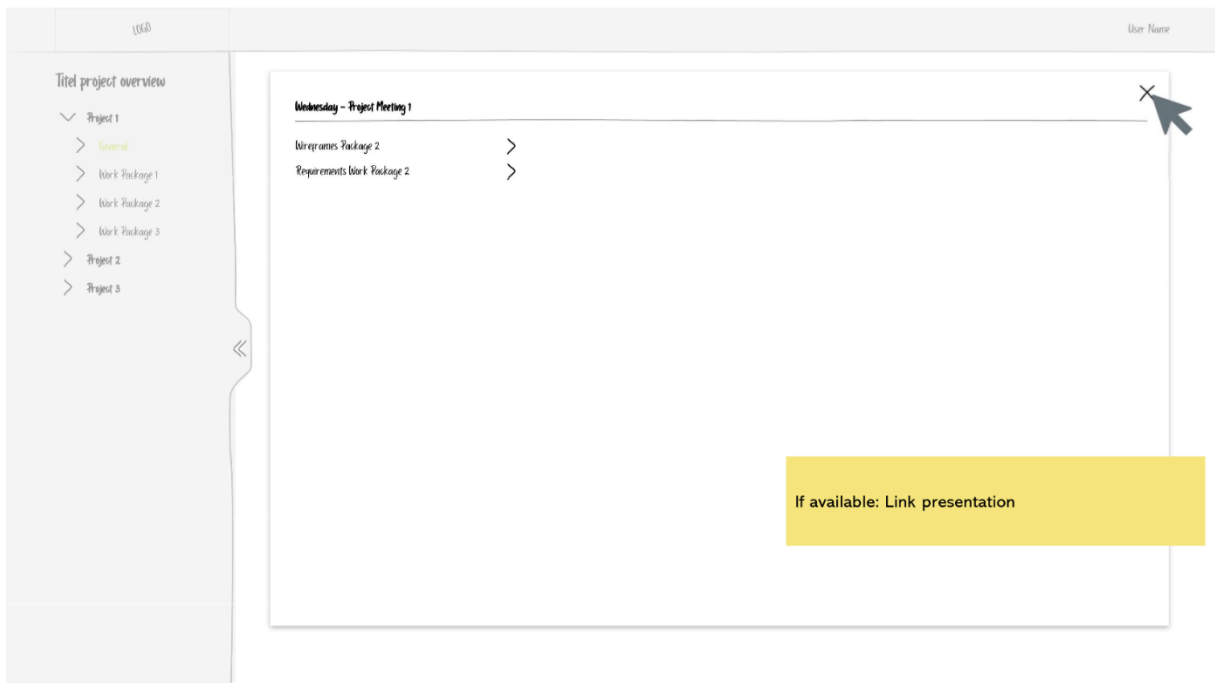
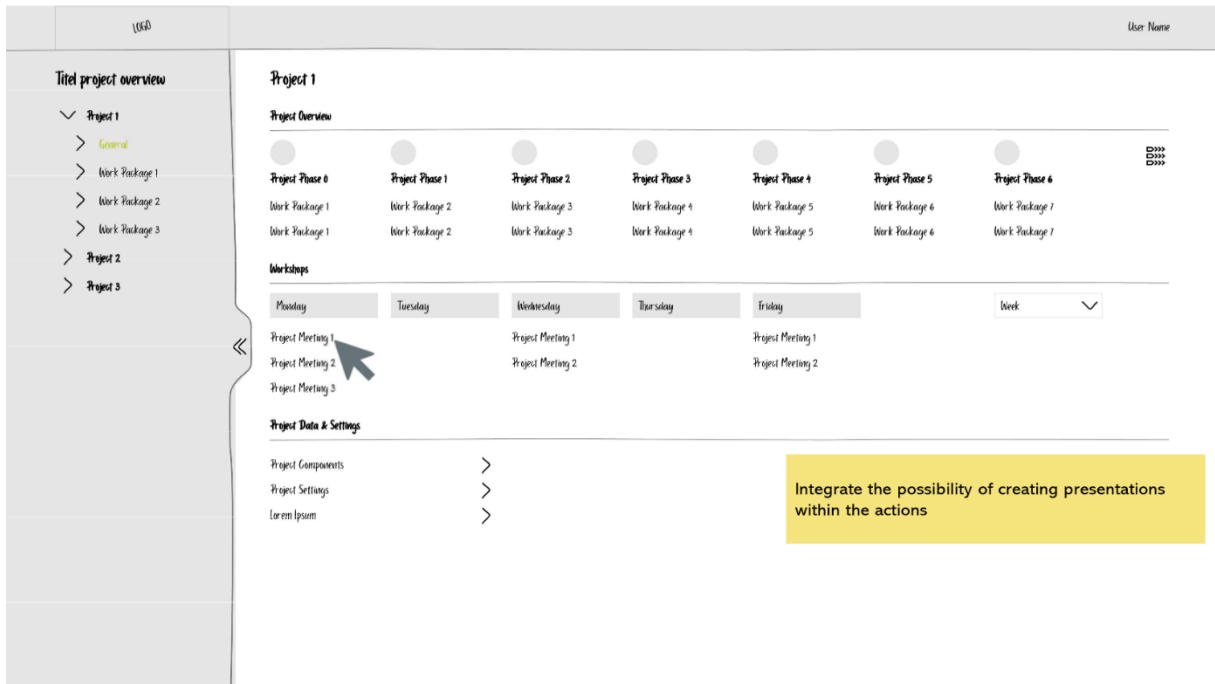
General Section (Home)

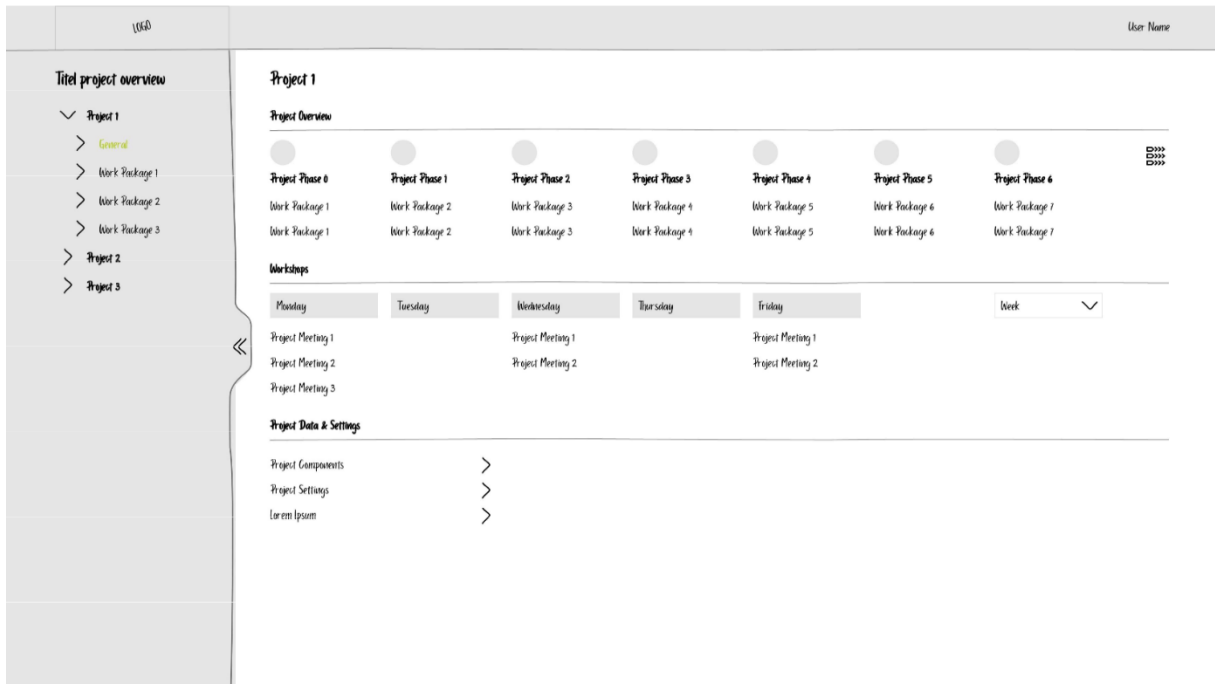
Behaviour Navigation bar



Home Project (General)







Home Work Package (General)

1060 User Name

Titel project overview

- Project 1
 - General
 - Work Package 1
 - Work Package 2
 - Work Package 3
- Project 2
- Project 3

Project 1

Project Overview

Project Phase 0	Project Phase 1	Project Phase 2	Project Phase 3	Project Phase 4	Project Phase 5	Project Phase 6
Work Package 1	Work Package 2	Work Package 3	Work Package 4	Work Package 5	Work Package 6	Work Package 7
Work Package 1	Work Package 2	Work Package 3	Work Package 4	Work Package 5	Work Package 6	Work Package 7

Workshops

Monday	Tuesday	Wednesday	Thursday	Friday	Week
Project Meeting 1		Project Meeting 1		Project Meeting 1	
Project Meeting 2		Project Meeting 2		Project Meeting 2	
Project Meeting 3					

Project Data & Settings

- Project Components >
- Project Settings >
- Lorem Ipsum >

1060 User Name

Titel project overview

- Project 1
 - General
 - Work Package 1
 - General
 - Requirements
 - Workpackages
 - Components
 - Work Package 2
 - Work Package 3
- Project 2
- Project 3

Project 1 - Work Package 1

Current State

Project Phase 0	Project Phase 1	Project Phase 2	Project Phase 3	Project Phase 4	Project Phase 5	Project Phase 6
Version History	Version History	Reworked Workpackages				
Latest Version	Latest Version	Ready for internal Review 100%				
		(Überarbeitung für Draft Requirements) 60%				

Workshops

Next Workshop: 20.02.2022

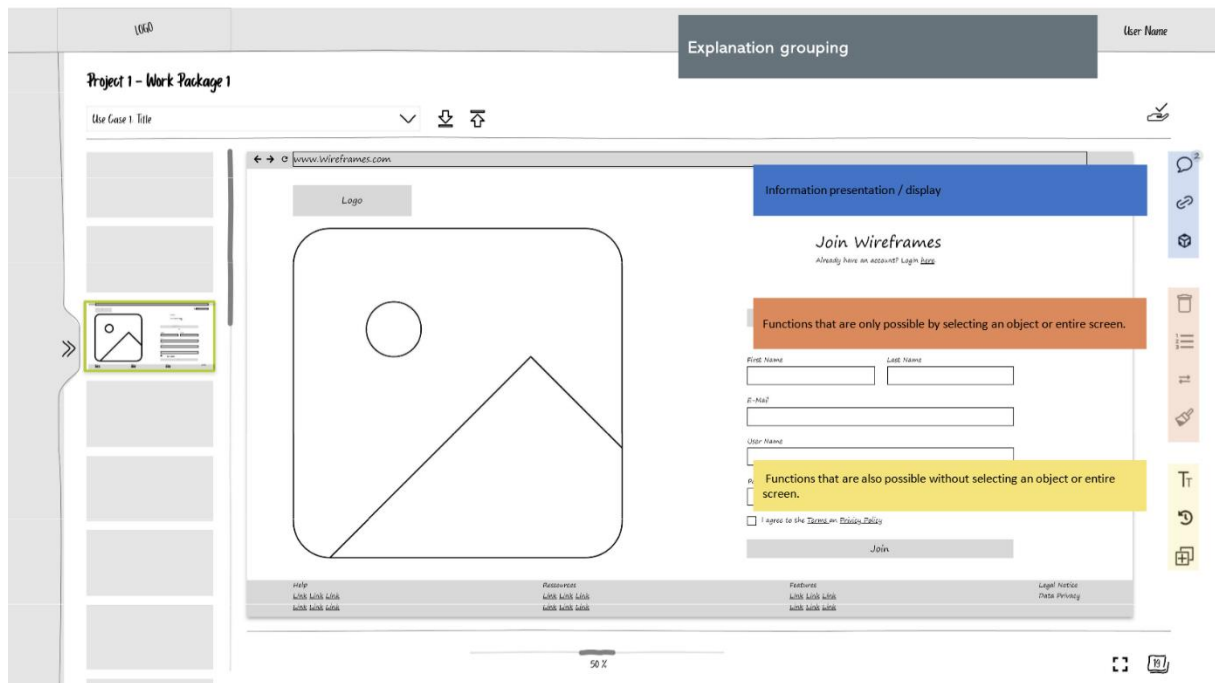
Latest Information: [Download Icon]

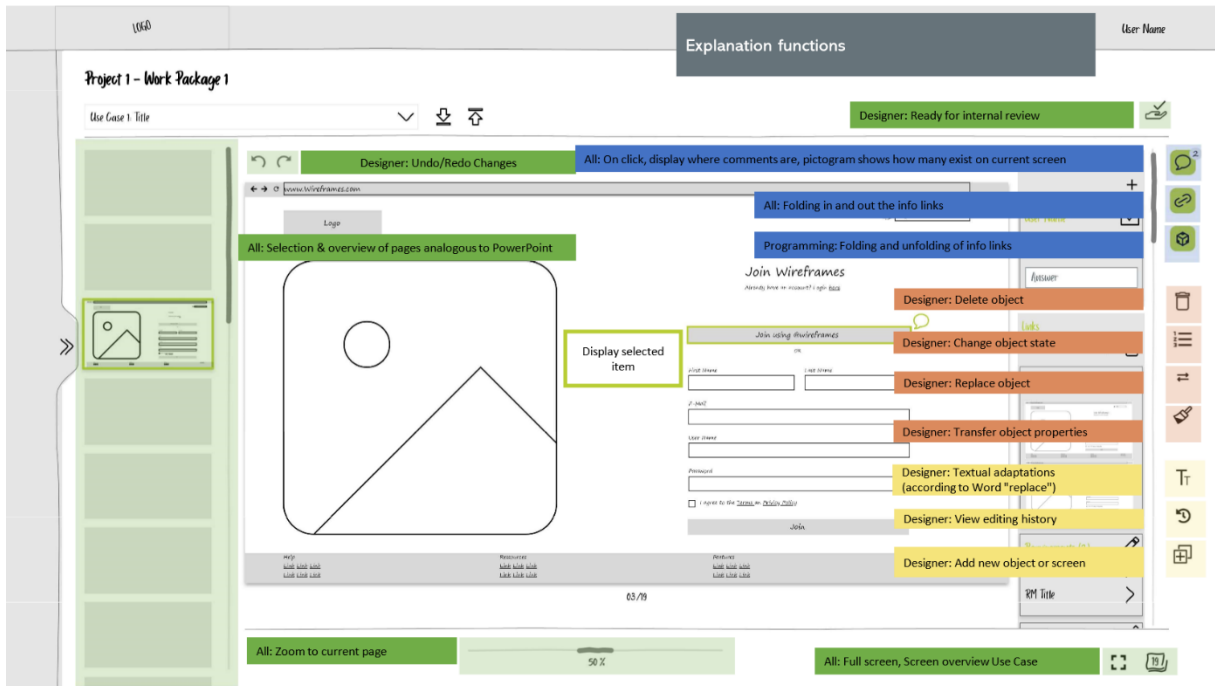
Project Data & Settings

- Project Components >

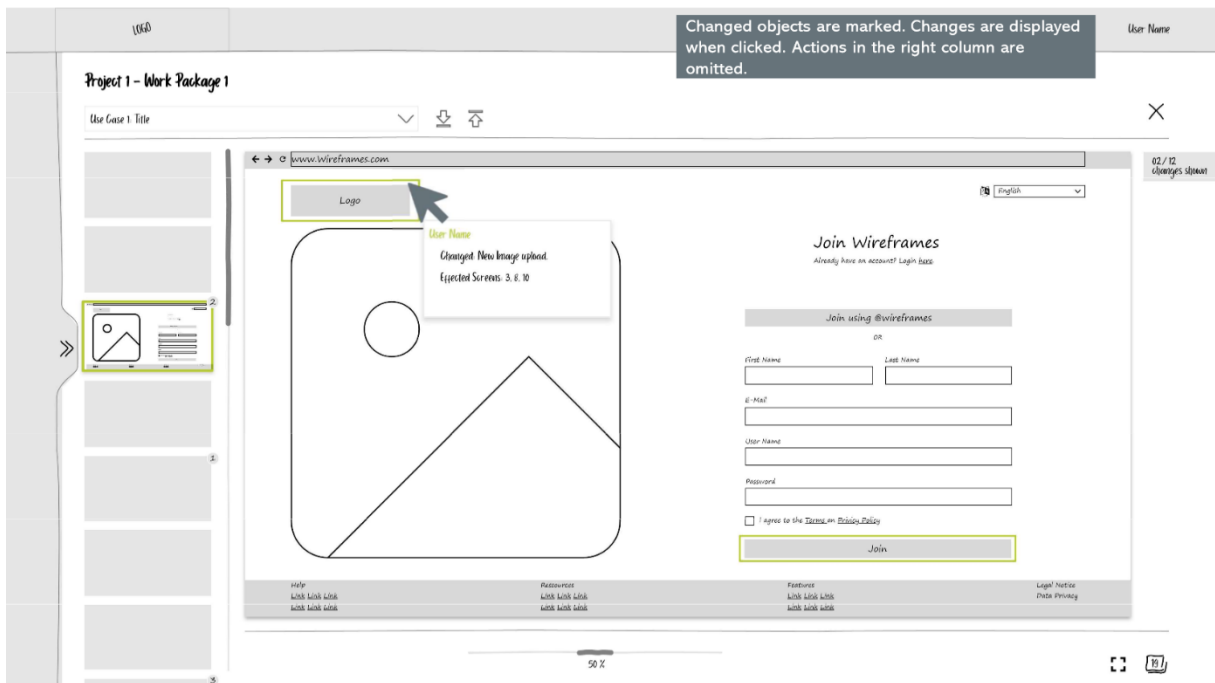
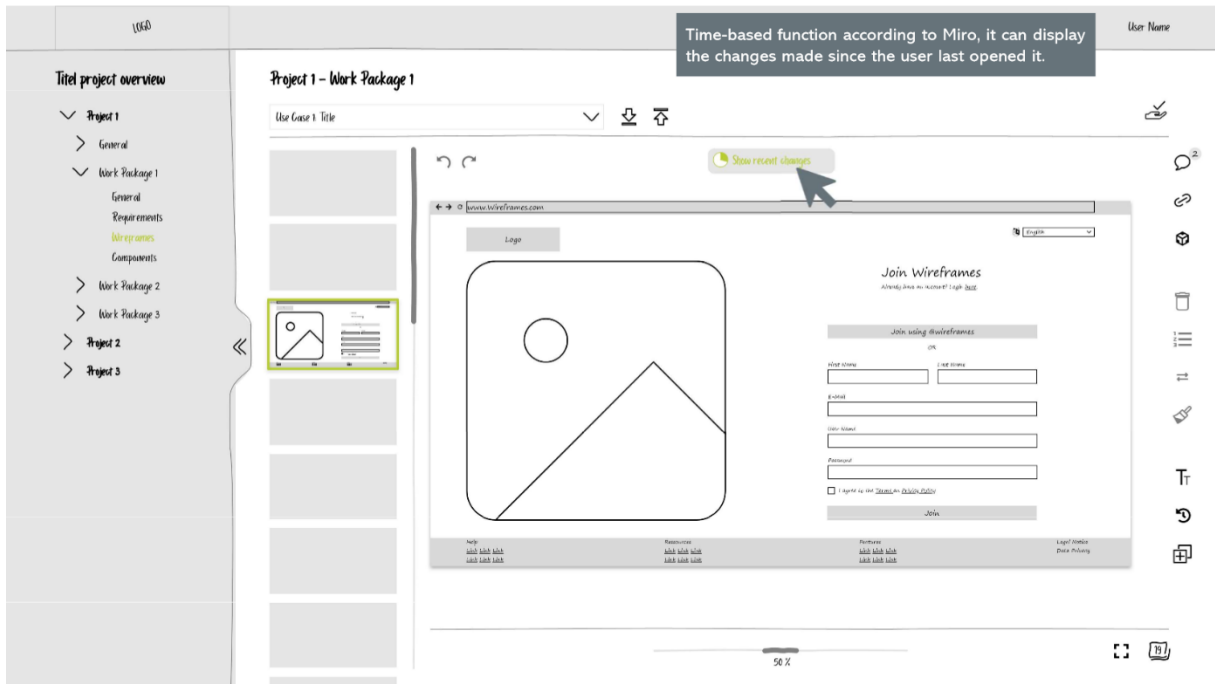
Wireframes section

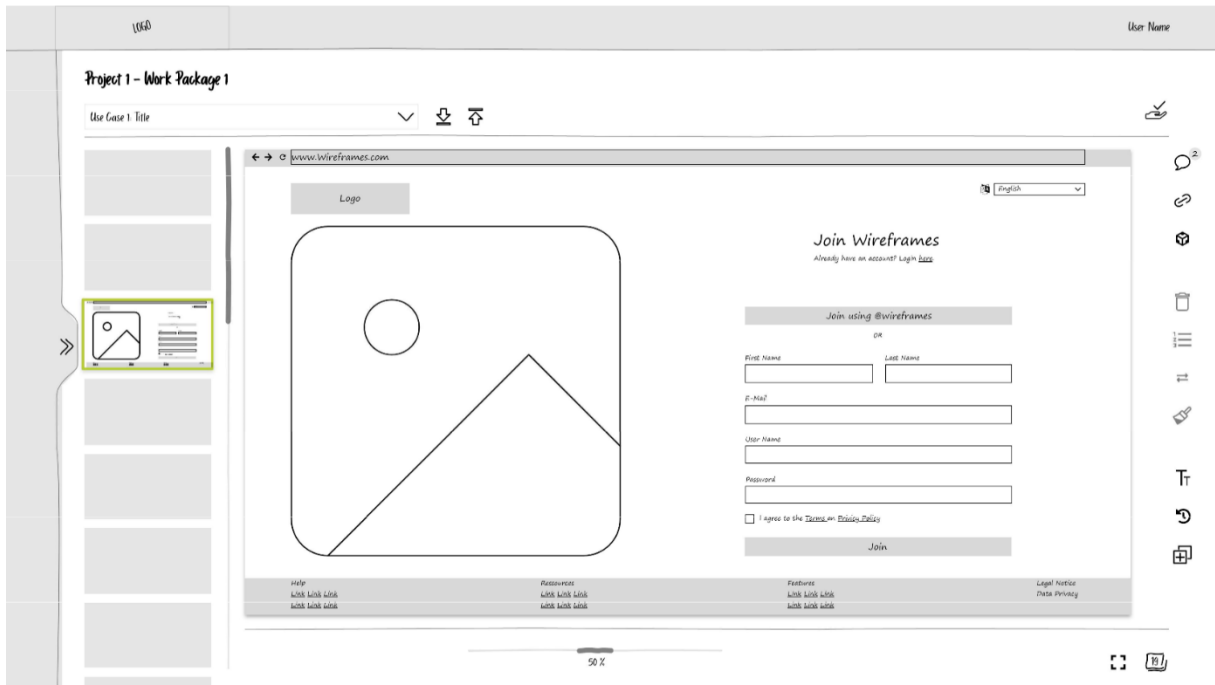
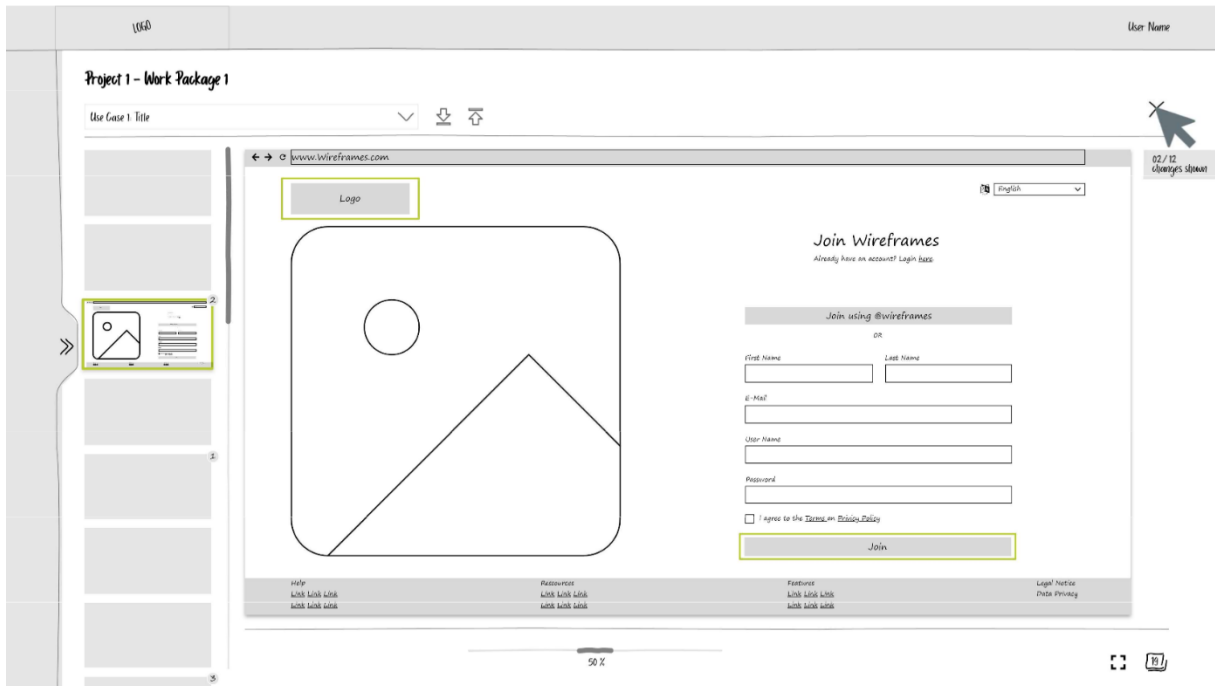
Function explanation



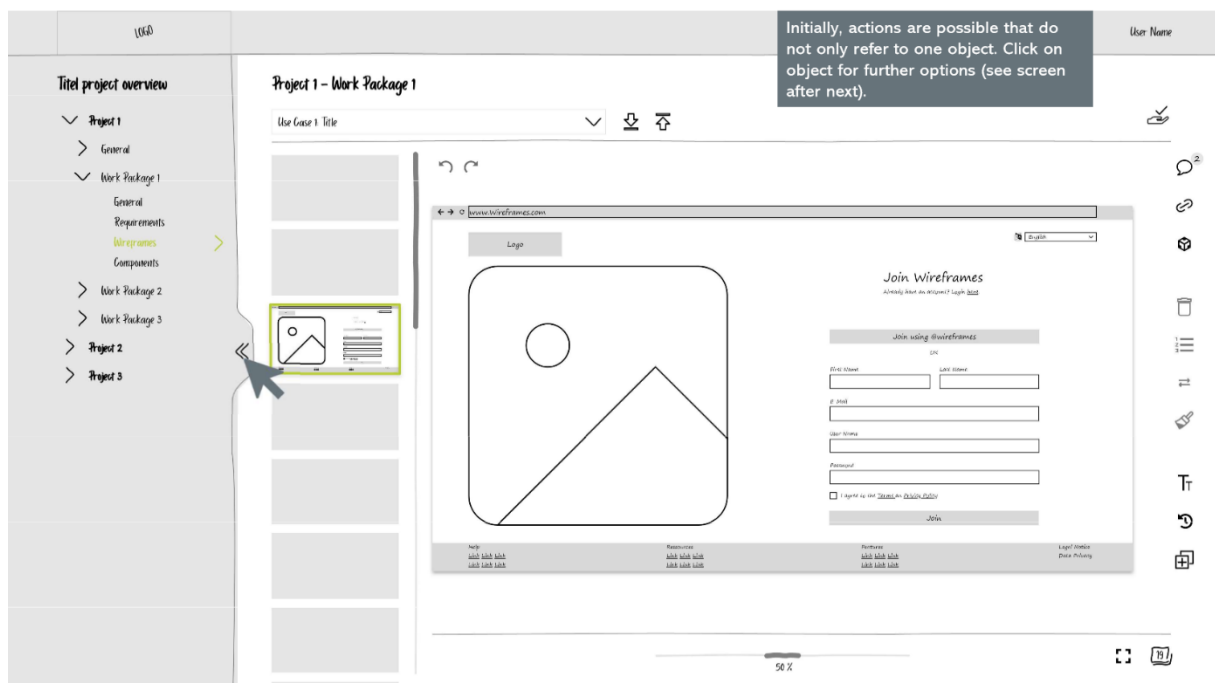


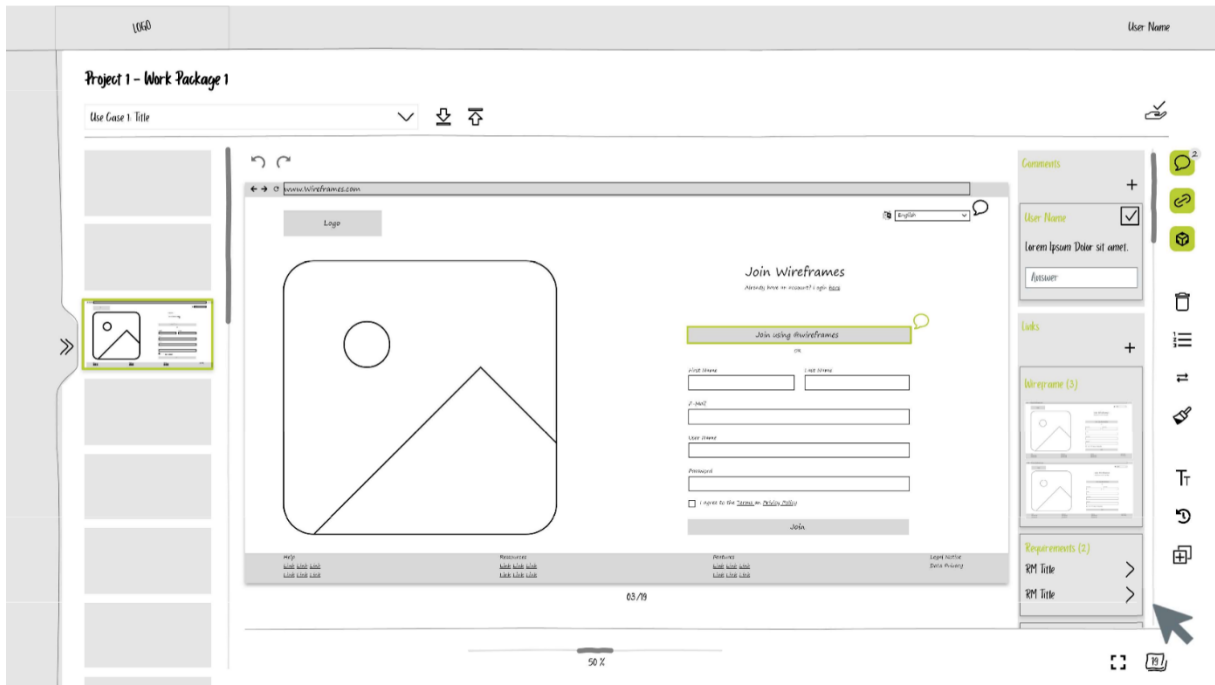
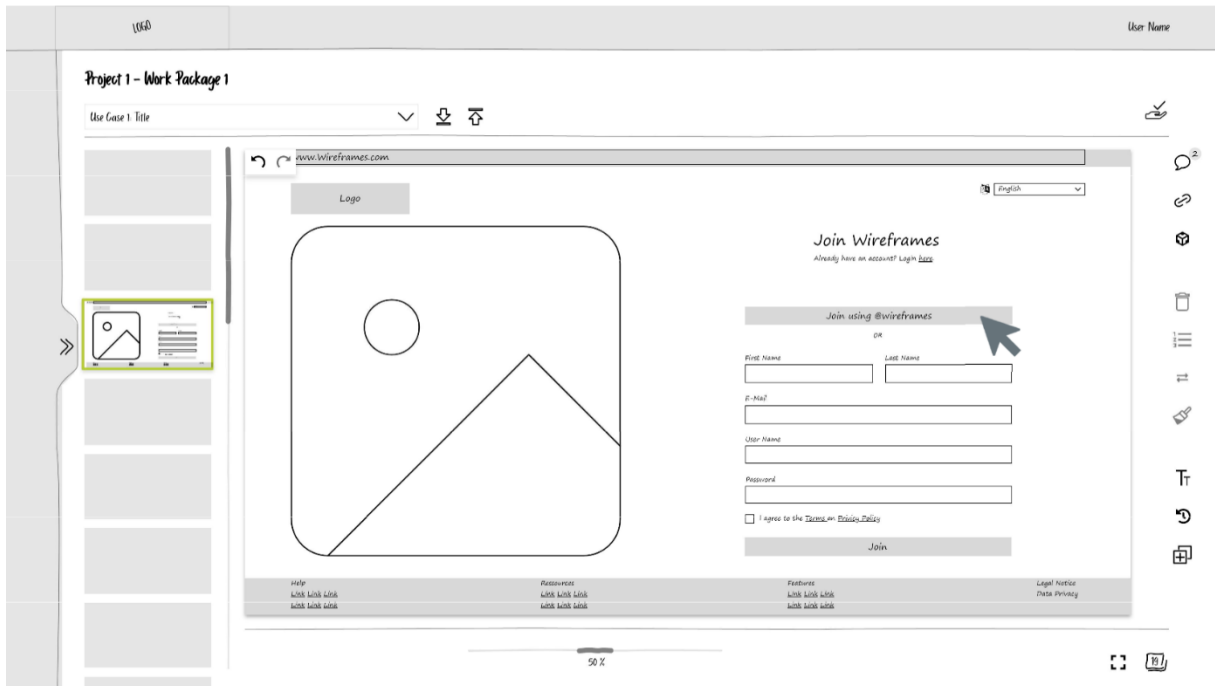
Show last changes

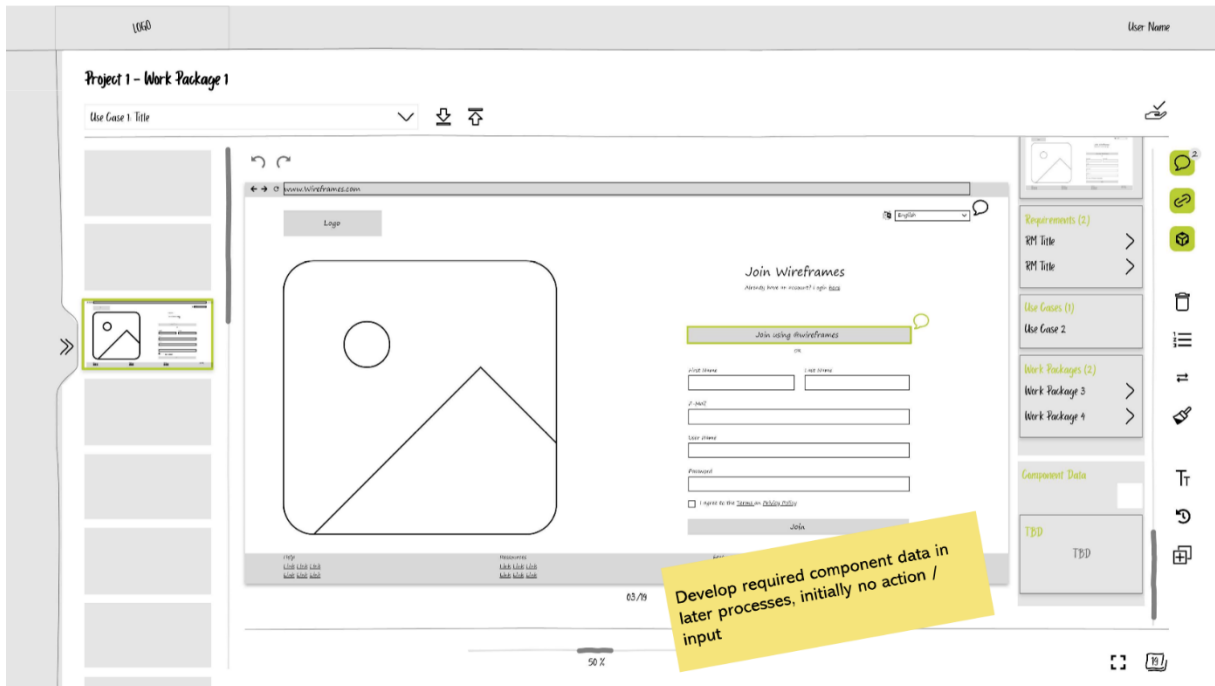




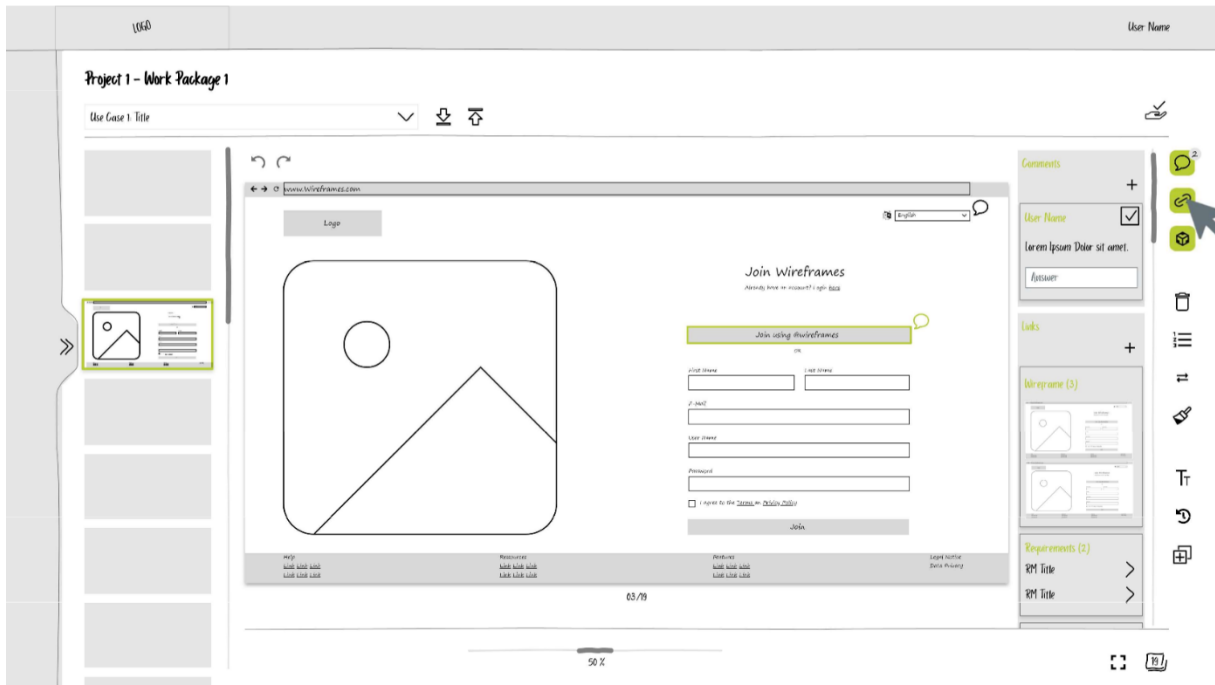
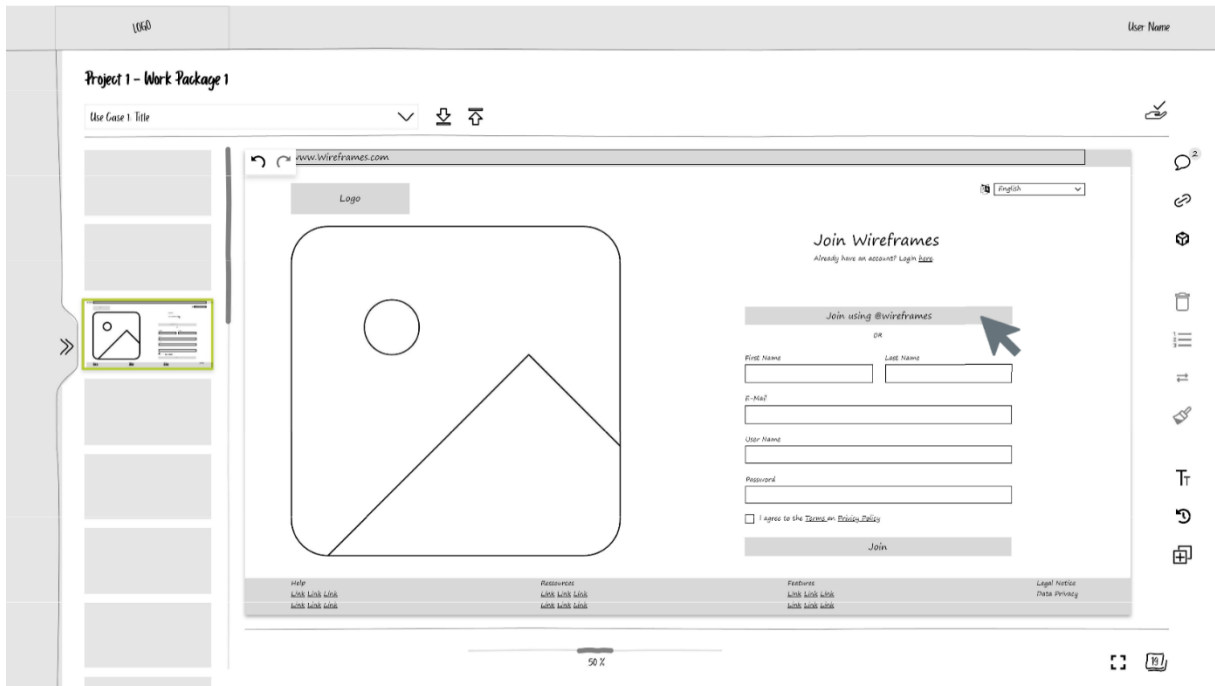
Fold in the bar,
Click object

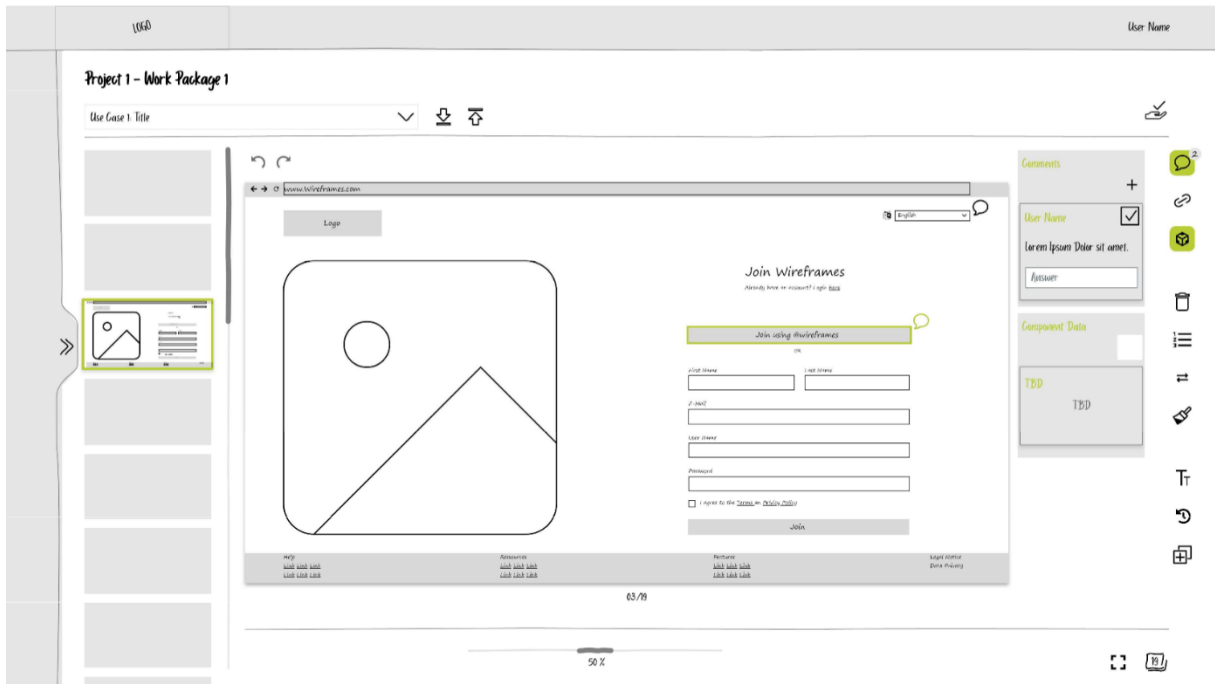




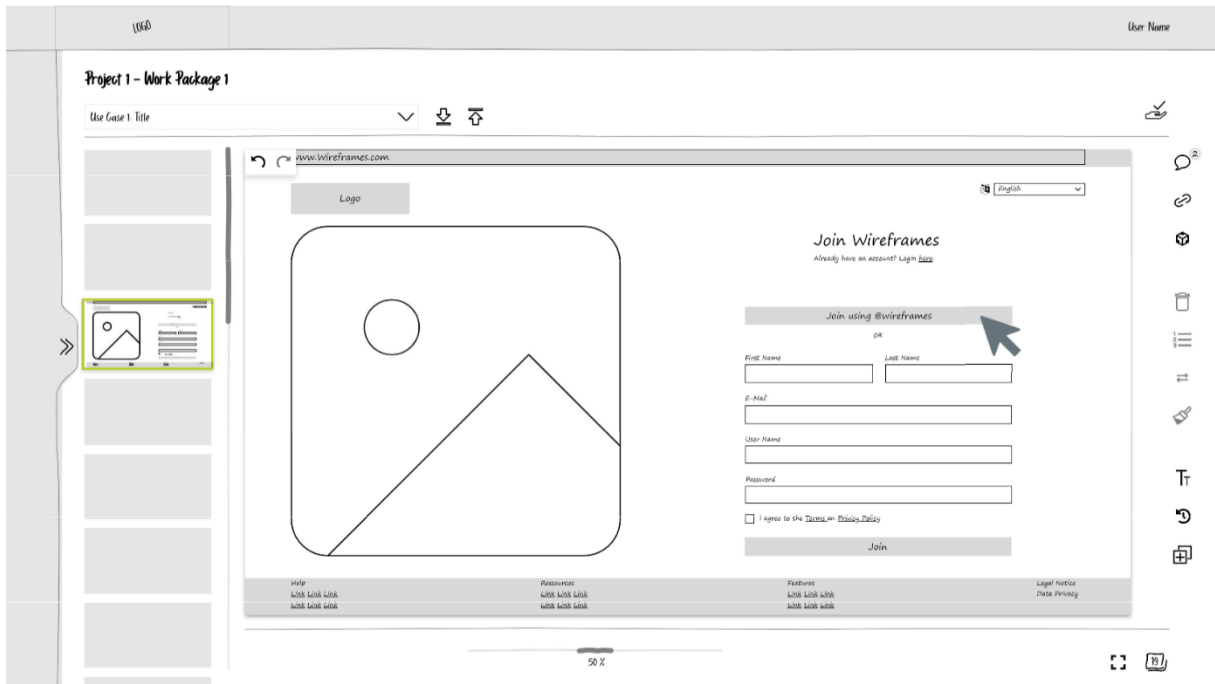


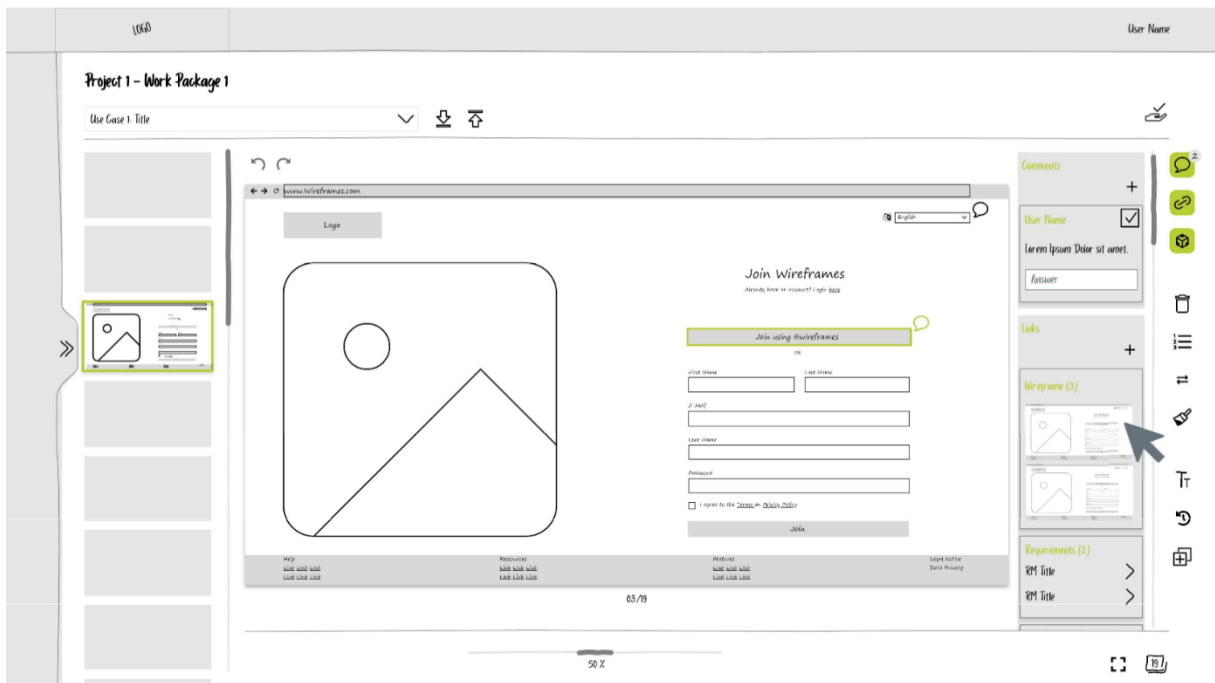
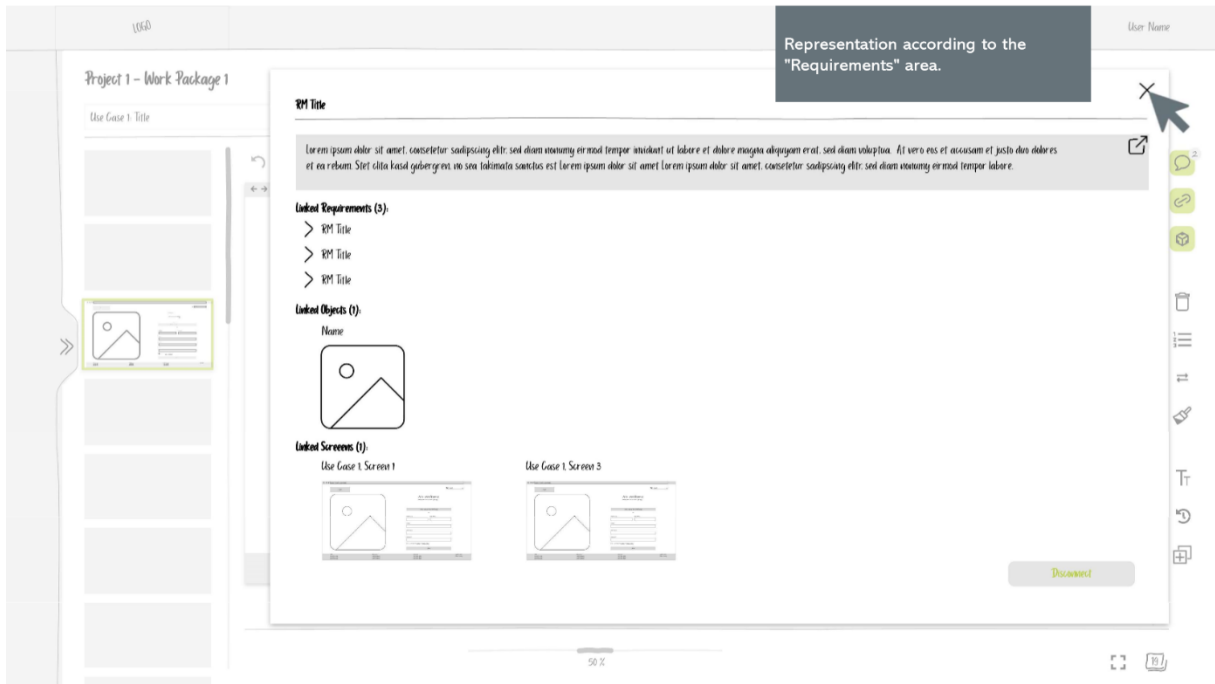
Fold in and out object information





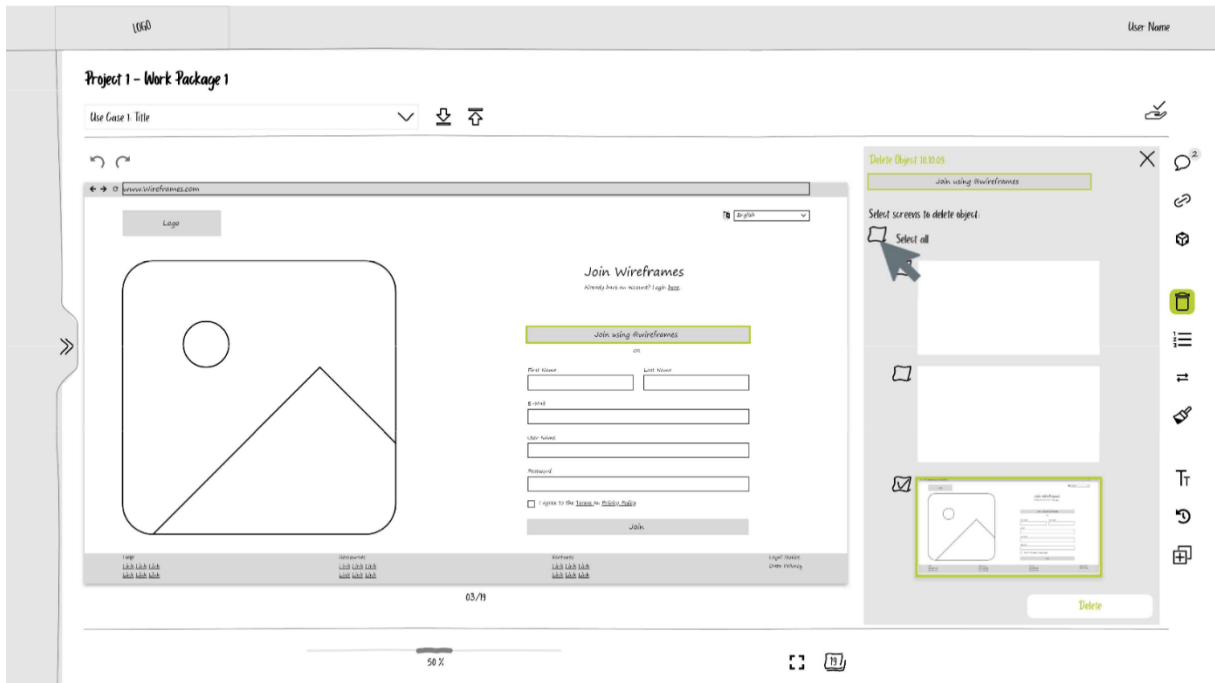
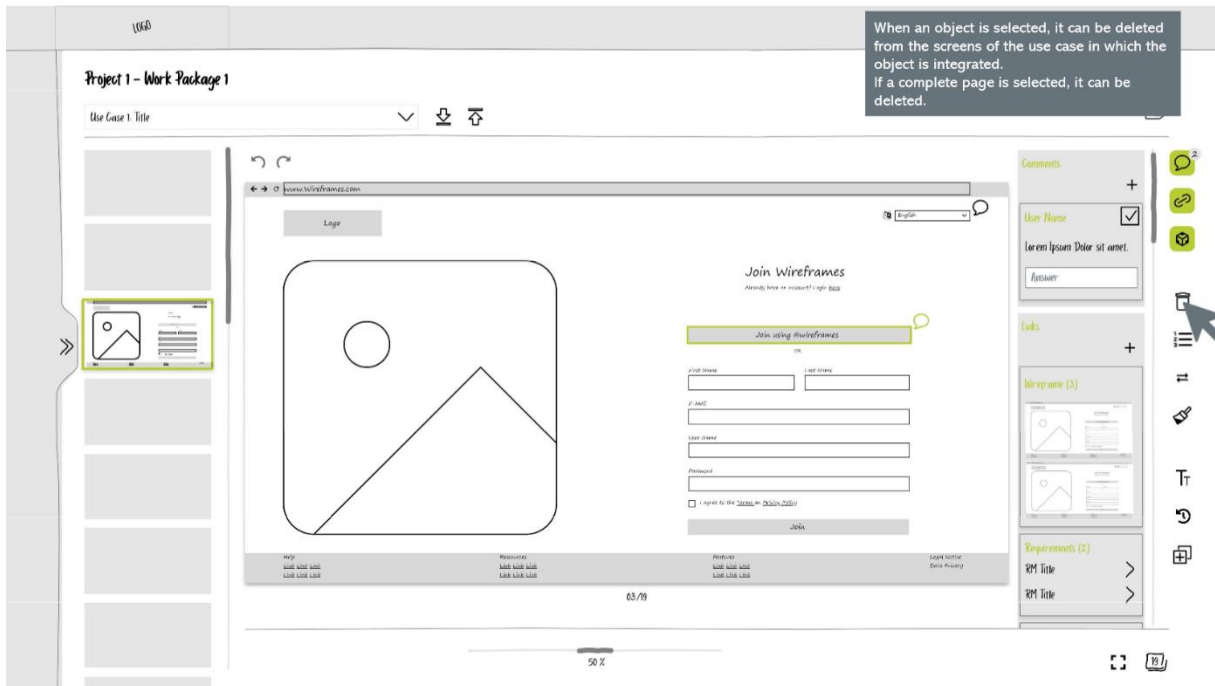
View links

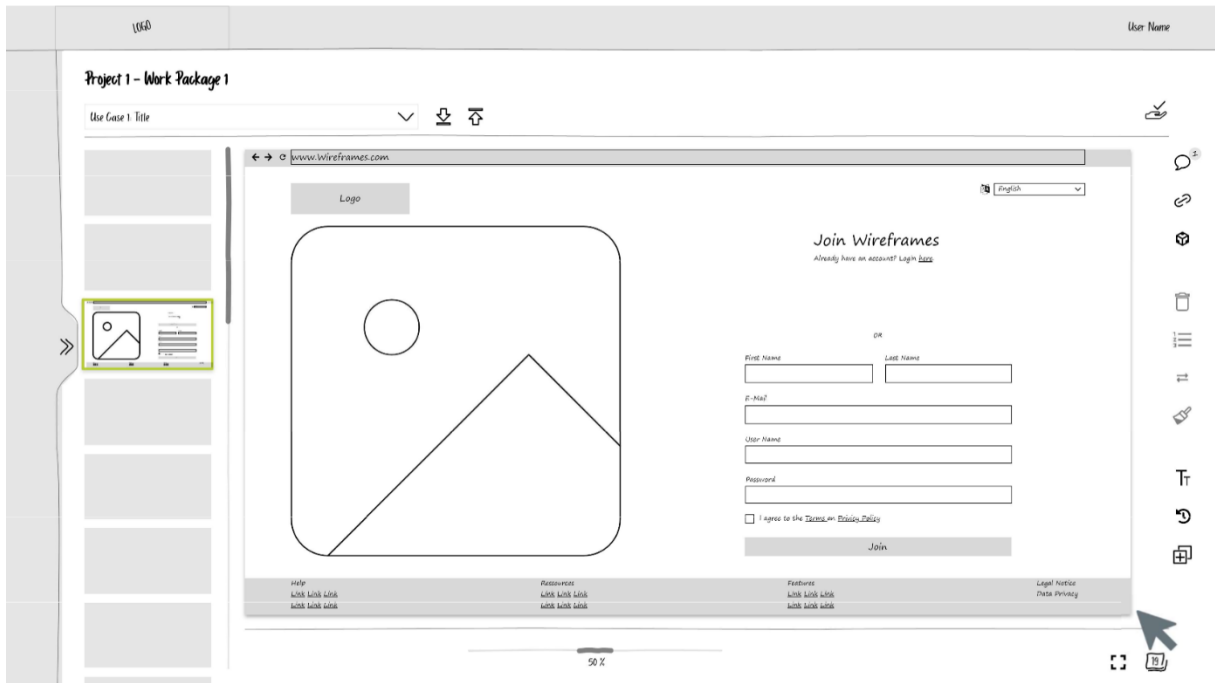
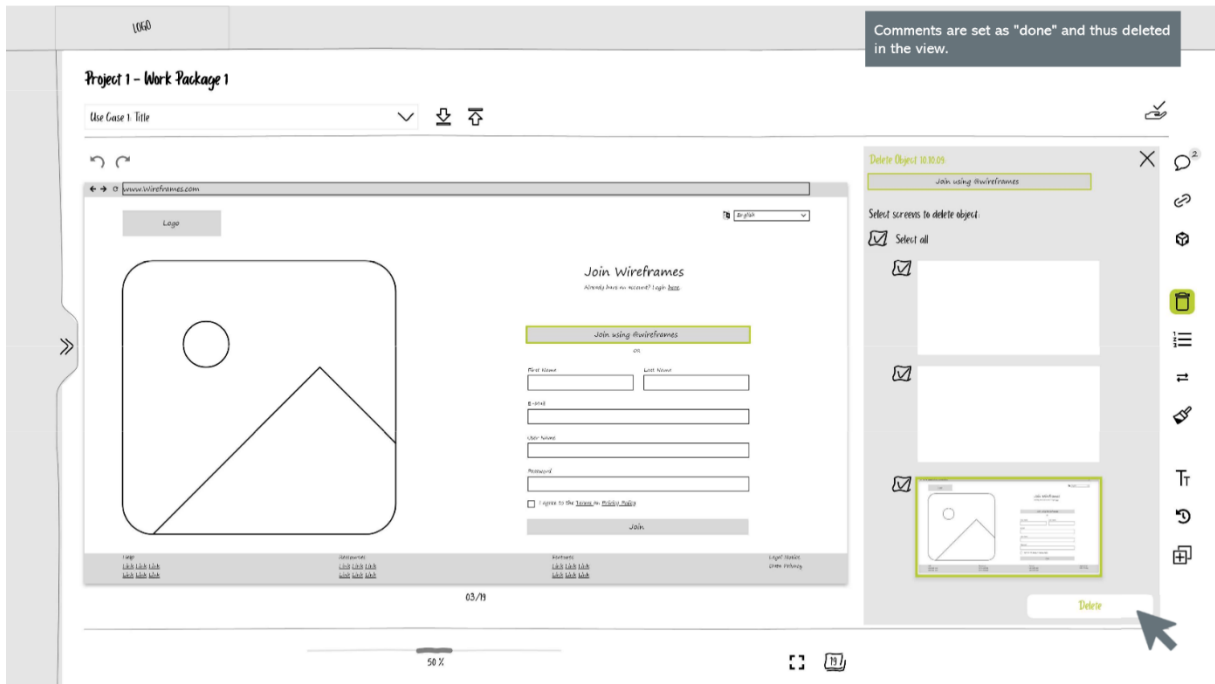


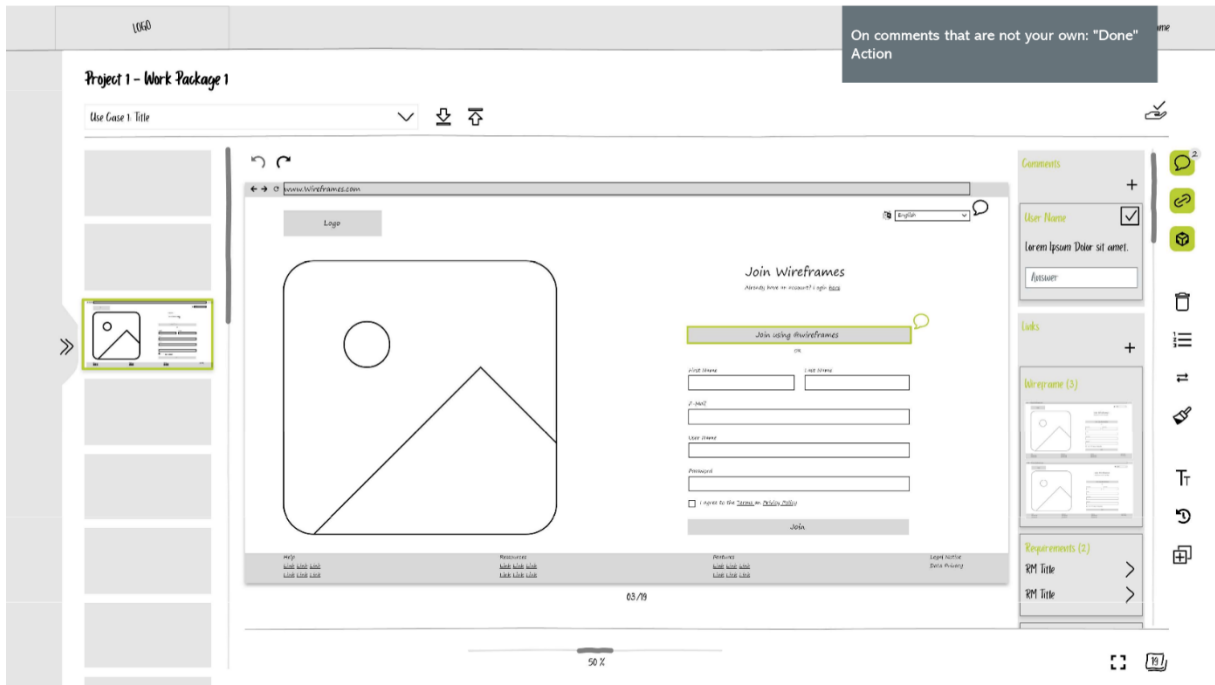
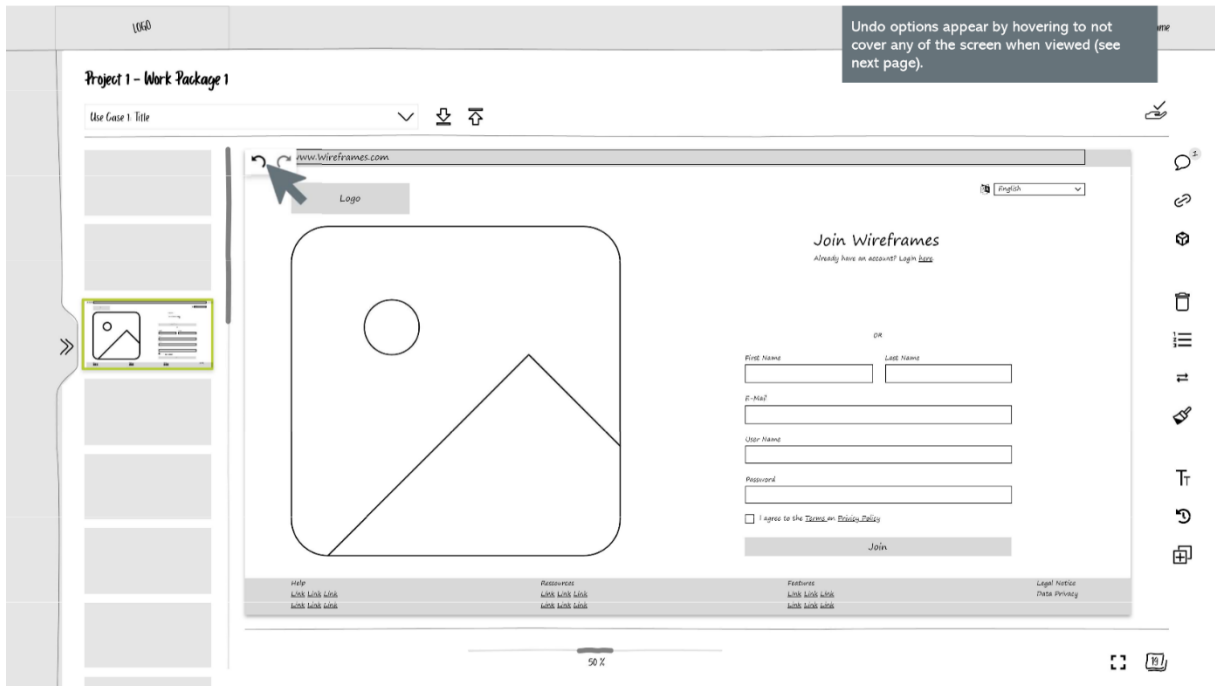




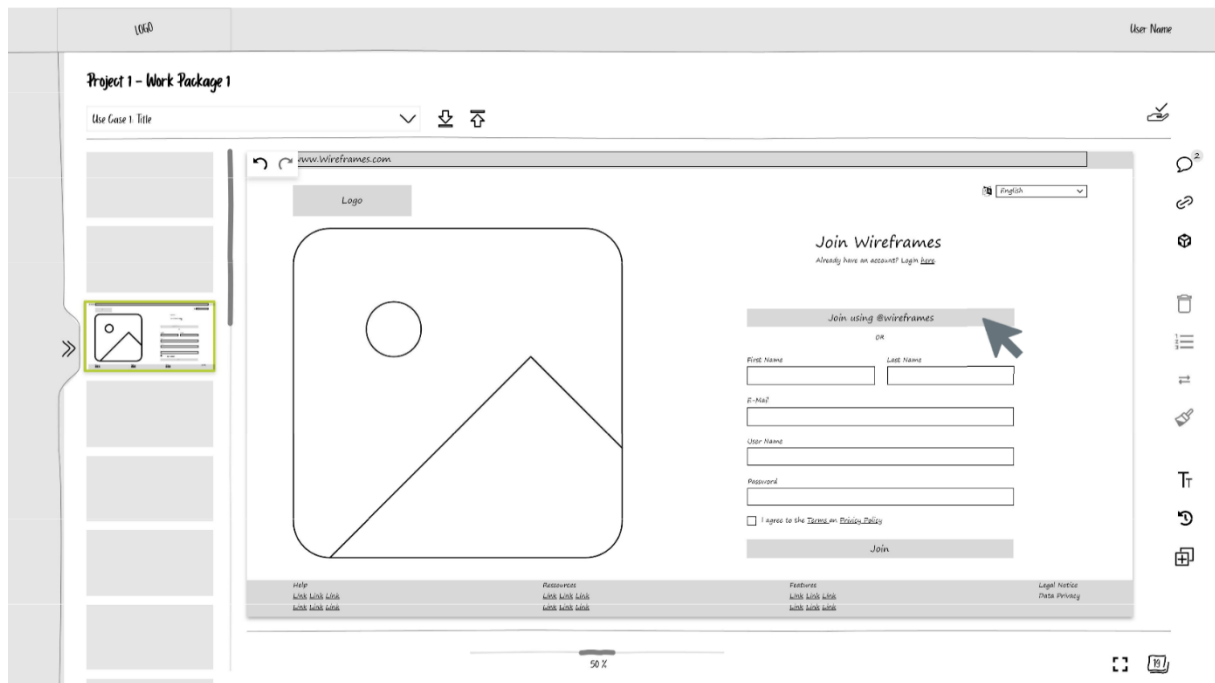
Delete object and
Undo deletion again

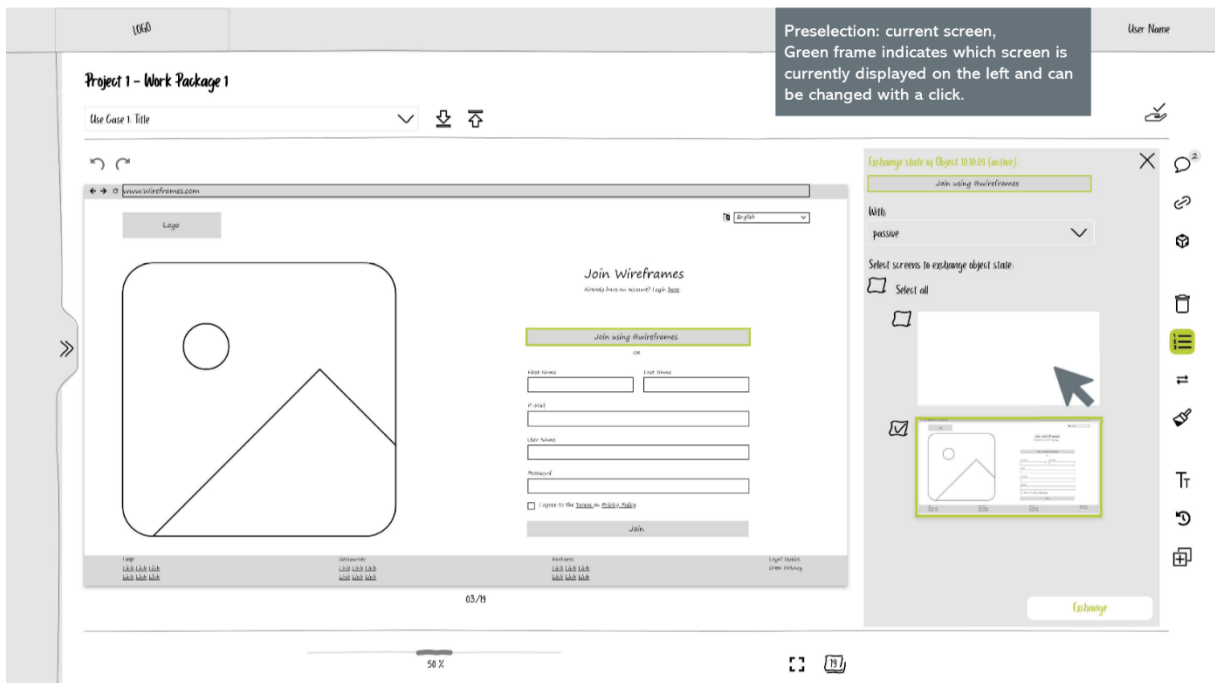
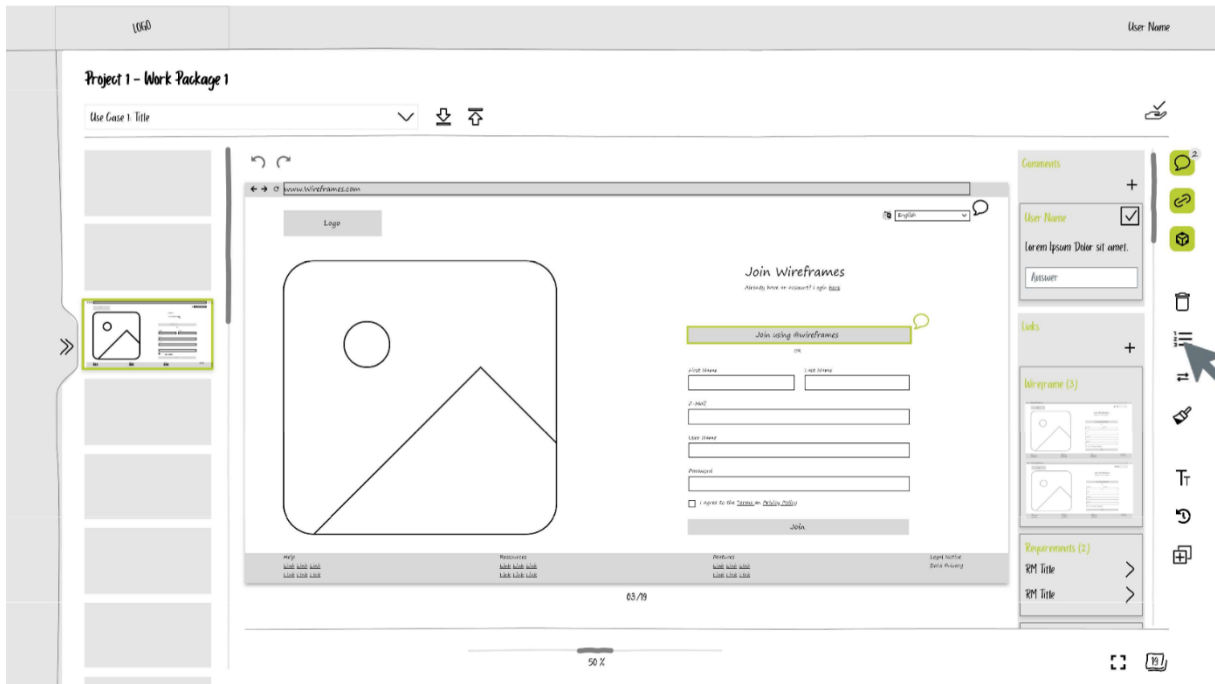


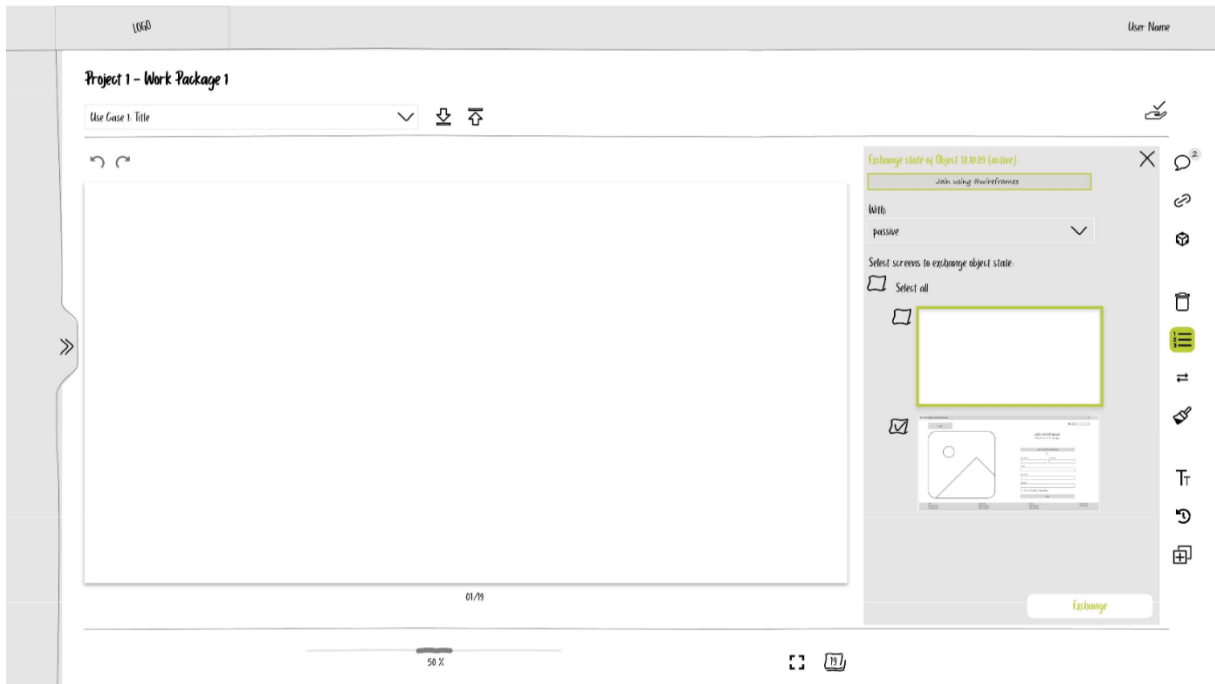




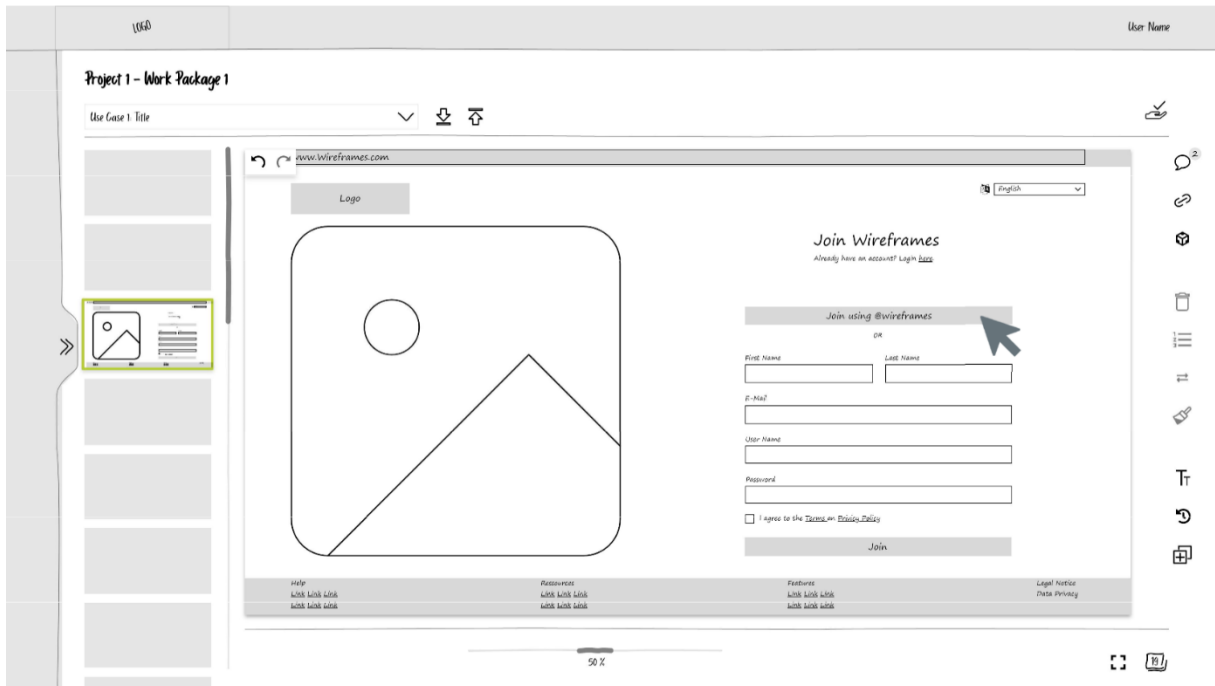
Change the state of the object

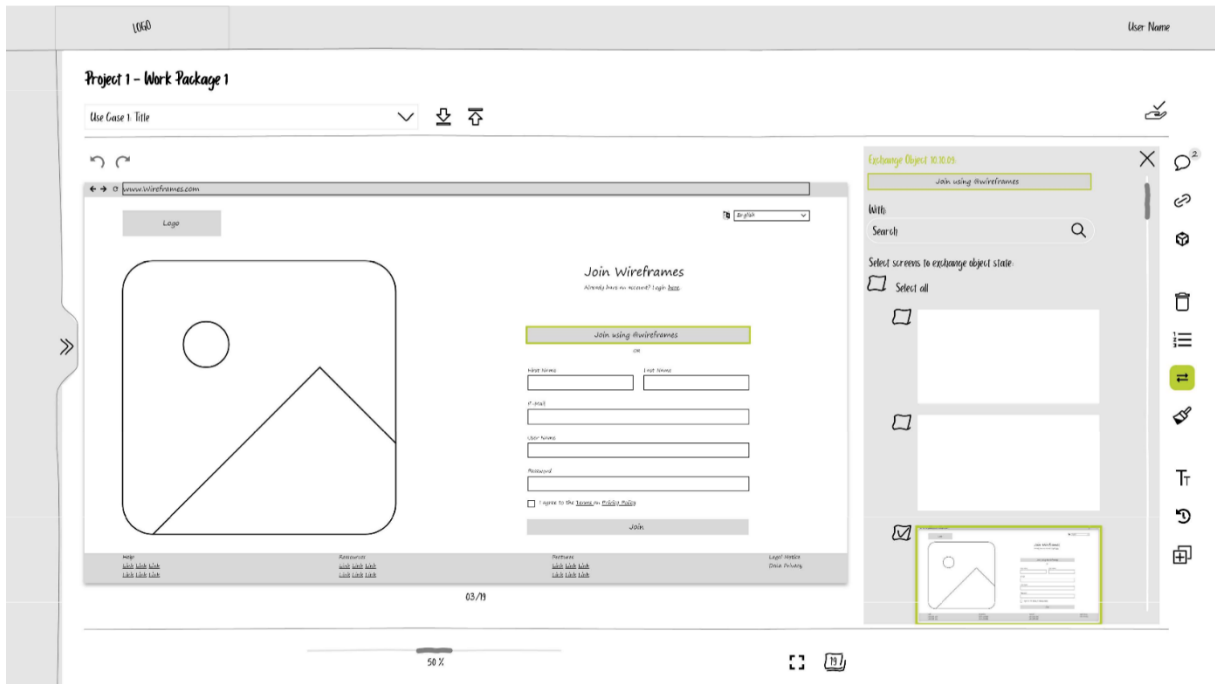




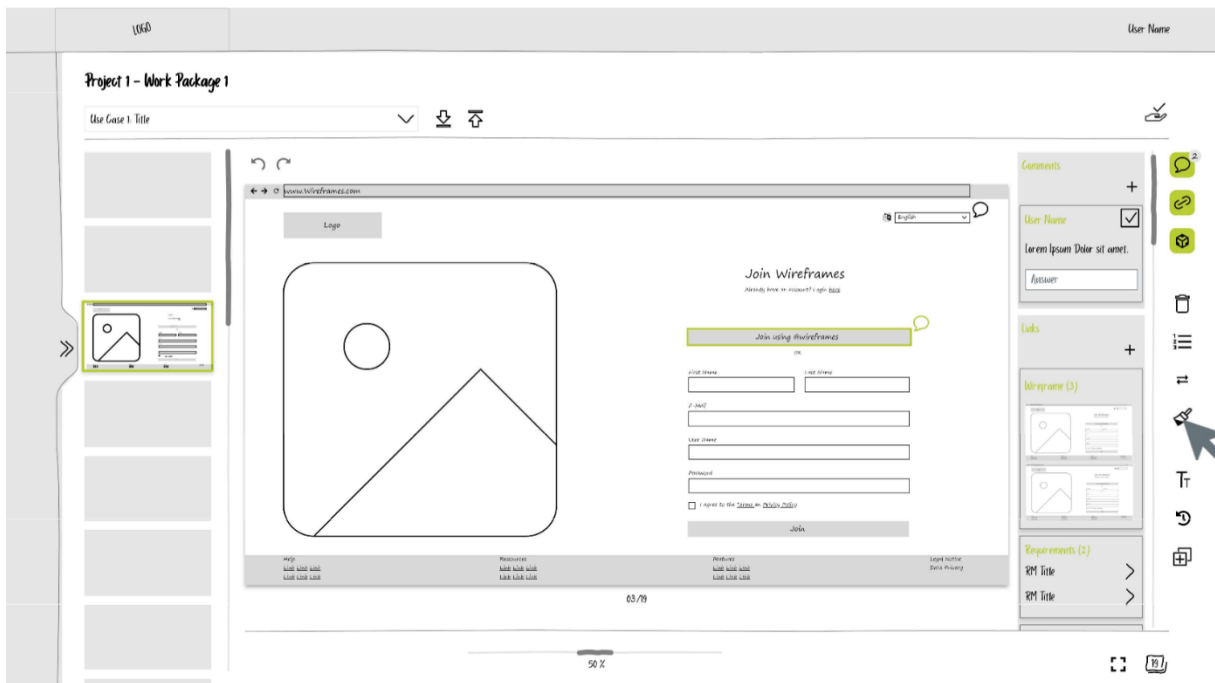
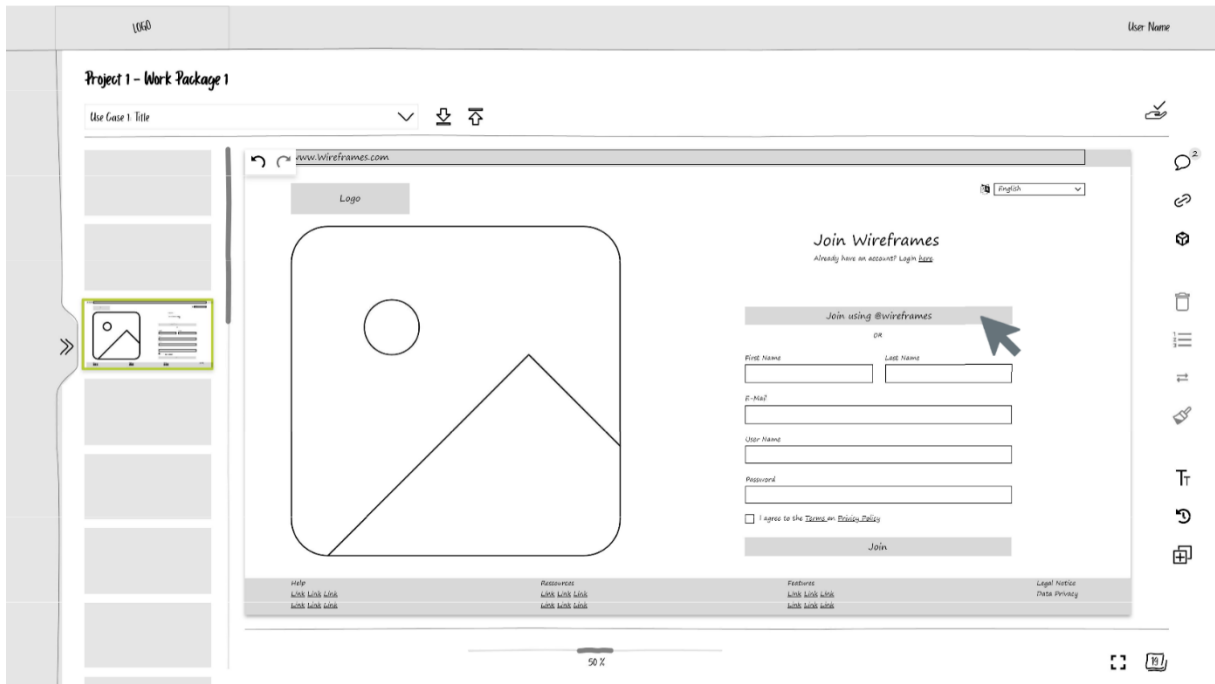


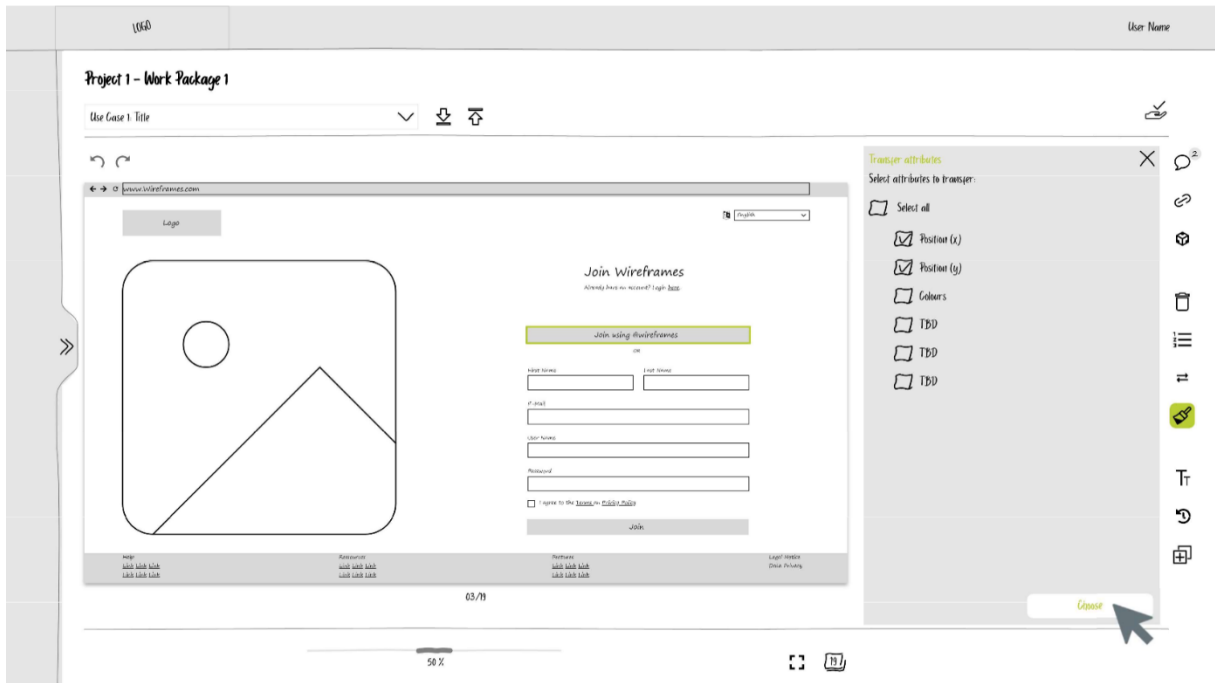
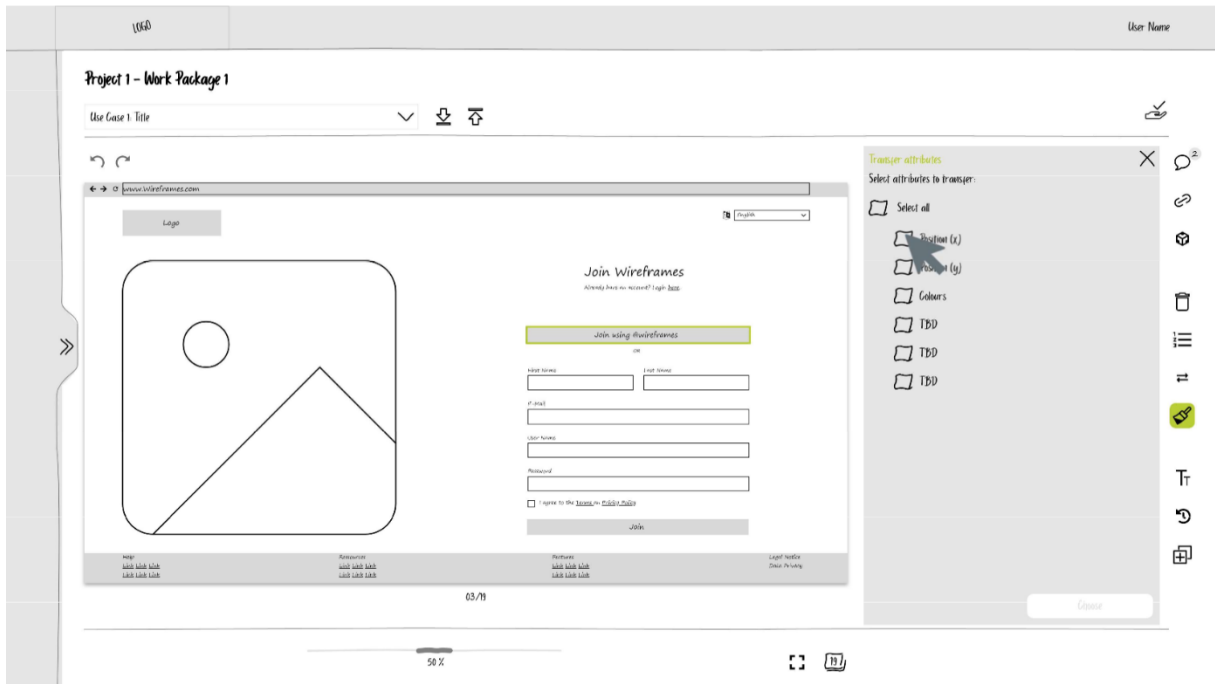
Replace object

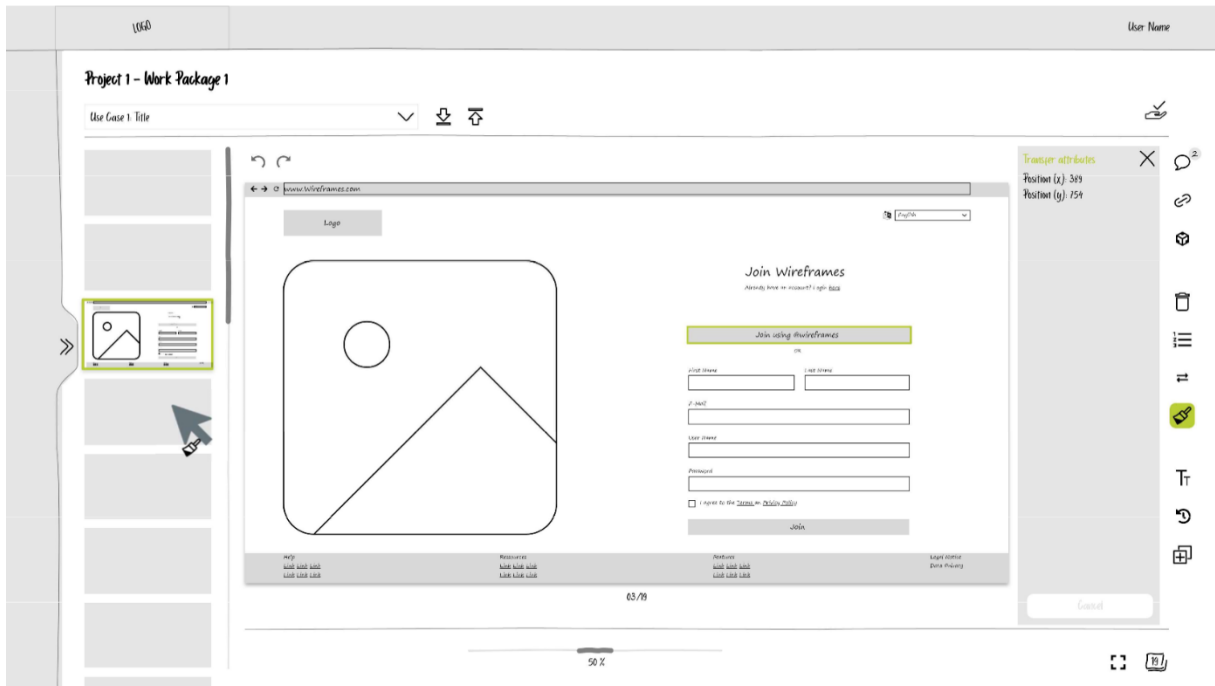




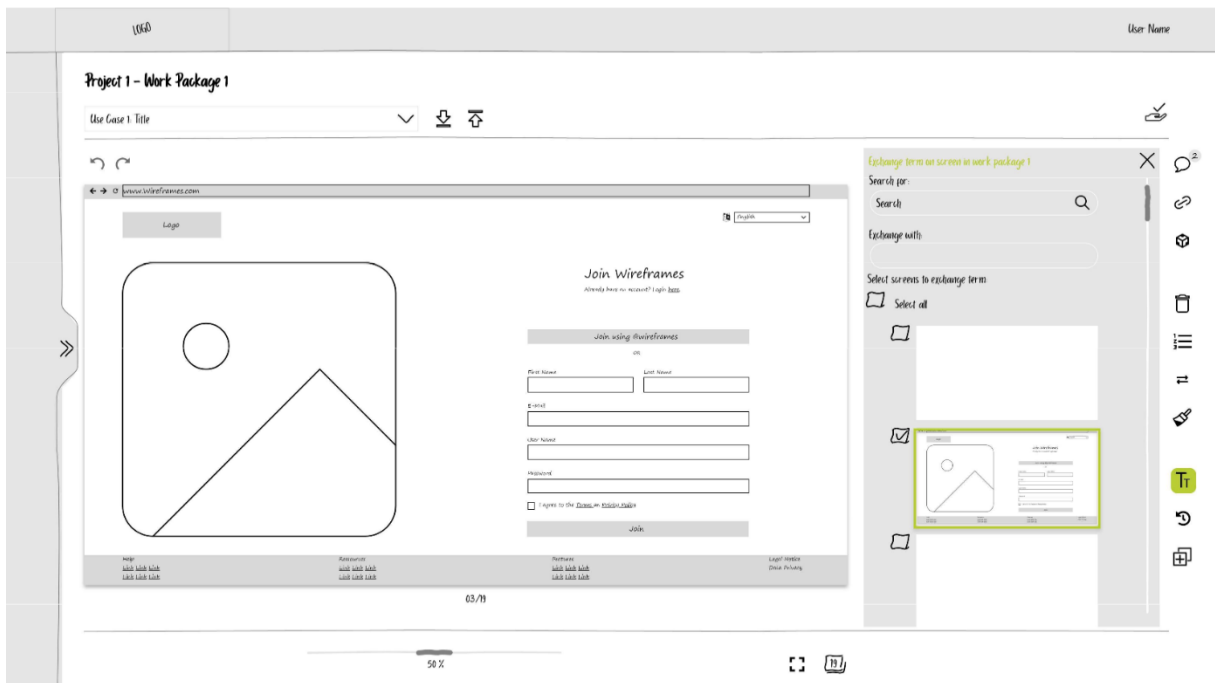
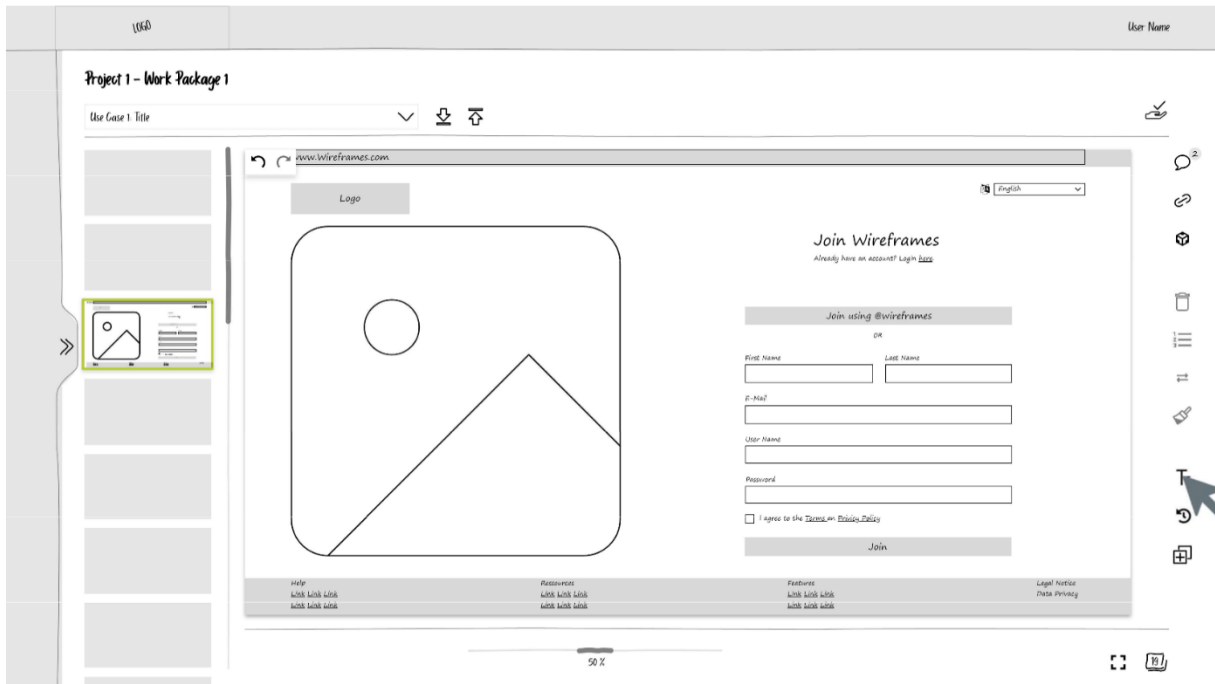
Format adjustments of an object to
Transfer duplicates of the object



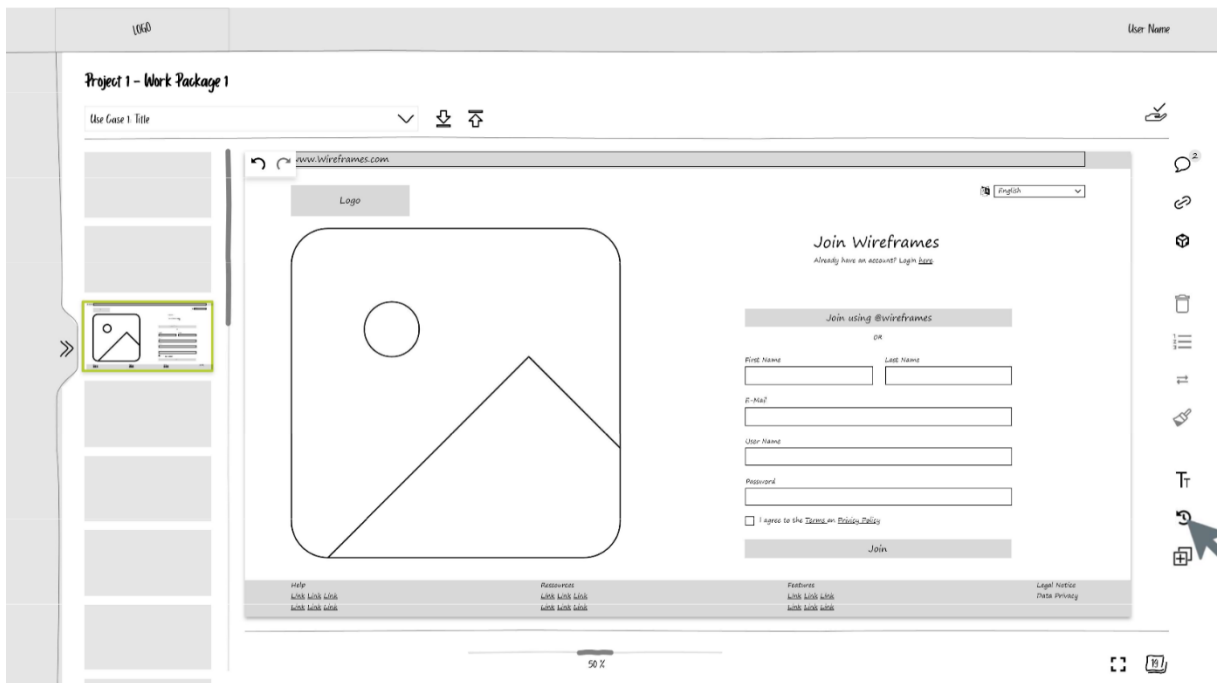


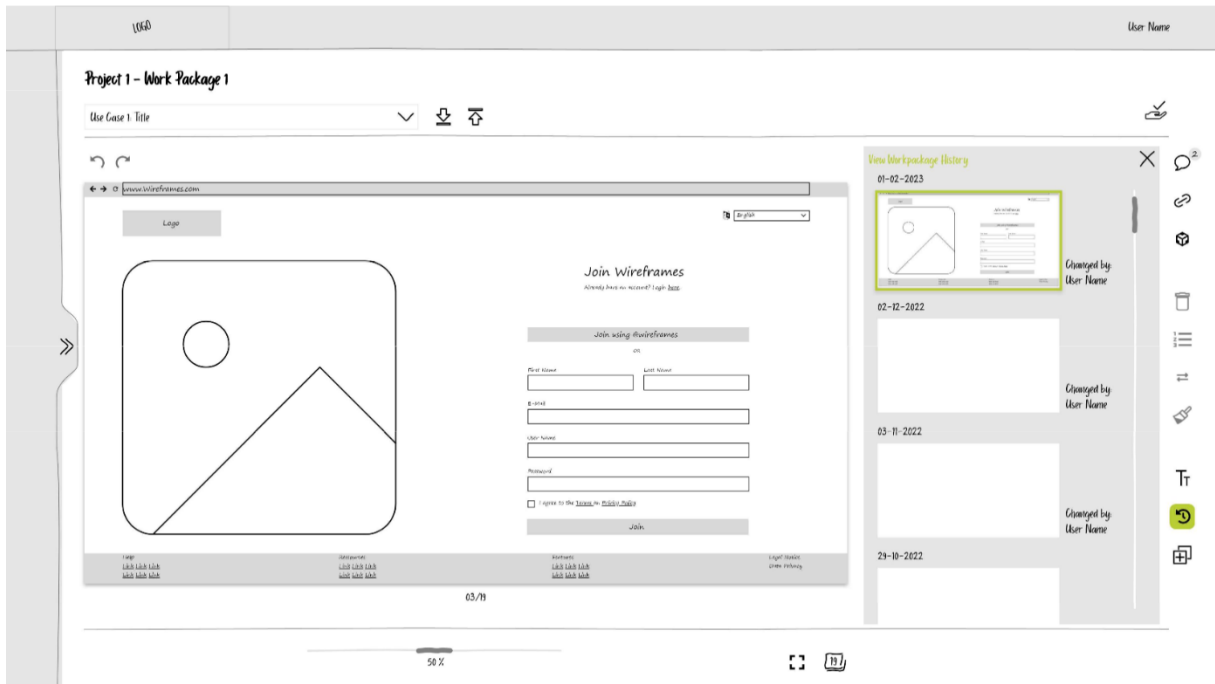


Change labels/texts

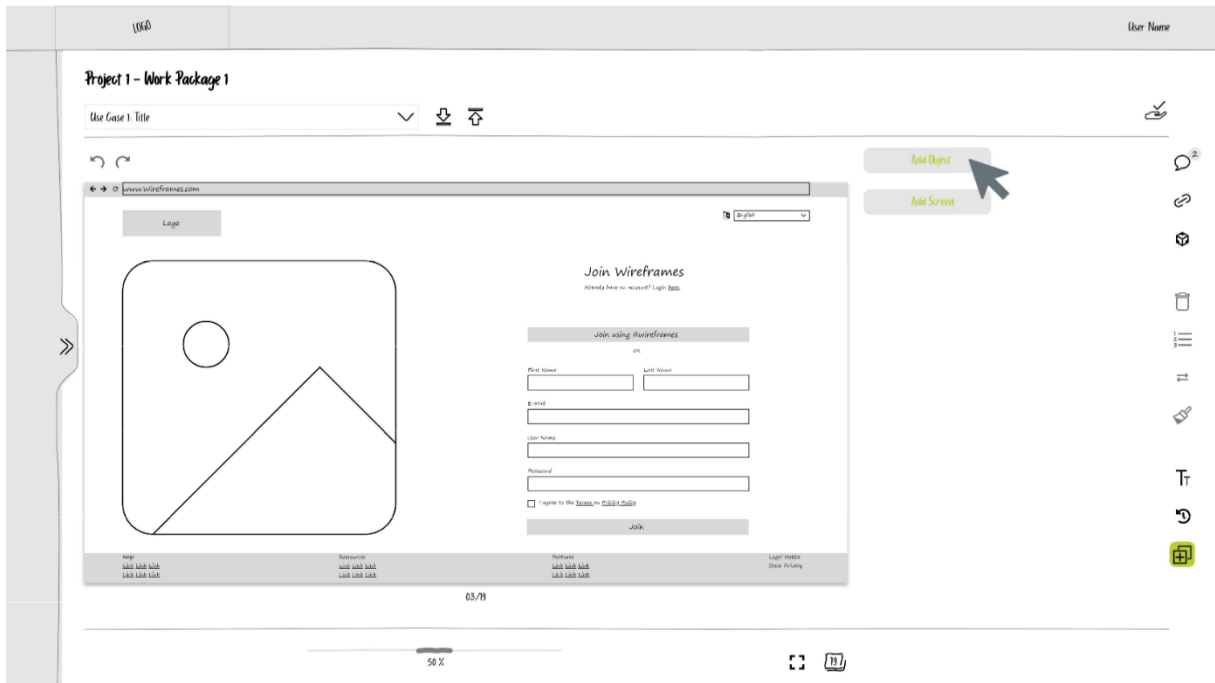
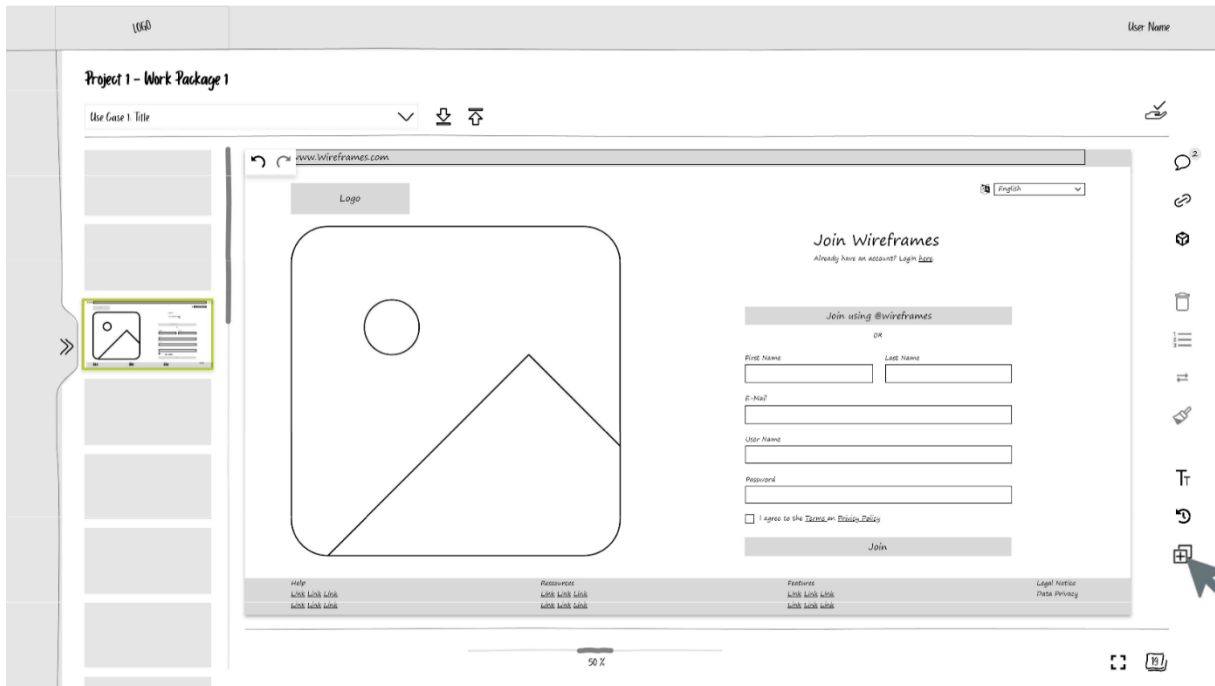


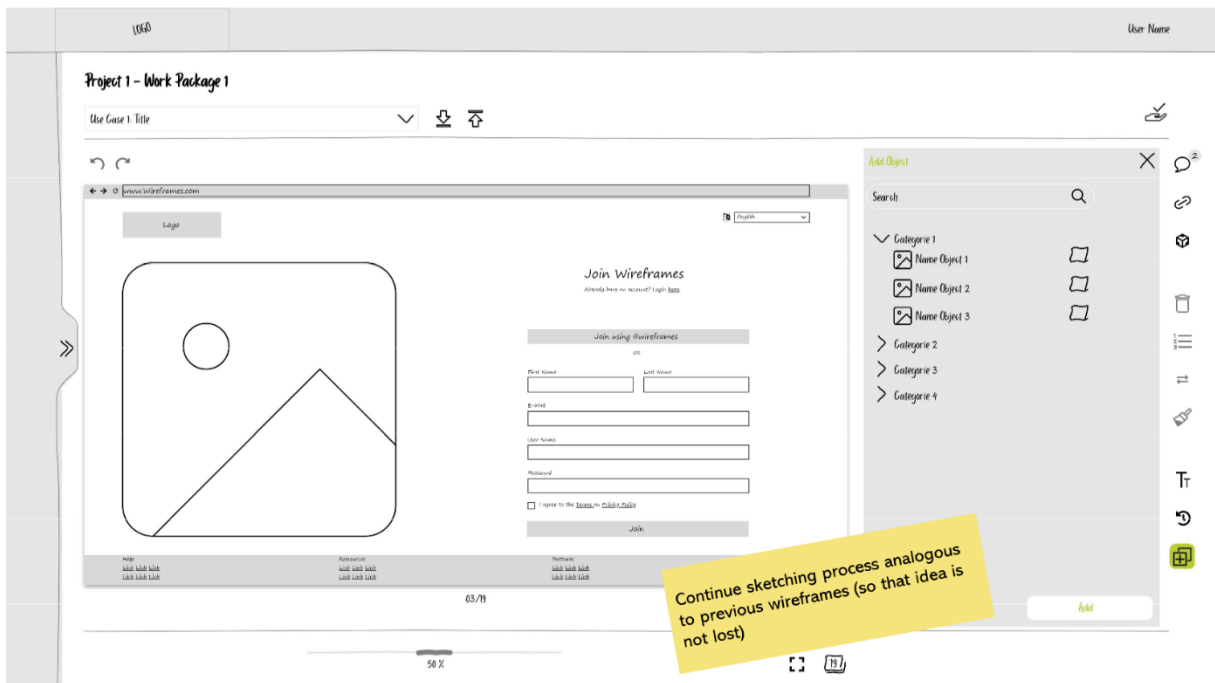
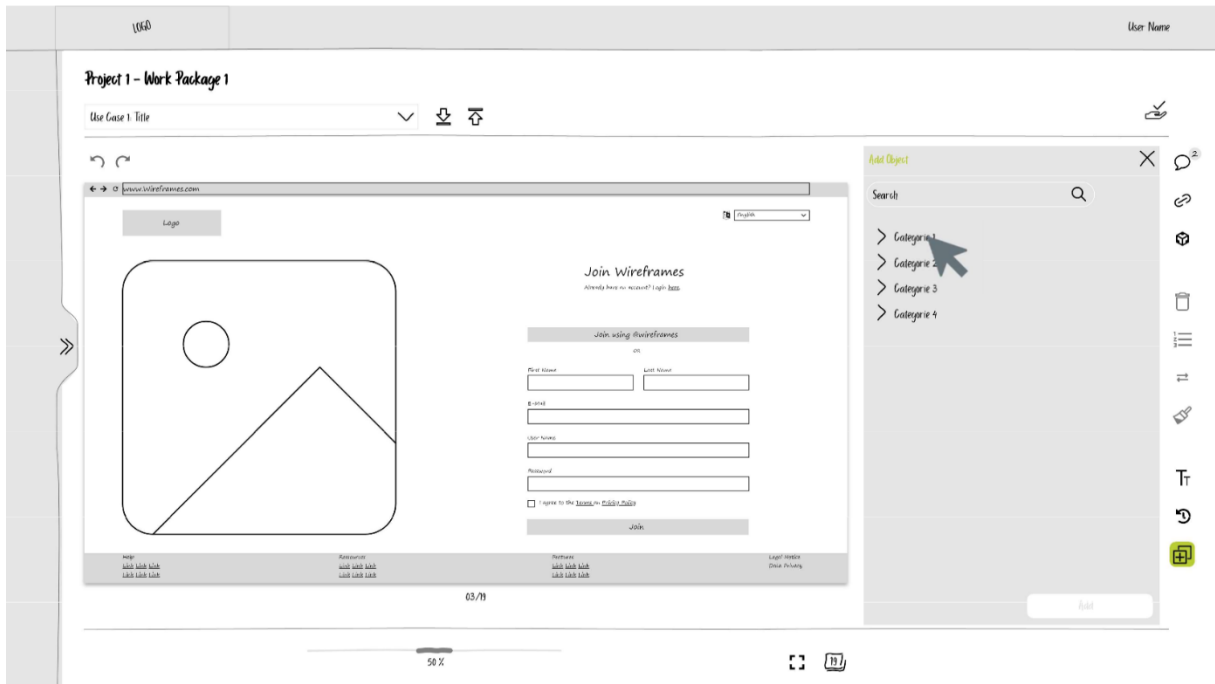
View History from Screen



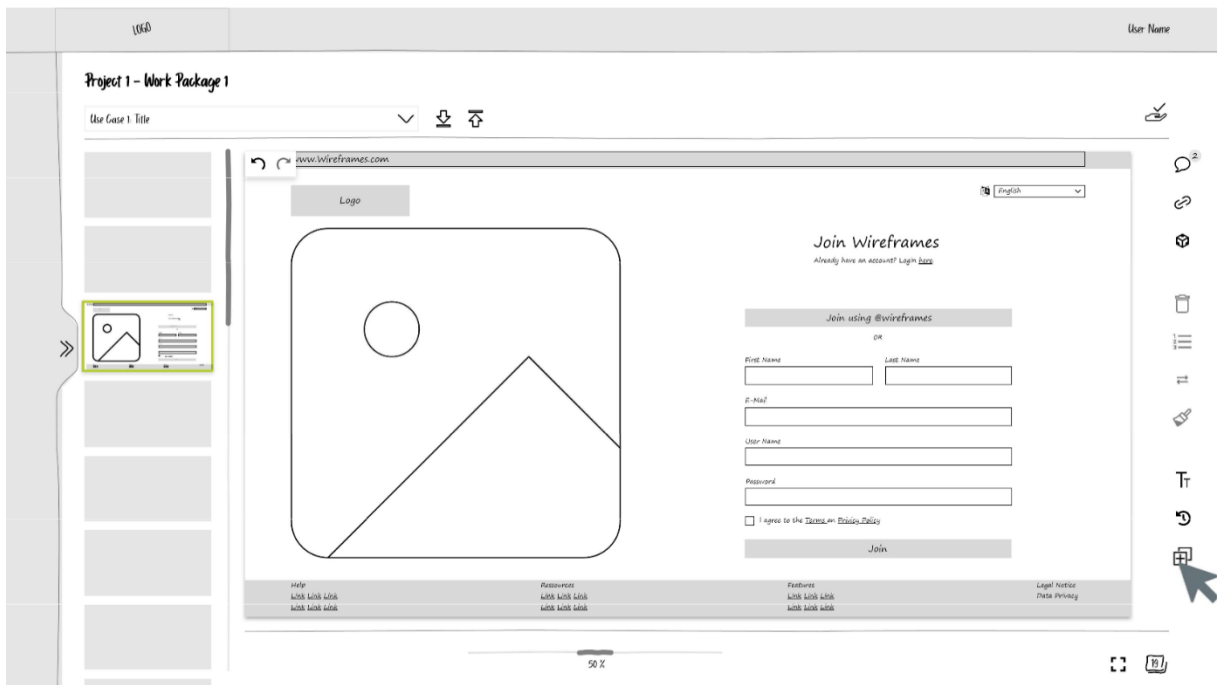


New element on screen
add





Add a new screen



Component list section

View list

1060 User Name

Titel project overview

- Project 1
 - General
 - Work Package 1
 - General
 - Requirements
 - Work packages
 - Components
 - Work Package 2
 - Work Package 3
- Project 2
- Project 3

Project 1 - Work Package 1

Current State

Project Phase 0

Version History

Latest Version

Project Phase 1

Version History

Latest Version

Project Phase 2

Review lead Work packages
Ready for internal Review
100%

Überarbeitungsgangplan für ITF
Requirements 60%

Project Phase 3

Project Phase 4

Project Phase 5

Project Phase 6

Workshops

Next Workshop: 20.02.2022

Latest Informations

Project Data & Settings

Project Components

1060 User Name

Layout will be adapted

Titel project overview

- Project 1
 - General
 - Work Package 1
 - General
 - Requirements
 - Work packages
 - Components
 - Work Package 2
 - Work Package 3
- Project 2
- Project 3

Work Package 1

Project Overview

ID	Category	Type	Name	Image	Function (specific)	Status	Linked Area
10.10.01	Action Object	Button	Save		Save entries	Active	Area 1
10.10.02	Action Object	Button	Create		Create a new entry	Active	Area 1
10.20.01	Action Object	Icon	Delete		Delete an entry	Active	Area 1
10.20.02	Action Object	Icon	Close		Close a window	Active	Area 1
10.30.01	Selection Object	Drop-Down	Select Colour		Select an item from key list (Work-Packagekey list)	Active	Area 1

Work Package 1

Project Overview

Search Filter Sort by

ID	Category	Type	Name	Image	Function (specific)	State	Linked Area
10.10.01	Action Object	Button	Save		Save entries	Active	Area 1
10.10.02	Action Object	Button	Create		Create a new entry	Active	Area 1
10.20.01	Action Object	Icon	Delete		Delete an entry	Active	Area 1
10.20.02	Action Object	Icon	Close		Close a window	Active	Area 1
10.30.01	Selection Object	Drop-Down	Select Colour		Select from key list (Work Packaging list)	Active	Area 1

Discard

Add new object

Proposal 1: Automatic creation of objects according to stored category data

1060 User Name

Work Package 1

Project Overview

Search Filter Sort by

ID	Category	Type	Name	Image	Function (specific)	State	Linked Area
10.10.01	Action Object	Button	Save		Save entries	Active	Area 1
10.10.02	Action Object	Button	Create		Create a new entry	Active	Area 1
10.20.01	Action Object	Icon	Delete		Delete an entry	Active	Area 1
10.20.02	Action Object	Icon	Close		Close a window	Active	Area 1
10.30.01	Selection Object	Drop-Down	Select Colour		Selects program key list (Work Packaging list)	Active	Area 1

1060 User Name

Work Package 1

Project Overview

Search

ID	Category
10.10.01	Action Object
10.10.02	Action Object
10.20.01	Action Object
10.20.02	Action Object
10.30.01	Selection Object

Add new Object

Category **Hint:**

Type

ID

Name

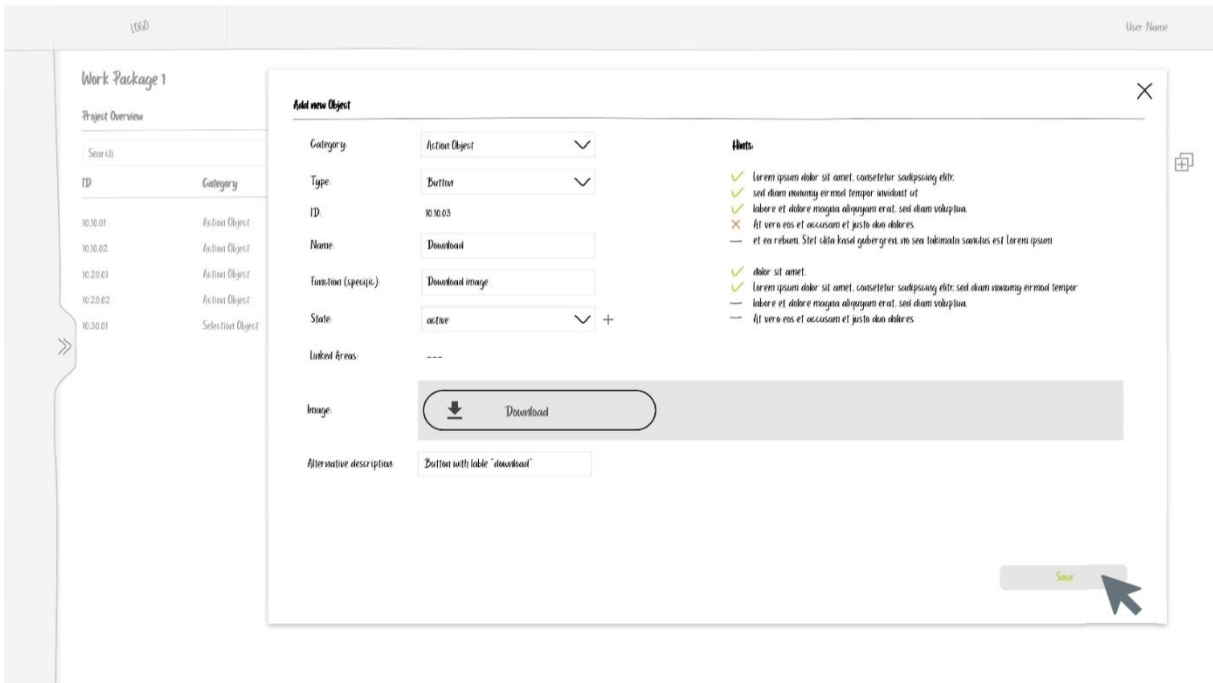
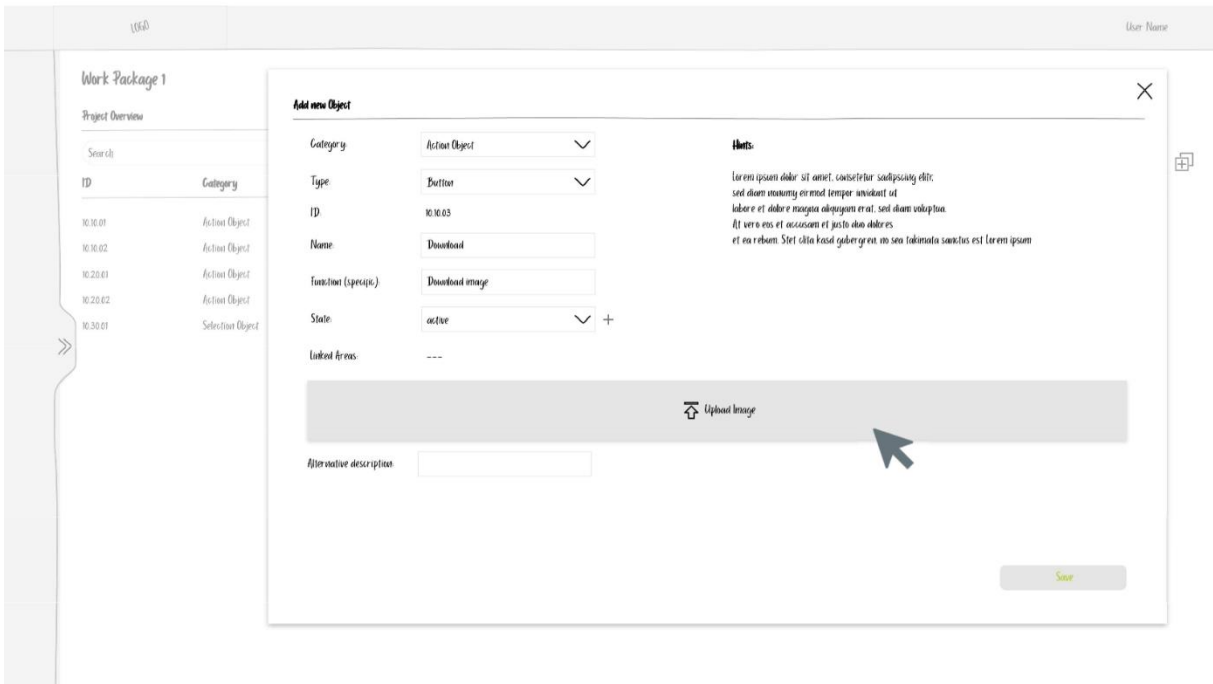
Function (specific)

State: +

Linked Areas:

Upload image

Alternative description



Work Package 1

Project Overview

Search Filter Sort by

ID	Category	Type	Name	Image	Function (specific)	State	Linked Area	
X0.10.01	Action Object	Button	Save		Save entries	Active	Area 1	
X0.10.02	Action Object	Button	Create		Create a new entry	Active	Area 1	
X0.10.03	Action Object	Button	Download		Download image	Active	---	
X0.20.01	Action Object	Icon	Delete		Delete an entry	Active	Area 1	
X0.20.02	Action Object	Icon	Close		Close a window	Active	Area 1	
X0.30.01	Selection Object	Drop-Down	Select Colour		Select an item from list (color & Packaging list)	Active	Area 1	

Needed:
Connection to XD Object Library to link work in XD with work in the tool

Discard

Add new object

Proposal 2: Automatic creation of objects according to stored category and state data (states individually)

Work Package 1

Project Overview

Search Filter Sort by

ID	Category	Type	Name	Image	Function (specific)	State	Linked Area
10.10.01	Action Object	Button	Save		Save entries	Active	Area 1
10.10.02	Action Object	Button	Create		Create a new entry	Active	Area 1
10.20.01	Action Object	Icon	Delete		Delete an entry	Active	Area 1
10.20.02	Action Object	Icon	Close		Close a window	Active	Area 1
10.30.01	Selection Object	Drop-Down	Select Colour		Select an item from list (Work Package list)	Active	Area 1

Work Package 1

Project Overview

Search

ID	Category
10.10.01	Action Object
10.10.02	Action Object
10.20.01	Action Object
10.20.02	Action Object
10.30.01	Selection Object

Add new Object

Category:

Type:

State:

Label:

Use icon:

Name:

Function (specific):

Alternative description:

Object Preview

ID:

Linked Areas:

1060

Work Package 1

Project Overview

Search

ID	Category
10.10.01	Action Object
10.10.02	Action Object
10.20.01	Action Object
10.20.02	Action Object
10.30.01	Selection Object

>>

Add new Object

Category: Action Object

Type: Button

State: active

Label: Title

Use icon: None

Name:

Function (specify):

Alternative description:

Object Preview

ID: 10.10.03

Linked href: ---

Save

After selection, the object is created in the selected state according to the defined object data (distances, colours, font, ...).

1060

User Name

Work Package 1

Project Overview

Search

ID	Category
10.10.01	Action Object
10.10.02	Action Object
10.20.01	Action Object
10.20.02	Action Object
10.30.01	Selection Object

>>

Add new Object

Category: Action Object

Type: Button

State: active

Label: Download

Use icon: Download (10.20.20)

Name: Download

Function (specify): Download Image

Alternative description: Button with label "Download"

Object Preview

ID: 10.10.03

Linked href: ---

Save

ID	Category	Type	Name	Image	Function (specific)	State	Linked Area
X0.10.01	Action Object	Button	Save		Save entries	Active	Area 1
X0.10.02	Action Object	Button	Create		Create a new entry	Active	Area 1
X0.10.03	Action Object	Button	Download		Download image	Active	---
X0.20.01	Action Object	Icon	Delete		Delete an entry	Active	Area 1
X0.20.02	Action Object	Icon	Close		Close a window	Active	Area 1
X0.30.01	Selection Object	Drop-Down	Select Colour		Select an item from list (color: Packaging list)	Active	Area 1

Needed:
 Connection to XD Object Library to link work in XD with work in the tool

Maintain

Add new object

Proposal 3: Automatic creation of objects according to stored category and state data (all states)

LOGO User Name

Work Package 1

Project Overview

Search Filter Sort by

ID	Category	Type	Name	Image	Function (specific)	State	Linked Area
10.10.01	Action Object	Button	Save		Save entries	Active	Area 1
10.10.02	Action Object	Button	Create		Create a new entry	Active	Area 1
10.20.01	Action Object	Icon	Delete		Delete an entry	Active	Area 1
10.20.02	Action Object	Icon	Close		Close a window	Active	Area 1
10.30.01	Selection Object	Drop-Down	Select Colour		Select an item from list (Work Package list)	Active	Area 1

Decision for this variant: Include the "upload" function in all screens

LOGO

Work Package 1

Project Overview

Search

ID	Category
10.10.01	Action Object
10.10.02	Action Object
10.20.01	Action Object
10.20.02	Action Object
10.30.01	Selection Object

Add new Object

Category:

Type:

Label:

Use icon:

Name:

Function (specific):

Alternative description:

Object Preview

Active-State:

Inactive-State:

Hover-State:

ID: 10.10.03

Linked Areas: ---

After selection, the object is created in all states according to the defined object data (distances, colours, font, ...).

Work Package 1

Project Overview

Search

ID	Category
10.10.01	Action Object
10.10.02	Action Object
10.20.01	Action Object
10.20.02	Action Object
10.30.01	Selection Object

Add new Object

Category: Action Object

Type: Button

Label: Download

Use icon: Download (10.20.02)

Name: Download

Function (specific): Download Image

Alternative description: Button with Label "Download"

Object Preview:

Active-State:

Inactive-State:

Hover-State:

ID: 10.10.03

Linked Areas: ---

Save

Work Package 1

Project Overview

Search Filter Sort by

ID	Category	Type	Name	Image	Function (specific)	State	Linked Area
10.10.01	Action Object	Button	Save		Save entries	Active	Area 1
10.10.02	Action Object	Button	Create		Create a new entry	Active	Area 1
10.10.03	Action Object	Button	Download		Download image	Active	---
10.10.03b	Action Object	Button	Download		Download image	Inactive	---
10.10.03c	Action Object	Button	Download		Download image	Hover	---
10.20.01	Action Object	Icon	Delete		Delete an Entry	Active	Area 1
10.20.02	Action Object	Icon	Close		Close a window	Active	Area 1
10.30.01	Selection Object	Drop-Down	Select Colour		Select from key list (Work-Packagelist)	Active	Area 1

Edit data

The screenshot displays a software interface with a sidebar on the left and a main content area. The sidebar, titled "Work Package 1", contains a "Project Overview" section with a search bar and a table of objects. The main content area shows an "Edit Object: 10.10.03" dialog box. The dialog has several input fields and dropdown menus for configuring the object's properties. An "Object Preview" section on the right shows three states: Active-State, Inactive-State, and Hover-State, each with a "Download" button. A yellow callout box at the bottom left of the dialog contains the text "Include history to be able to view previous versions". The "Save" button is located at the bottom right of the dialog.

Work Package 1

Project Overview

Search

ID	Category
10.10.01	Action Object
10.10.02	Action Object
10.20.01	Action Object
10.20.02	Action Object
10.30.01	Selection Object

Edit Object: 10.10.03

Category: Action Object

Type: Button

Label: Download

Use icon: Download (10.20.20)

Name: Download

Function (specify): Download image

Alternative description: Button with label "Download"

Object Preview

Active-State: Download

Inactive-State: Download

Hover-State: Download

ID: 10.10.03

Linked by: ---

Include history to be able to view previous versions

Save

View more info

1160 User Name

Work Package 1

Project Overview

Search Filter Sort by

ID	Category	Type	Name	Image	Function (specific)	State	Linked Area	
10.10.01	Action Object	Button	Save		Save entries	Active	Area 1	
10.10.02	Action Object	Button	Create		Create a new entry	Active	Area 1	
10.10.03	Action Object	Button	Download		Download image	Active	Area 1	
10.20.01	Action Object	Icon	Delete		Delete an entry	Active	Area 1	
10.20.02	Action Object	Icon	Close		Close a window	Active	Area 1	
10.30.01	Selection Object	Drag-Drop	Select Colour		Selection from key list (Work-Packagelist)	Active	Area 1	

Work Package 1

Project Overview

Search:

ID	Category
X0.01.01	Action Object
X0.01.02	Action Object
X0.01.03	Action Object
X0.20.01	Action Object
X0.20.02	Action Object
X0.30.01	Selection Object

Details: X0.01.03

Programming Data

Accessibility Hints

Show graphics information

Show dimensions

Frame: Medium Button
Colour: #1E12C
Thickness: 2 px
Rounding: 45%

Icon: 20.20.34 (Download)
Colour: #1F1F1F
Size: 35x35 px
Font: Icons4Design
Keystroke: D

Labeling: Download
Colour: #1F1F1F
Size: 12 pt
Font: Letters4Design

Download:

Download CSS sheet

Download PNG

Work Package 1

Project Overview

Search:

ID	Category
X0.01.01	Action Object
X0.01.02	Action Object
X0.01.03	Action Object
X0.20.01	Action Object
X0.20.02	Action Object
X0.30.01	Selection Object

Details: X0.01.03

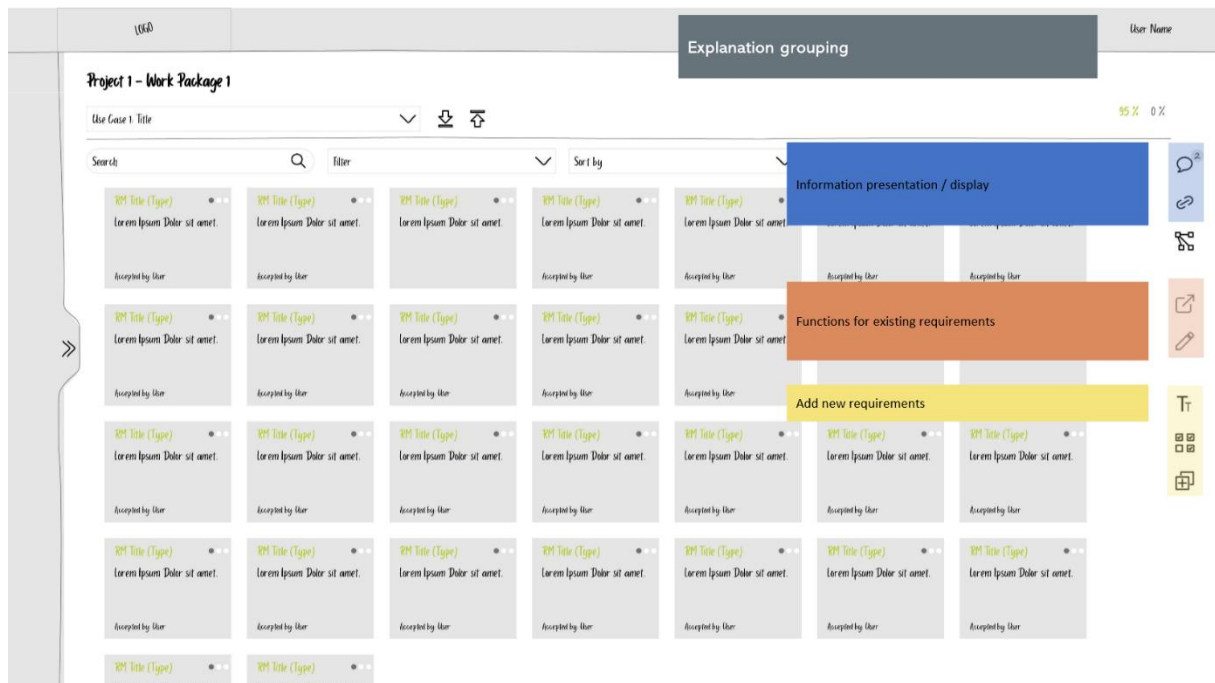
Programming Data

Accessibility Hints

Lorem ipsum dolor sit amet, consectetur adipiscing elit. sed diam nonummy nibh euismod tincidunt ut laoreet dolore magna aliquam erat sit amet volutpat. Ut vero eos et accusam et justo duo dolores et ea rebum. Stet clita kasd gubergren, no sea takimata sanctus est Lorem ipsum

Requirements Section

Function explanation



U66 User Name

Project 1 - Work Package 1

User Case 1: Title Completeness of acceptance from the client, implementation status 95% 0%

Search Filter Sort by

RM Title (Type) Indication of implementation status (not started, in progress, completed)

Accepted by Indication whether accepted and by whom

All: Show where comments are

All: Show connections between requirements

UR: Exchange of terms (according to Word "replace")

UR: Multiple selection (e.g. for multiple links, deletion)

UR: Add a new requirement

Grid of requirement cards (RM Title, Accepted by User, etc.)

U66 User Name

Project 1 - Work Package 1

User Case 1: Title 95% 0%

User Case 1: Title

Linked Requirements (2):

- > RM Title
- > RM Title
- > RM Title

Linked Objects (20):

Name

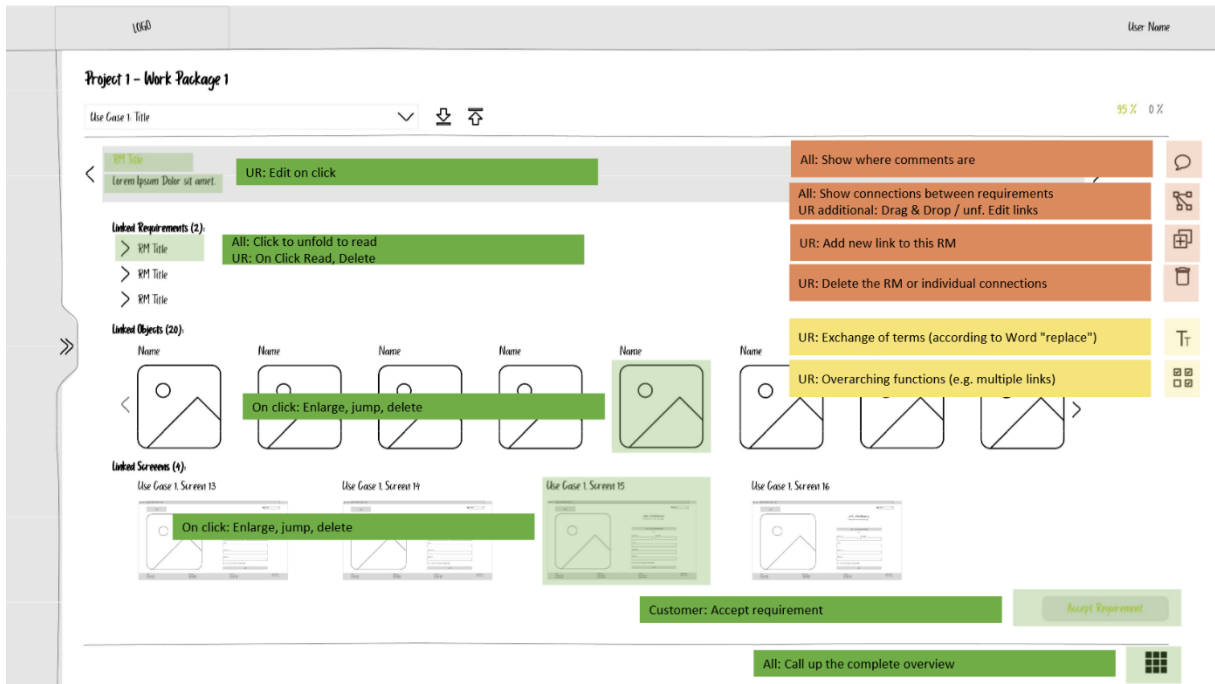
Linked Screens (4):

User Case 1: Screen 13 User Case 1: Screen 14 User Case 1: Screen 15 User Case 1: Screen 16

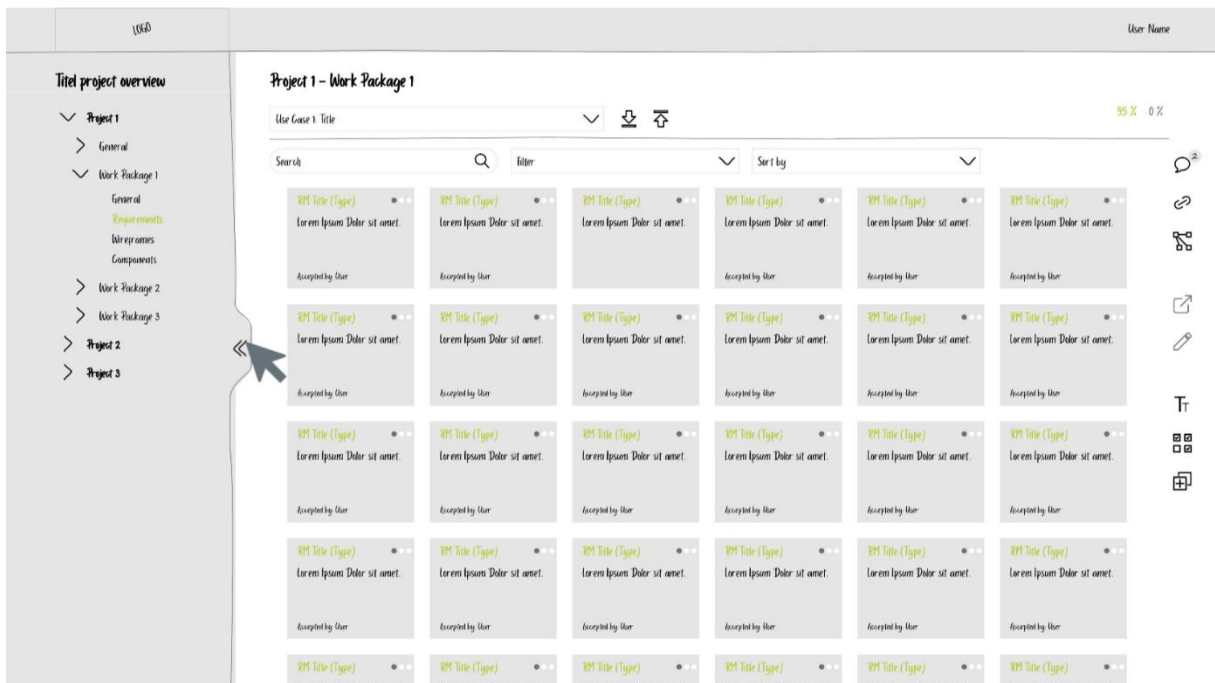
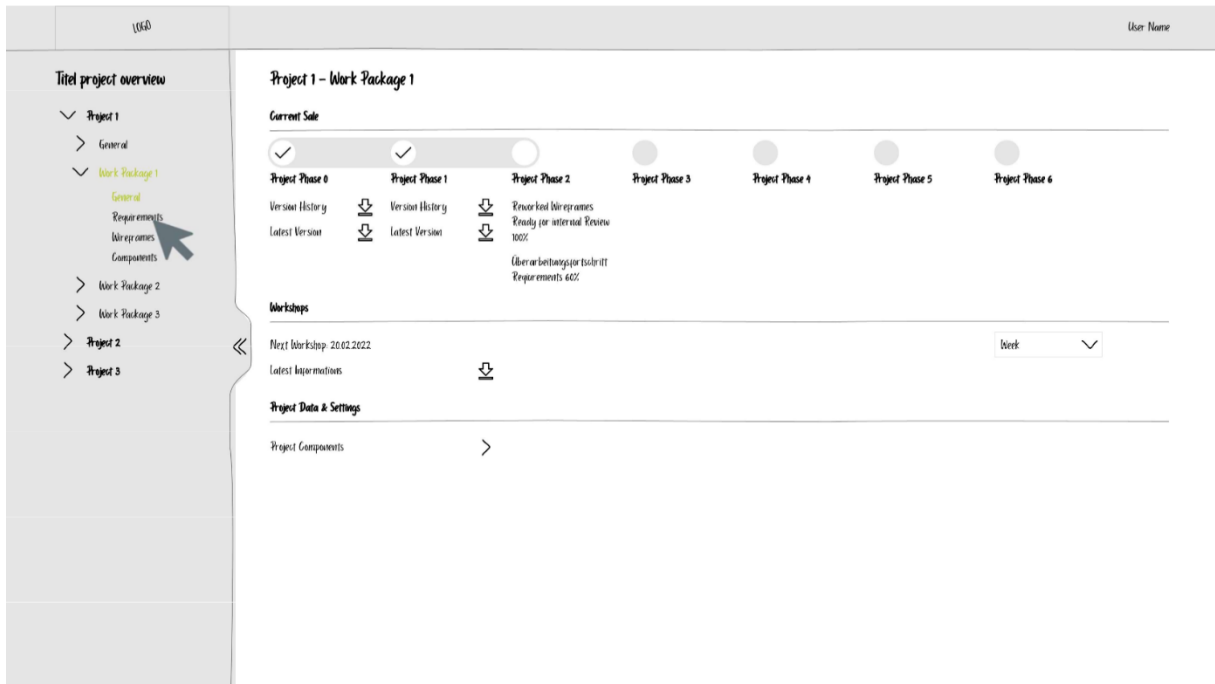
Affects only called requirements

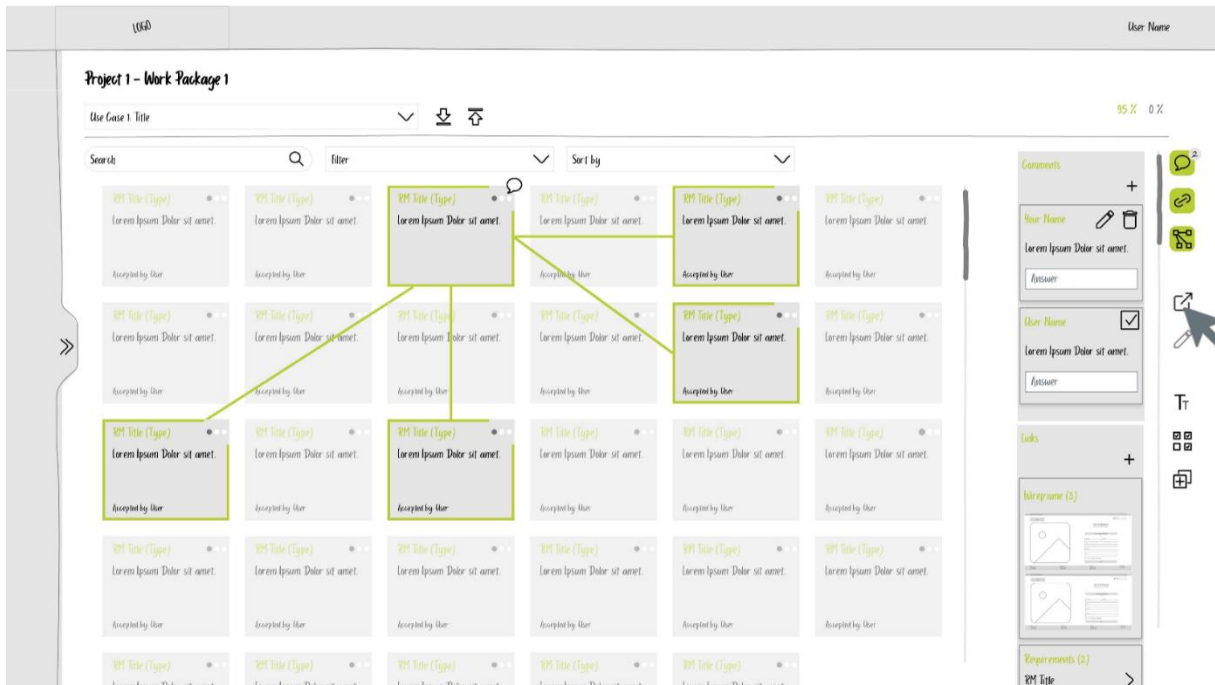
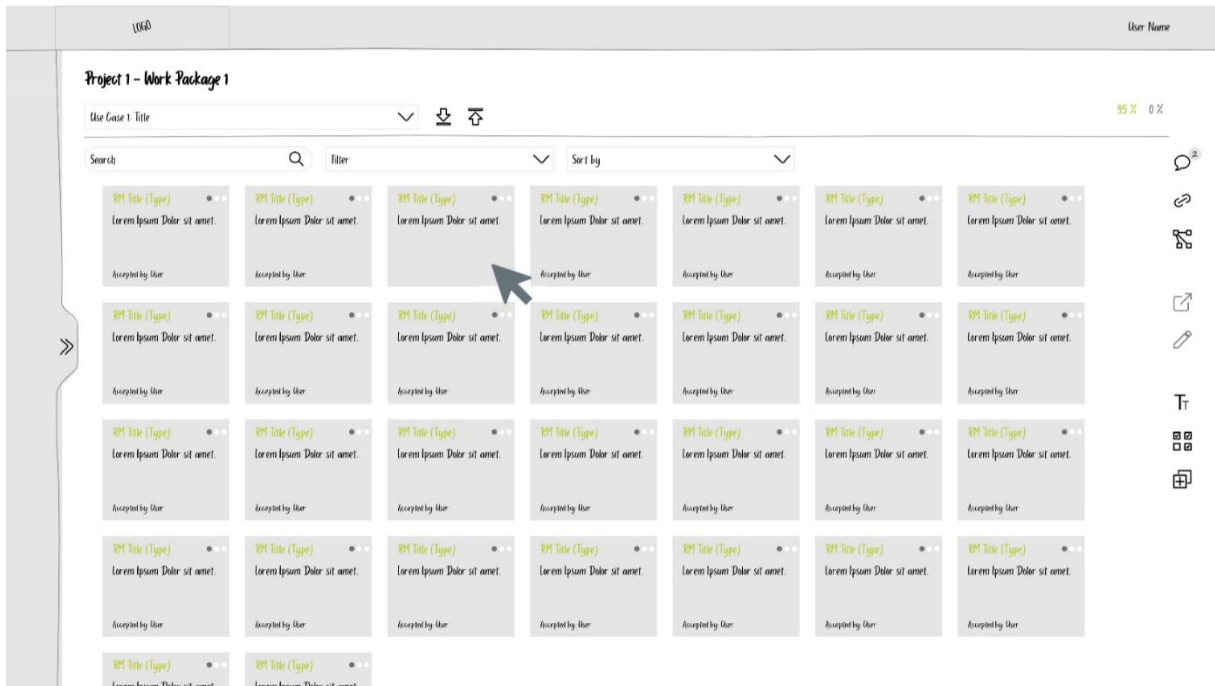
Concerns all requirements

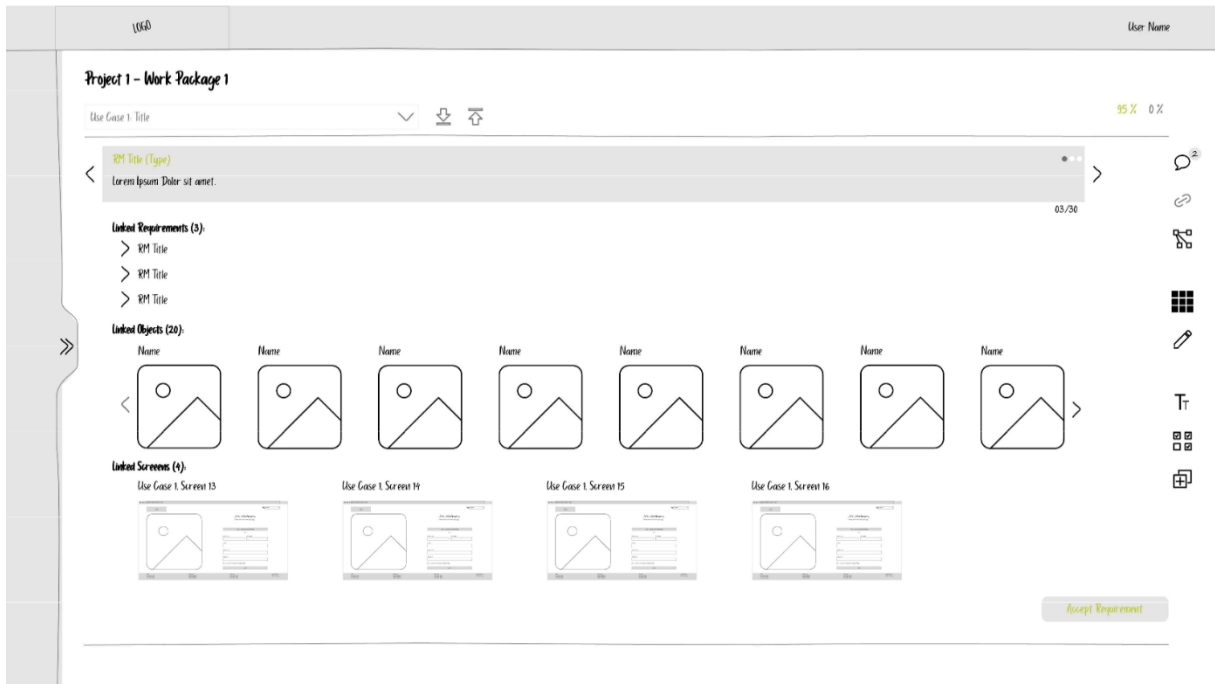
Accept Requirement



Overview



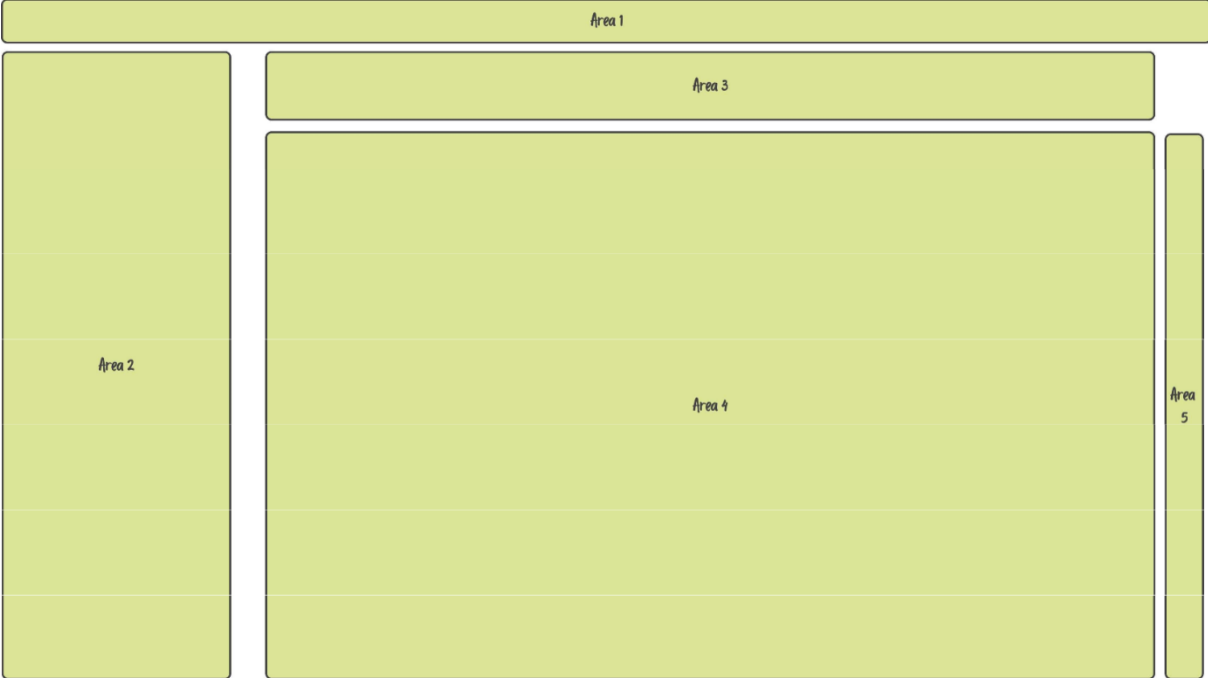


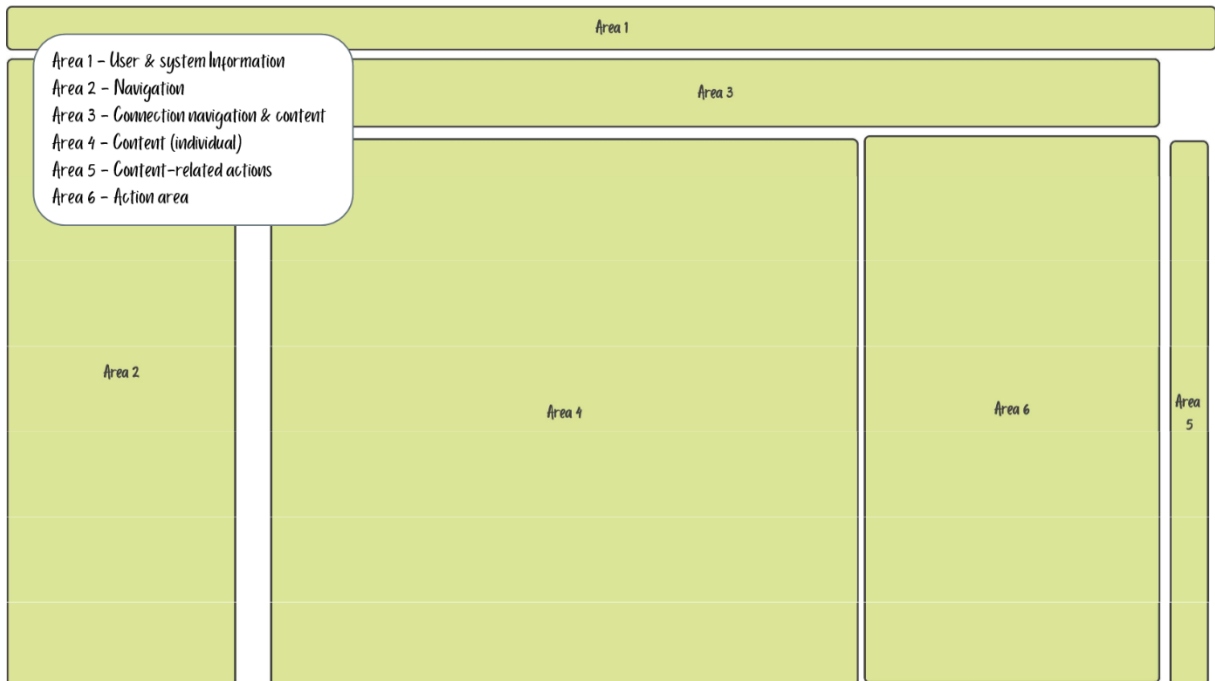
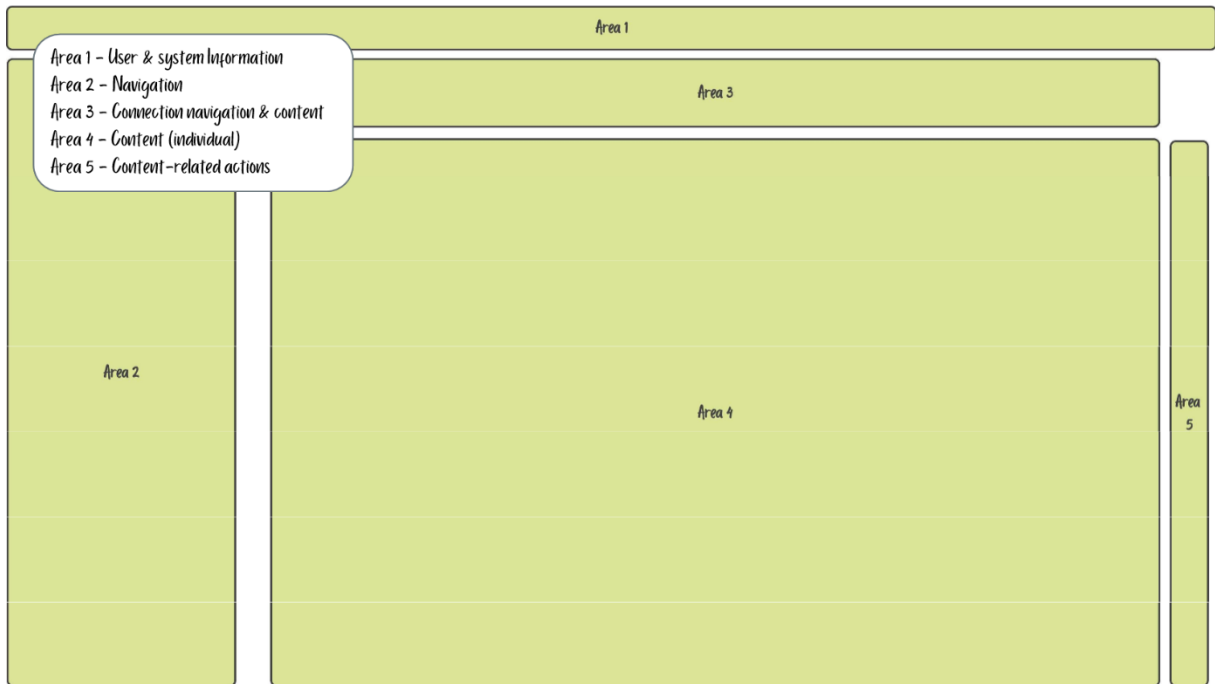


EXPERT

ROUND 7

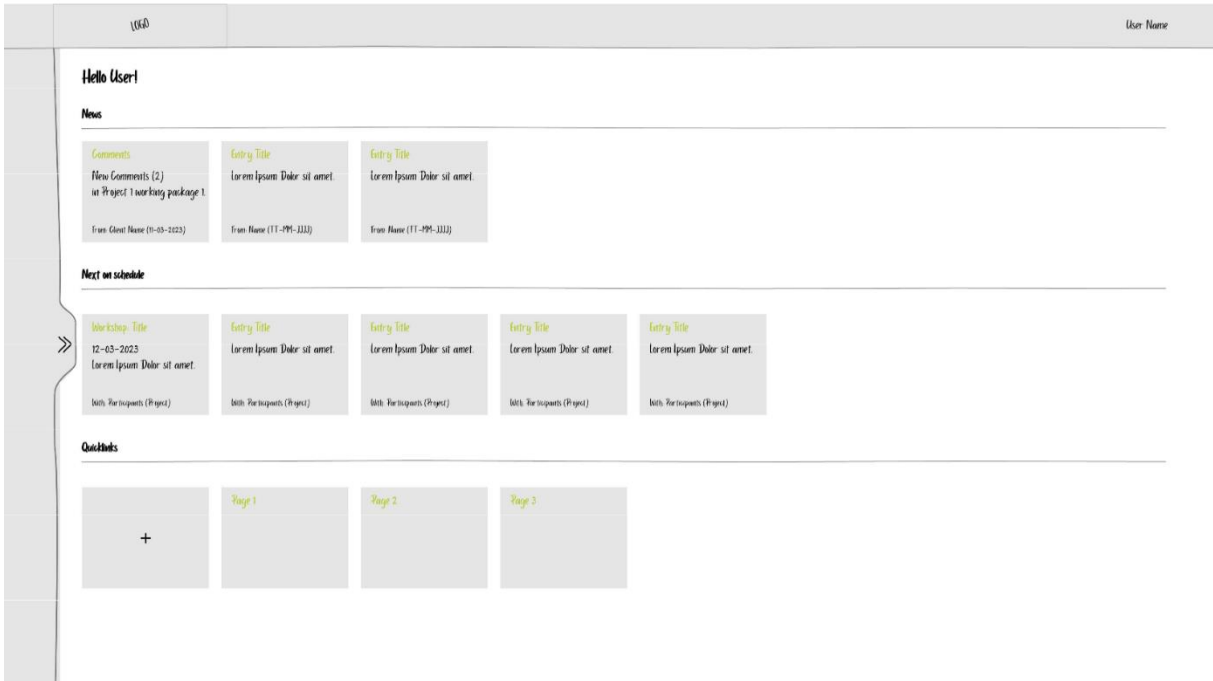
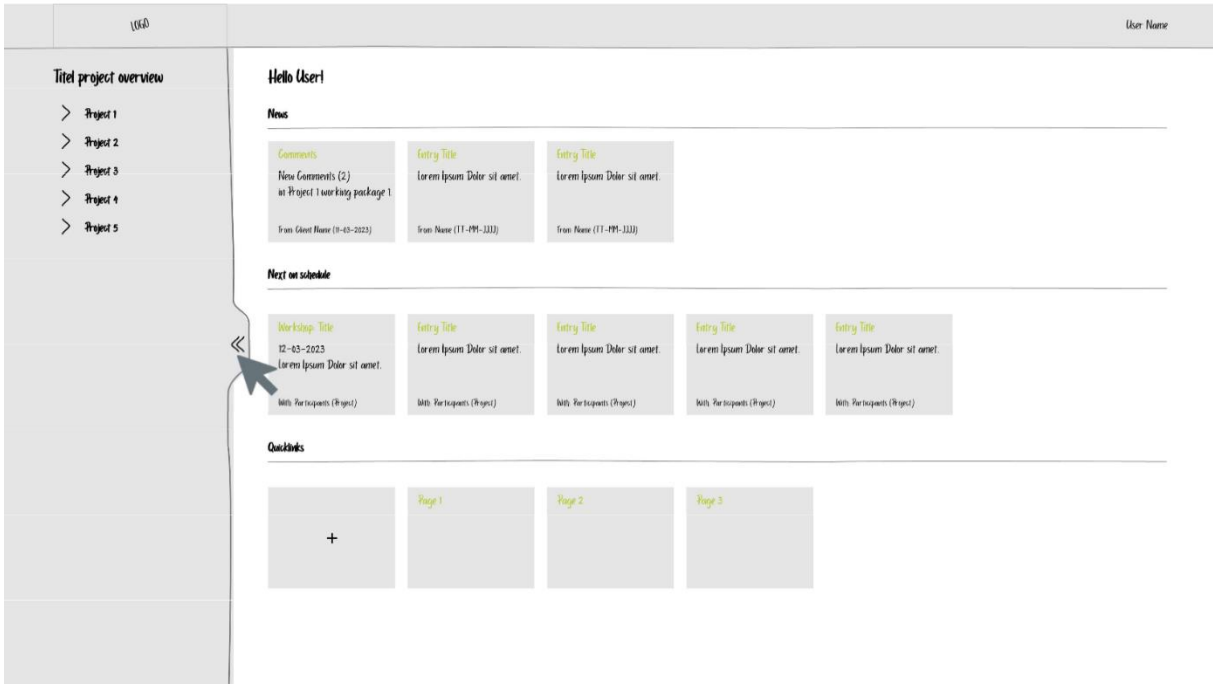
General page layout



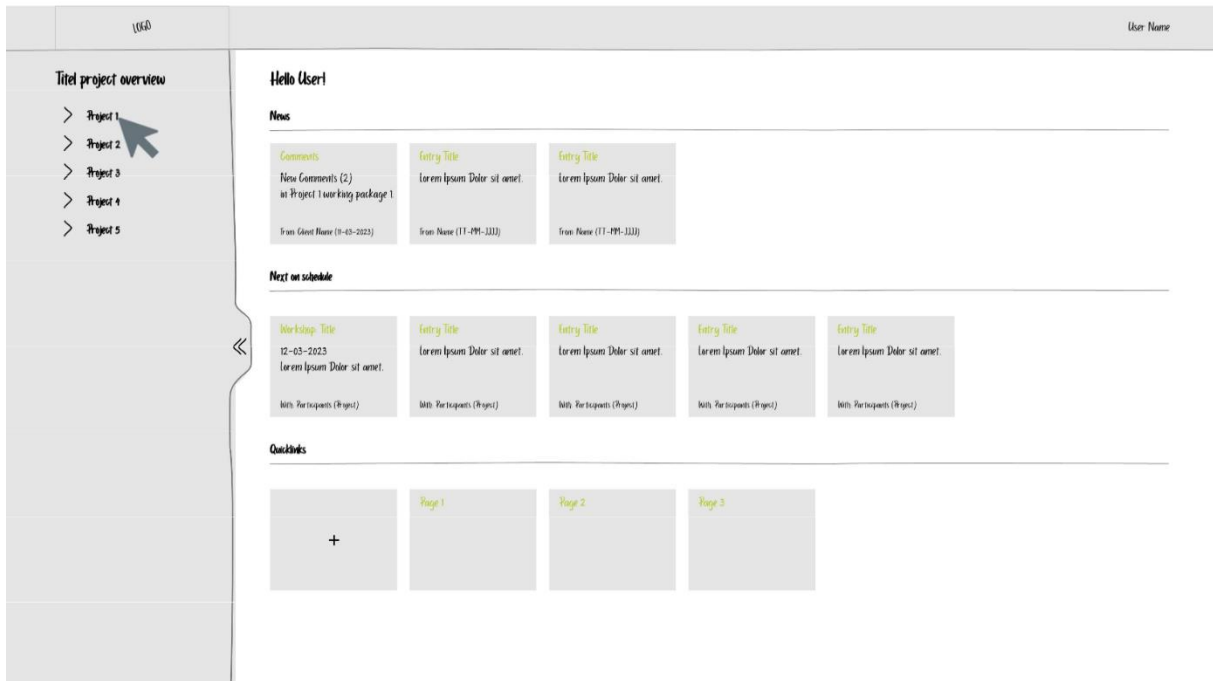


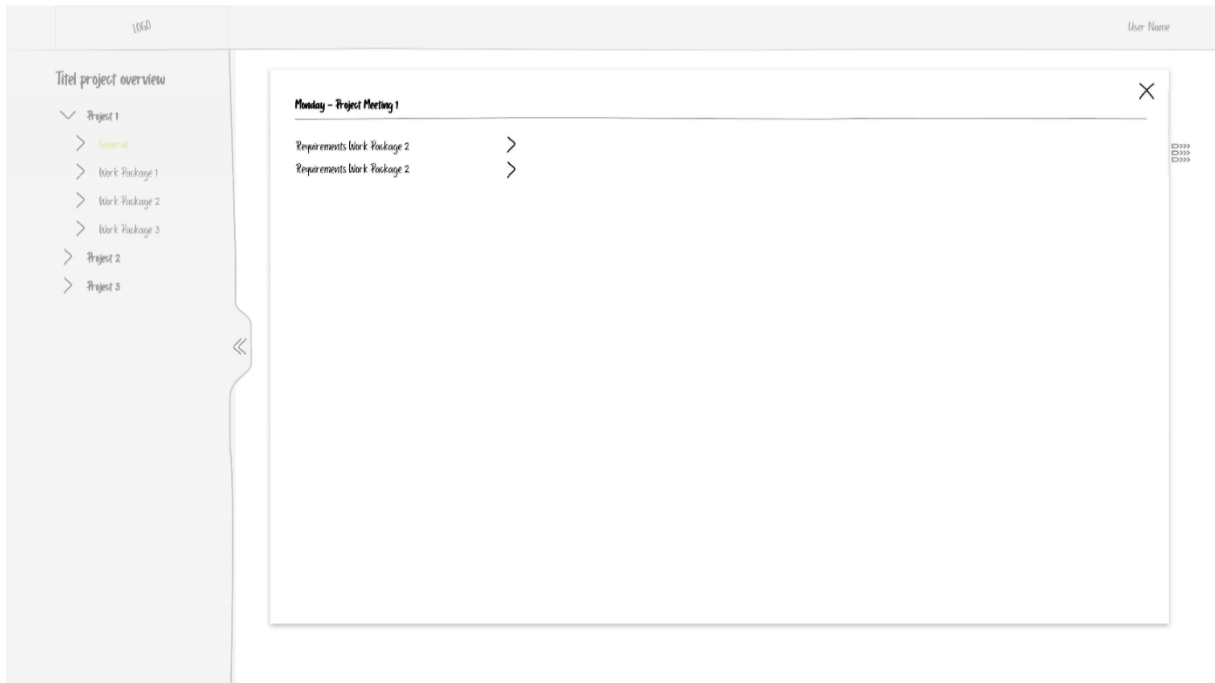
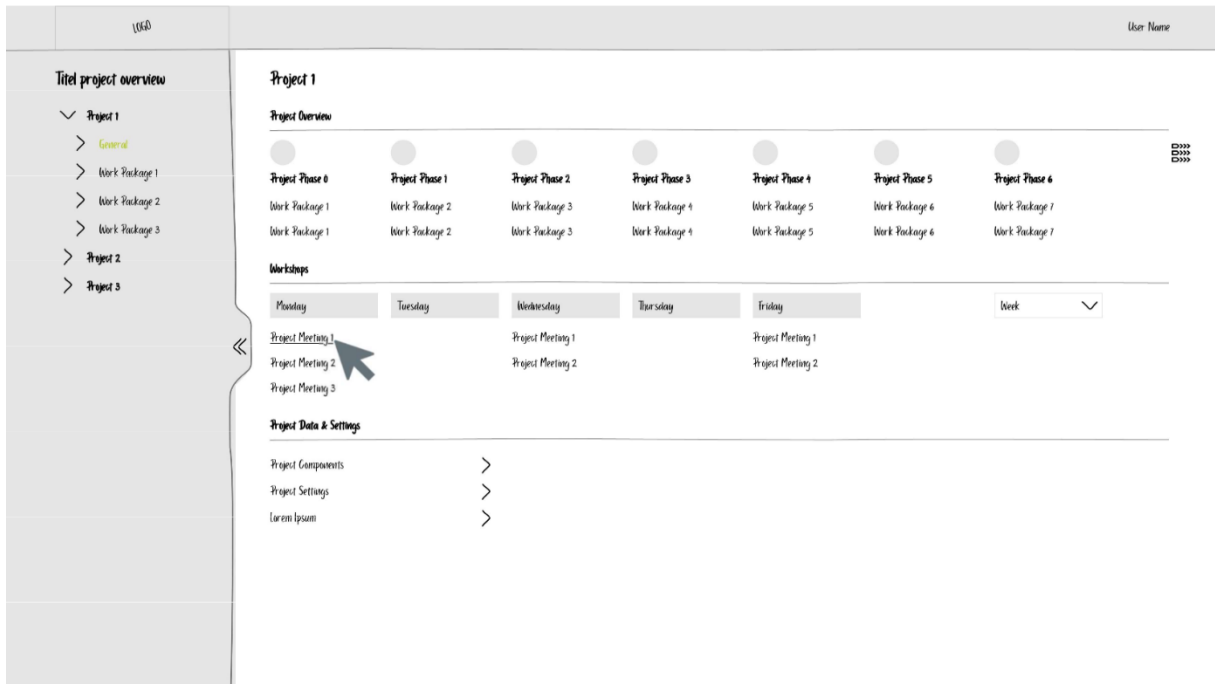
Section General

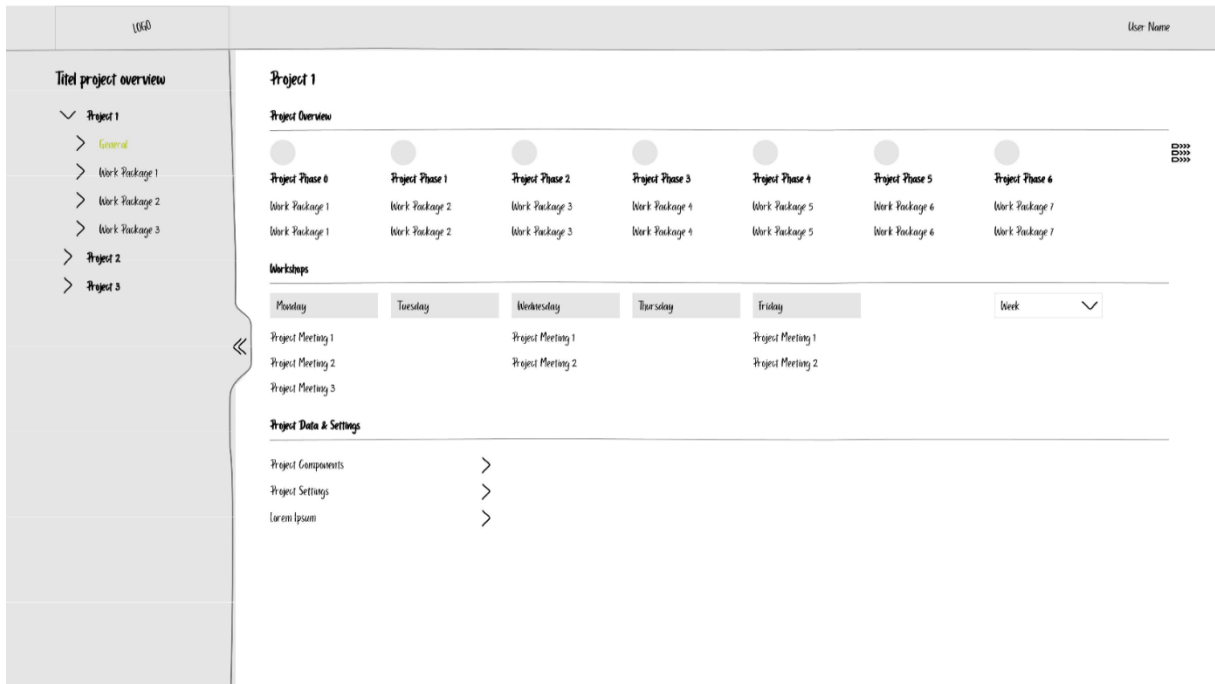
Behaviour Navigation bar



Home Project (General)







Home Work Package (General)

1060 User Name

Titel project overview

- ▼ Project 1
 - > General
 - > Work Package 1
 - > Work Package 2
 - > Work Package 3
- > Project 2
- > Project 3

Project 1

Project Overview

Project Phase 0	Project Phase 1	Project Phase 2	Project Phase 3	Project Phase 4	Project Phase 5	Project Phase 6
Work Package 1	Work Package 2	Work Package 3	Work Package 4	Work Package 5	Work Package 6	Work Package 7
Work Package 1	Work Package 2	Work Package 3	Work Package 4	Work Package 5	Work Package 6	Work Package 7

Workshops

Monday	Tuesday	Wednesday	Thursday	Friday	Week
Project Meeting 1		Project Meeting 1		Project Meeting 1	
Project Meeting 2		Project Meeting 2		Project Meeting 2	
Project Meeting 3					

Project Data & Settings

- Project Components >
- Project Settings >
- Lorem Ipsum >

1060 User Name

Titel project overview

- ▼ Project 1
 - > General
 - ▼ Work Package 1
 - General
 - Requirements
 - Workpackages
 - Components
 - > Work Package 2
 - > Work Package 3
- > Project 2
- > Project 3

Project 1 - Work Package 1

Current State

Project Phase 0	Project Phase 1	Project Phase 2	Project Phase 3	Project Phase 4	Project Phase 5	Project Phase 6
Version History	Version History	Version History				
Latest Version	Latest Version	Latest Version				

Project Phase 2: Reworked Workpackages
Ready for internal Review
100%
(Überarbeitung für Interim Requirements) 60%

Workshops

Next Workshop: 20.02.2022

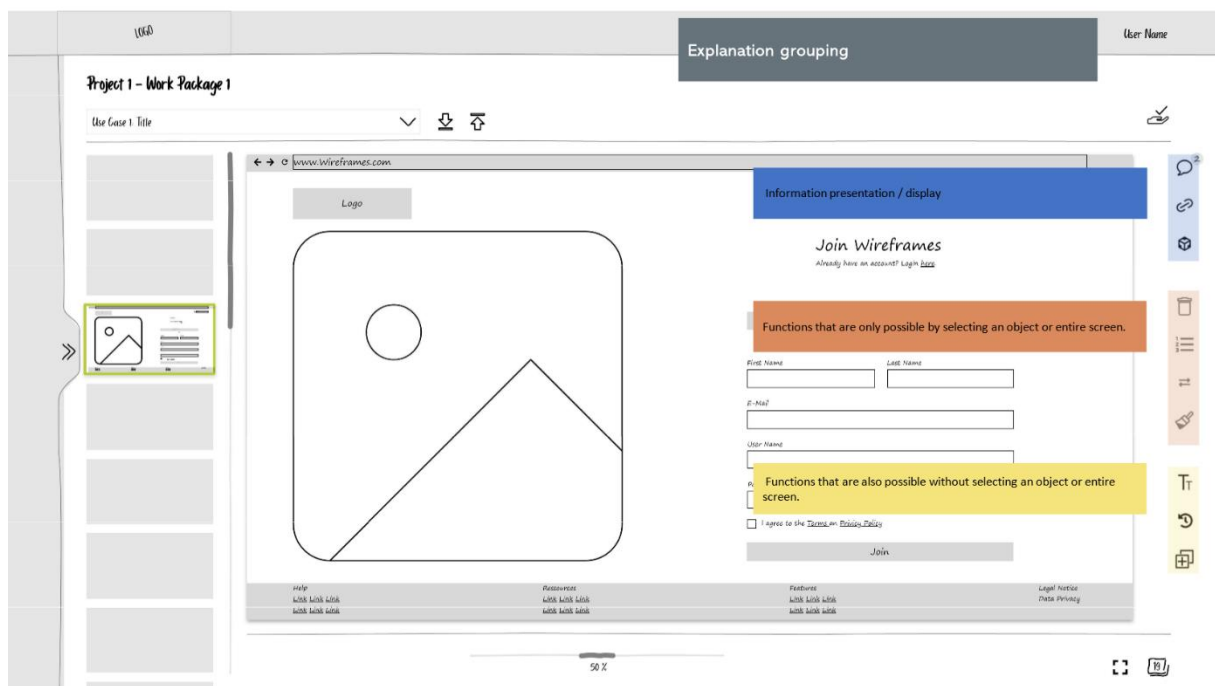
Latest Information: [Download Icon]

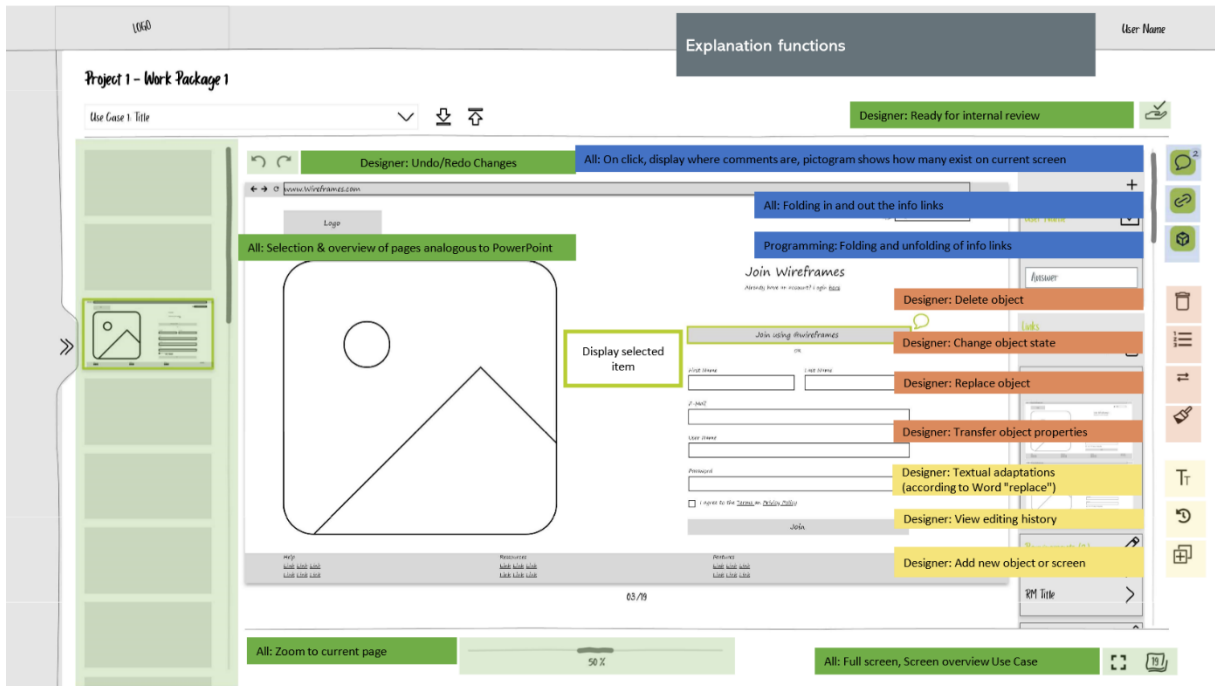
Data & Settings

- Project Components >
- Work Package Settings >
- Lorem Ipsum >

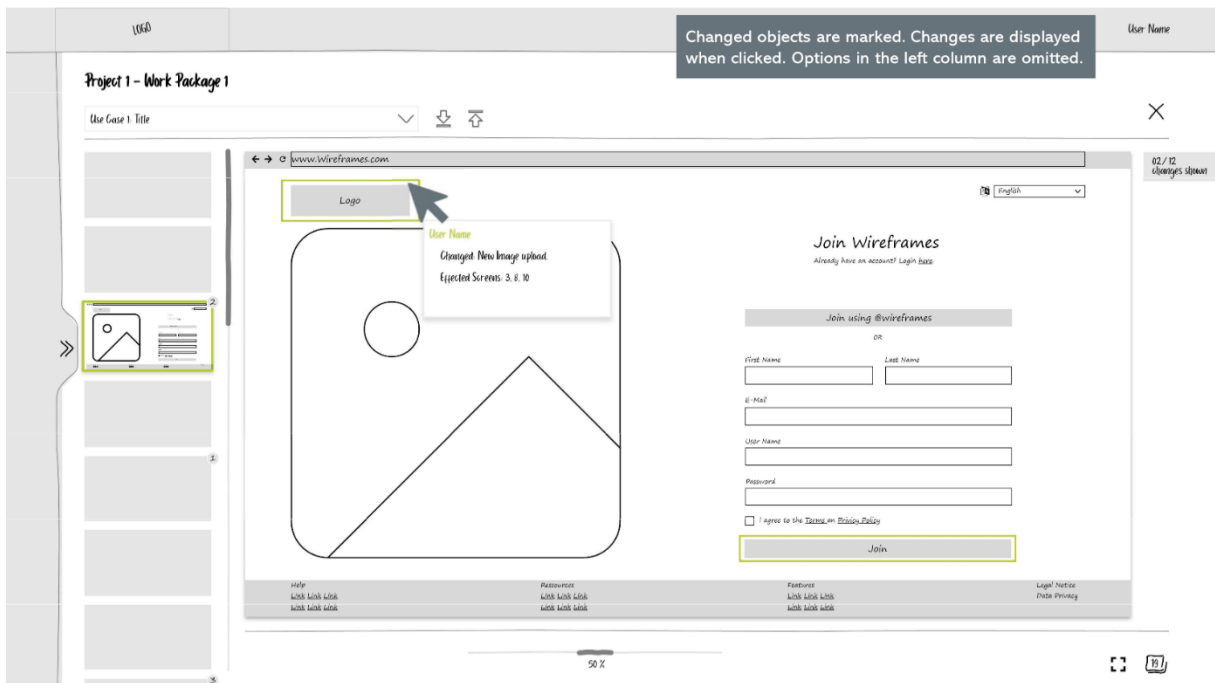
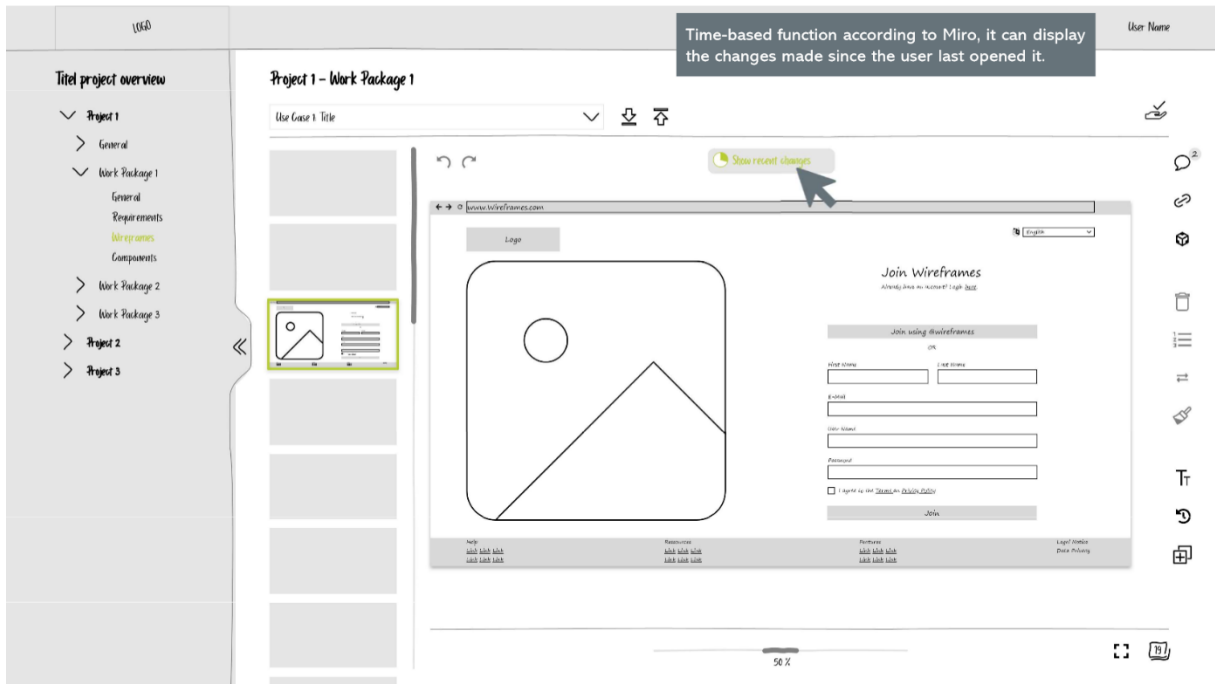
Wireframes section

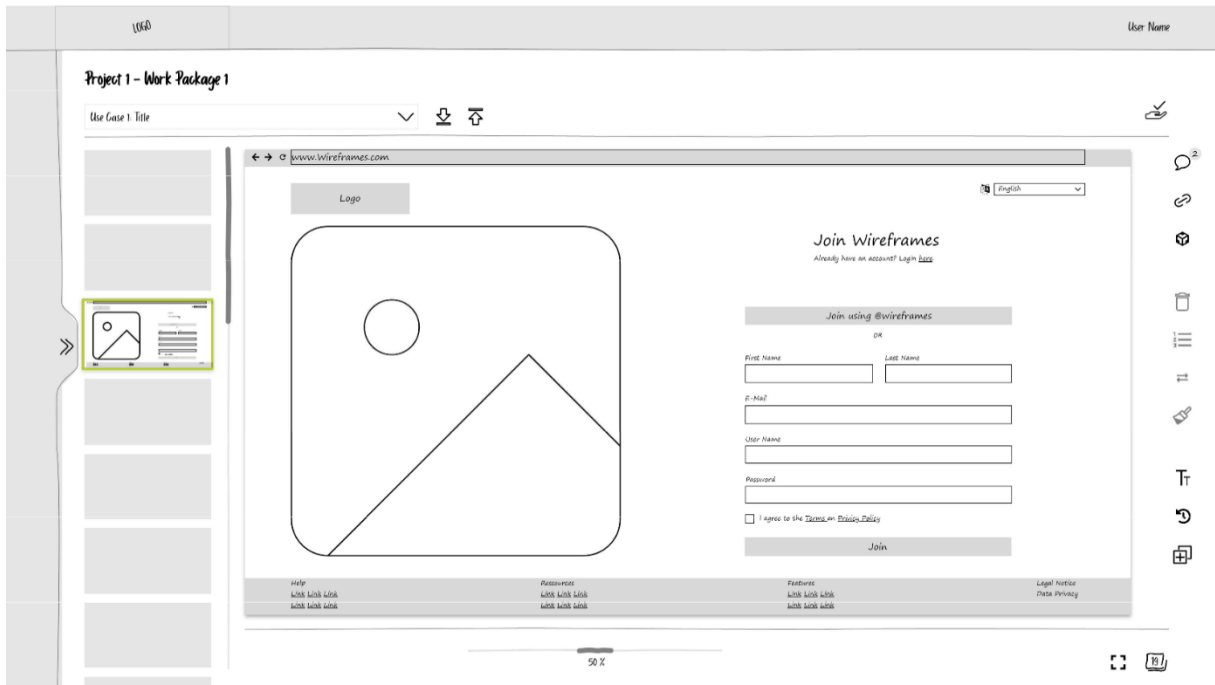
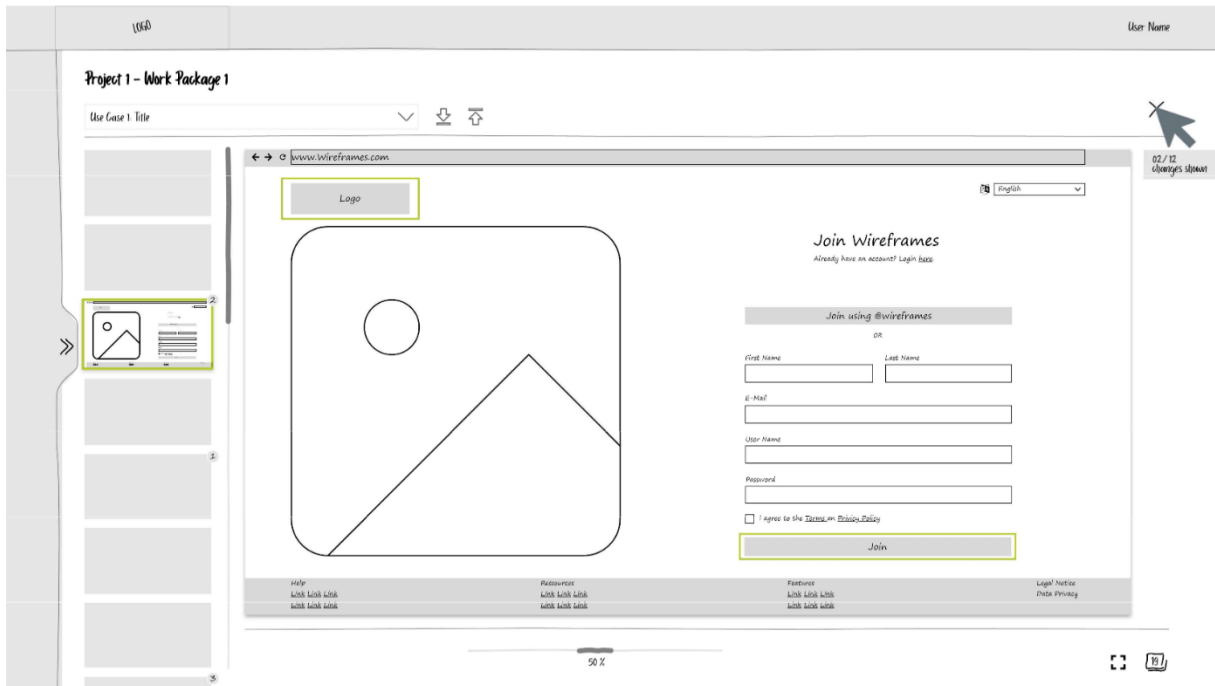
Function explanation



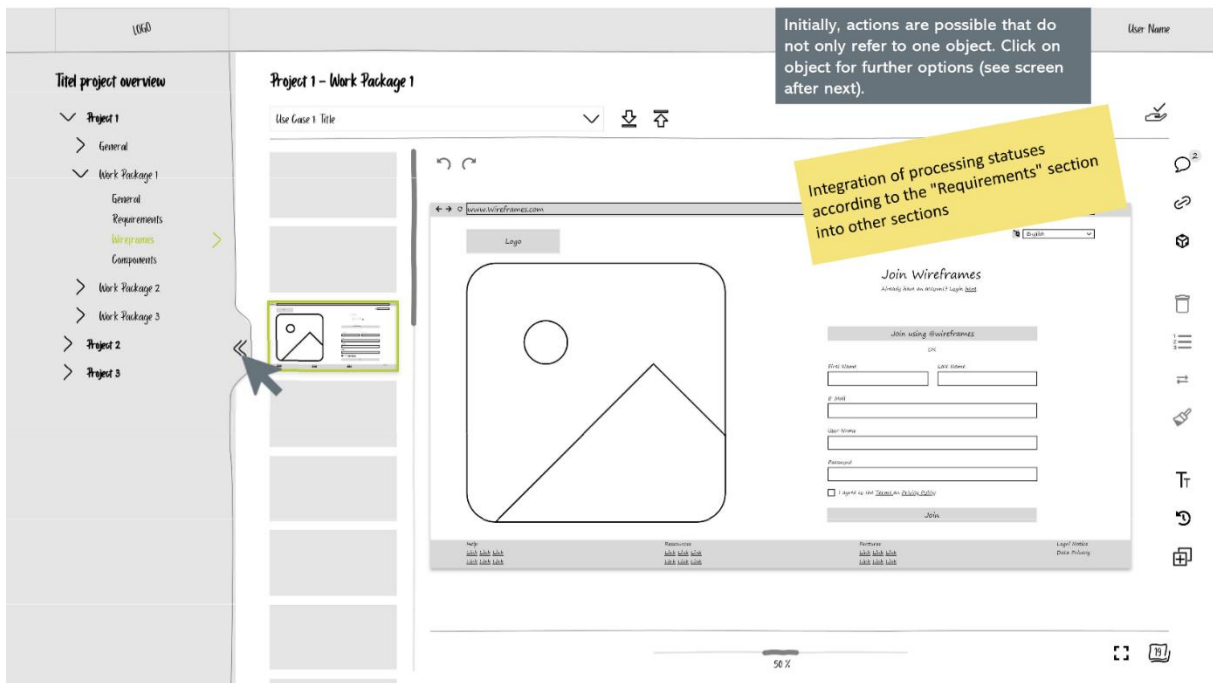


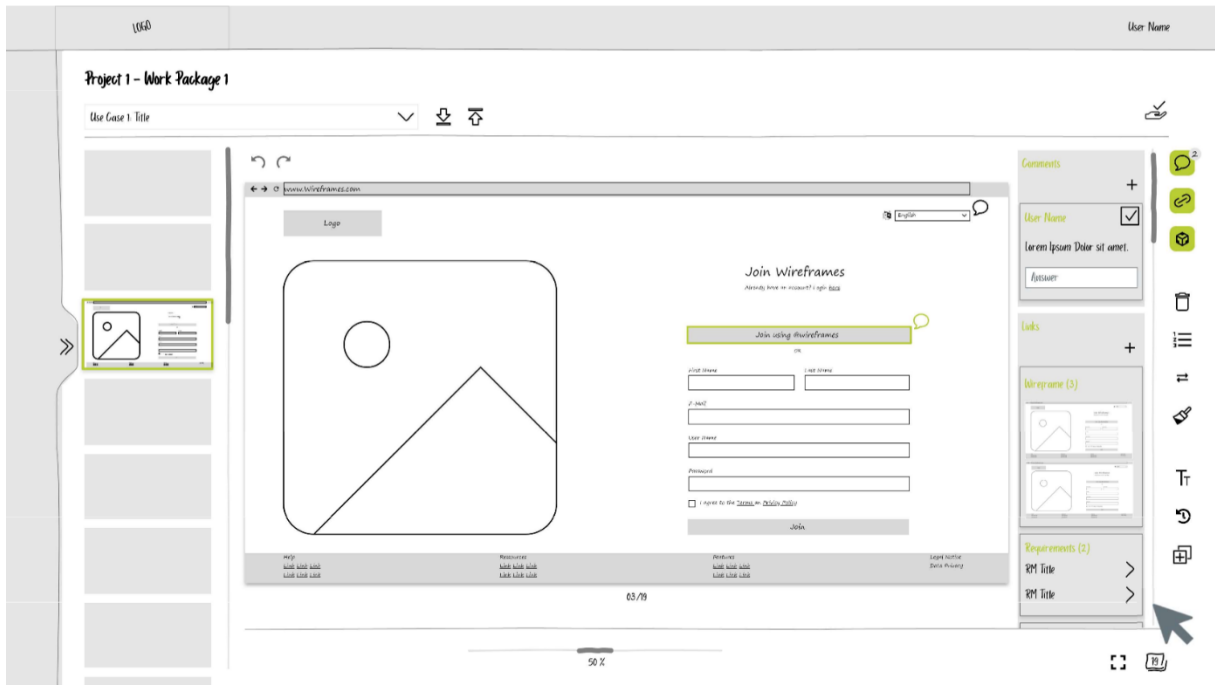
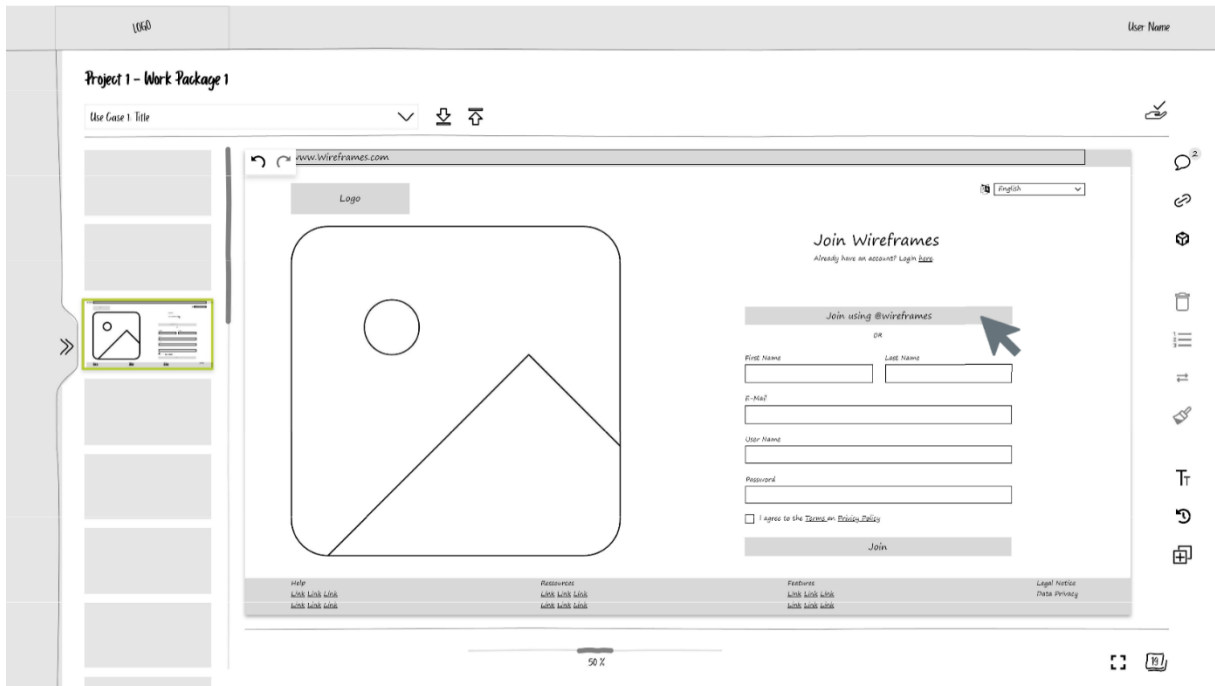
Show last changes

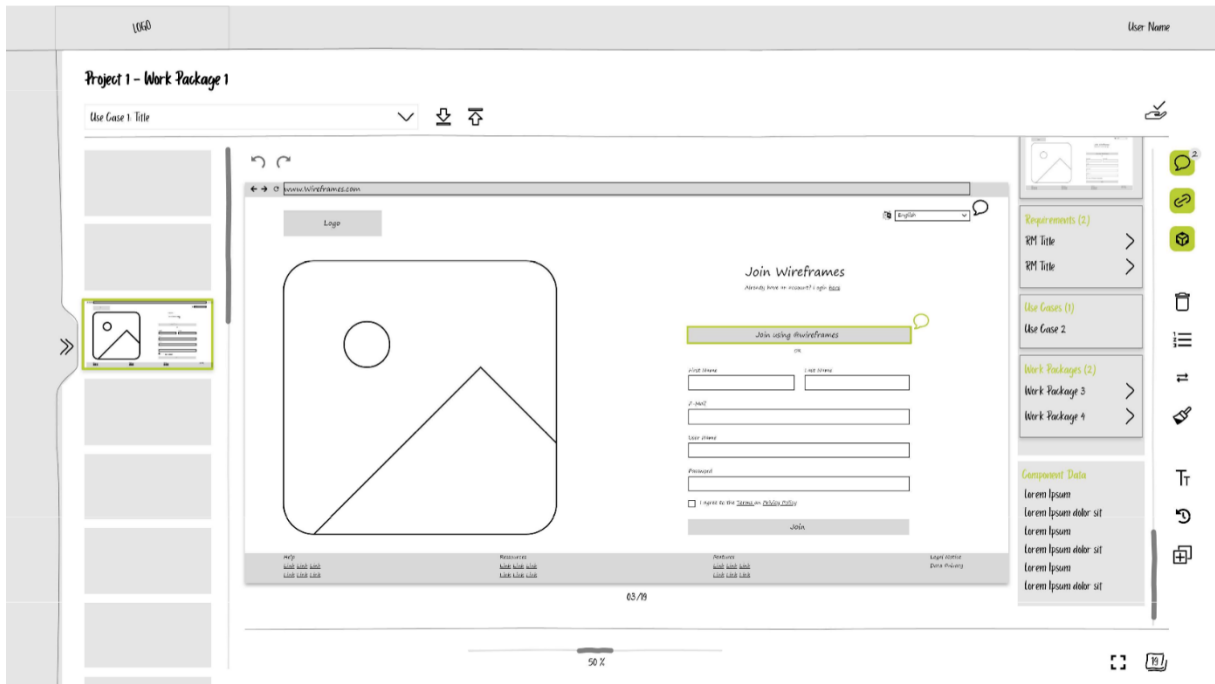




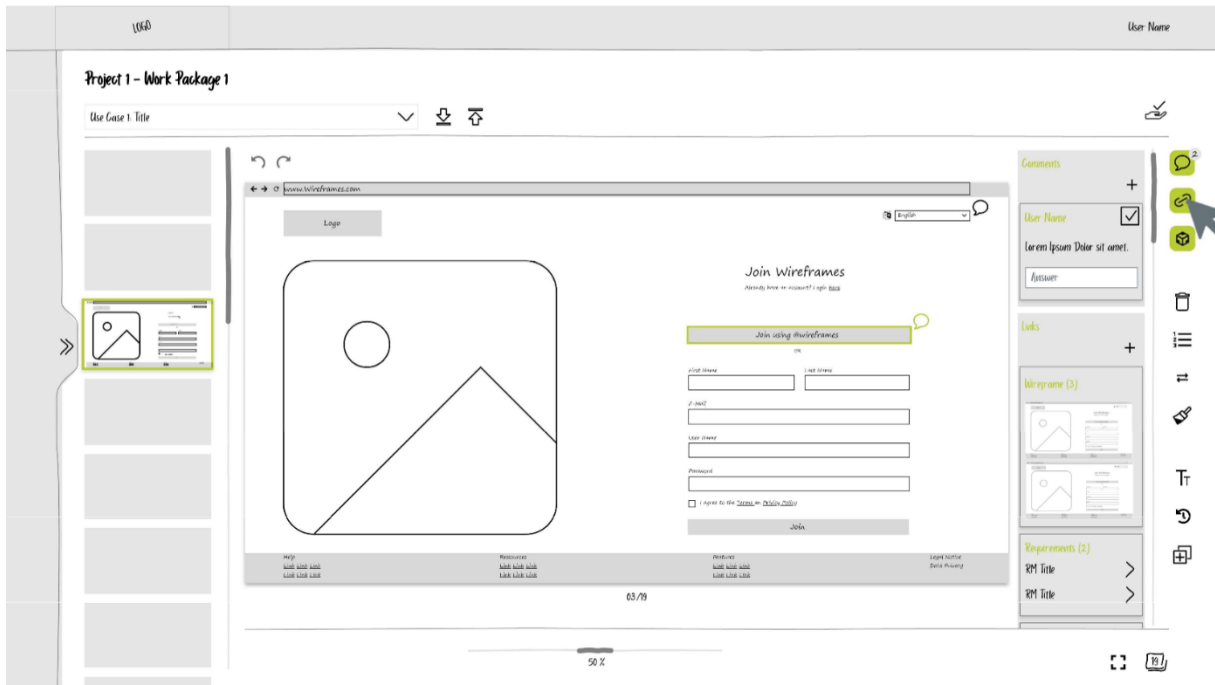
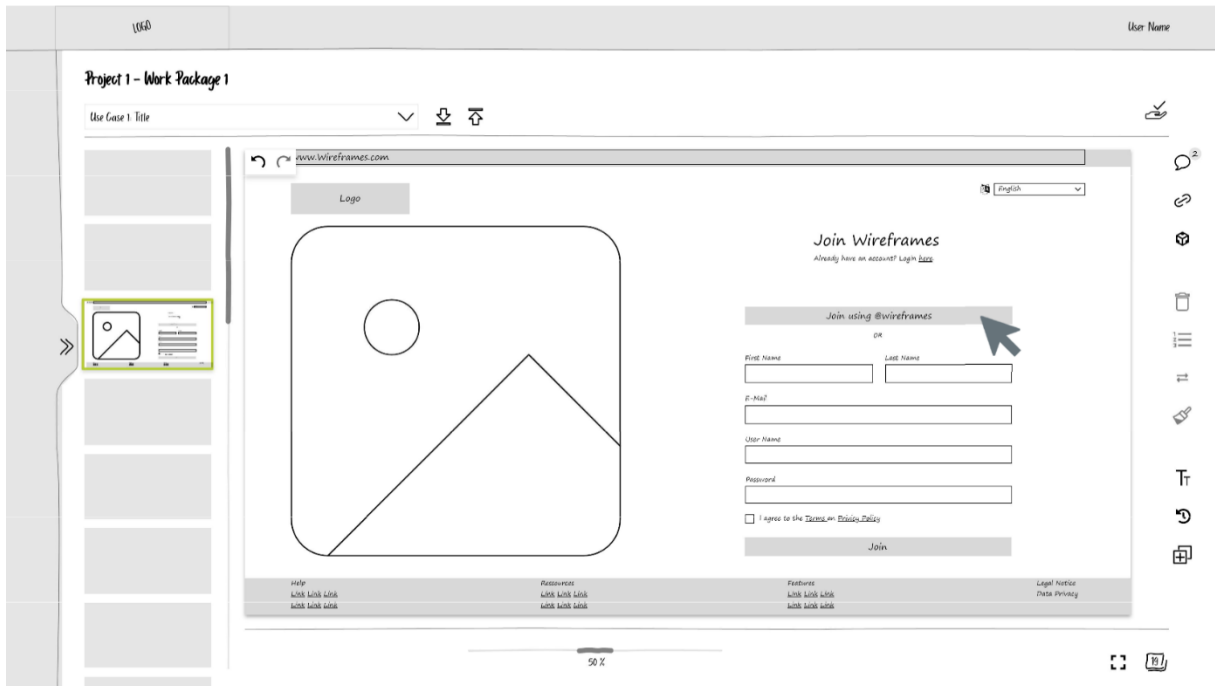
Fold in the bar,
Click object

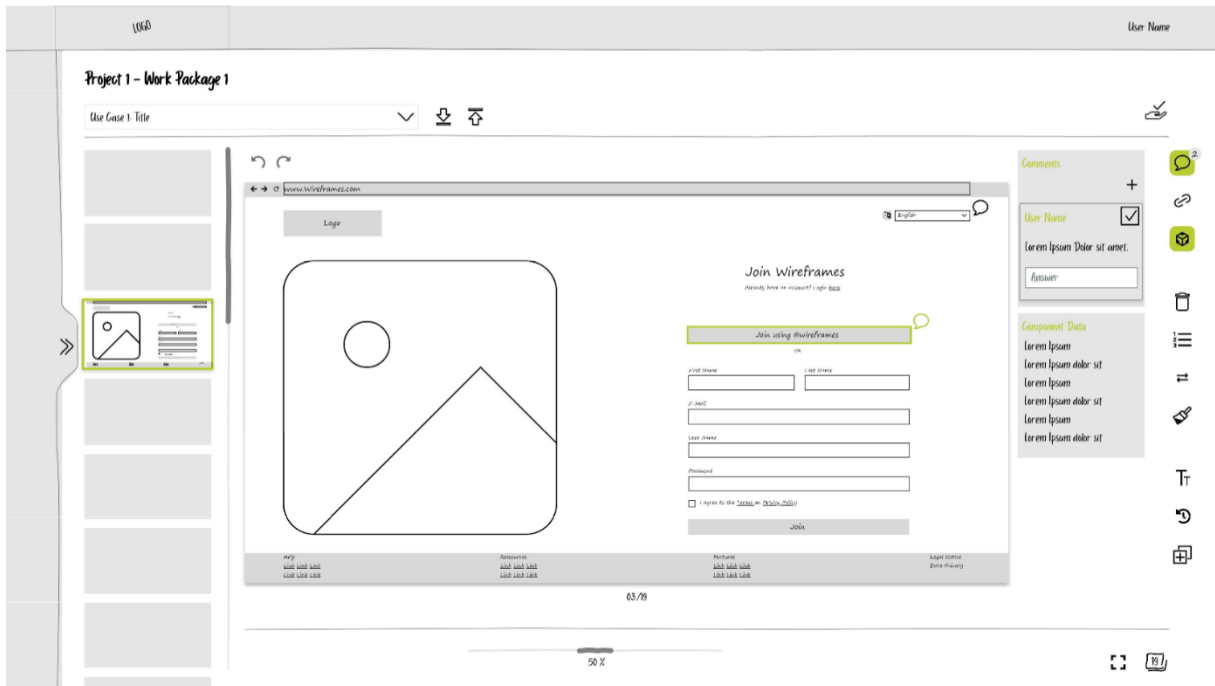




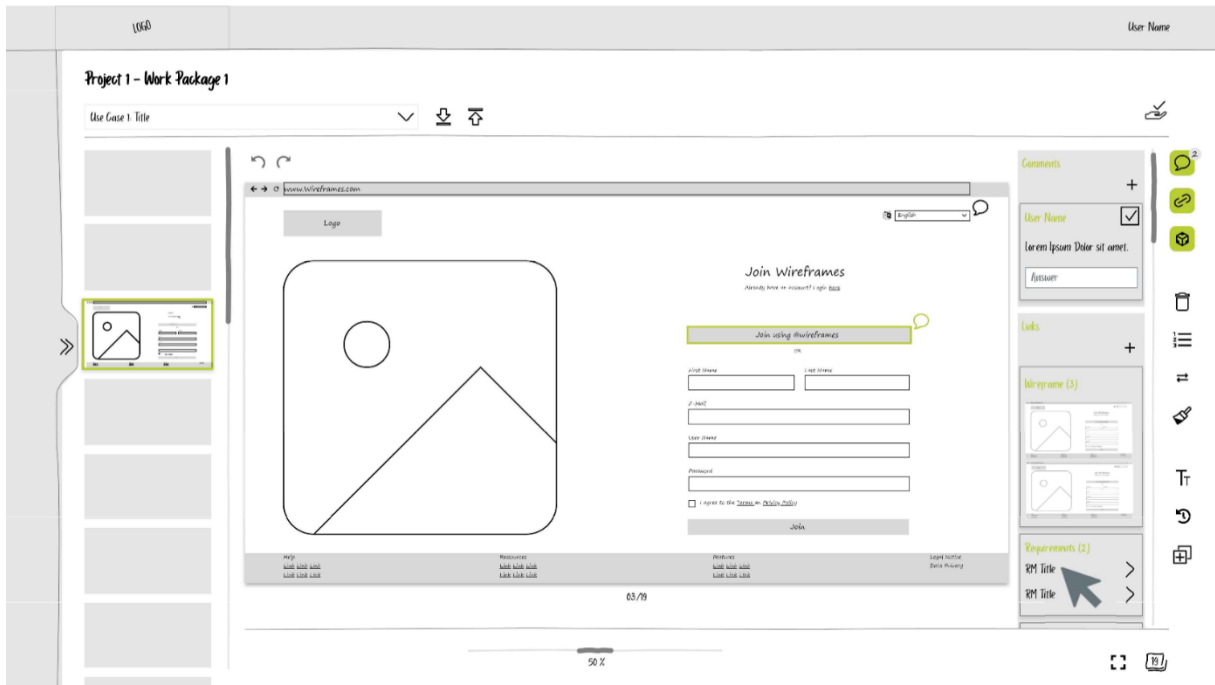
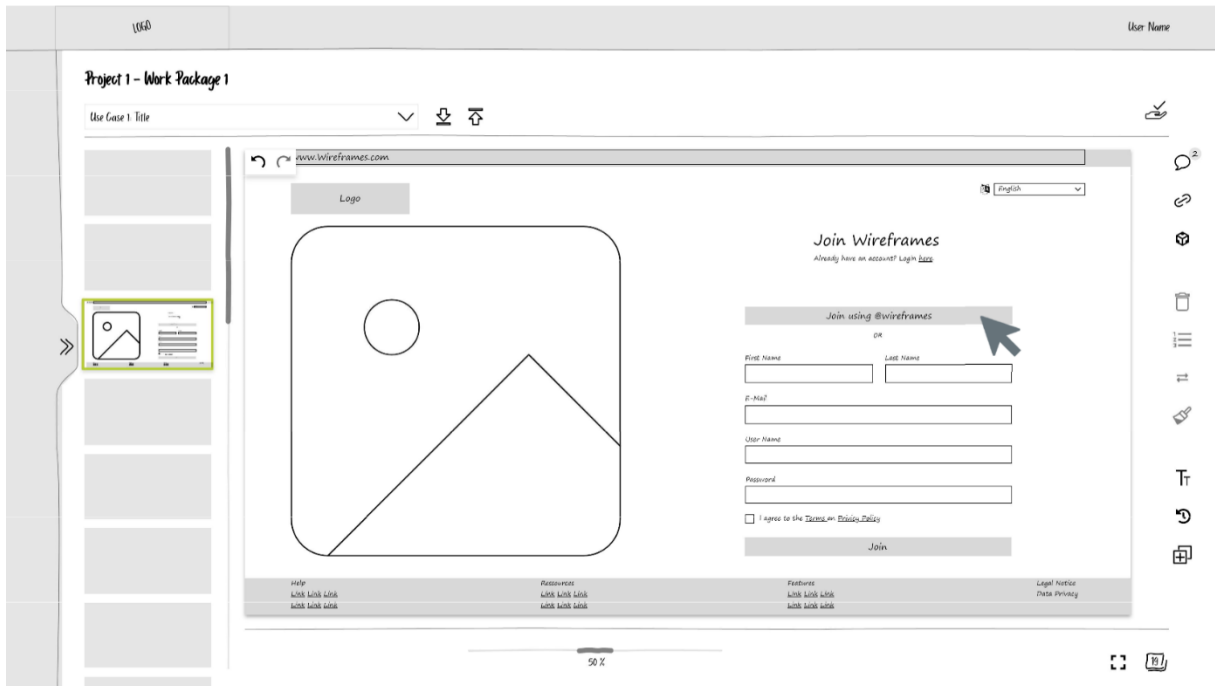


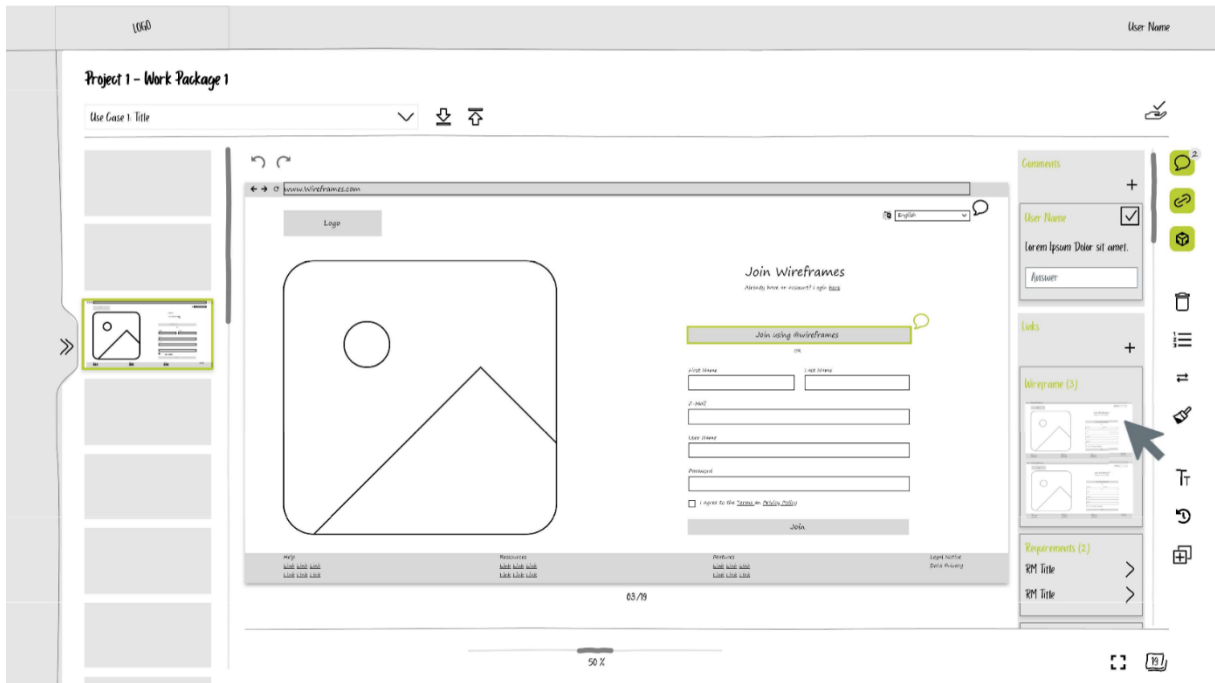
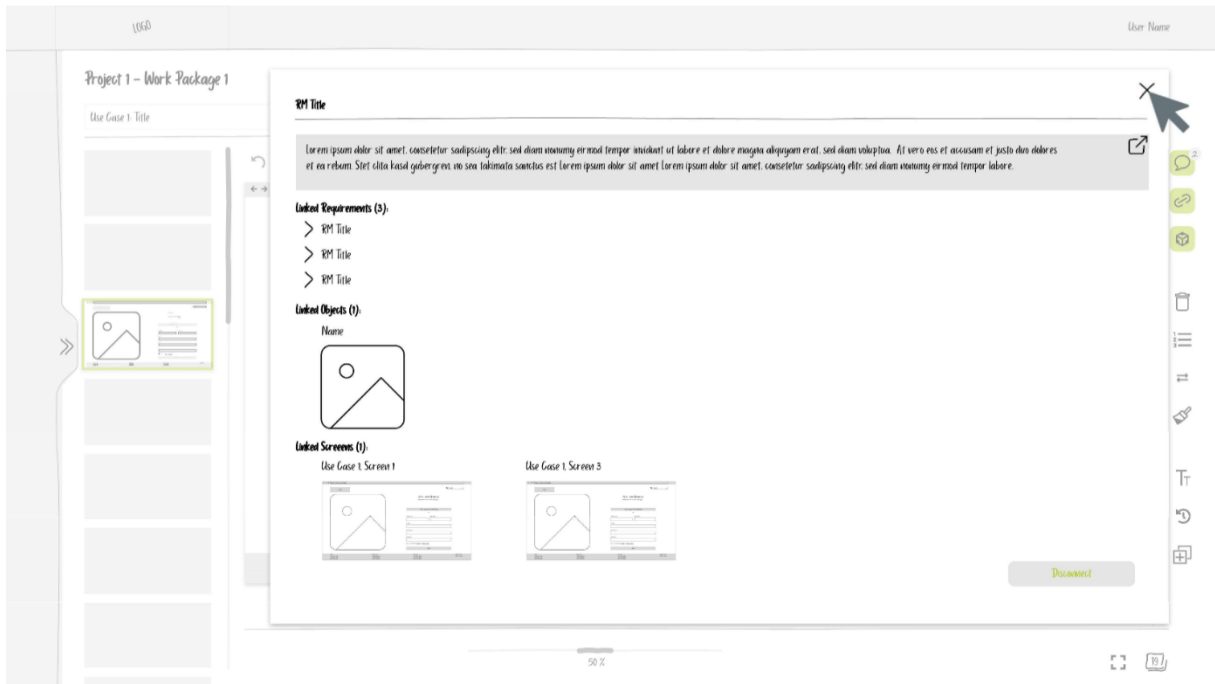
Fold in and out object information

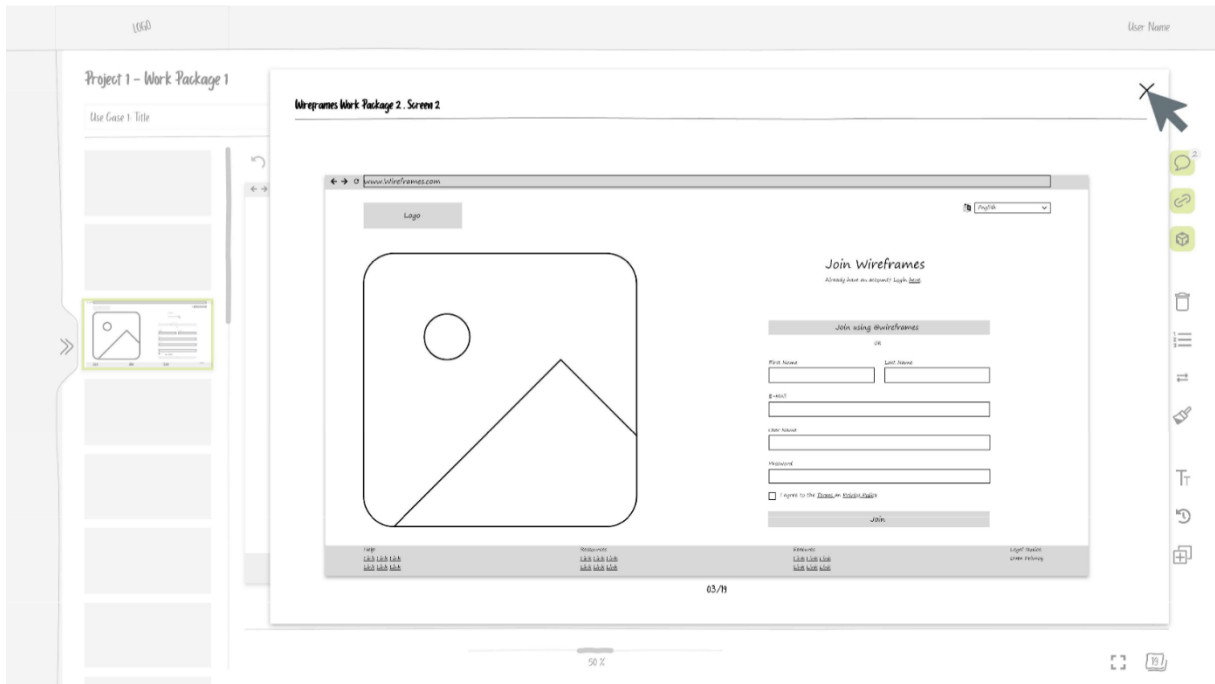




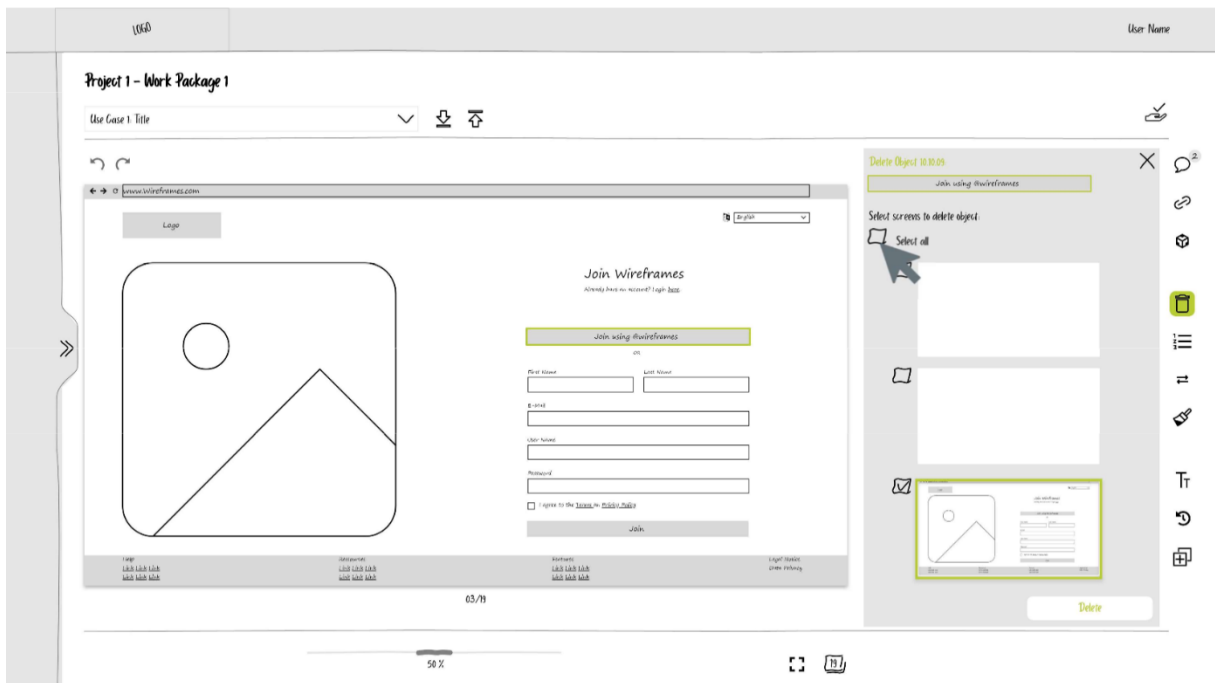
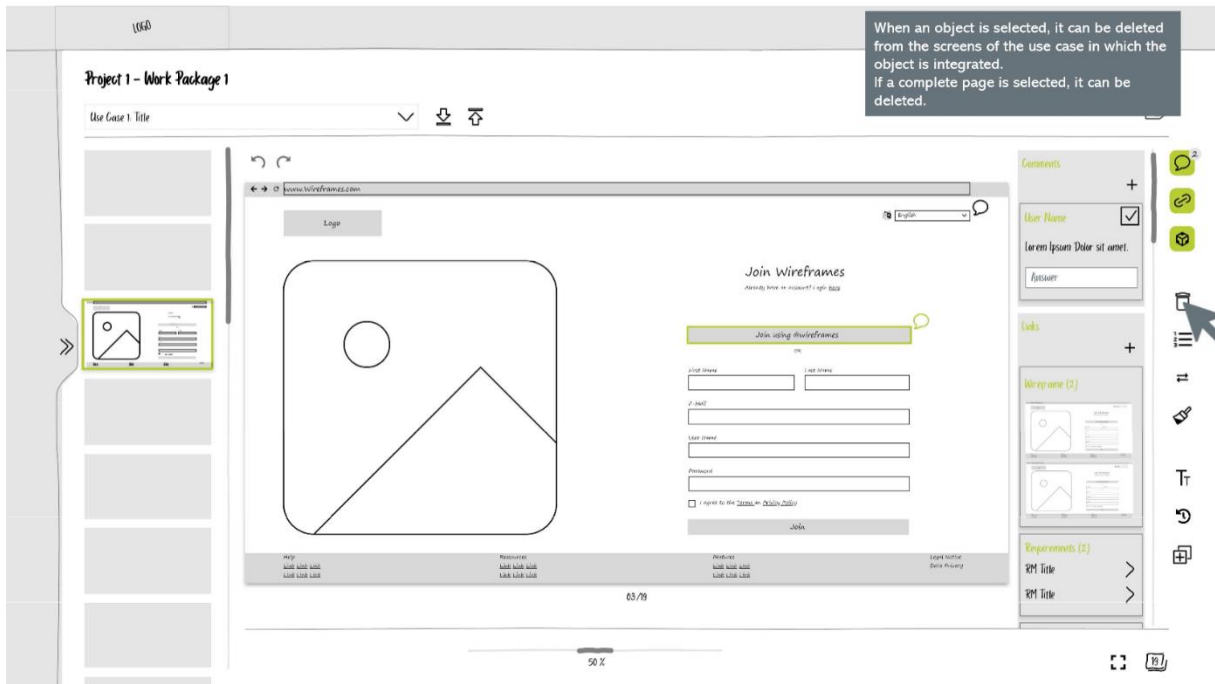
View links

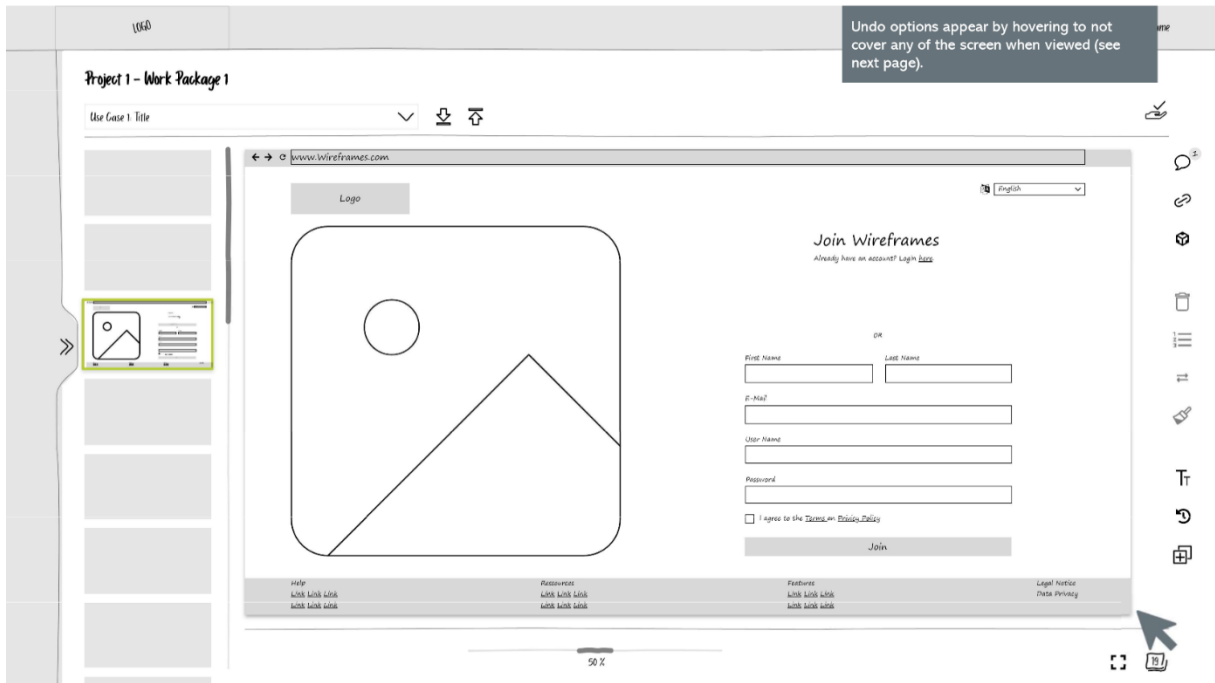
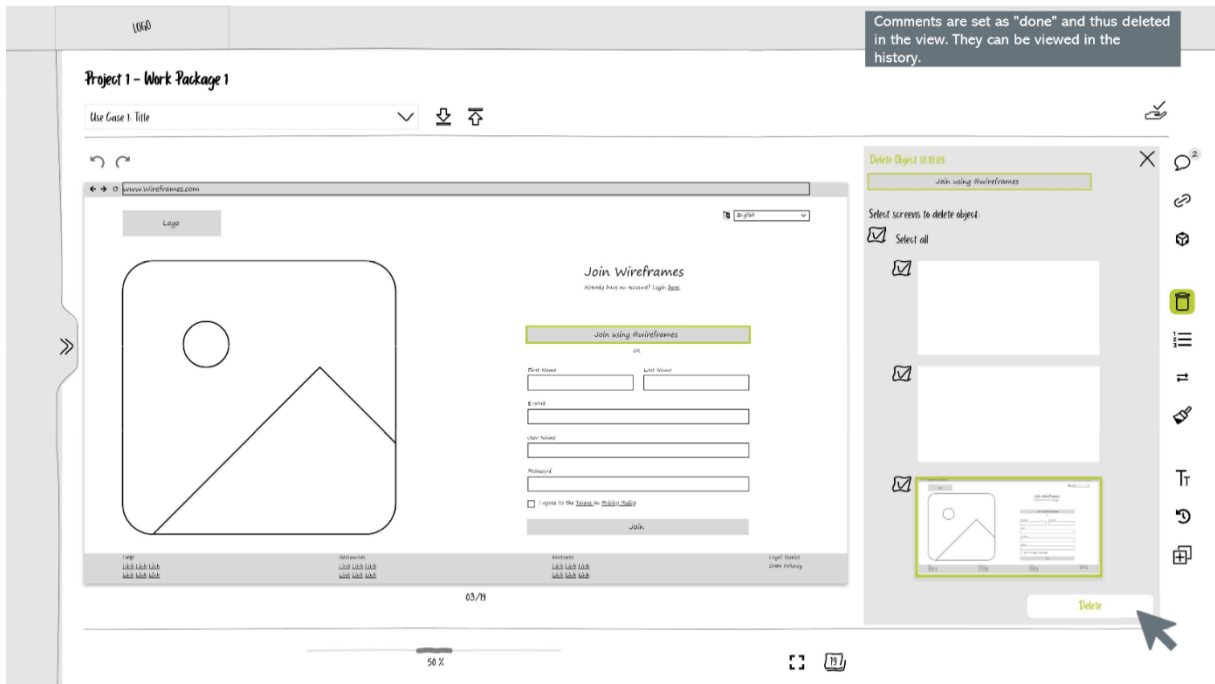


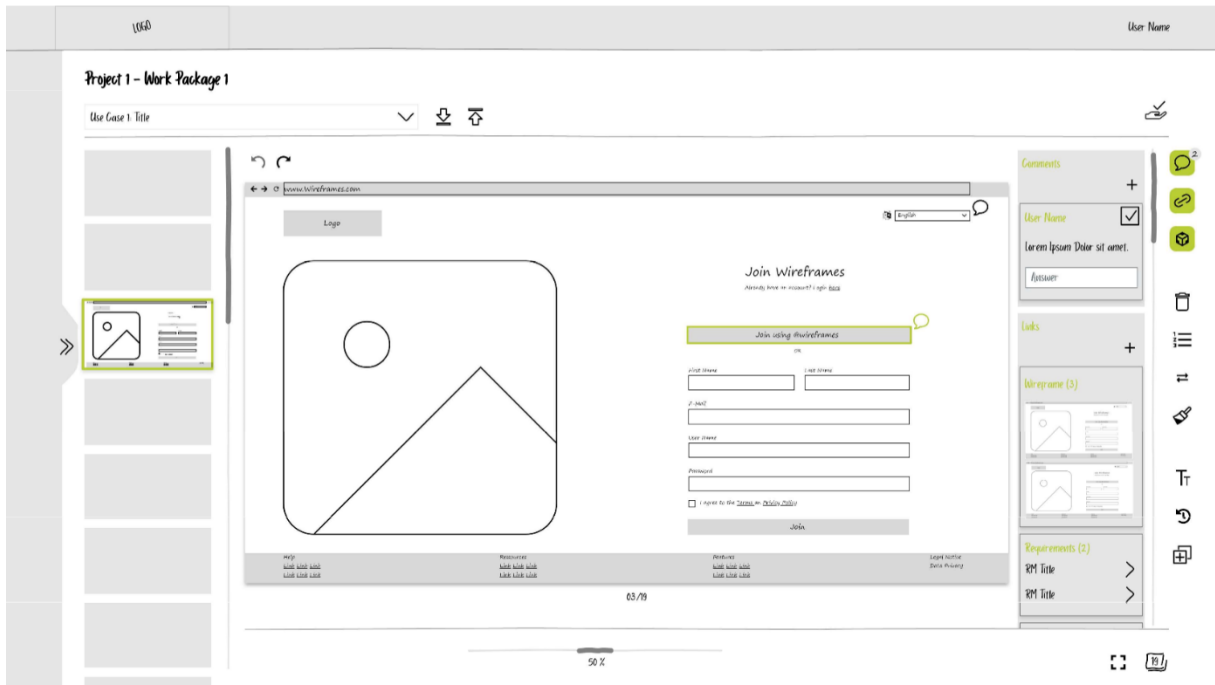
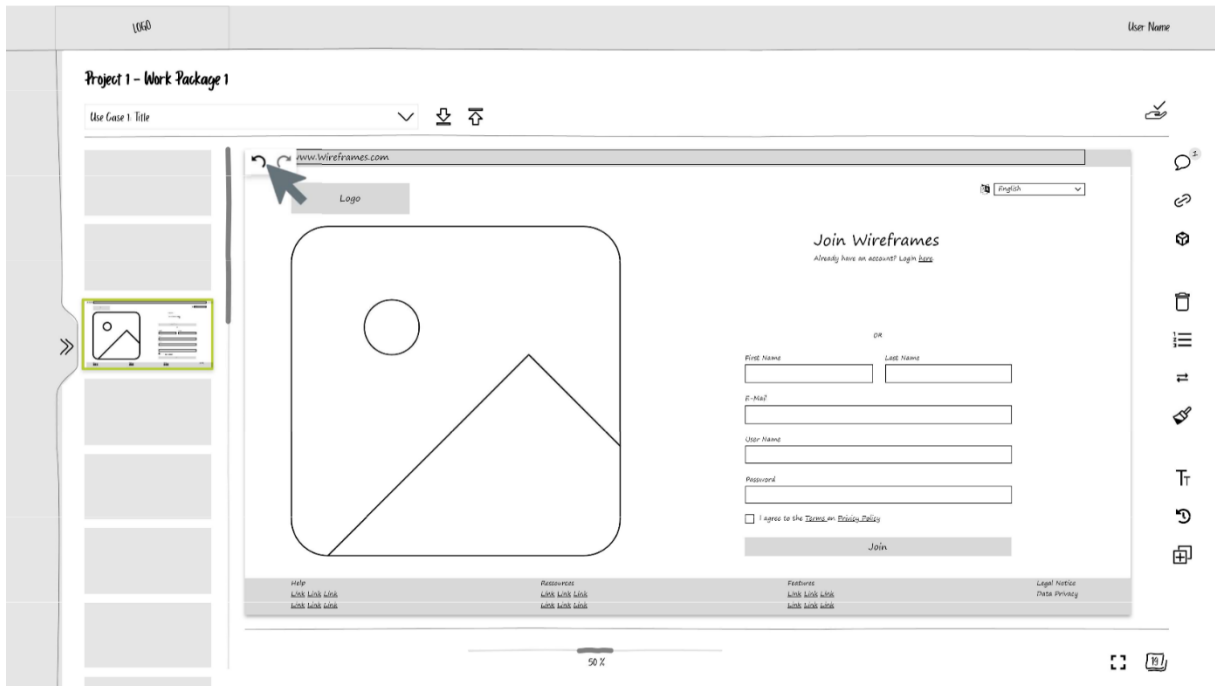




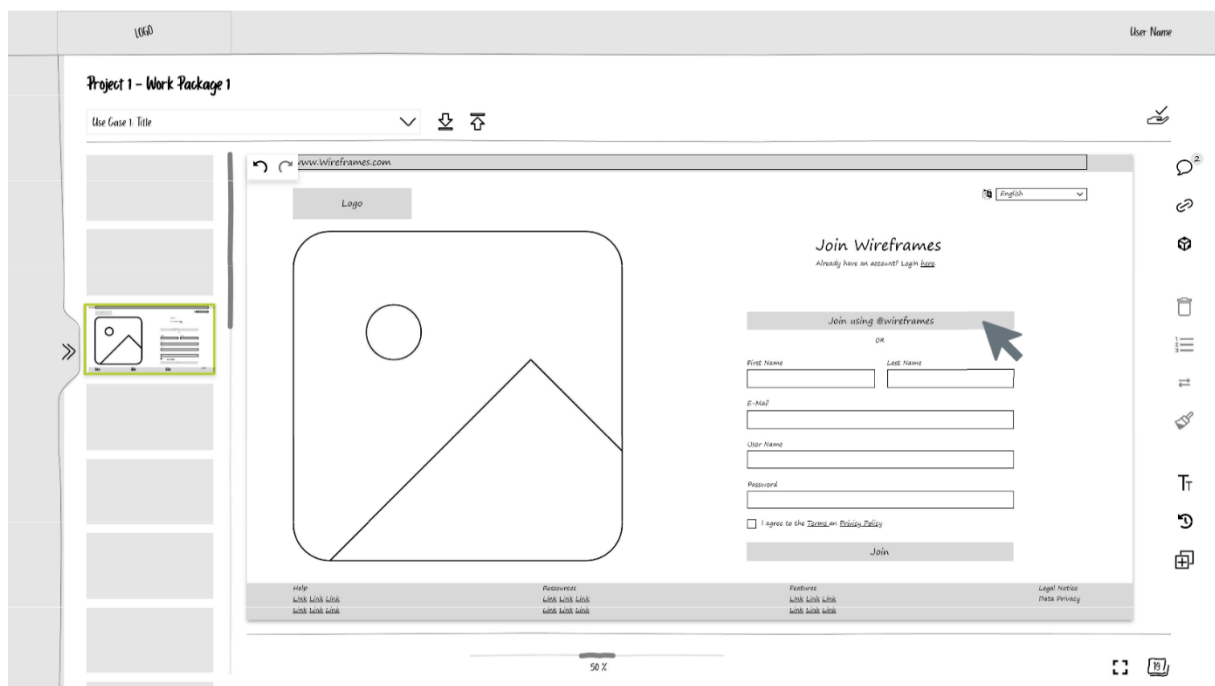
Delete object and
Undo deletion again

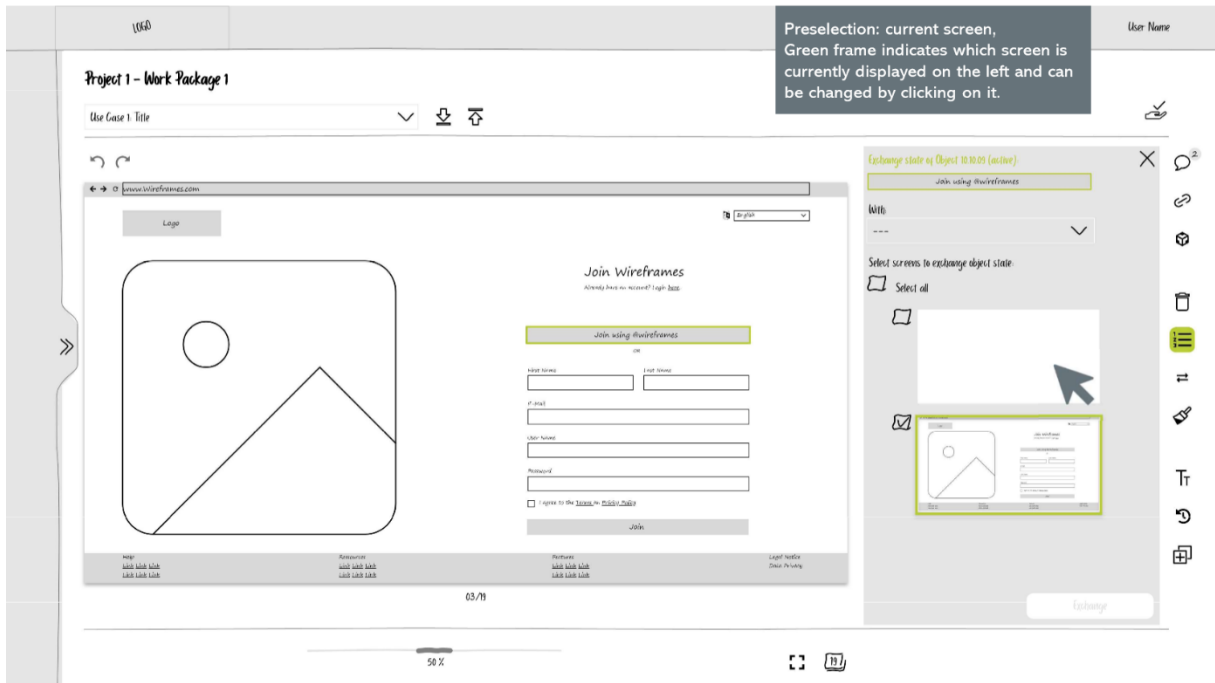
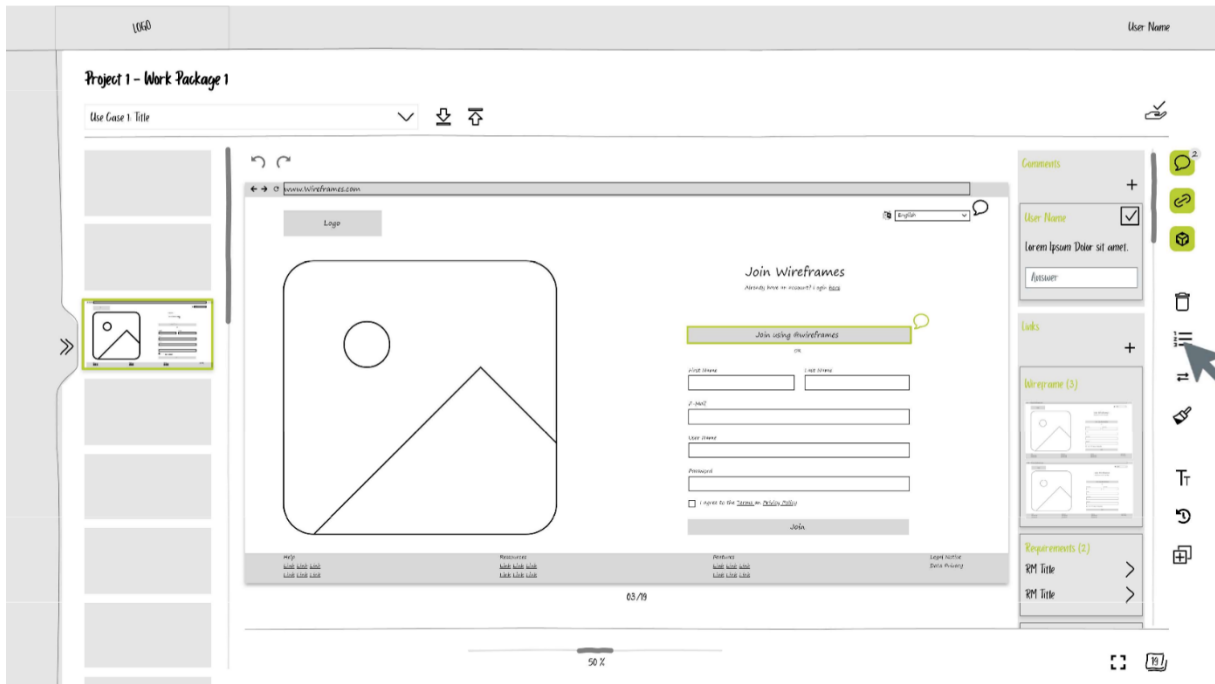


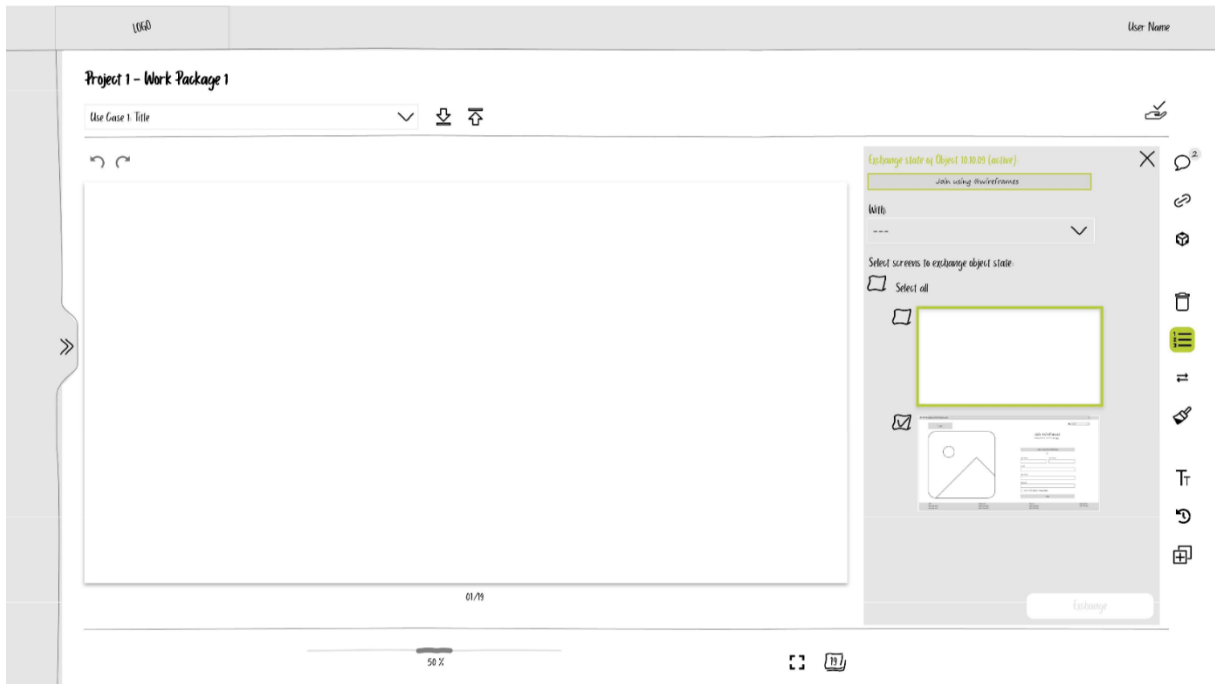




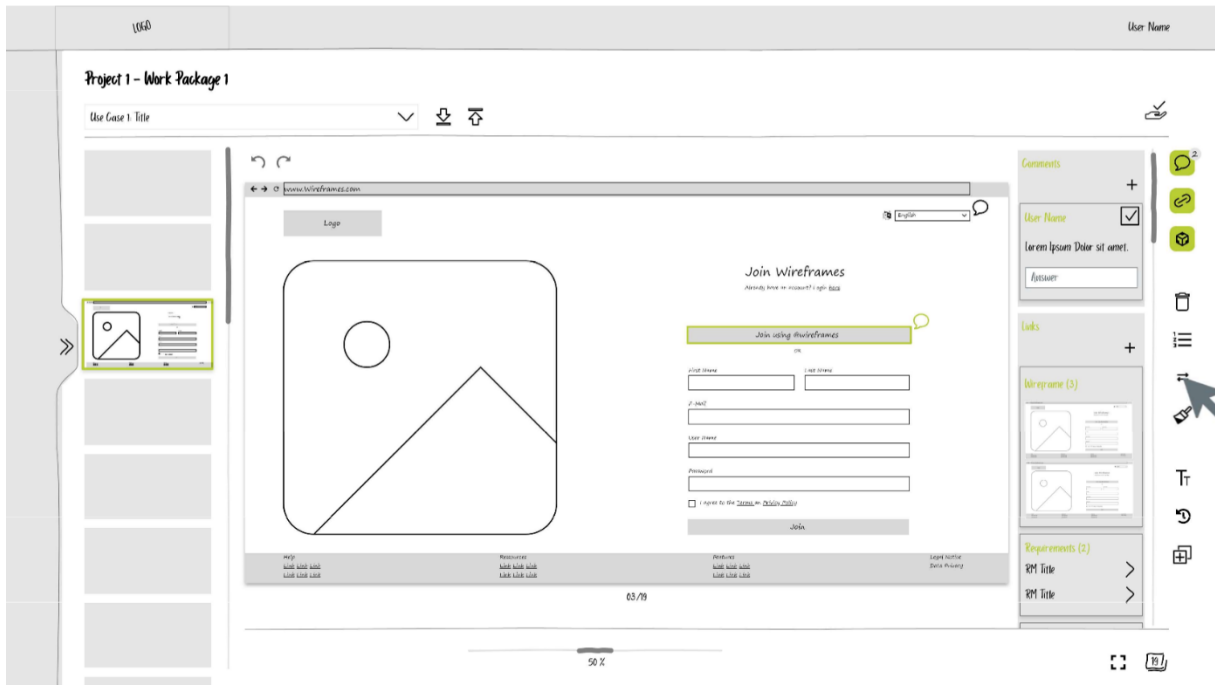
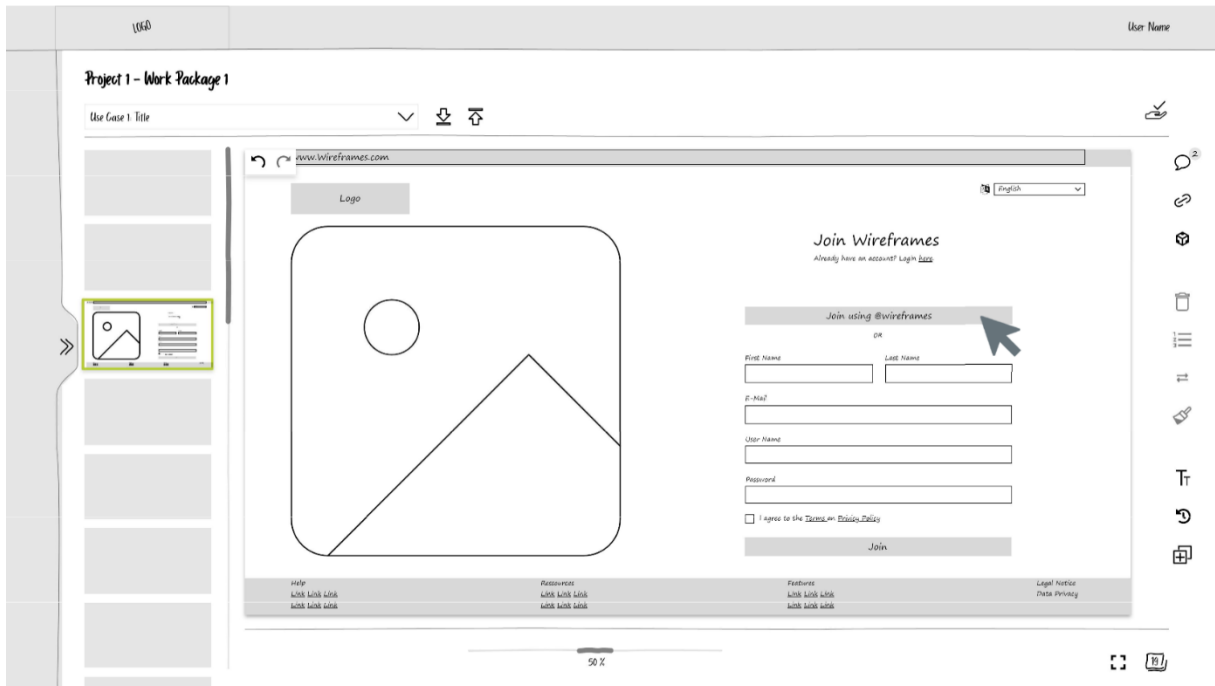
Change the state of the object

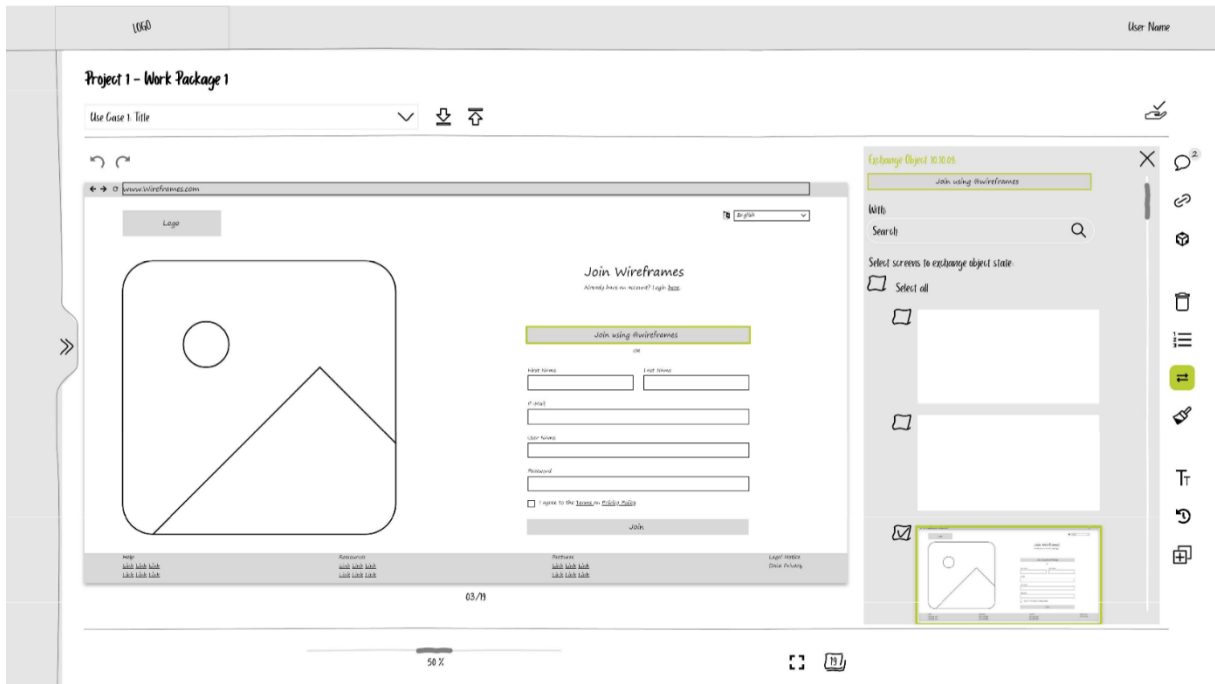






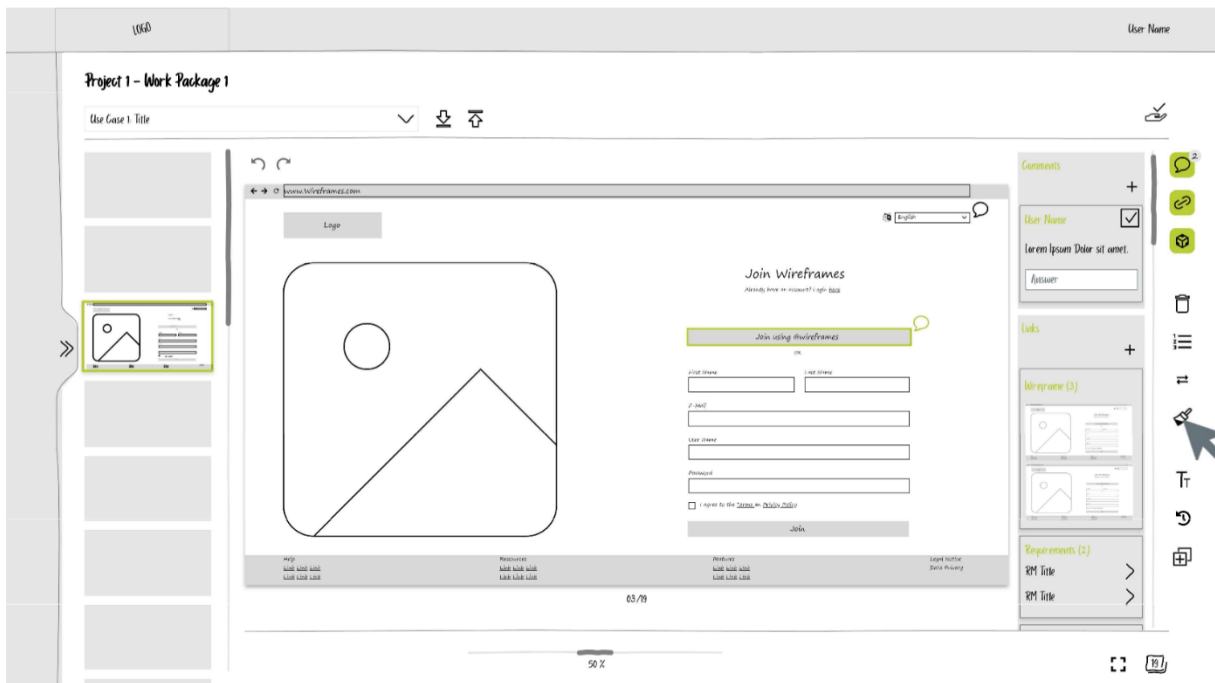
Replace object

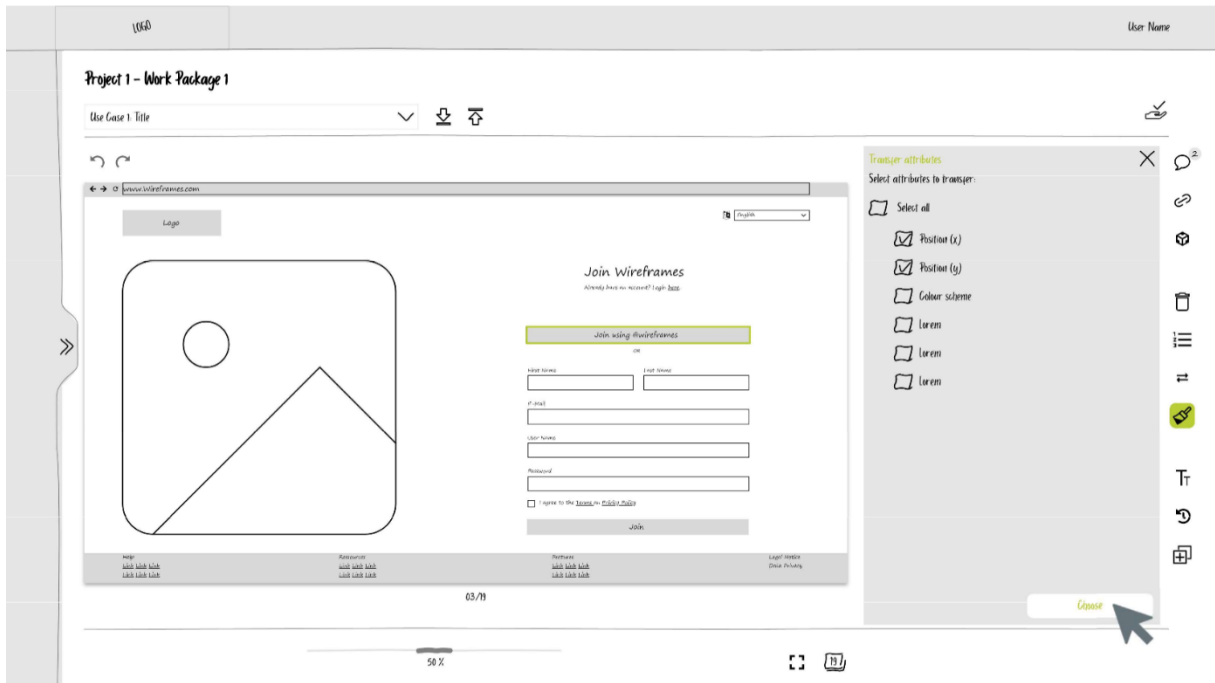
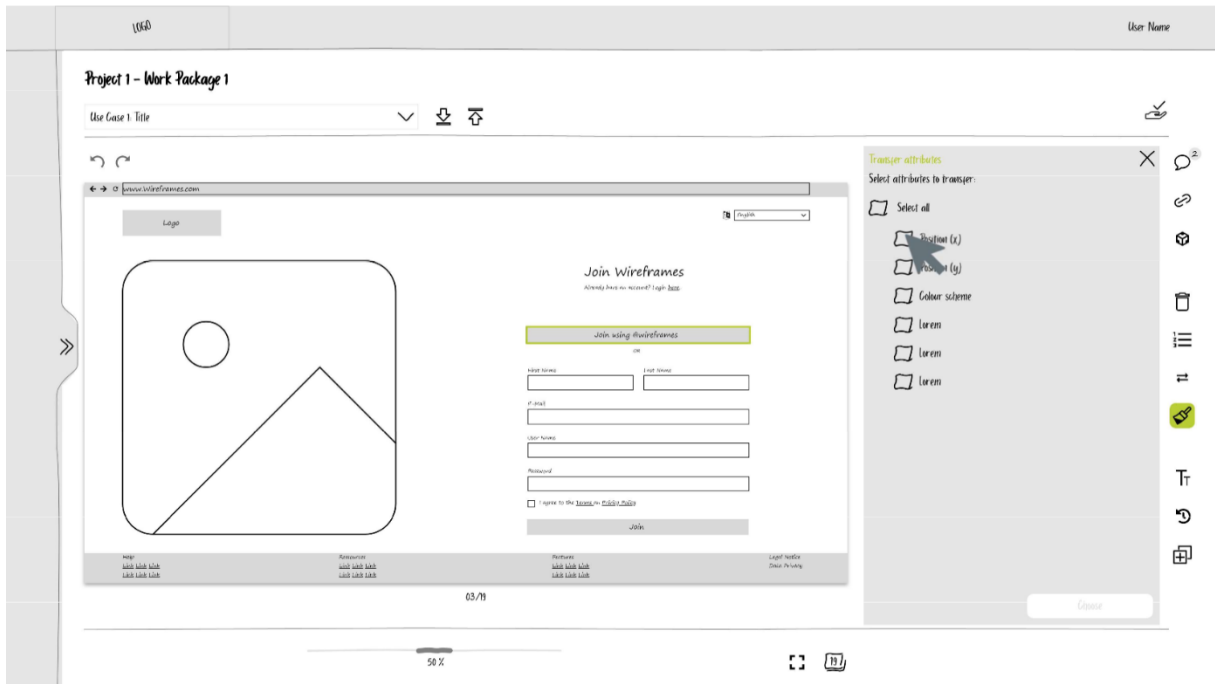


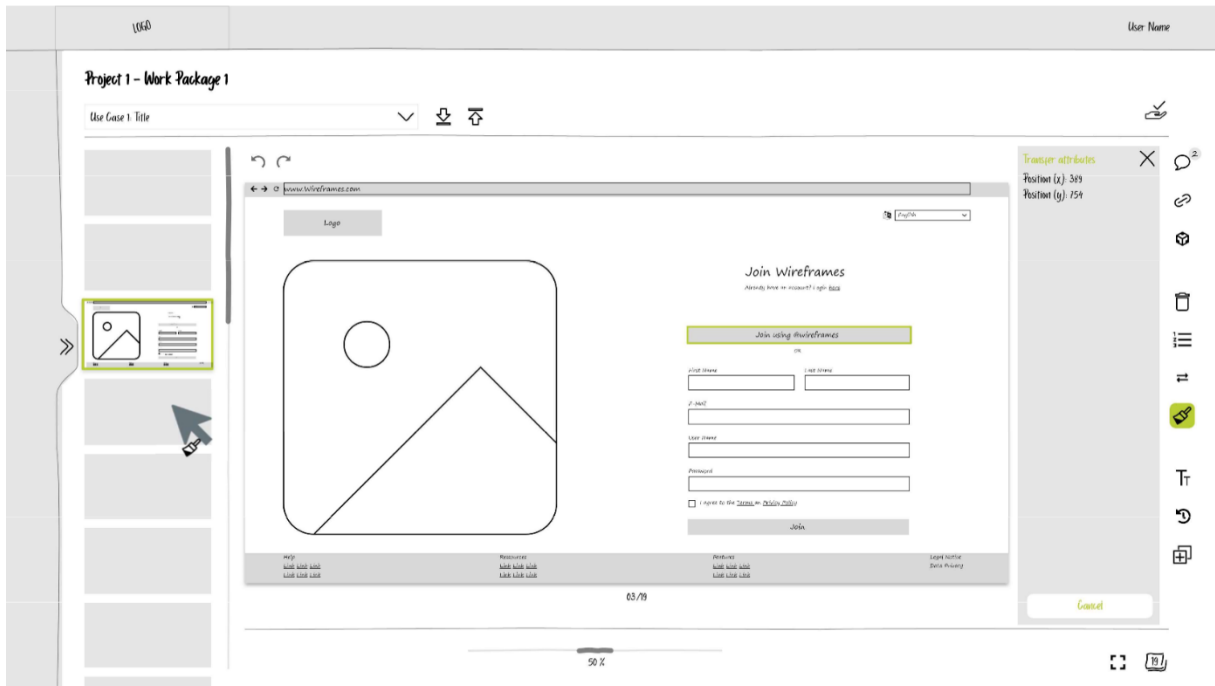


Changes can be applied not only to duplicates of a specific object but to all objects that belong to the same type and thus to the same category.

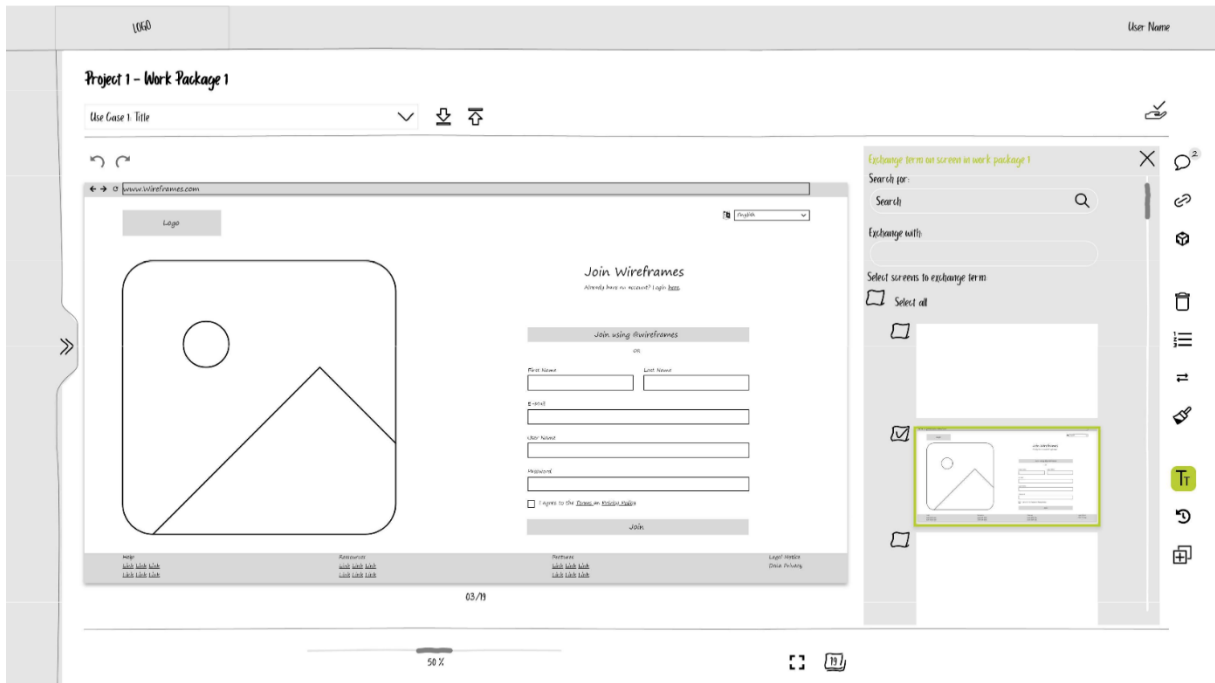
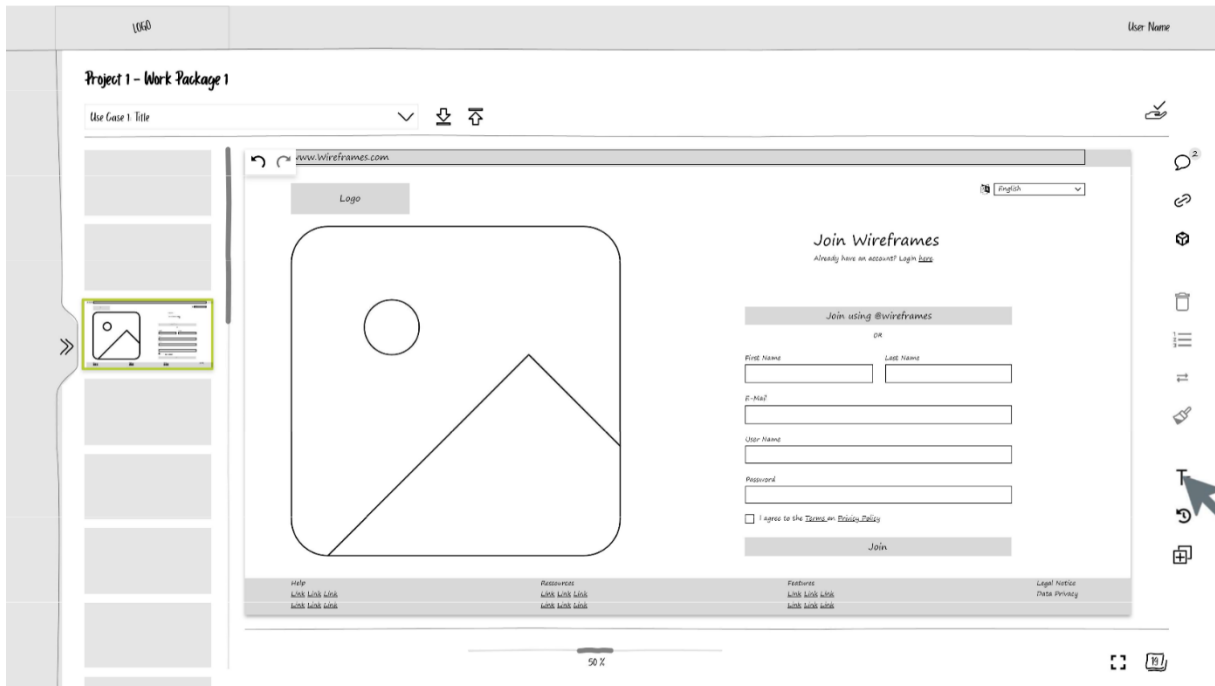
Format adjustments of an object to
Transfer duplicates of the object







Change labels/texts

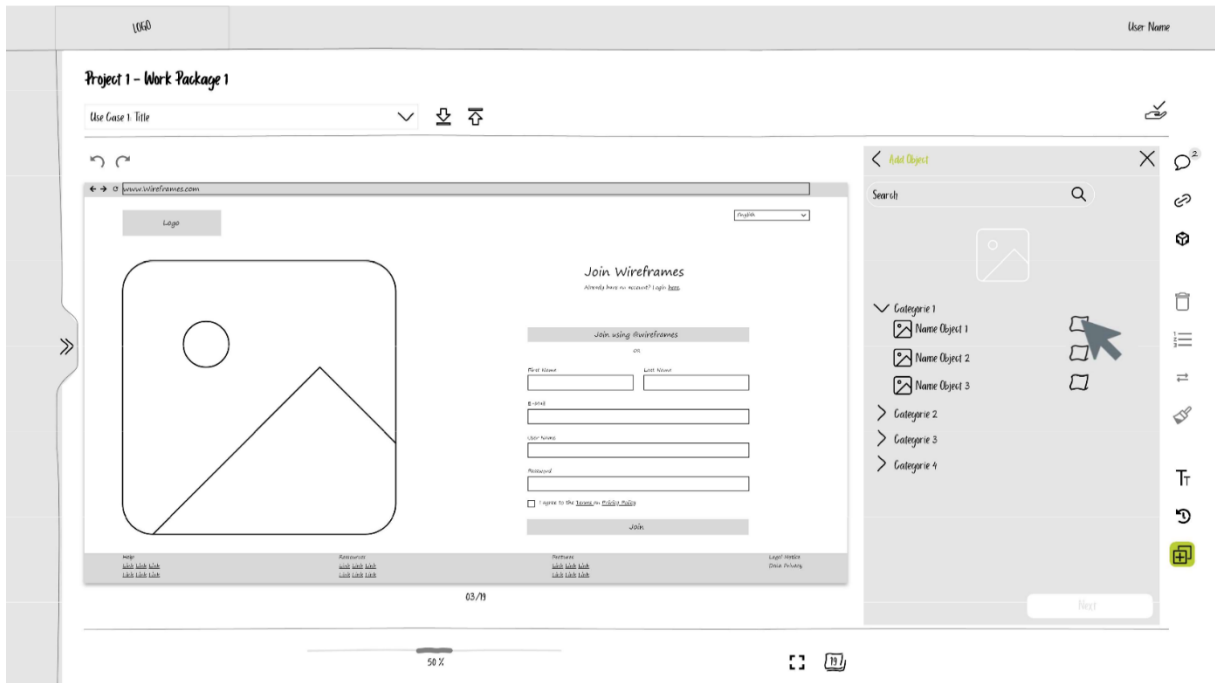
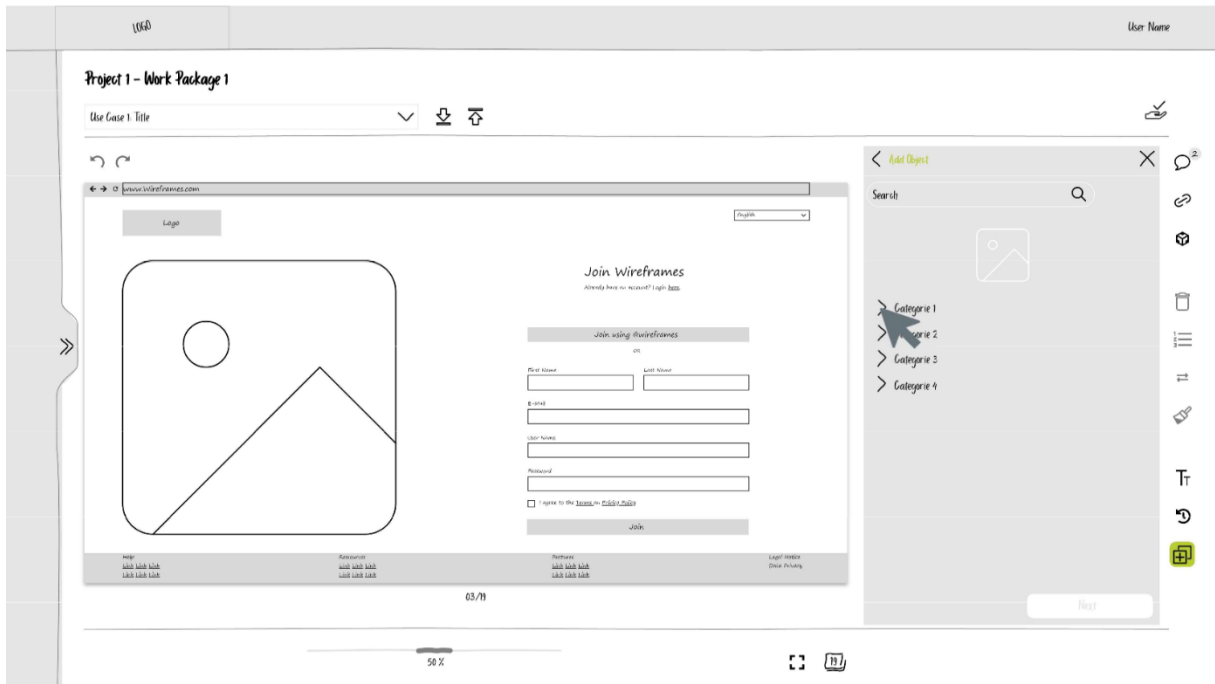


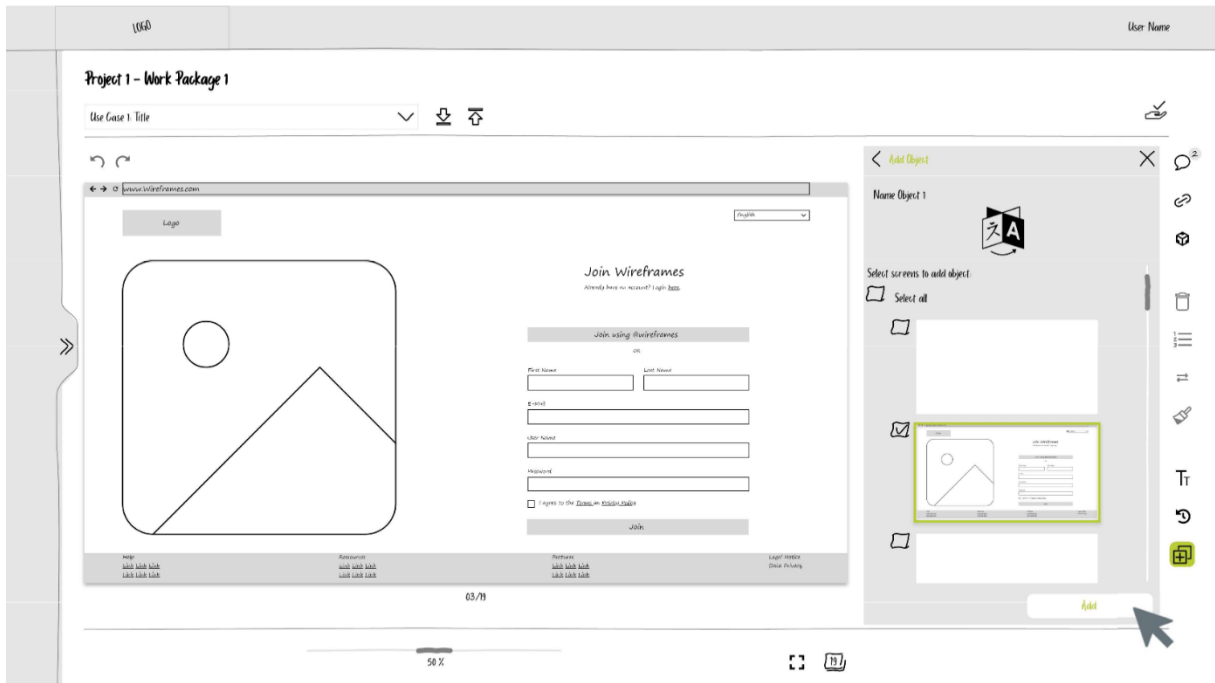
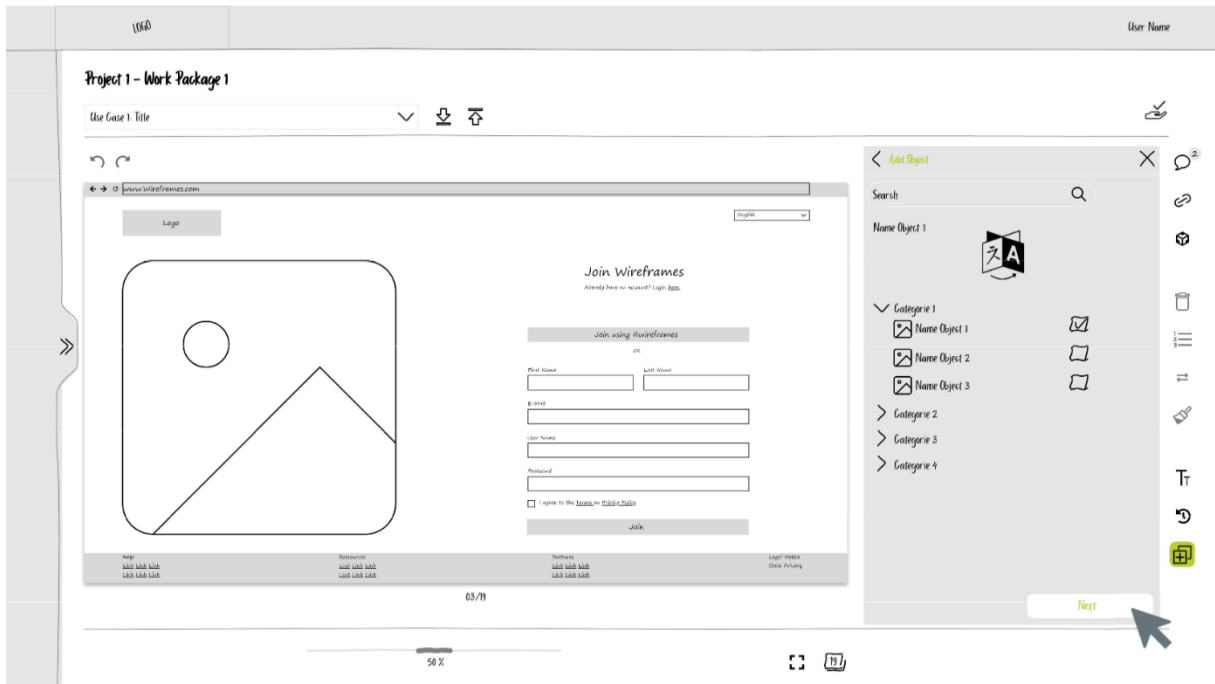
View History from Screen

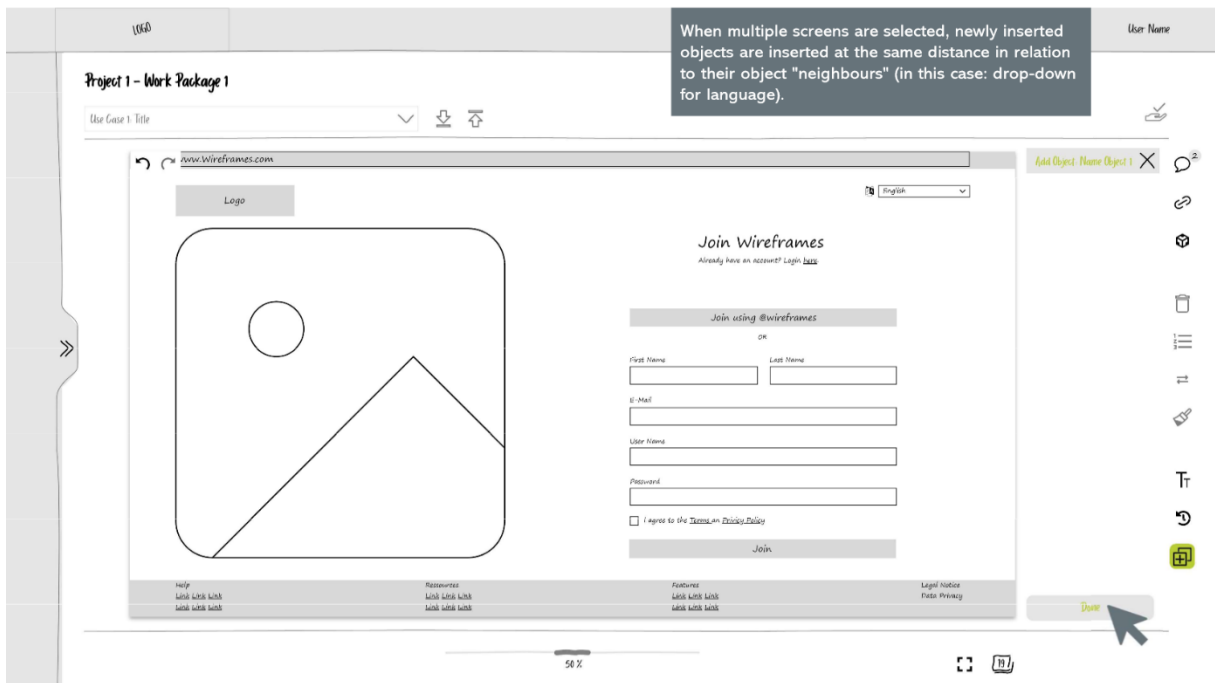
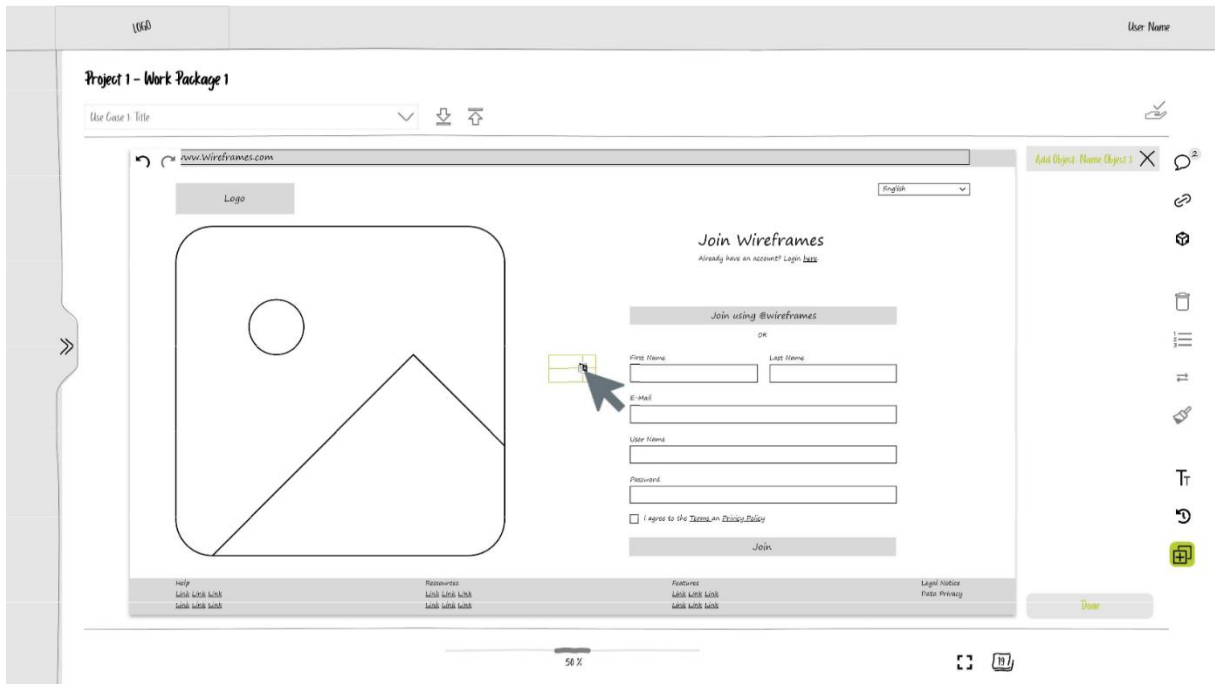


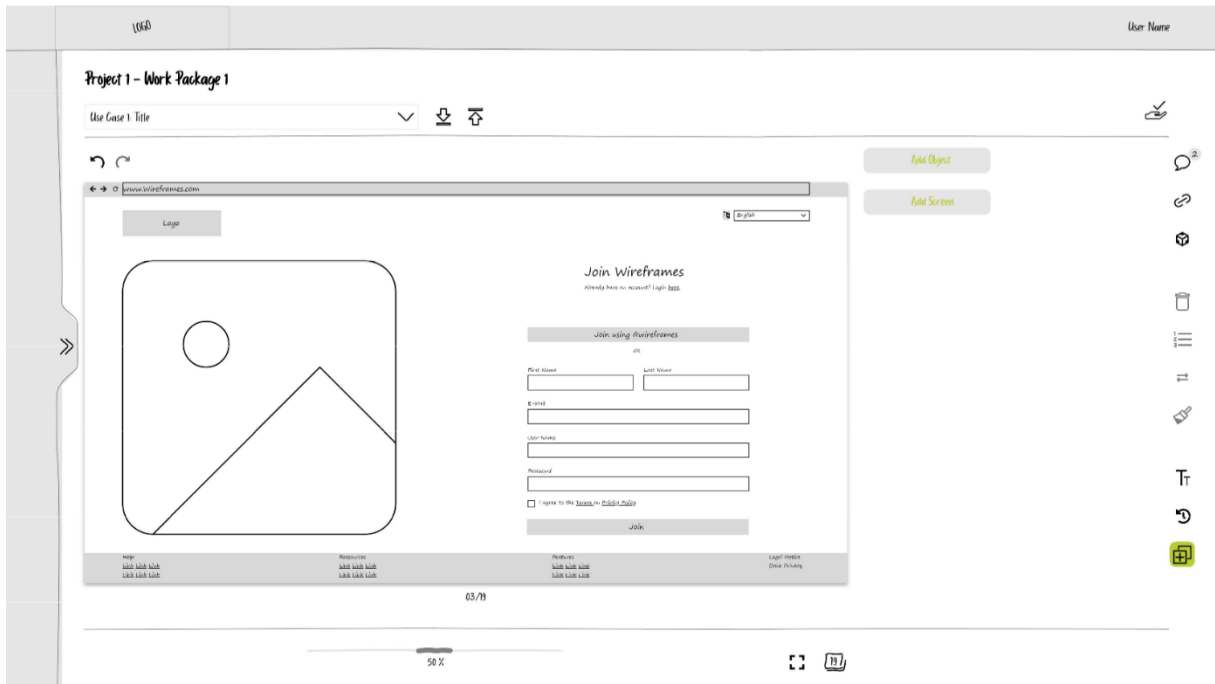


New element on screen
add

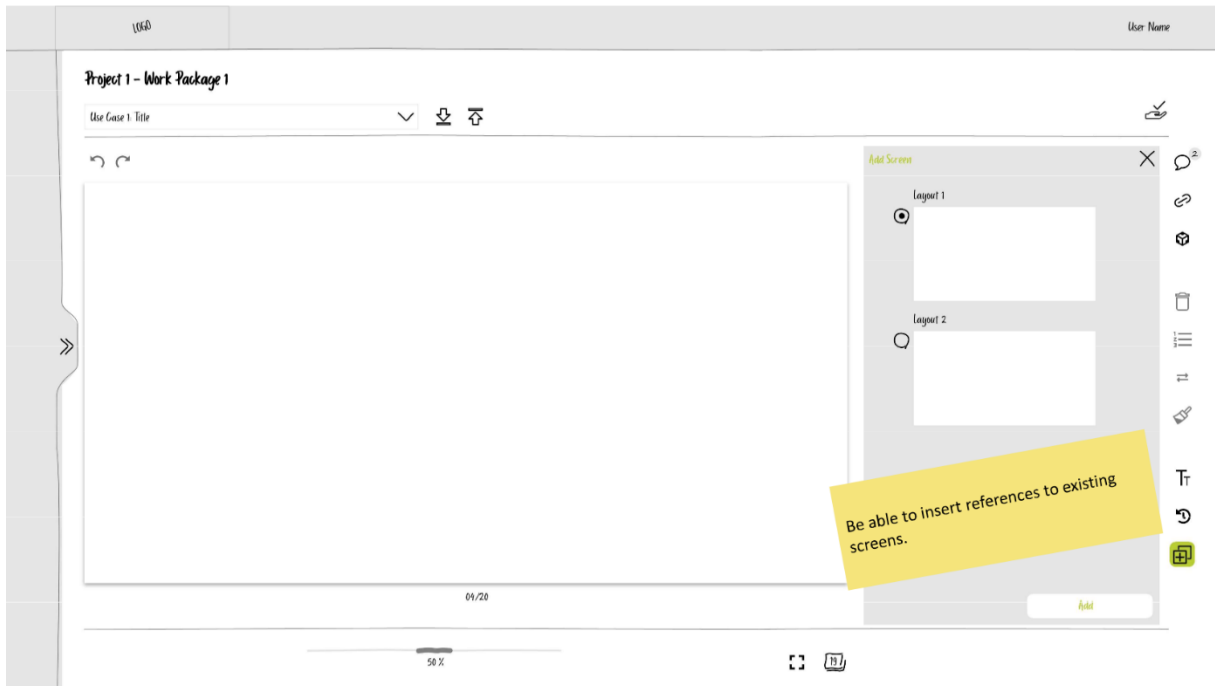








Add a new screen



Component list section

View list

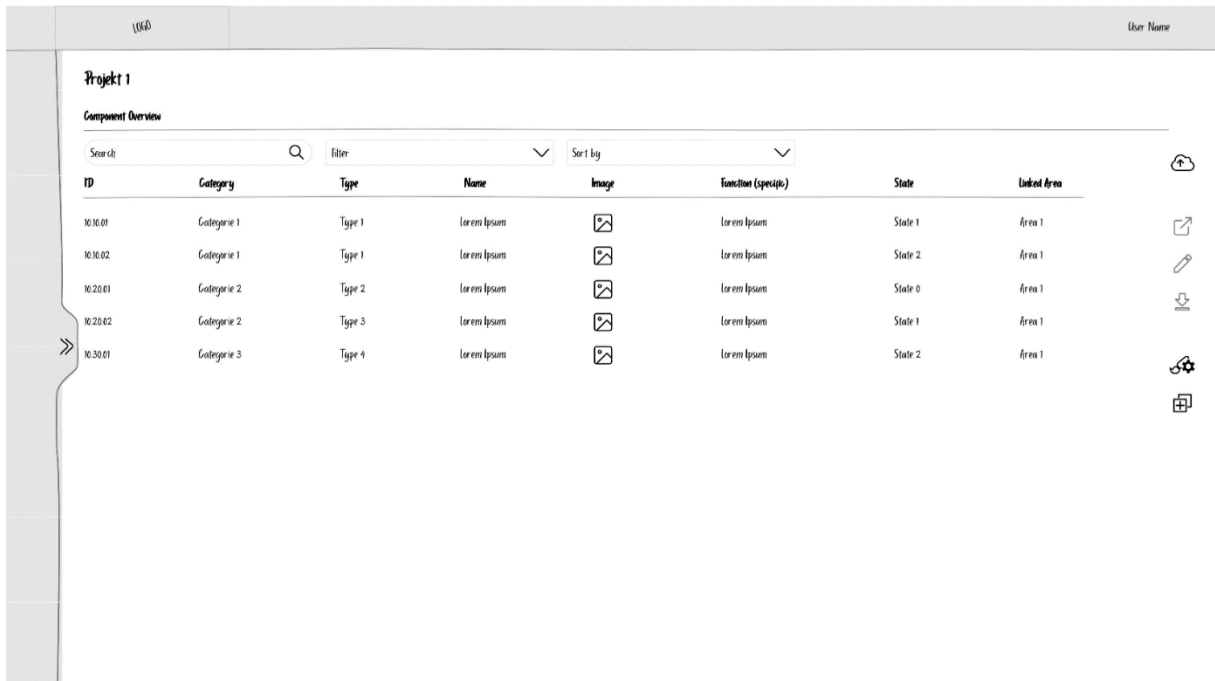
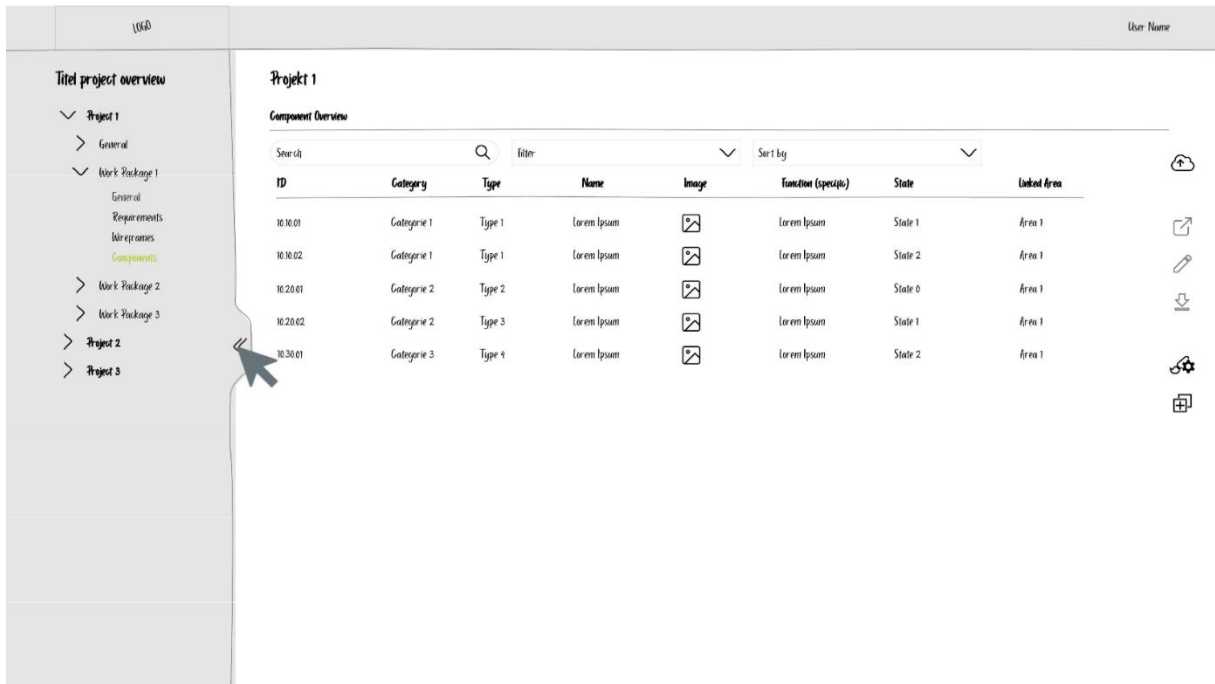
The screenshot shows a software interface for project management. On the left is a sidebar titled "Title project overview" containing a tree view with the following structure:

- Project 1
 - General
 - Work Package 1
 - General
 - Requirements
 - Workpackages
 - Components
 - Work Package 2
 - Work Package 3
- Project 2
- Project 3

A mouse cursor points to the "Components" item under "Work Package 1".

The main content area is titled "Project 1 - Work Package 1" and contains the following sections:

- Current State:** A progress bar with seven phases. Project Phase 0 and Project Phase 1 are active (checked). Project Phase 2 is partially active. Project Phases 3, 4, 5, and 6 are inactive.
- Project Phase 0:** Version History (download icon), Latest Version (download icon).
- Project Phase 1:** Version History (download icon), Latest Version (download icon).
- Project Phase 2:** Reworked Workpackages, Ready for internal Review 100%, Überarbeitung für ISH-IT Requirements 60%.
- Workshops:** Next Workshop: 20.02.2022, Latest Information (download icon), Work (dropdown menu).
- Project Data & Settings:** Project Components (right arrow icon).

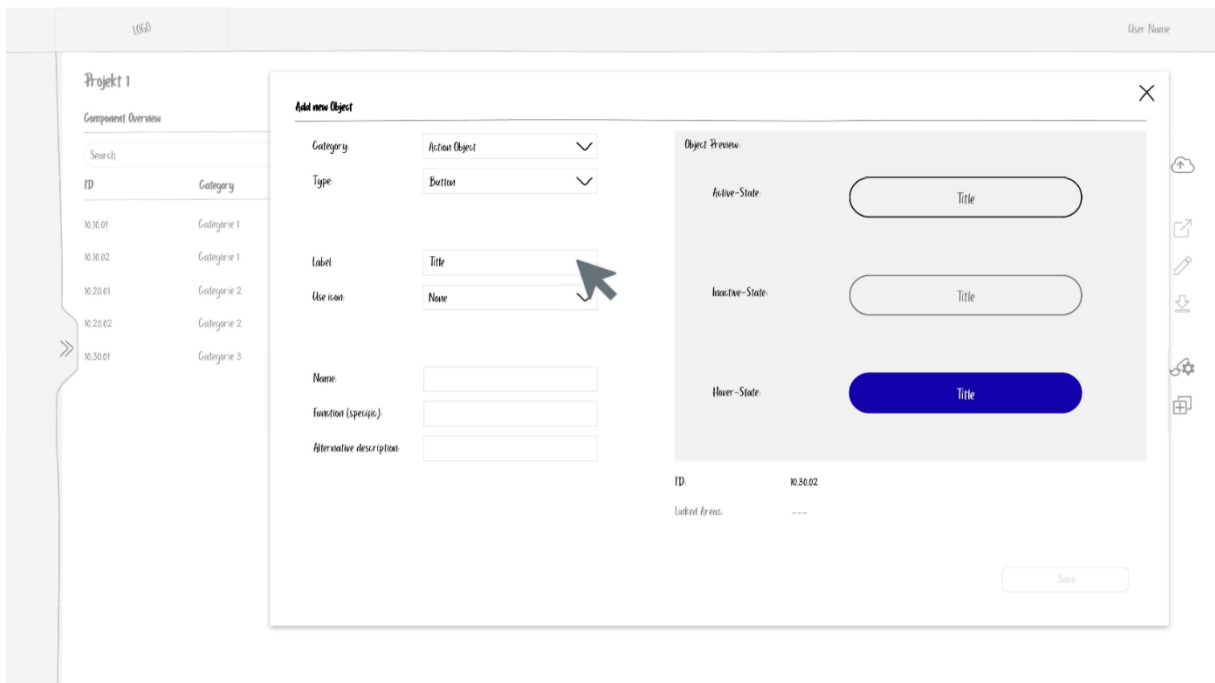
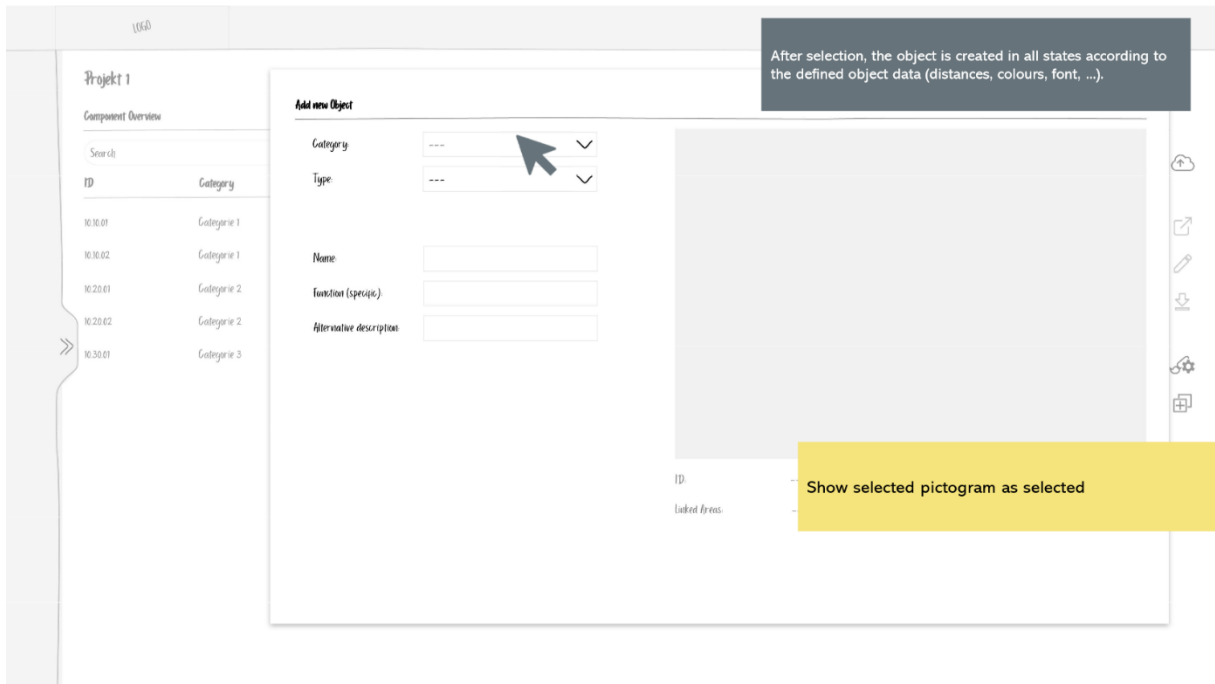


Needed:
Connection to XD Object Library to link work in XD with work
in the tool

Add new object

Automatic creation of objects according to stored category
and condition data

Projekt 1								User Name
Component Overview								
ID	Category	Type	Name	Image	Transition (specific)	State	Linked Area	
10.10.01	Category 1	Type 1	Lorem Ipsum		Lorem Ipsum	State 1	Area 1	
10.10.02	Category 1	Type 1	Lorem Ipsum		Lorem Ipsum	State 2	Area 1	
10.20.01	Category 2	Type 2	Lorem Ipsum		Lorem Ipsum	State 0	Area 1	
10.20.02	Category 2	Type 3	Lorem Ipsum		Lorem Ipsum	State 1	Area 1	
10.30.01	Category 3	Type 4	Lorem Ipsum		Lorem Ipsum	State 2	Area 1	



U60 User Name

Projekt 1

Component Overview

Search

ID	Category
10.10.01	Category 1
10.10.02	Category 1
10.20.01	Category 2
10.20.02	Category 2
10.30.01	Category 3

Add new Object ✕

Category:

Type:

Label:

Use icon:

Name:

Function (specify):

Alternative description:

Object Preview

Active-State:

Inactive-State:

Hover-State:

ID: 10.30.02
Linked Areas: ---

U60 User Name

Projekt 1

Component Overview

Search Filter Sort by

ID	Category	Type	Name	Image	Transition (specify)	State	Linked Area
10.10.01	Category 1	Type 1	Lorem Ipsum		Lorem Ipsum	State 1	Area 1
10.10.02	Category 1	Type 1	Lorem Ipsum		Lorem Ipsum	State 2	Area 1
10.20.01	Category 2	Type 2	Lorem Ipsum		Lorem Ipsum	State 0	Area 1
10.20.02	Category 2	Type 3	Lorem Ipsum		Lorem Ipsum	State 1	Area 1
10.30.01	Category 3	Type 4	Lorem Ipsum		Lorem Ipsum	State 2	Area 1
10.30.02 - 1	Action Object	Button	Download		Download Image	Active	---
10.30.02 - 2	Action Object	Button	Download		Download Image	Inactive	---
10.30.02 - 3	Action Object	Button	Download		Download Image	Hover	---

View object data (details)

1160								User Name
Projekt 1								
Component Overview								
Search		Filter	Sort by					
ID	Category	Type	Name	Image	Transition (specification)	State	Linked Area	
10.10.01	Category 1	Type 1	Lorem Ipsum		Lorem Ipsum	State 1	Area 1	
10.10.02	Category 1	Type 1	Lorem Ipsum		Lorem Ipsum	State 2	Area 1	
10.20.01	Category 2	Type 2	Lorem Ipsum		Lorem Ipsum	State 0	Area 1	
10.20.02	Category 2	Type 3	Lorem Ipsum		Lorem Ipsum	State 1	Area 1	
10.30.01	Category 3	Type 4	Lorem Ipsum		Lorem Ipsum	State 2	Area 1	
10.30.02 - 1	Action Object	Button	Download		Download Image	Active	---	
10.30.02 - 2	Action Object	Button	Download		Download Image	Inactive	---	
10.30.02 - 3	Action Object	Button	Download		Download Image	Hover	---	

1060 User Name

Projekt 1

Component Overview

Search Filter Sort by

ID	Category	Type	Name	Image	Function (specific)	State	Linked Area
10.10.01	Category 1	Type 1	Lorem Ipsum		Lorem Ipsum	State 1	Area 1
10.10.02	Category 1	Type 1	Lorem Ipsum		Lorem Ipsum	State 2	Area 1
10.20.01	Category 2	Type 2	Lorem Ipsum		Lorem Ipsum	State 0	Area 1
10.20.02	Category 2	Type 3	Lorem Ipsum		Lorem Ipsum	State 1	Area 1
10.30.01	Category 3	Type 4	Lorem Ipsum		Lorem Ipsum	State 2	Area 1
10.30.02 - 1	Action Object	Button	Download		Download Image	Active	---
10.30.02 - 2	Action Object	Button	Download		Download Image	Inactive	---
10.30.02 - 3	Action Object	Button	Download		Download Image	Hover	---

Navigation icons: Home, Back, Forward, Download, Settings, Add

1060 User Name

Project 1

Object: 10.30.03

Object Data

Category	Action Object
Type	Button
Label	Download
Use icon	Download (10.20.20)
Name	Download
Function (specific)	Download Image
Alternative description	Button with label "Download"

Active-State

Inactive-State

Hover-State

ID: 10.10.05
Linked Area: ---

Details

State: Show graphic information Show dimensions

Frame: Medium Button

Colour: #1f12c

Thickness: 2 px

Rounding: 45%

Show selected pictogram as selected
Back arrow on lower level as we stay in project 1

Integrate history pictogram into action area

Navigation icons: Home, Back, Forward, Download, Settings, Add

1060 User Name


< Project 1


Object: 10.20.03


Object Data: Current State

Category	Action Object
Type	Button
Label	Download
Use icon	Download (10.20.20)
Name	Download
Function (specific)	Download Image
Alternative description	Button with label "Download"

ID:	10.10.03
Linked Areas:	---

Active-State: 

Inactive-State: 

Hover-State: 

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⚙️

📦

1060 User Name


< Project 1


Object: 10.20.03


Object Data

Category	Action Object
Type	Button
Label	Download
Use icon	Download (10.20.20)
Name	Download
Function (specific)	Download Image
Alternative description	Button with label "Download"

ID:	10.10.03
Linked Areas:	---

Active-State: 

Inactive-State: 

Hover-State: 

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Details

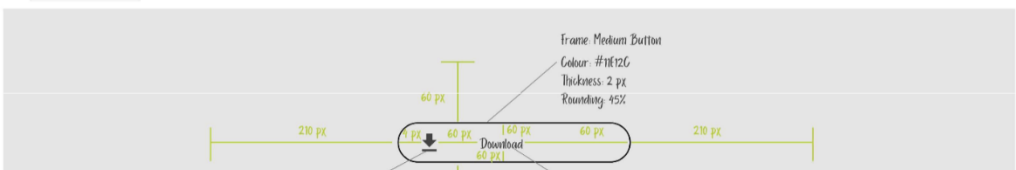
State: Active Show graphic information Show dimensions

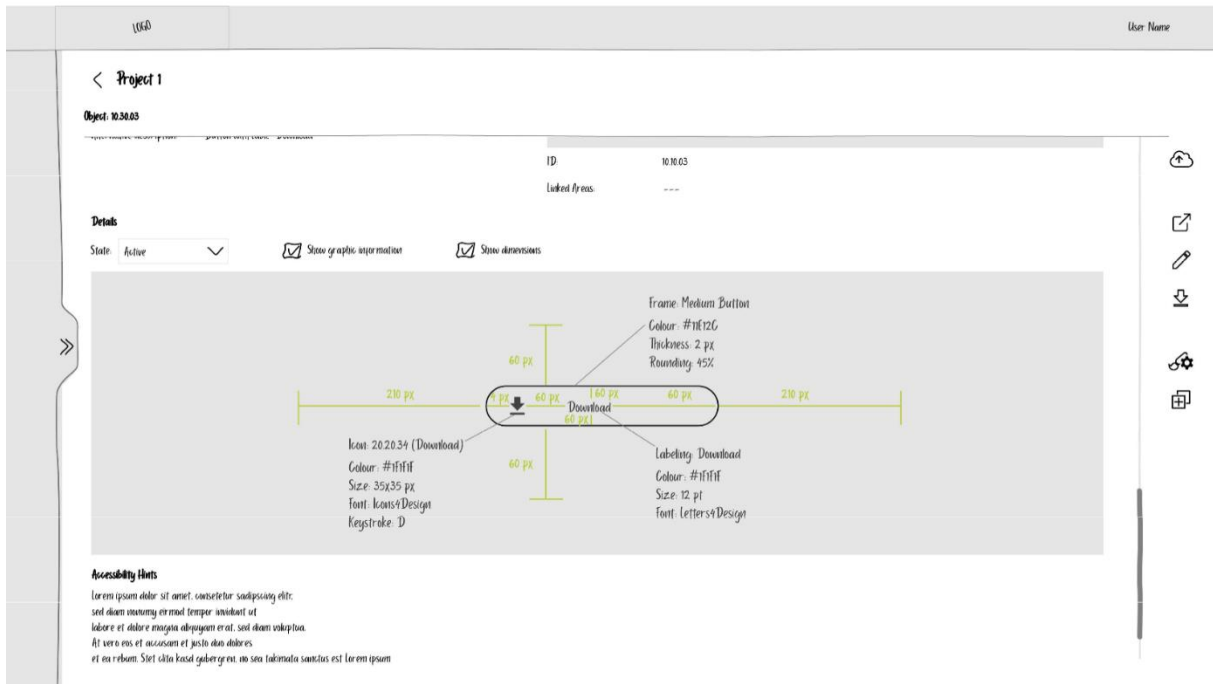
Frame: Medium Button

Colour: #1f1c2c

Thickness: 2 px

Rounding: 45%





Wireframes section

Function explanation

Project 1 - Work Package 1

User Case 1: Title [dropdown] [download] [refresh] 95% 0%

RM Title
Lorem ipsum Dolor sit amet.

Linked Requirements (2):
 > RM Title
 > RM Title
 > RM Title

Linked Objects (20):

Name	Name	Name	Name	Name	Name
[icon]	[icon]	[icon]	[icon]	[icon]	[icon]

Linked Screens (4):
 Use Case 1, Screen 13 Use Case 1, Screen 14 Use Case 1, Screen 15 Use Case 1, Screen 16

Accept Requirement

Affects only called requirements

Concerns all requirements

Project 1 - Work Package 1

User Case 1: Title [dropdown] [download] [refresh] 95% 0%

RM Title
 Lorem ipsum Dolor sit amet. **UR: Edit on click**

Linked Requirements (2):
 > RM Title **All: Click to unfold to read**
 > RM Title **UR: On Click Read, Delete**
 > RM Title

Linked Objects (20):

Name	Name	Name	Name	Name	Name
[icon]	[icon]	[icon]	[icon]	[icon]	[icon]

Linked Screens (4):
 Use Case 1, Screen 13 Use Case 1, Screen 14 Use Case 1, Screen 15 Use Case 1, Screen 16

Customer: Accept requirement

Accept Requirement

All: Show where comments are

All: Show connections between requirements
UR additional: Drag & Drop / un/ Edit links

UR: Add new link to this RM

UR: Delete the RM or individual connections

UR: Exchange of terms (according to Word "replace")

UR: Overarching functions (e.g. multiple links)

On click: Enlarge, jump, delete

On click: Enlarge, jump, delete

All: Call up the complete overview

Overview

The screenshot displays a software interface for project management. On the left is a sidebar titled "Title project overview" containing a tree view with the following structure:

- Project 1
 - General
 - Work Package 1
 - General
 - Requirements
 - Work packages
 - Components
 - Work Package 2
 - Work Package 3
- Project 2
- Project 3

A mouse cursor points to the "Requirements" item under "Work Package 1".

The main content area is titled "Project 1 - Work Package 1" and includes the following sections:

- Current State:** A progress bar with seven phases. Project Phase 0 and Project Phase 1 are active (checked). Project Phase 2 is partially active. Project Phases 3, 4, 5, and 6 are inactive.
- Project Phase 0:** Version History (download icon), Latest Version (download icon).
- Project Phase 1:** Version History (download icon), Latest Version (download icon).
- Project Phase 2:** Reworked Work packages, Ready for internal Review 100%, Überarbeitung für ISIRI IT Requirements 60%.
- Workshops:** Next Workshop: 20.02.2022, Latest Information (download icon), Work (dropdown menu).
- Project Data & Settings:** Project Components (right arrow).

Project 1 - Work Package 1

Use Case 1: Title

Search Filter Sort by

Comments

Your Name

Assign

User Name

Links

Diagrams (2)

Requirements (2)

RM Title

Project 1 - Work Package 1

RM Title (Type)

03/20

Linked Requirements (3)

- > RM Title
- > RM Title
- > RM Title

Linked Objects (20)

Name

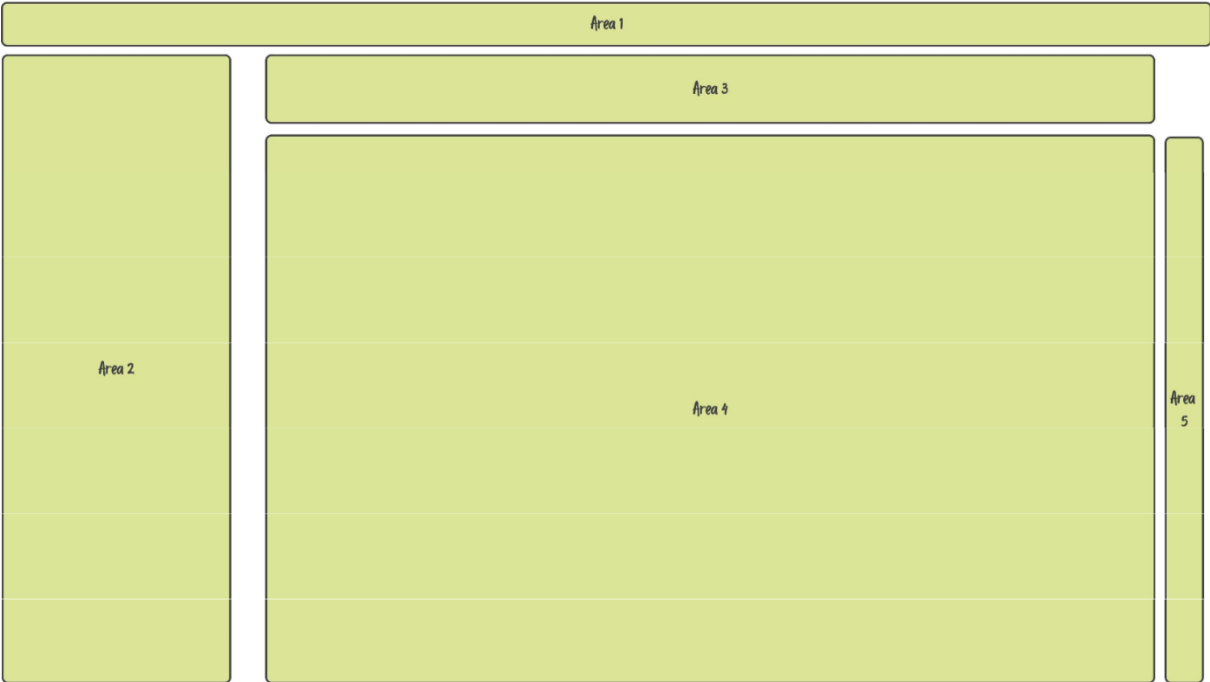
Linked Screens (4)

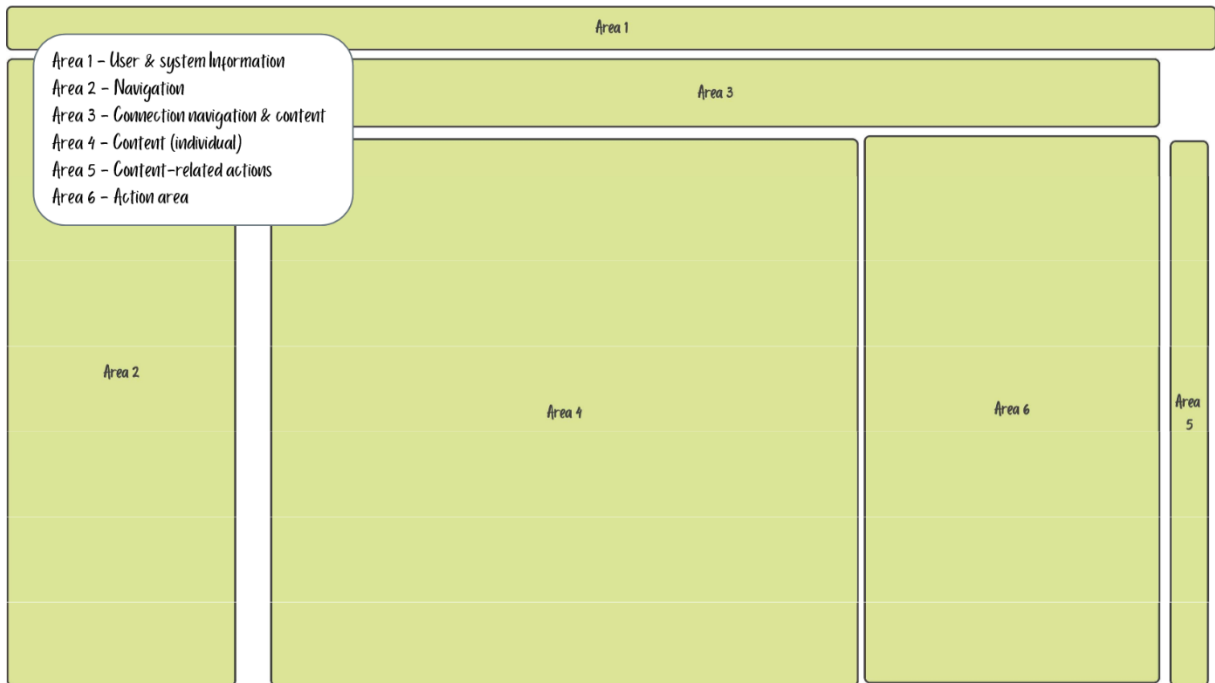
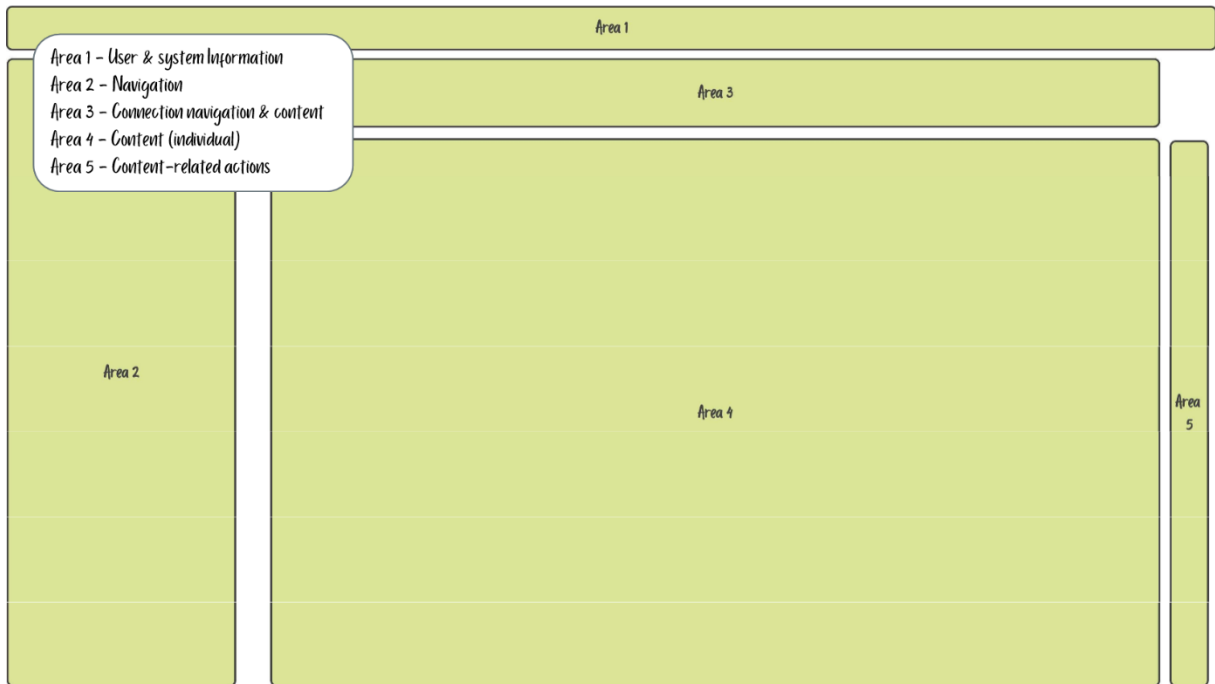
- Use Case 1, Screen 13
- Use Case 1, Screen 14
- Use Case 1, Screen 15
- Use Case 1, Screen 16

Accept Requirement

Appendix 7: Final Concept Wireframes

General page layout





Section General

Overview: Brief description of actions

Actions in General

Area 4 - Content (individual)

Project Level

Project Overview: All users can see an overview of which work package is in which phase.

Workshops: All users can get an overview of which workshops are coming up. Depending on their role, they can call up corresponding data (e.g. wireframes) needed for this workshop.

Project Data & Settings: Relevant settings are displayed according to role

Work Package Level

Current State: All users see the current phase status of the work package and can retrieve last data statuses of the current and past phases.

Workshops: All users can open the latest workshop documents.

Data & Settings: Relevant settings are displayed according to role.

Area 5 - Content-related actions

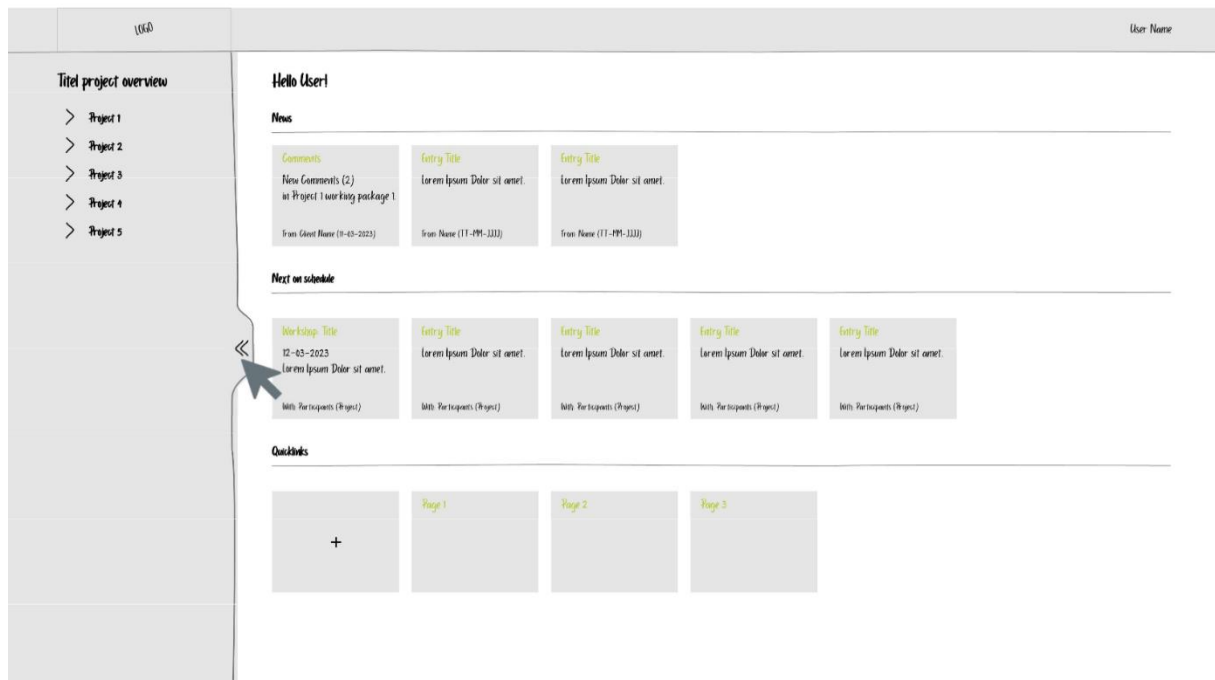


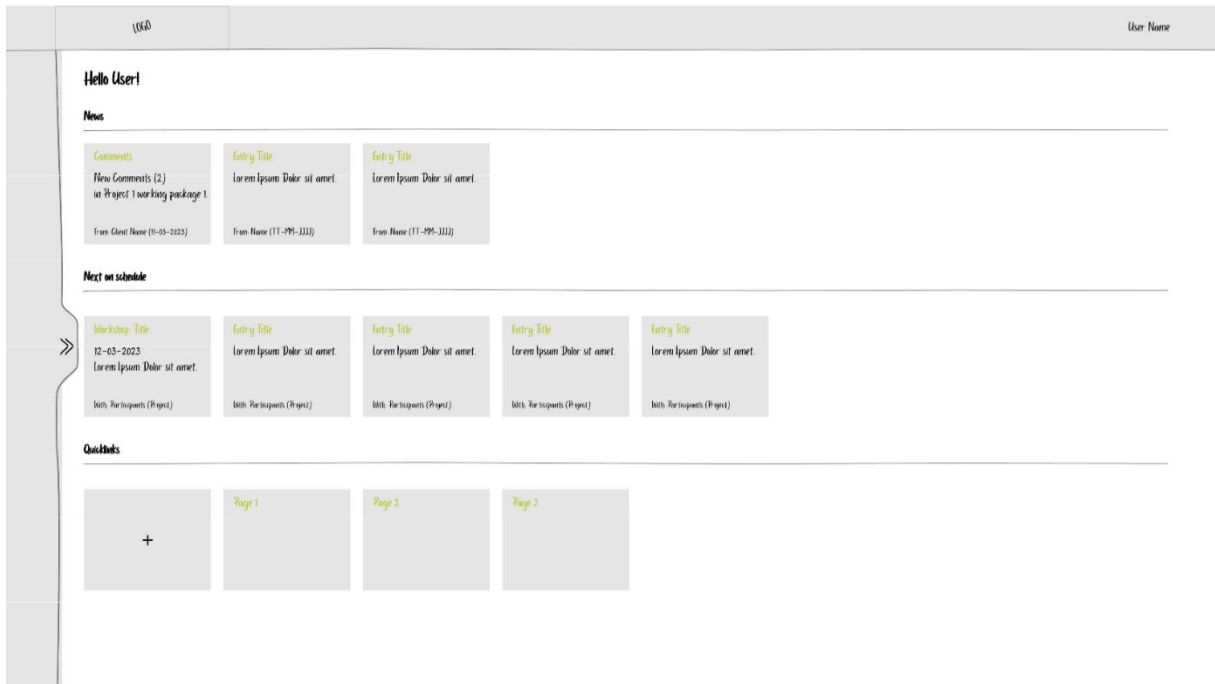
Phase management

PMO can manage phases (e.g. phase transitions)

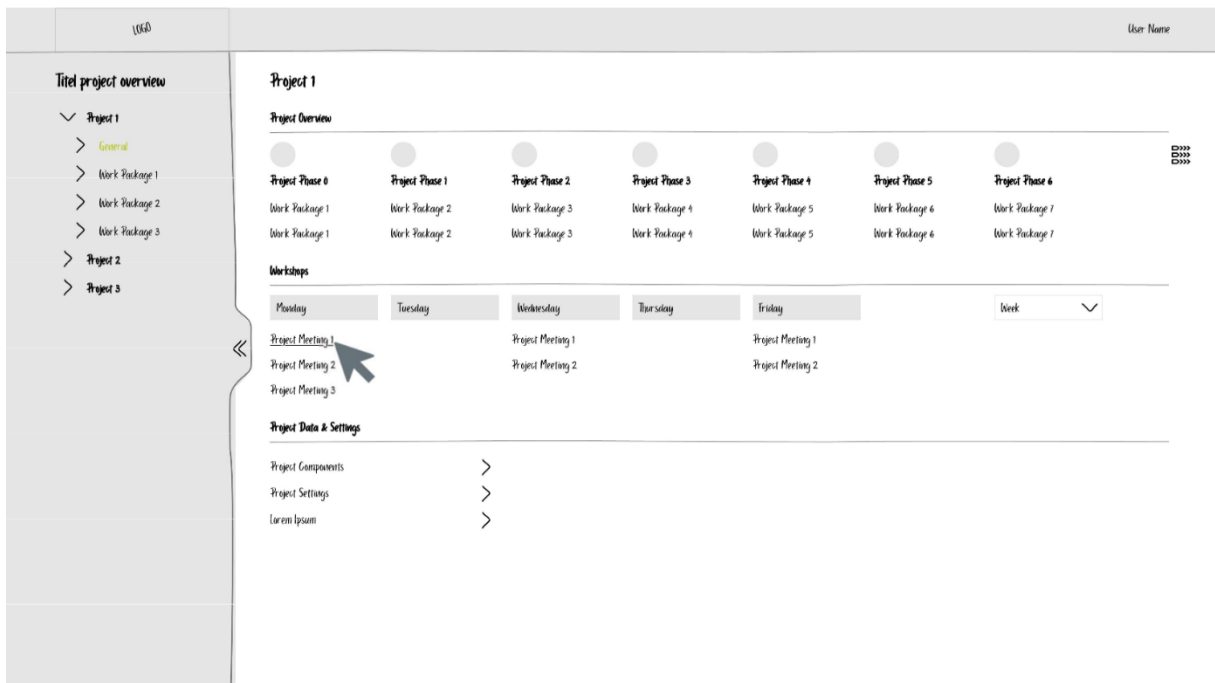
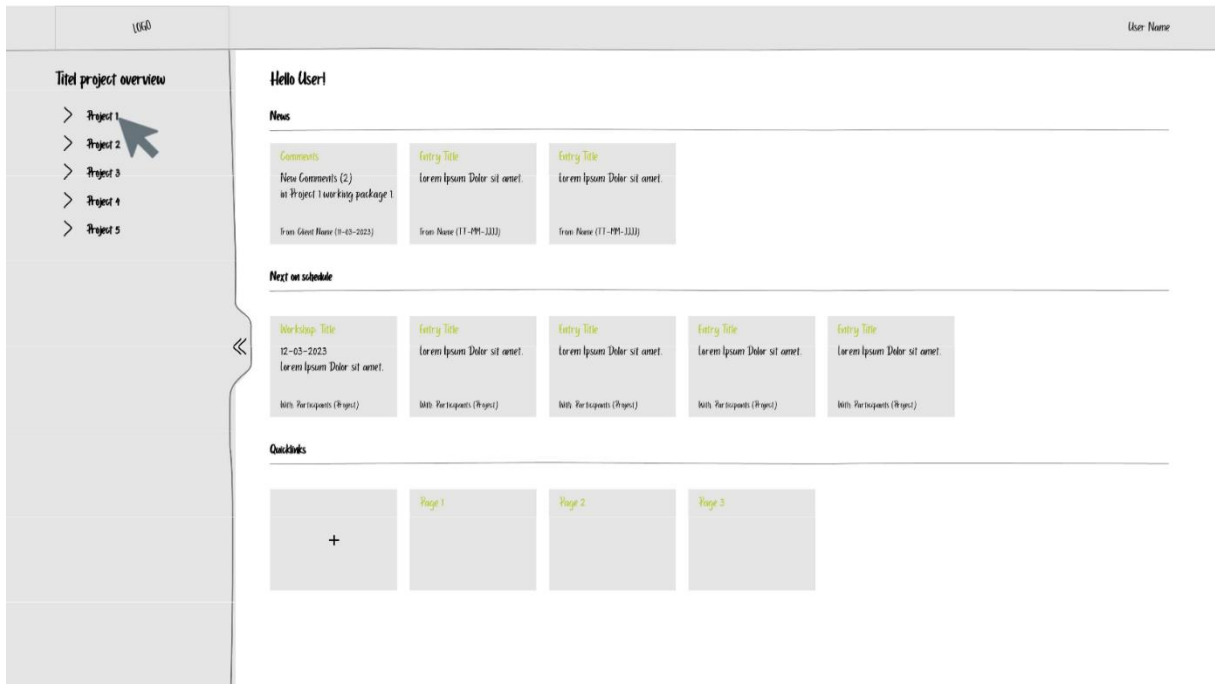
Section General

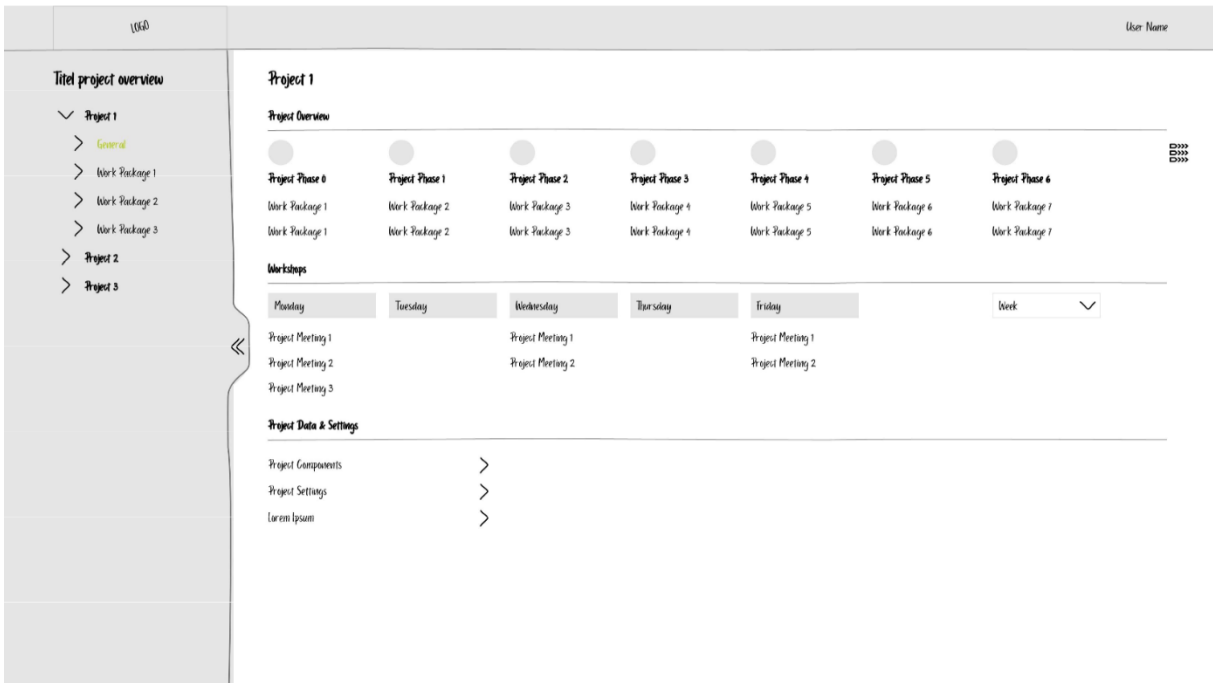
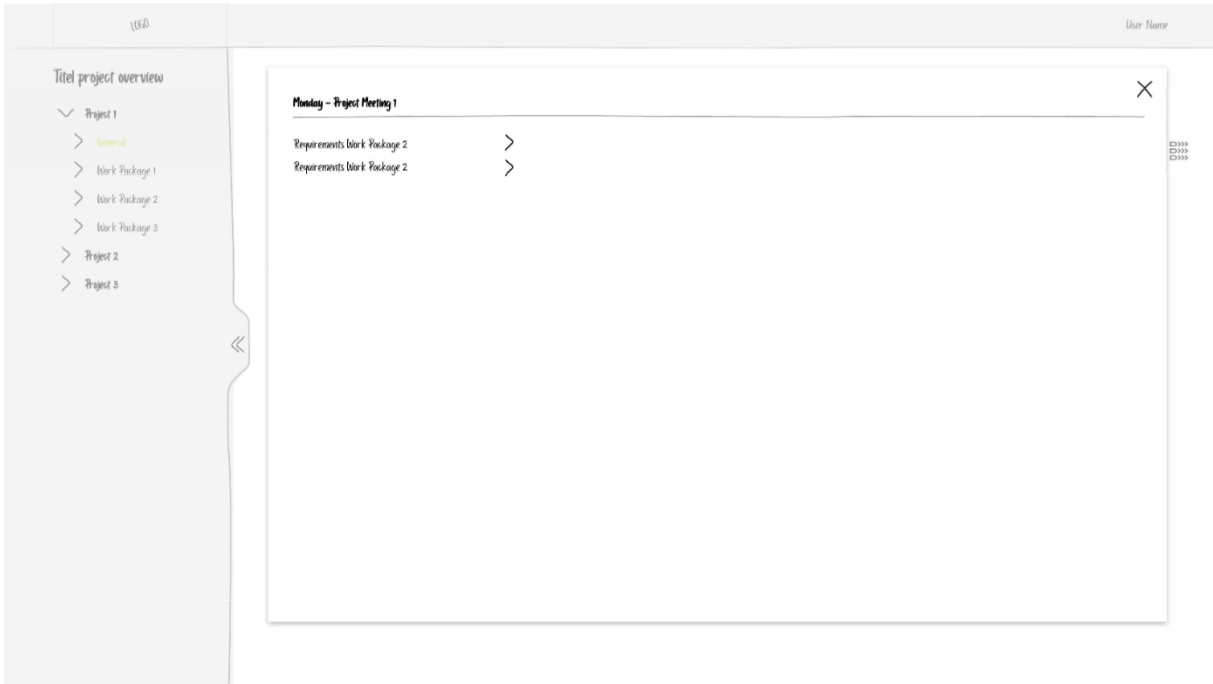
Behaviour Navigation bar



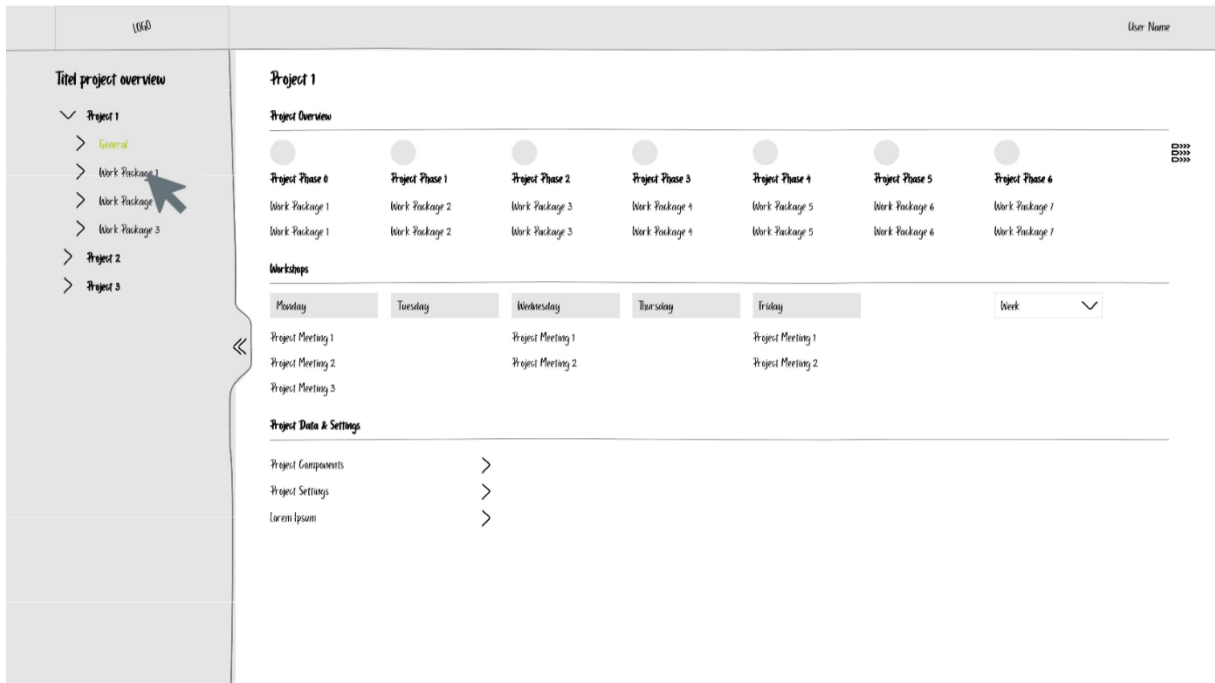


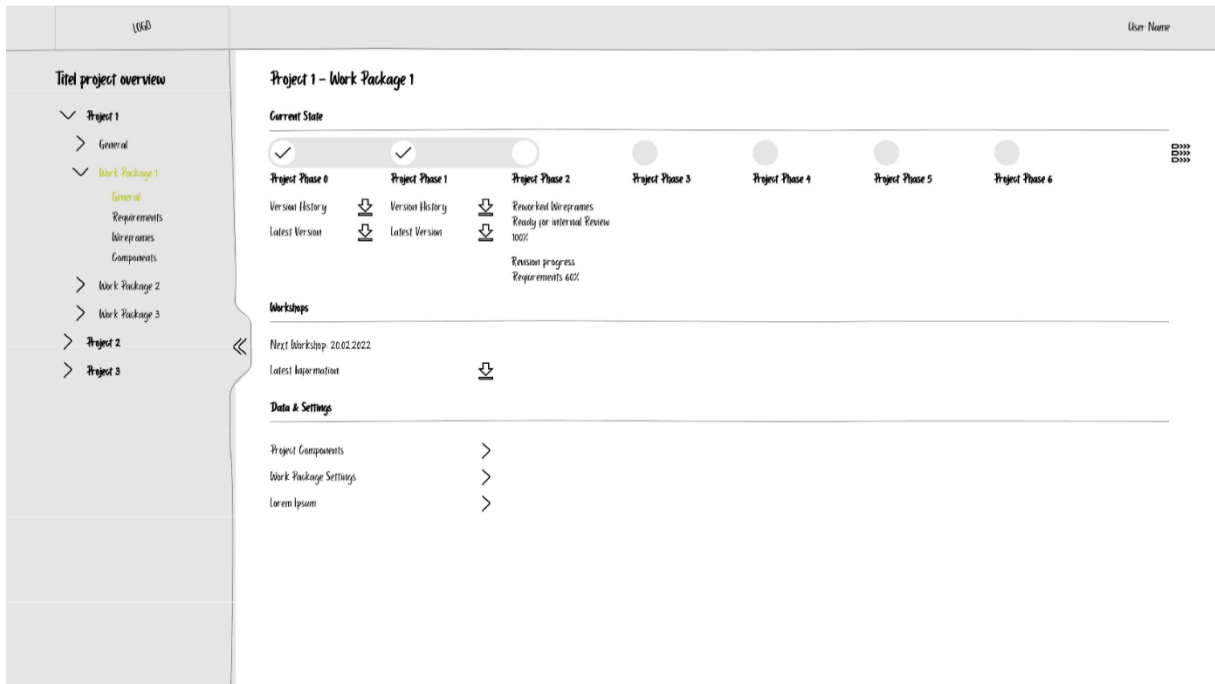
Home Project (General)





Home Work Package (General)



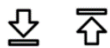


Wireframes section

Overview: Brief description of actions

Actions in Wireframes Section

Area 3 - Connection navigation & content



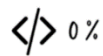
Download & Upload

Designers can open a dialogue for uploading files. Information is integrated into the tool according to the system logic.
All users can optionally download displayed wireframes with additional information (comments, links, ...) in the appropriate format.



Processing status

Indicates the processing status of the requirements. This is measured, for example, by solved comments and accepted requirements. Visible for **all users**.



Implementation status

All users can see the implementation status of the programming. This is measured, for example, by the ticket status (To do vs. In Progress vs. Done). Visible for **all users**.



Review

Designers can release wireframes of the open work package or use case for internal review.

Actions in Wireframes Section

Area 4 - Content (individual)

Show Recent Changes: Designers can view the last changes that have been done since they last opened the wireframes.

Actions in Wireframes Section

Area 5 - Content-related actions



Comments

All users can view comments, reply to them or post them themselves. The comments are always attached to a screen resp. object.



Links

Overview of system information related to this component or screen (e.g. user stories) can be viewed by every user and edited by designers and user researchers.



Component Data

Relevant component data can be viewed by programmers.



Delete

Designers can open the dialogue to select on which screens the selected object should be removed.



Change State

Designers can open the dialogue to select on which screens the state of the selected object should be changed.



Exchange

Designers can open the dialogue to select on which screens the selected object should be exchanged.



Transfer Attributes

Designers can open the dialogue to select which object properties should be transferred to other objects (e.g., position, colour scheme, ...).



Change Text

Designers can open the dialogue to select on which screens one term should be replaced by another.



History

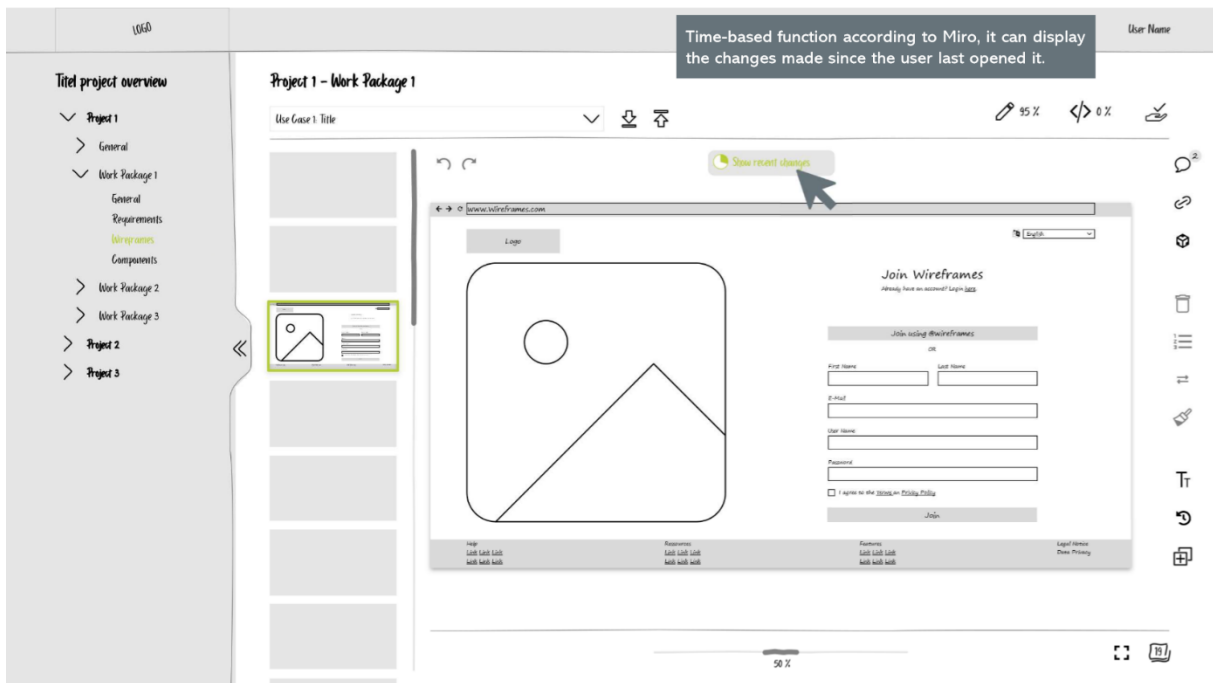
All users can open the dialogue to view the history of a screen.

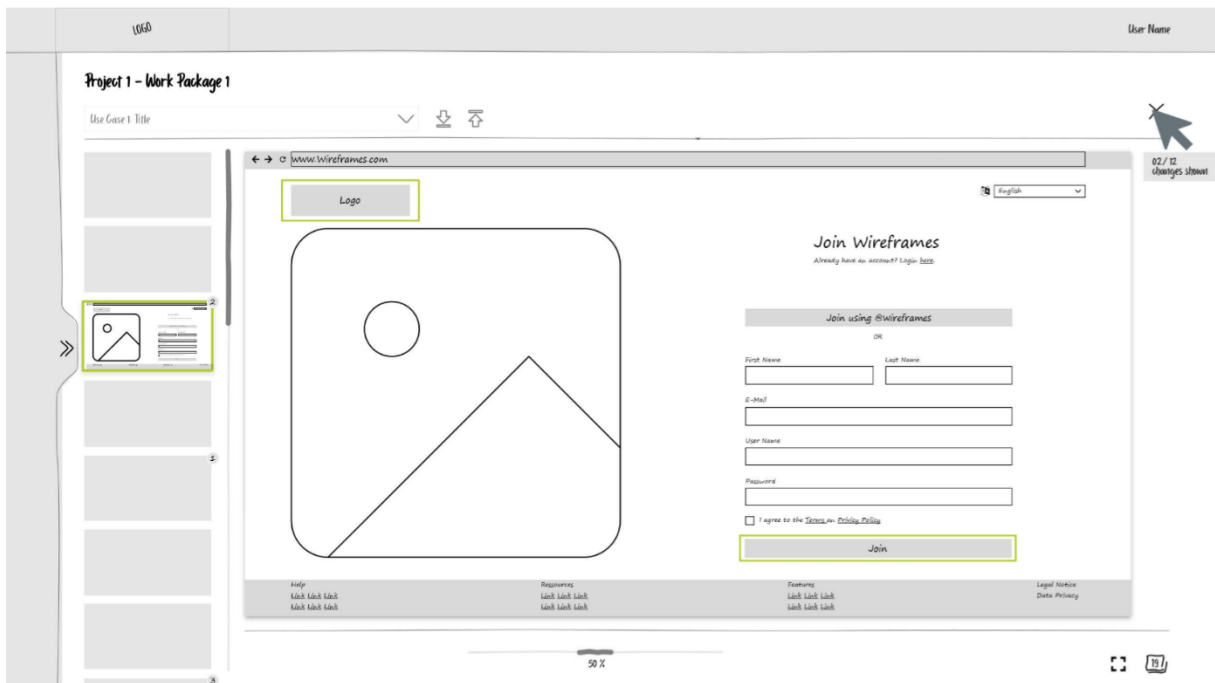
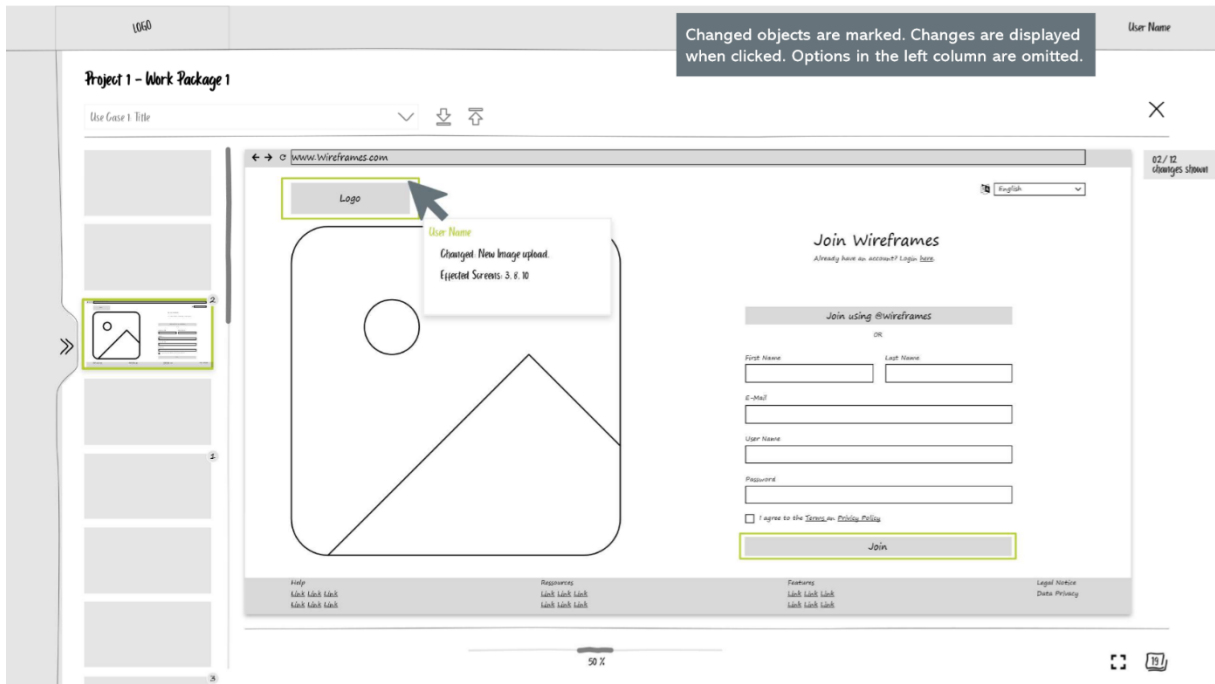


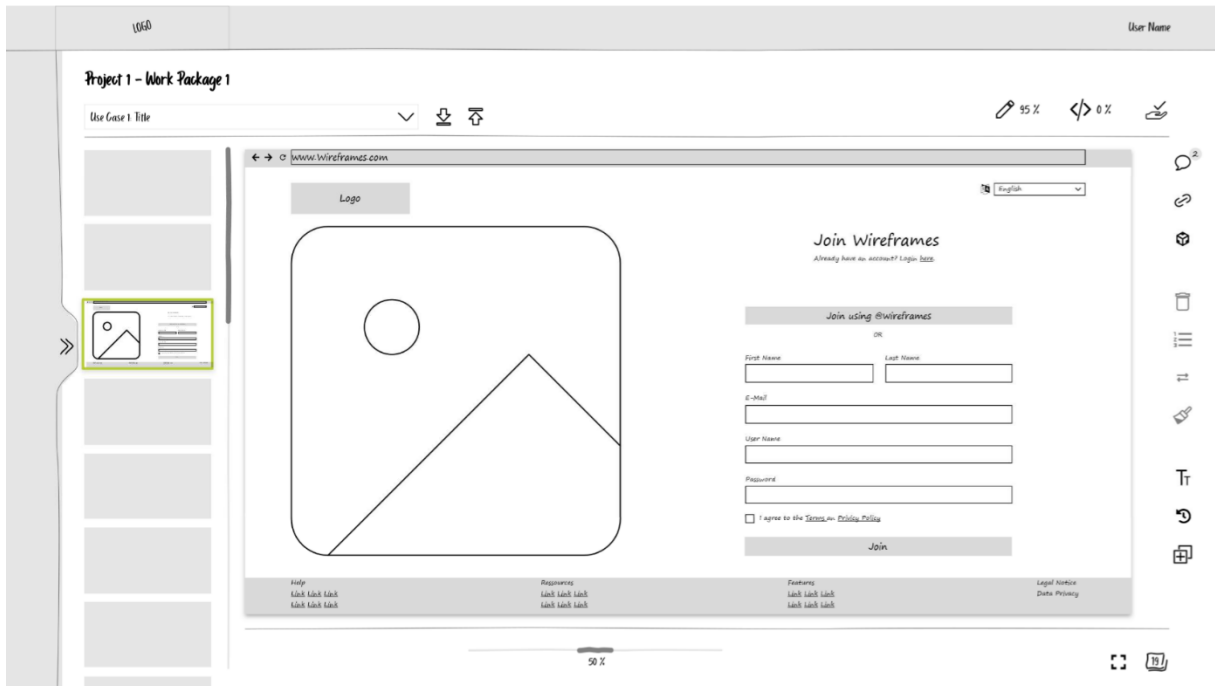
Add

Designer can open the dialogue to add: an object (via selection from component list) to selected screens, a new screen or a reference to an existing screen, that should be displayed here.

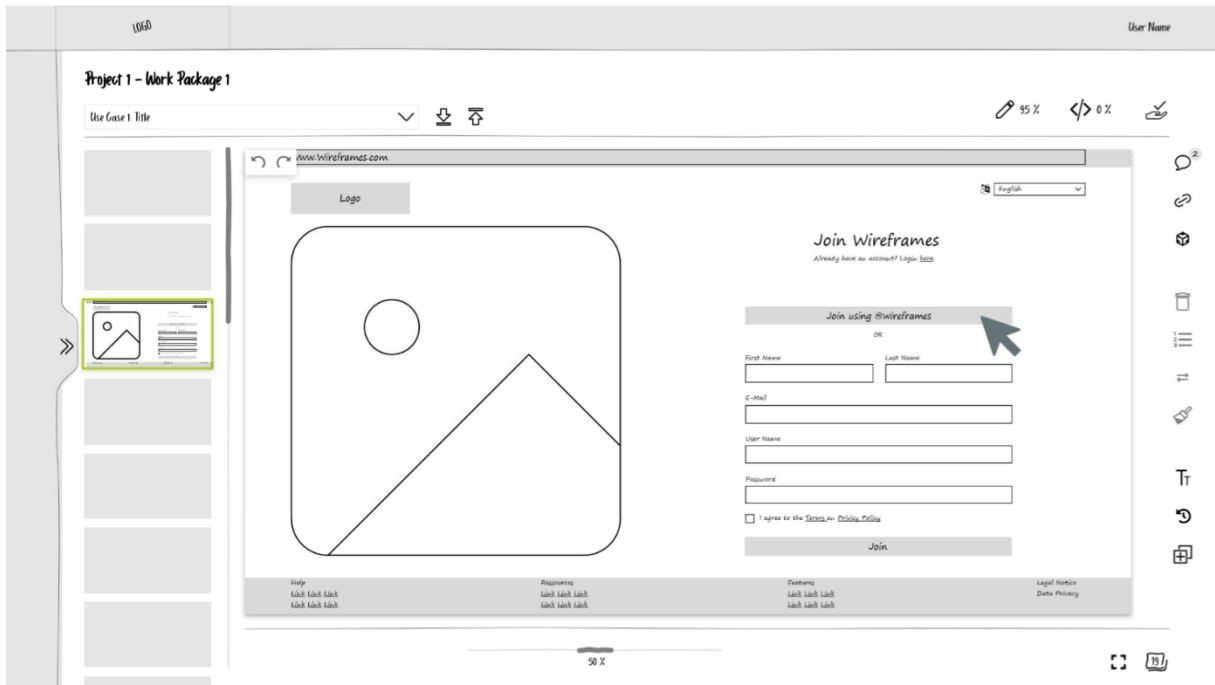
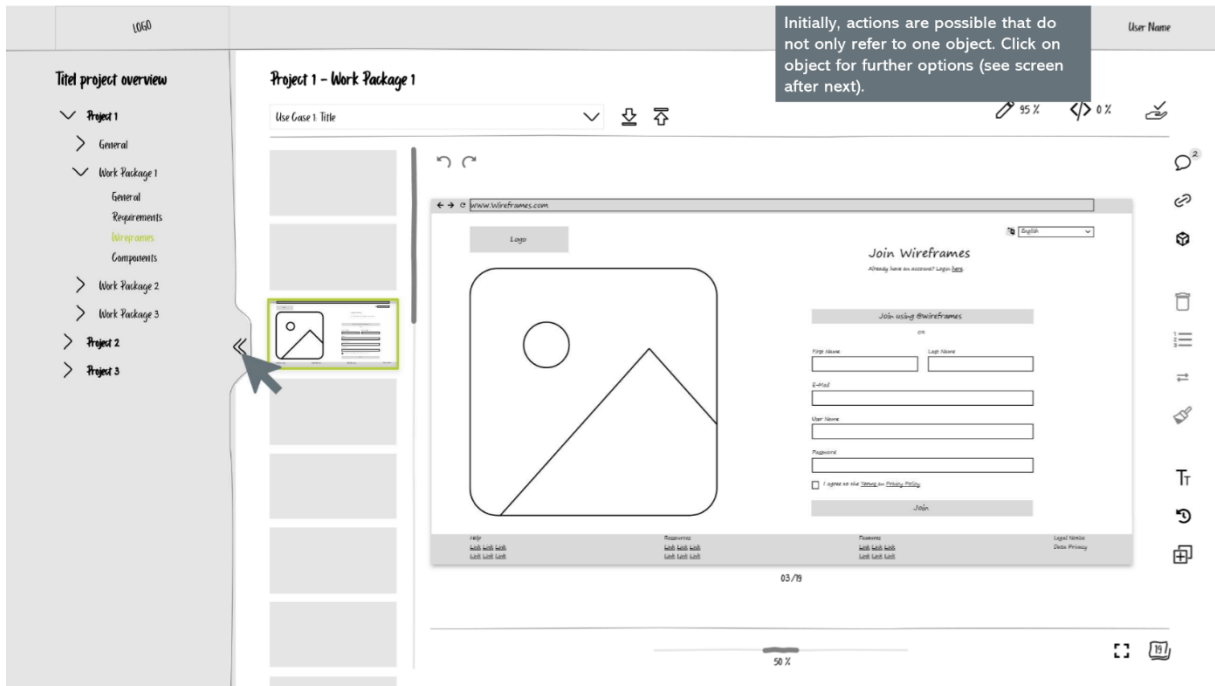
View latest changes

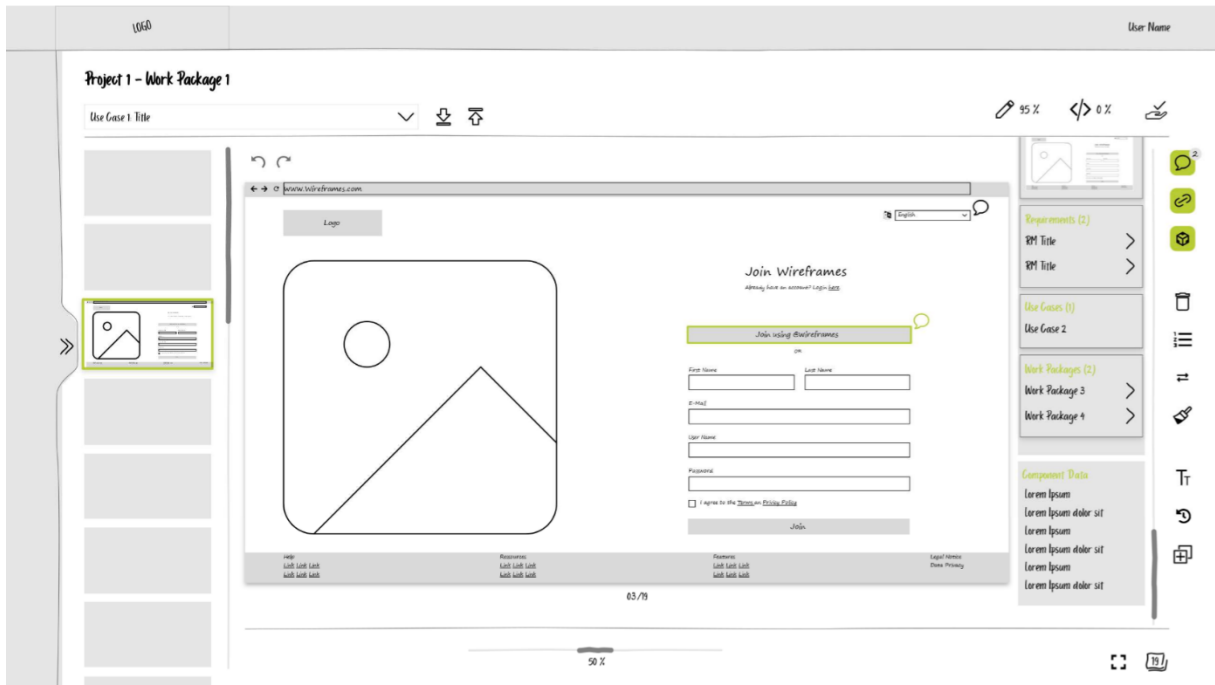
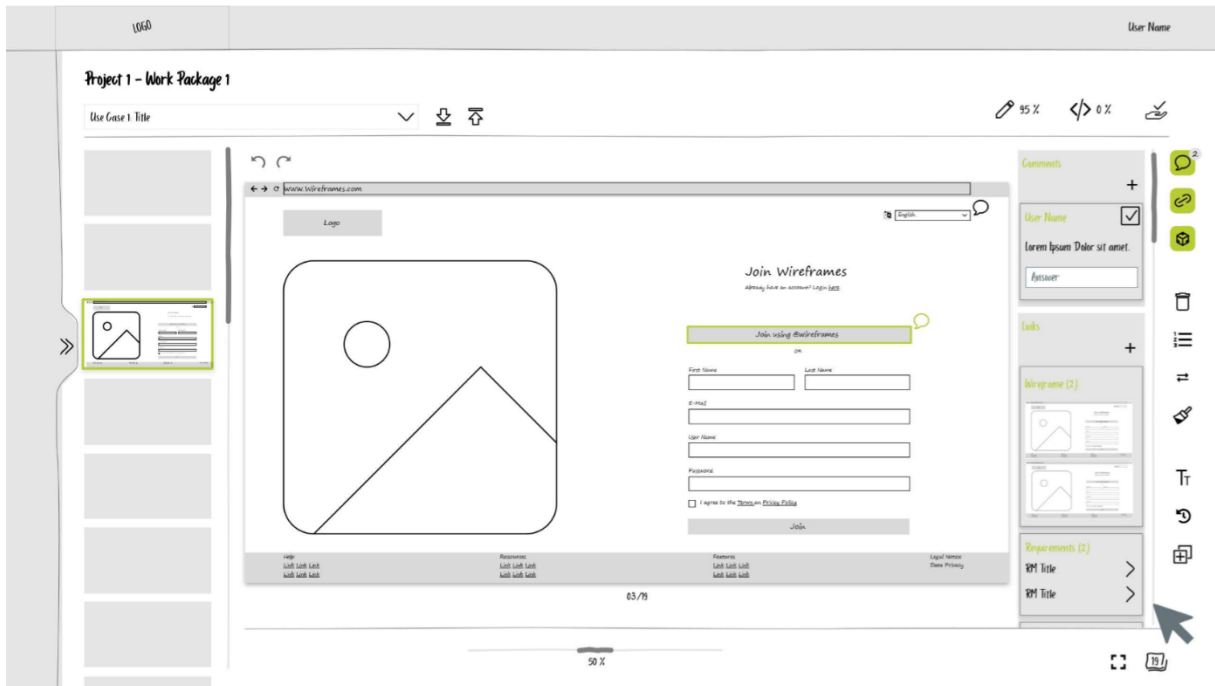




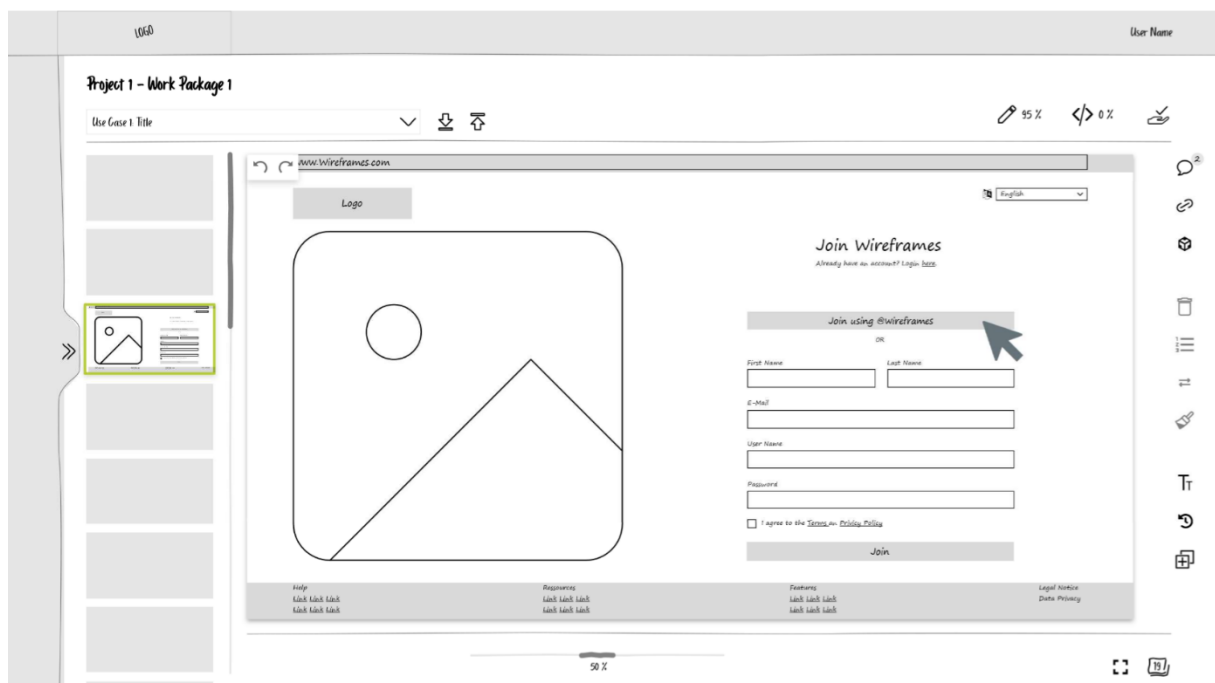


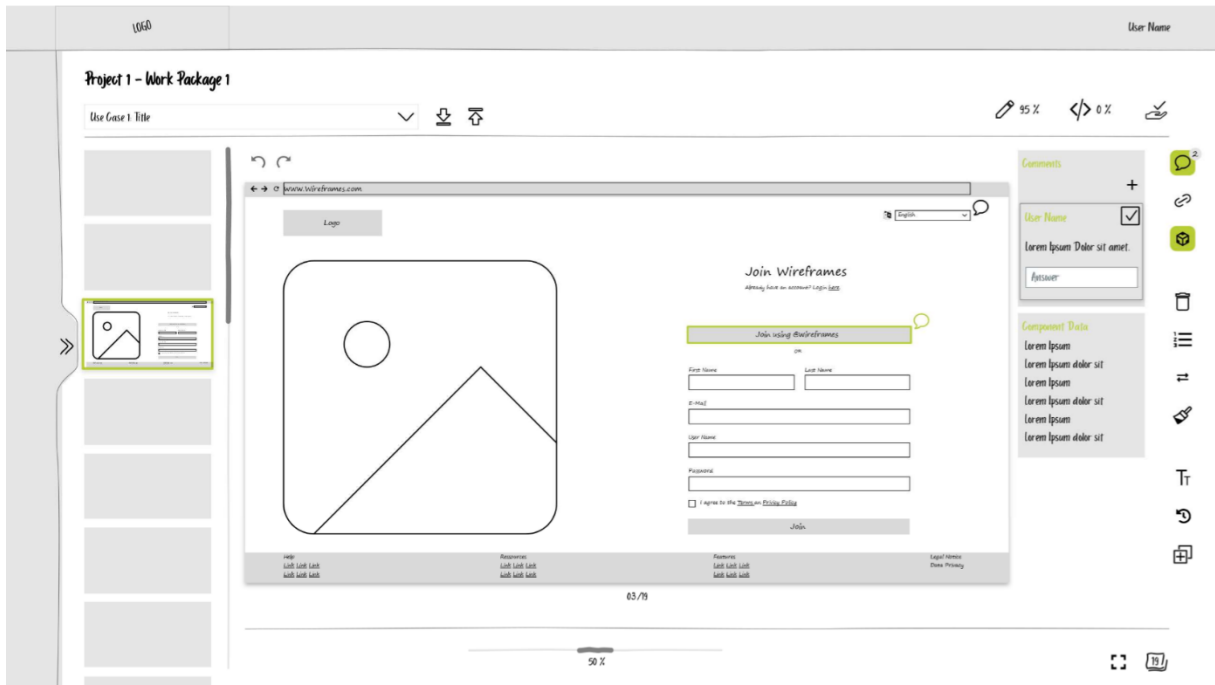
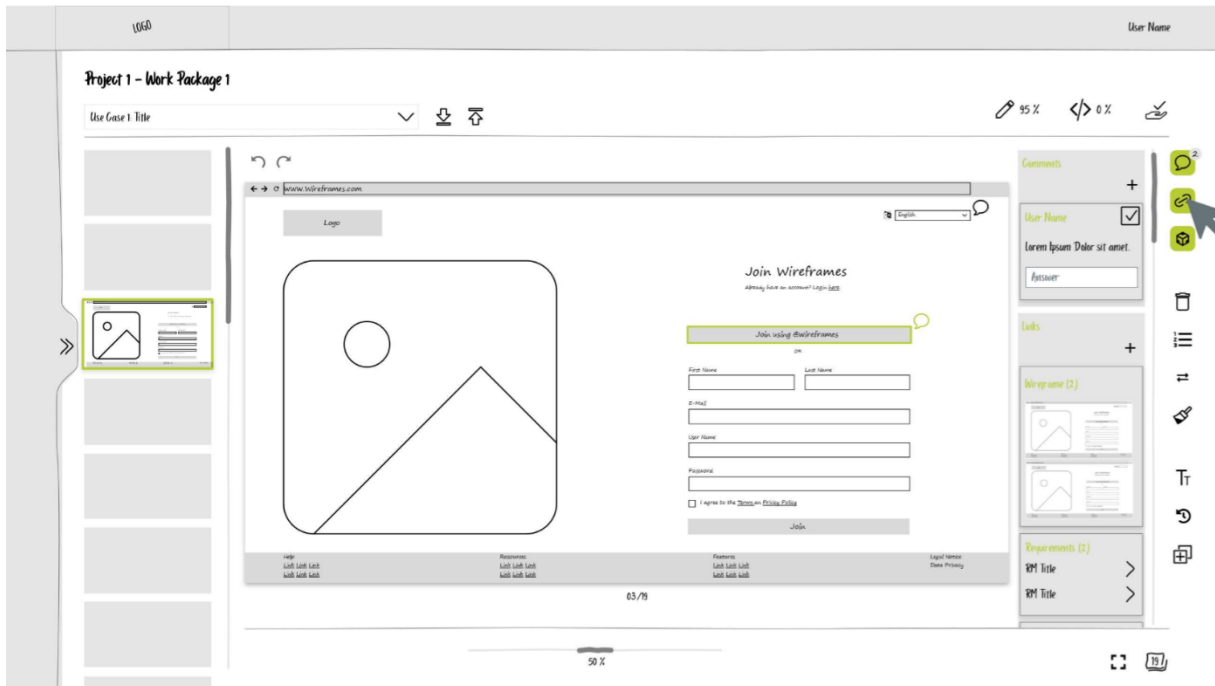
View Screens (Details)



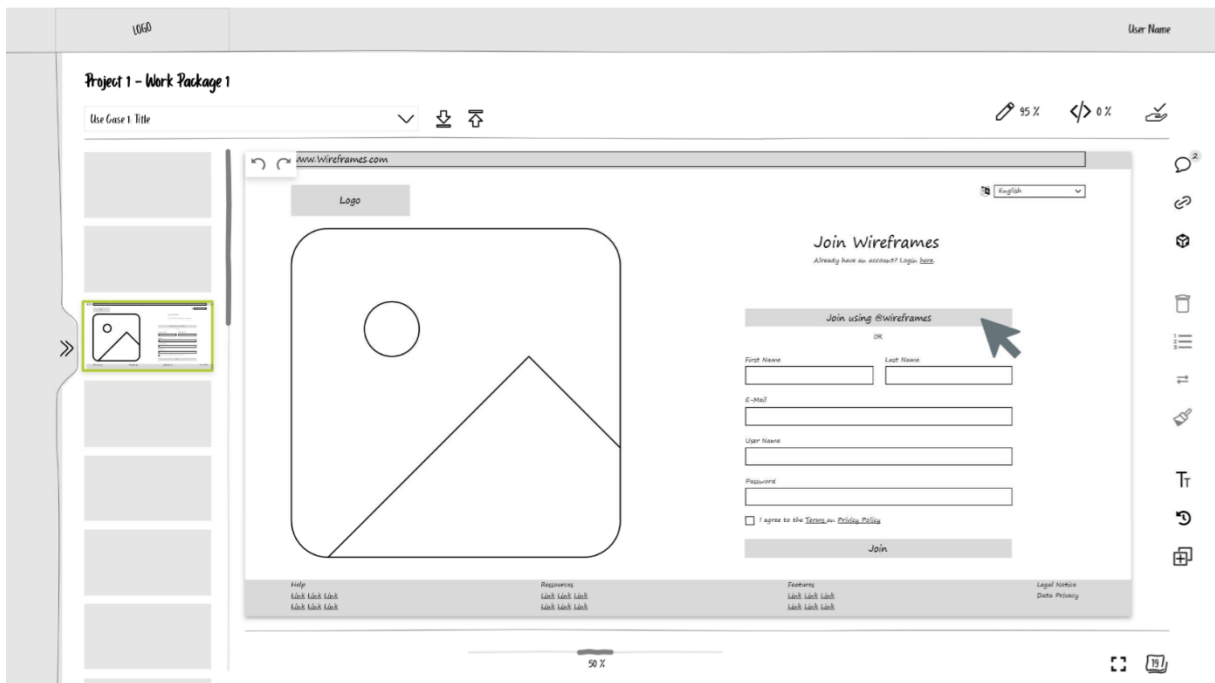


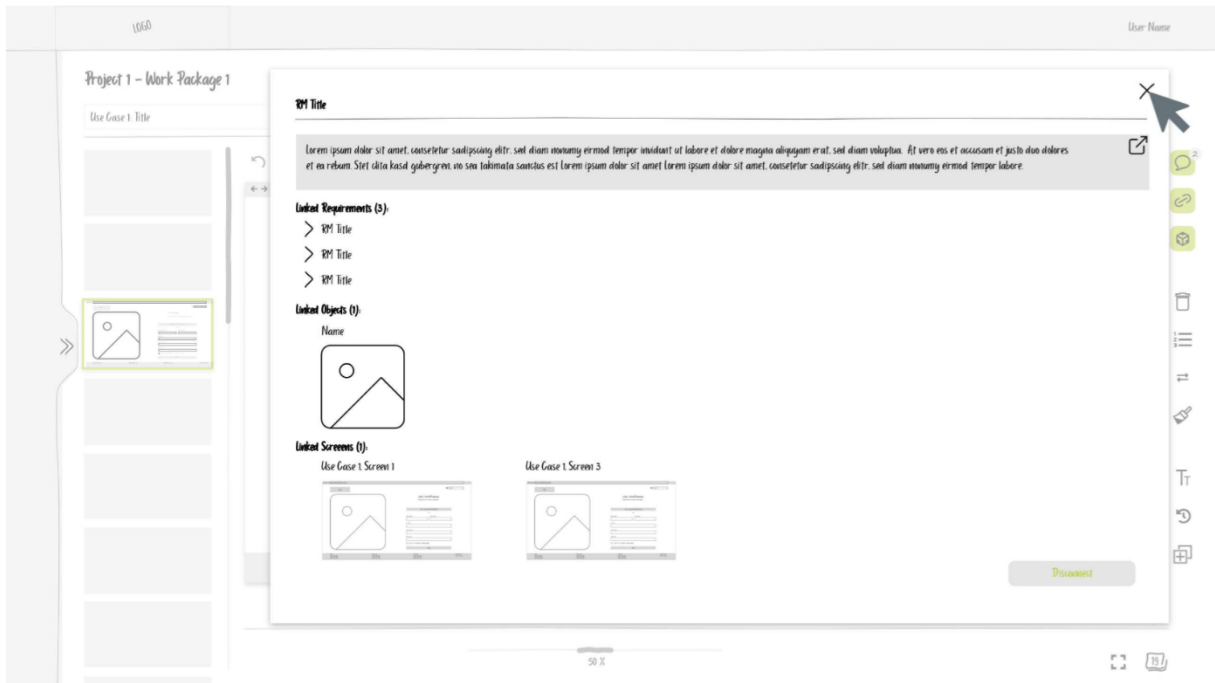
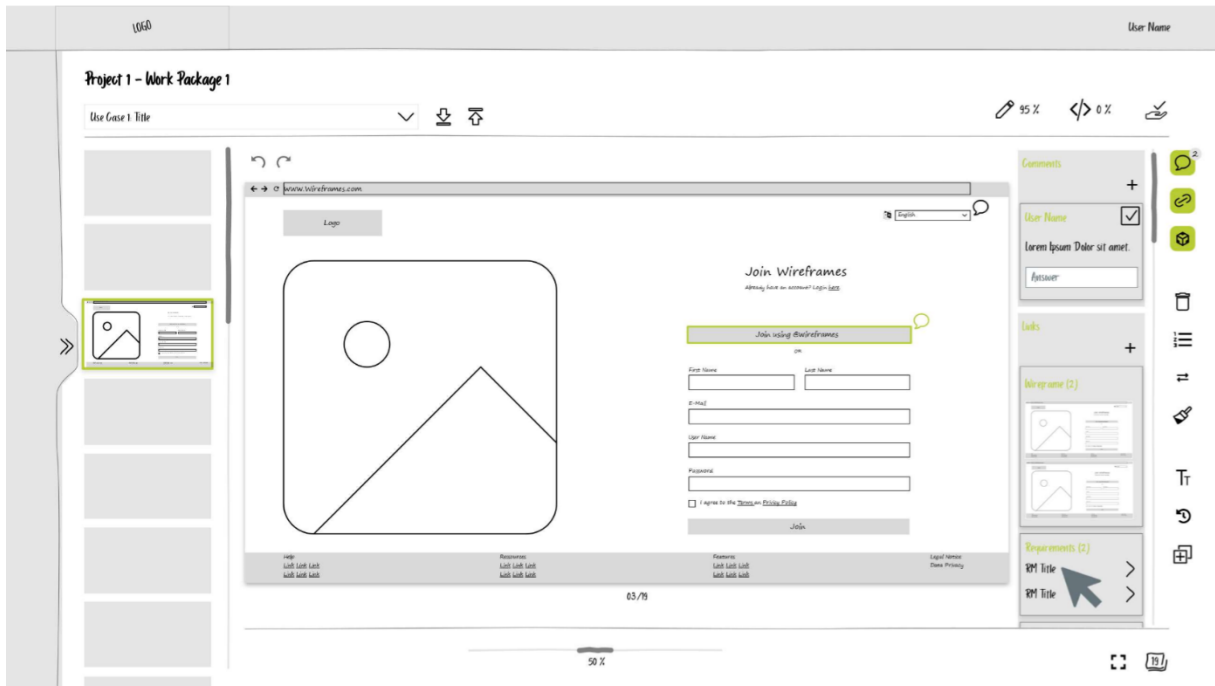
Fold in and out object information

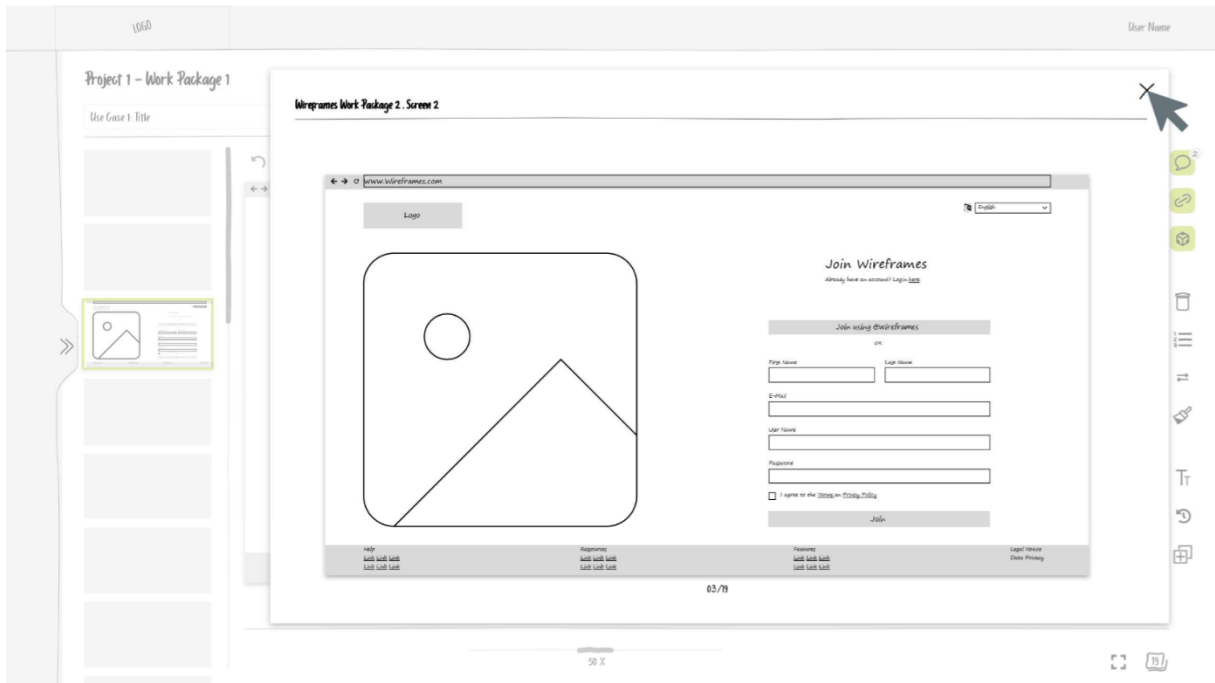
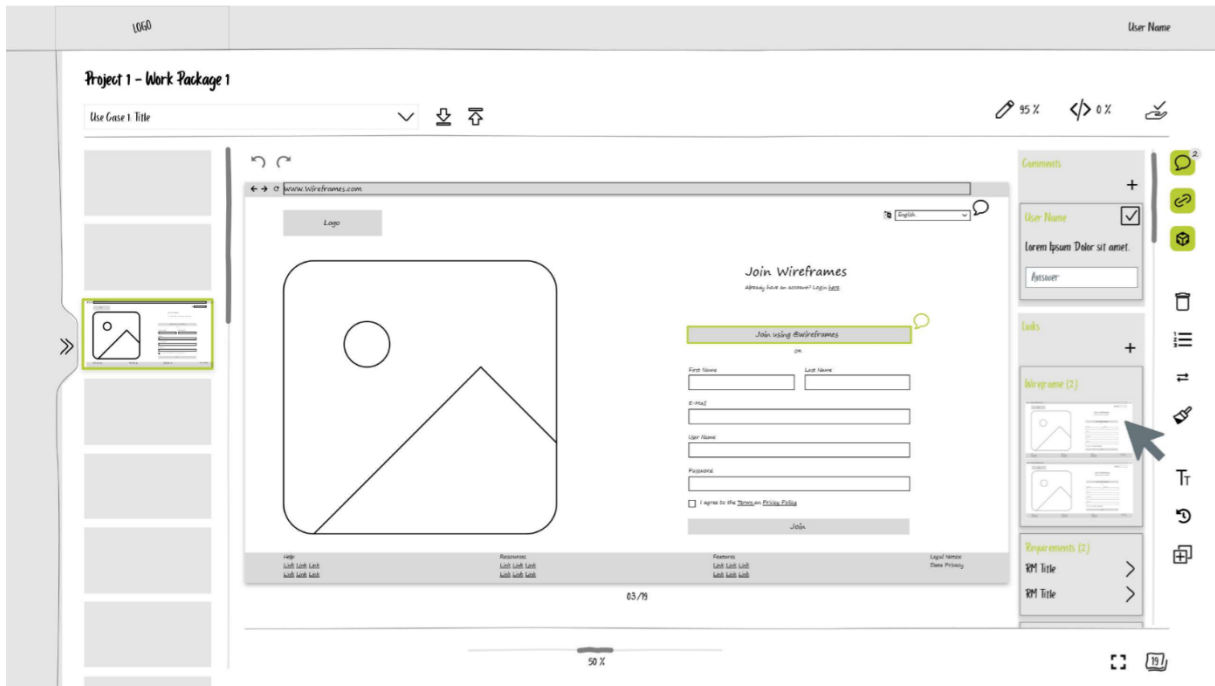


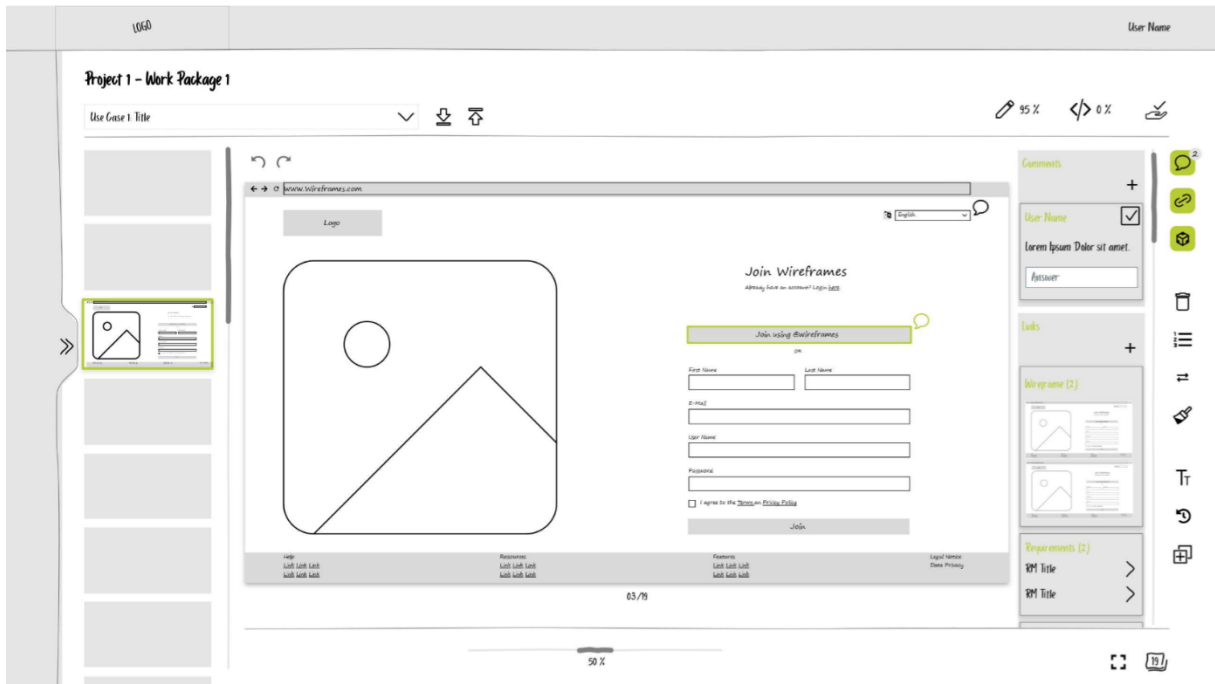


View links

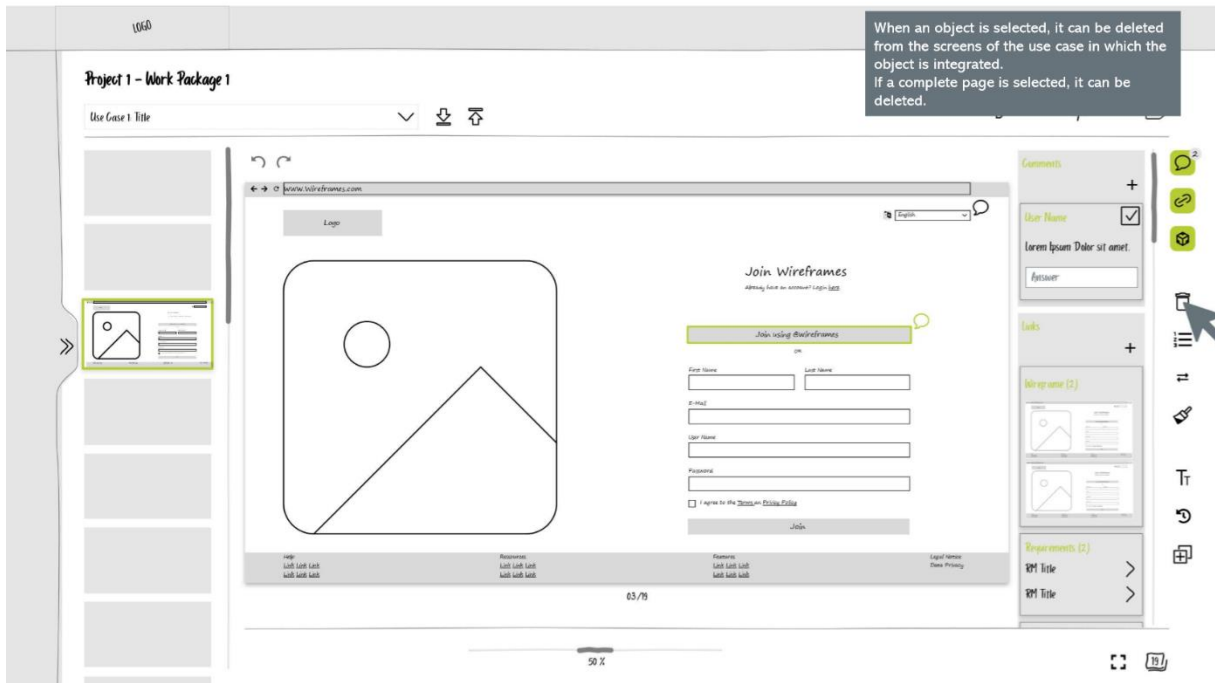
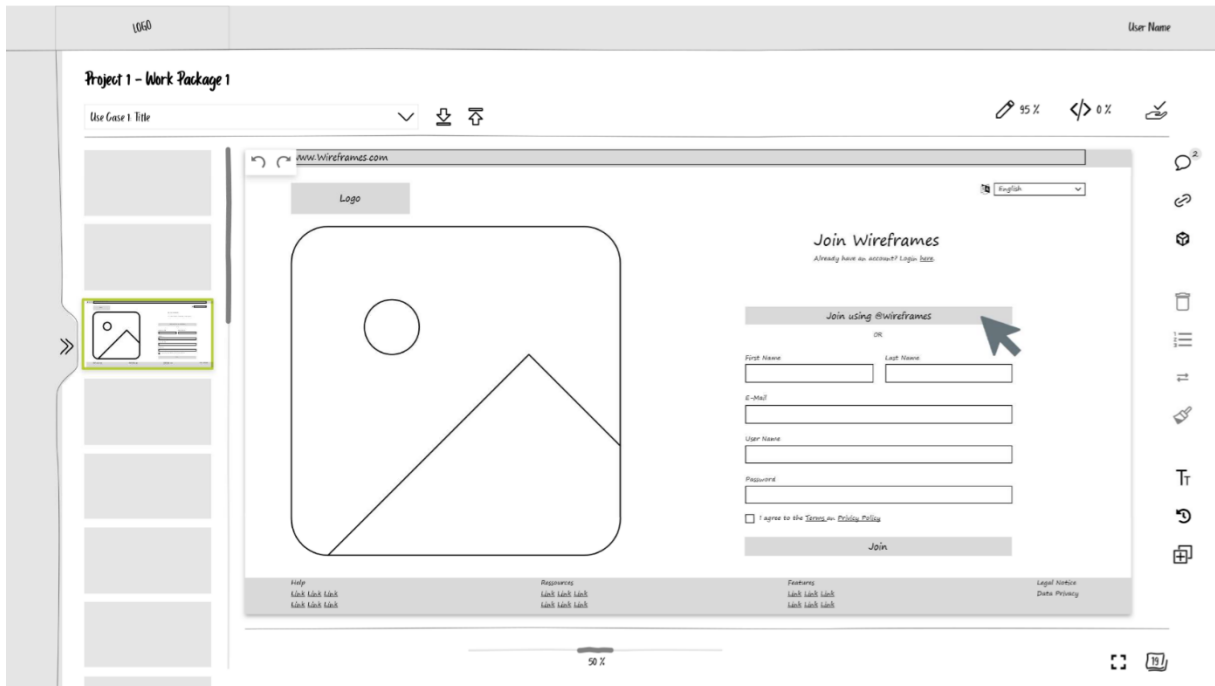


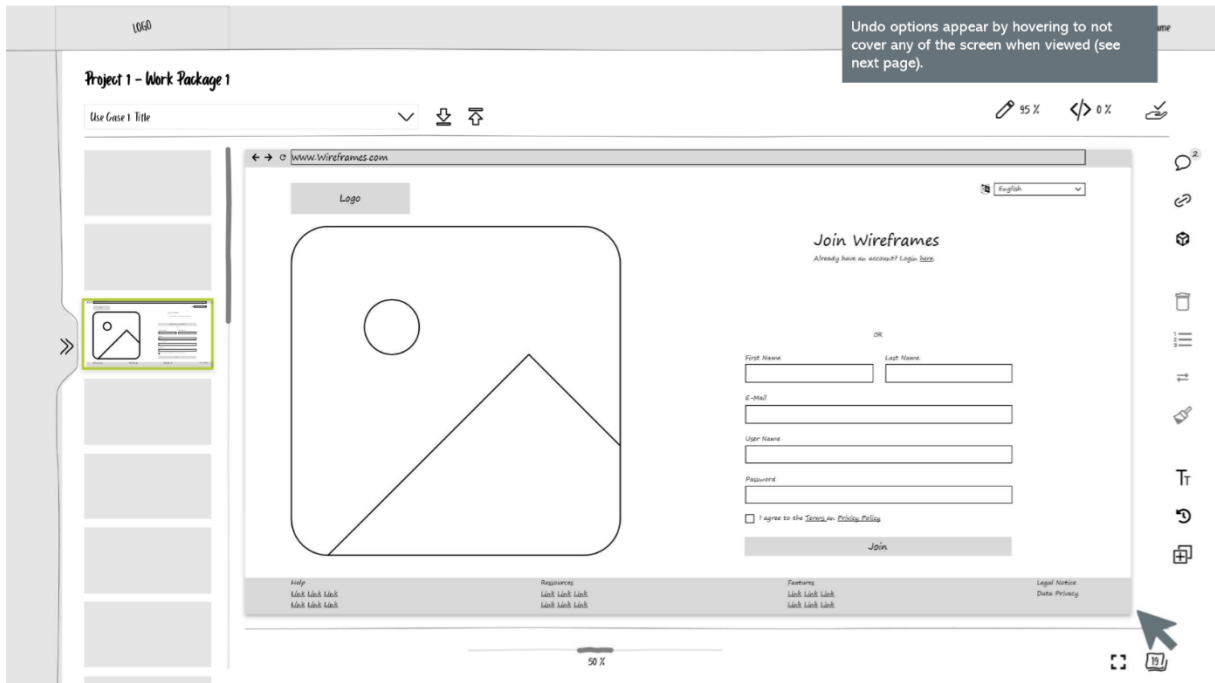
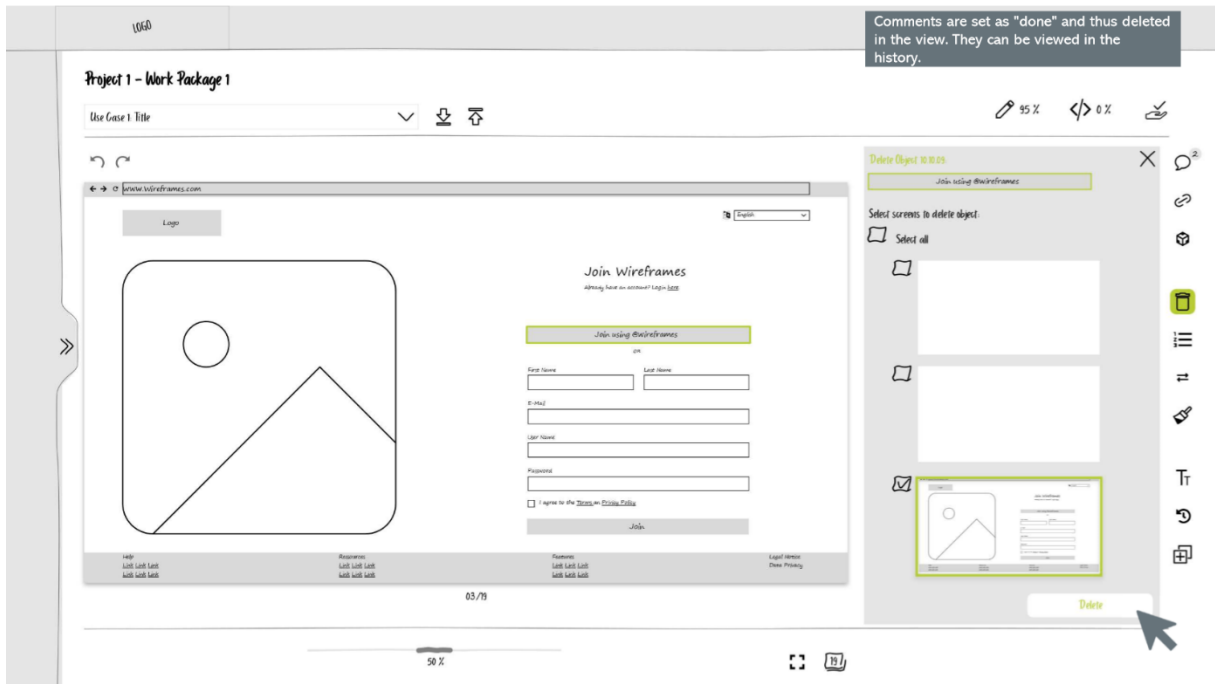


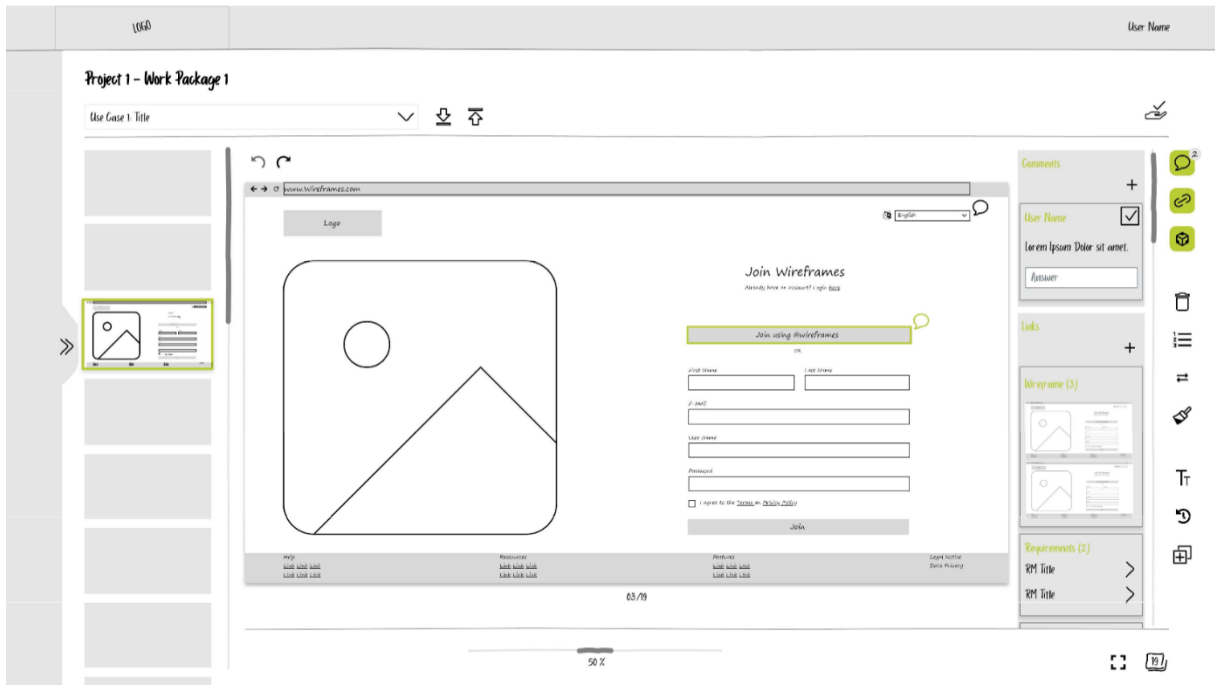
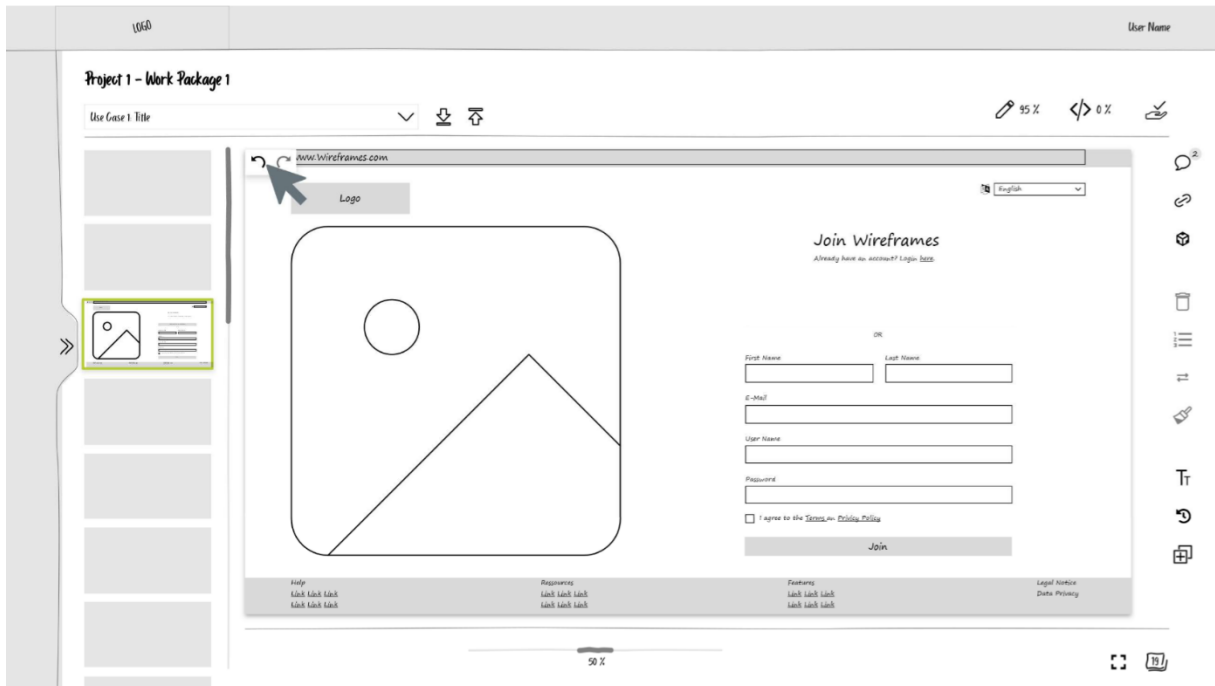




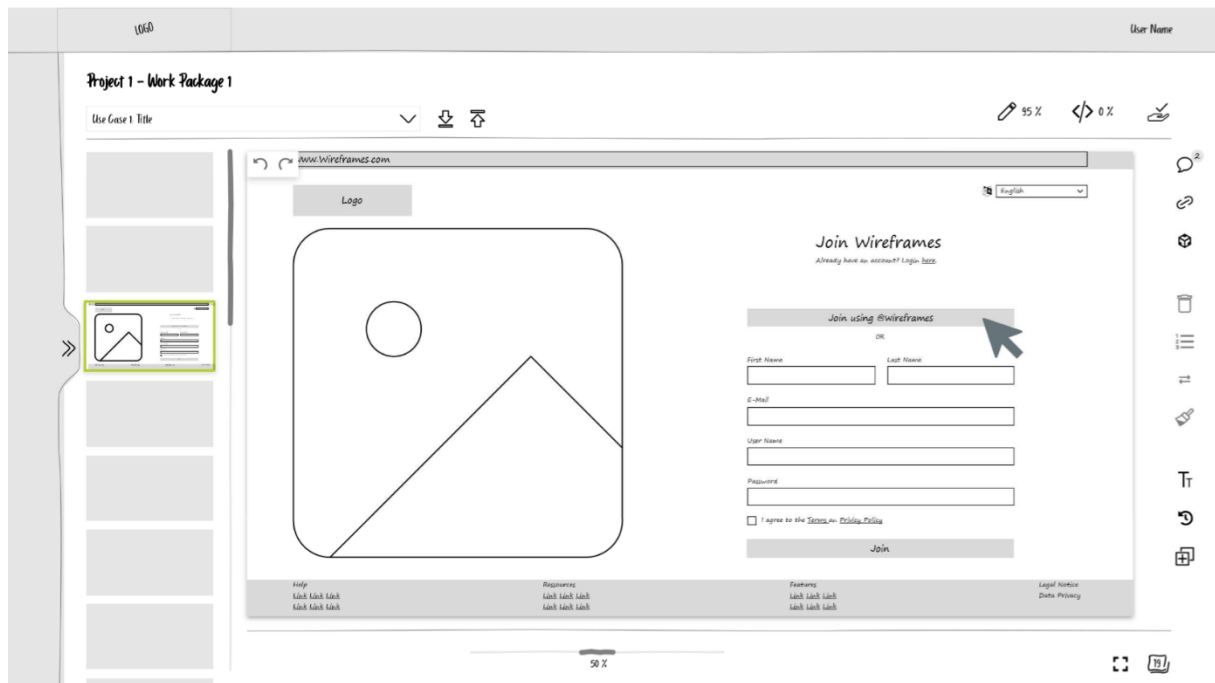
Delete object and
Delete Undo

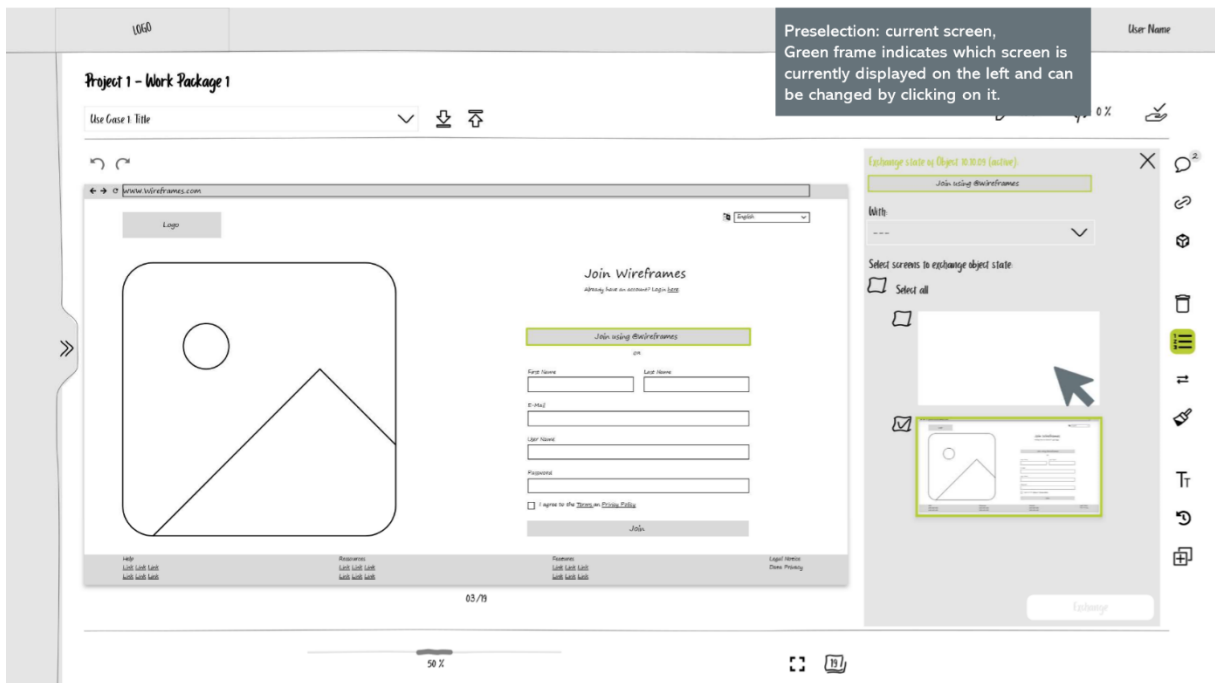
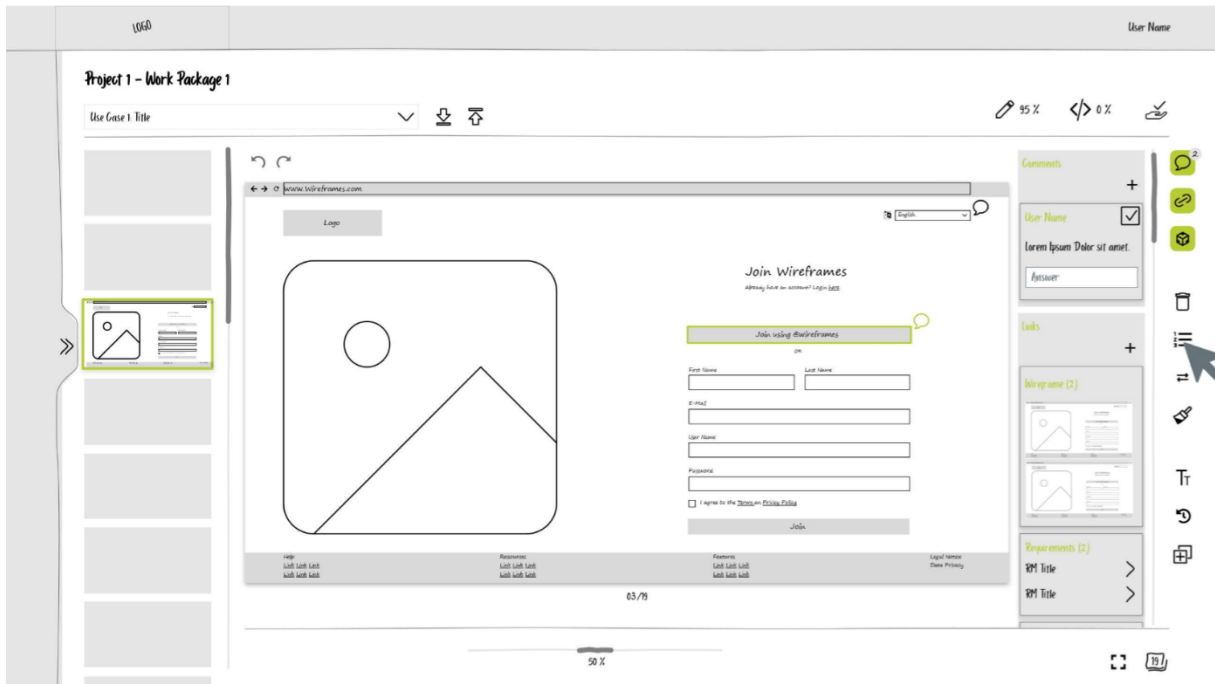


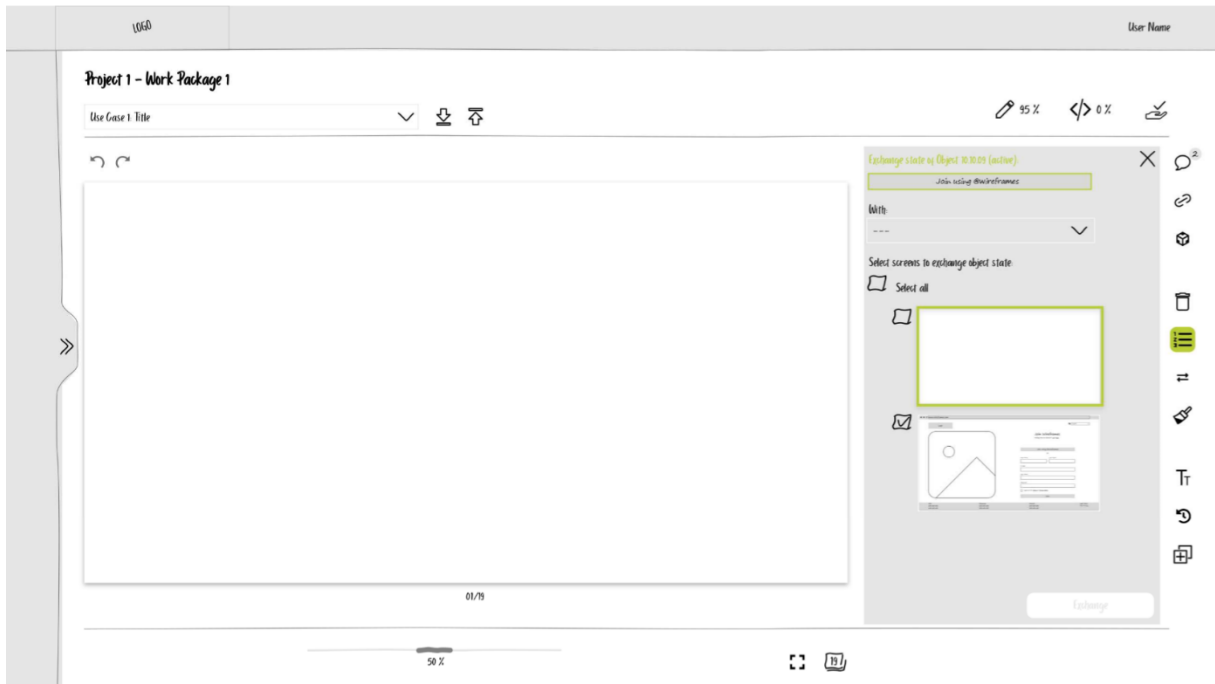




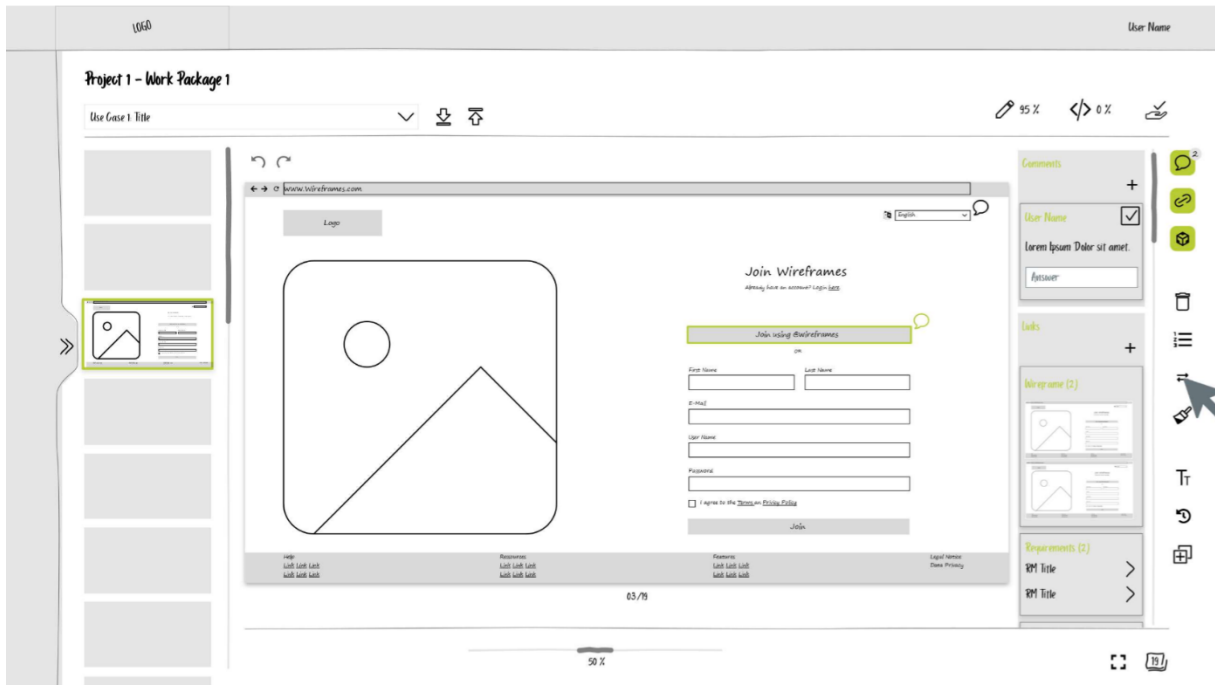
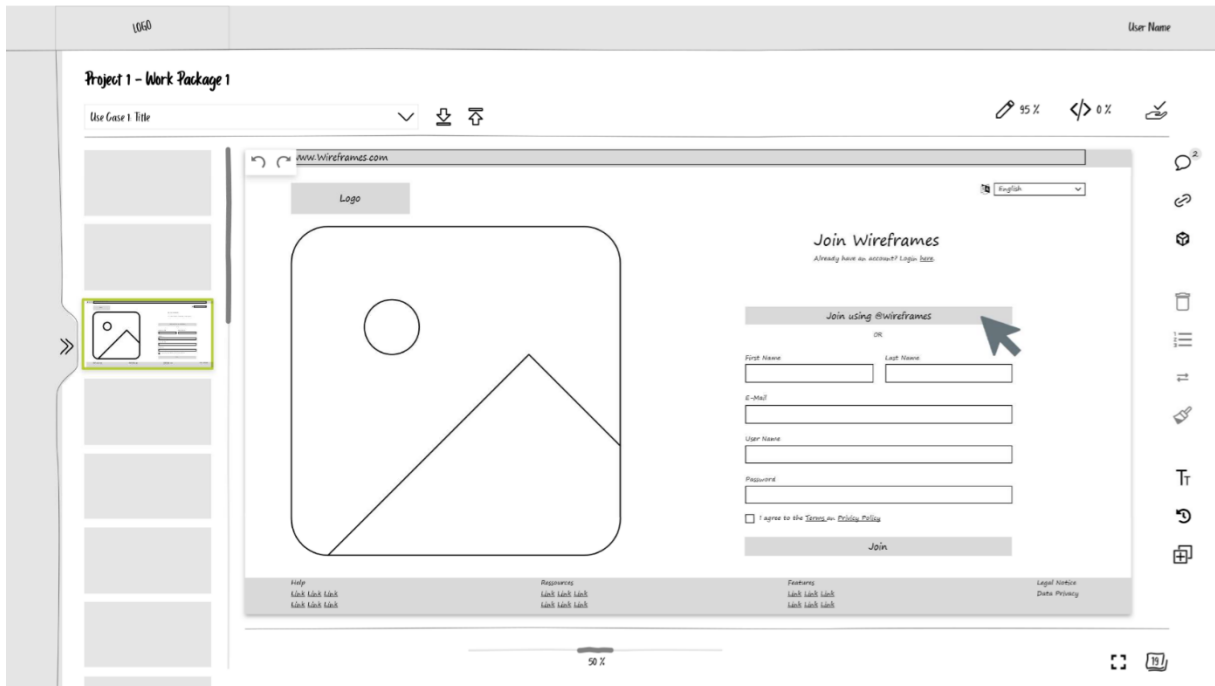
Change the state of the object

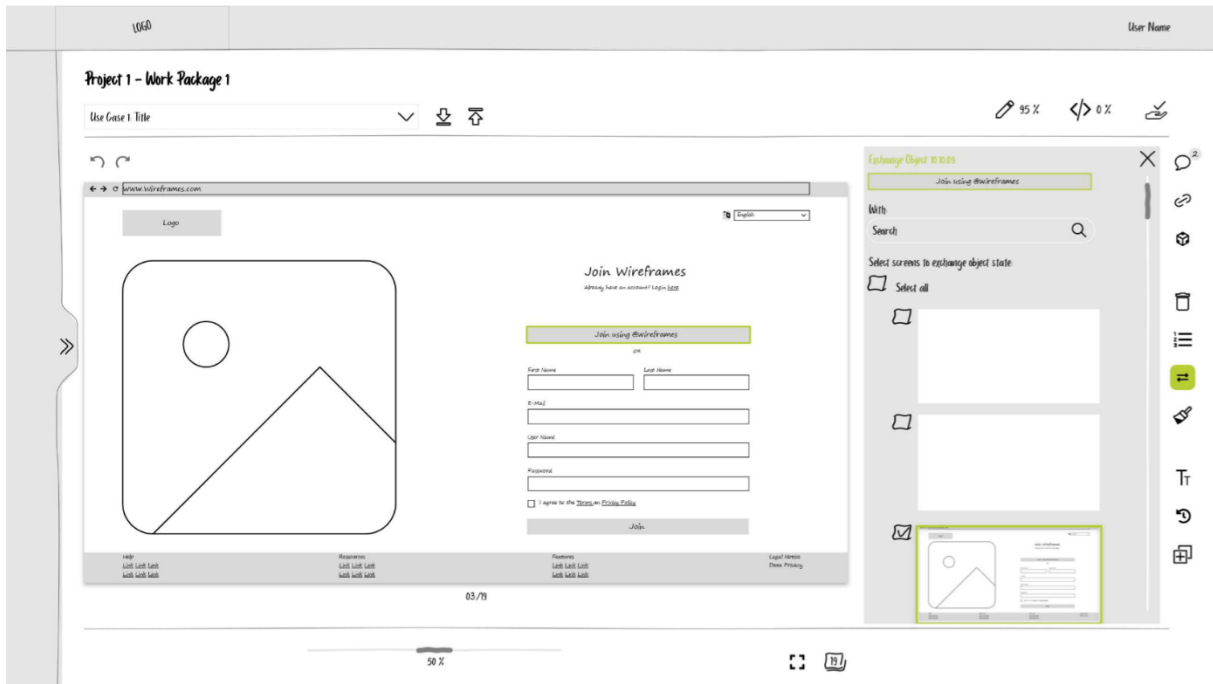




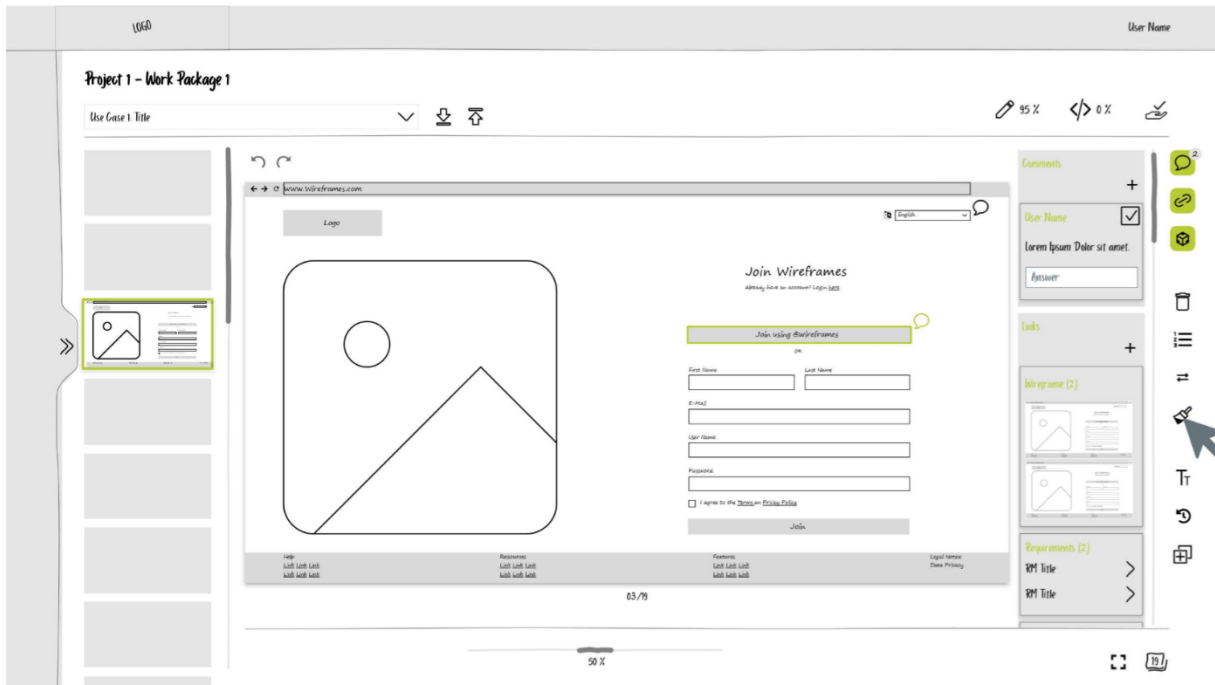
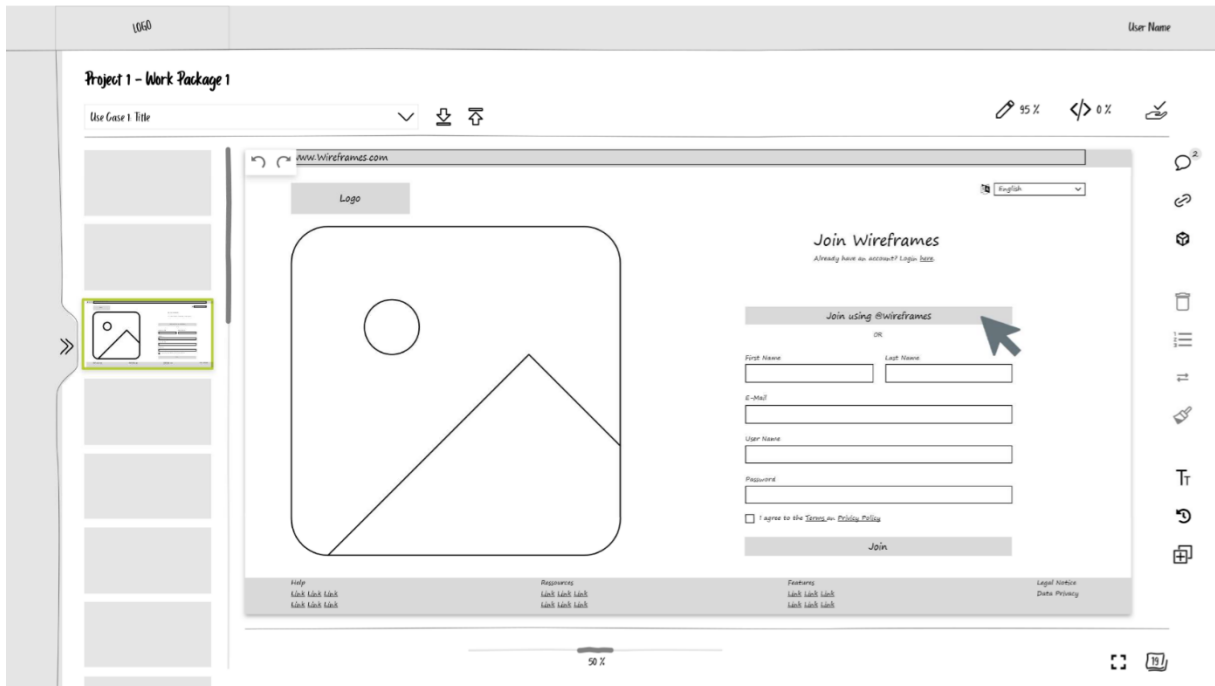


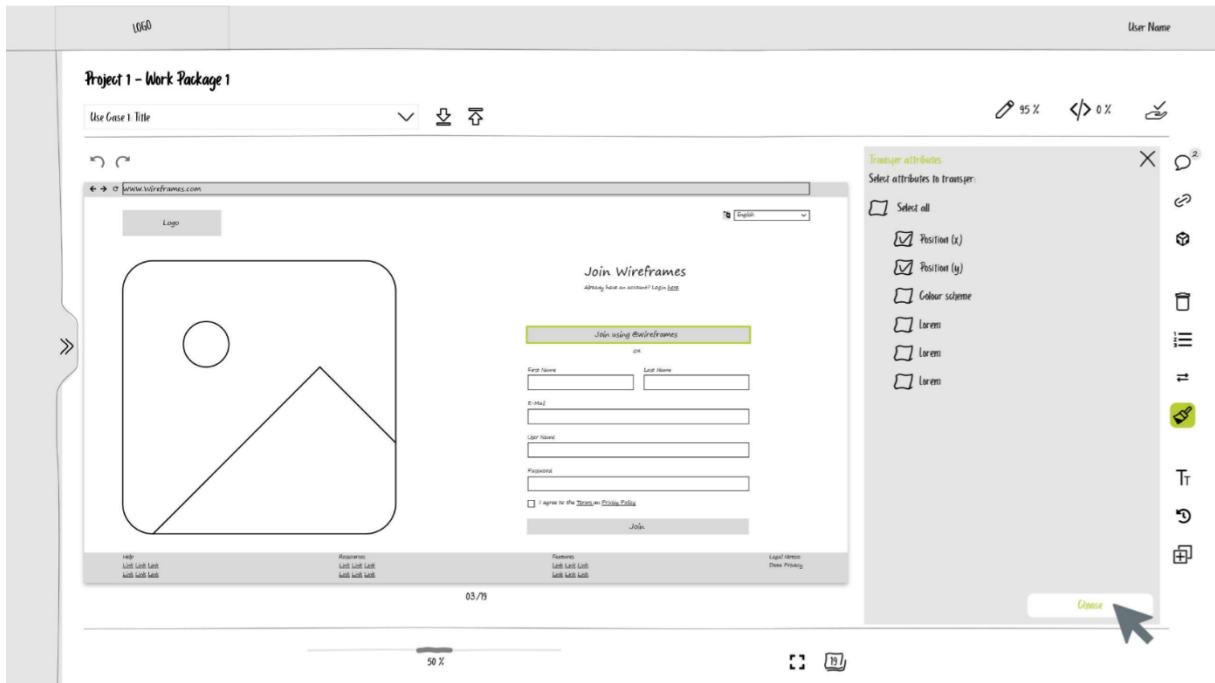
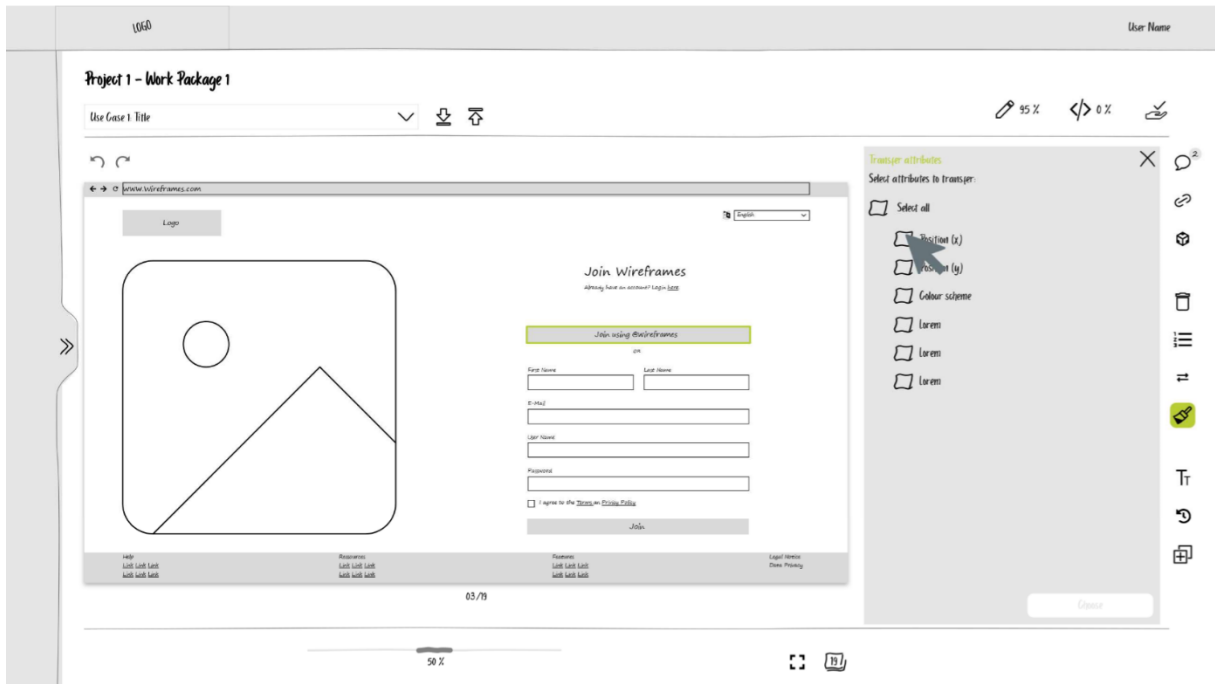
Replace object

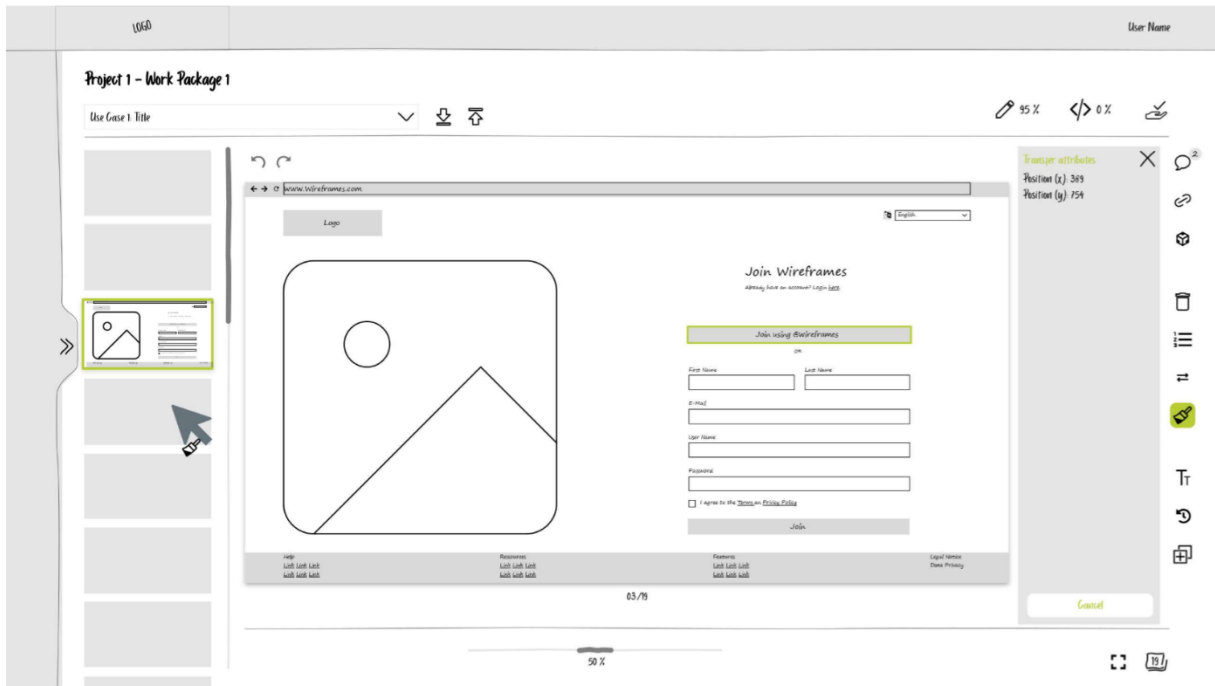




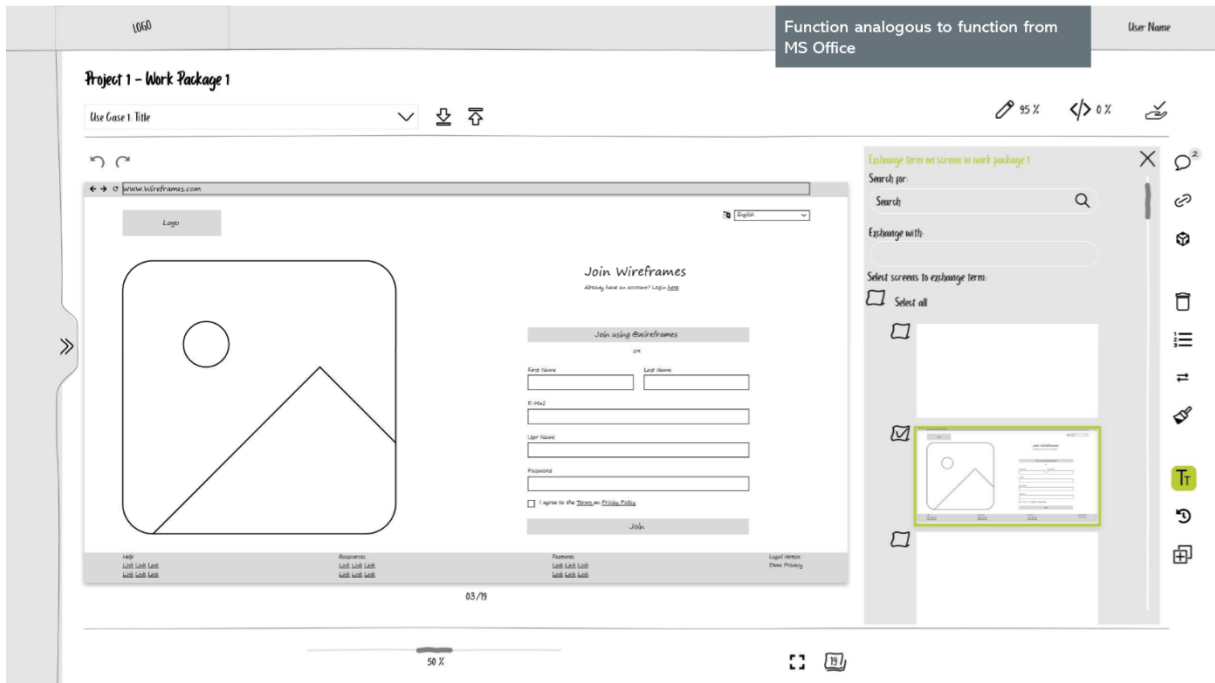
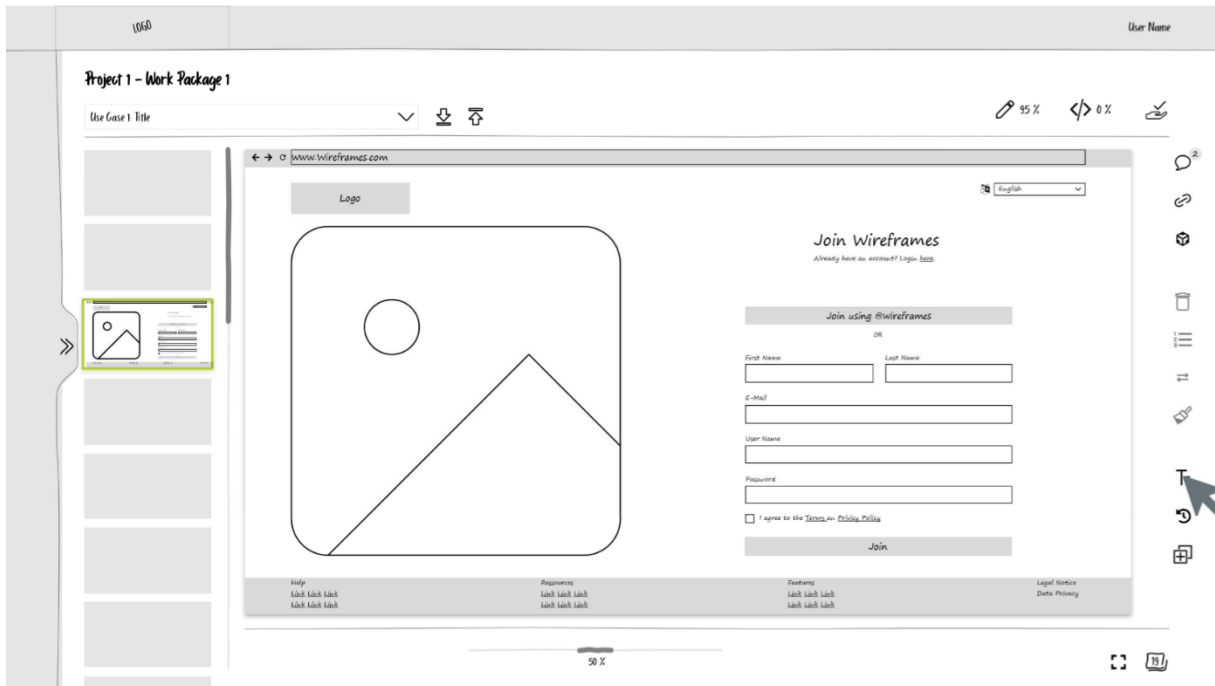
Format adjustments of an object to
Transfer other objects of the same type



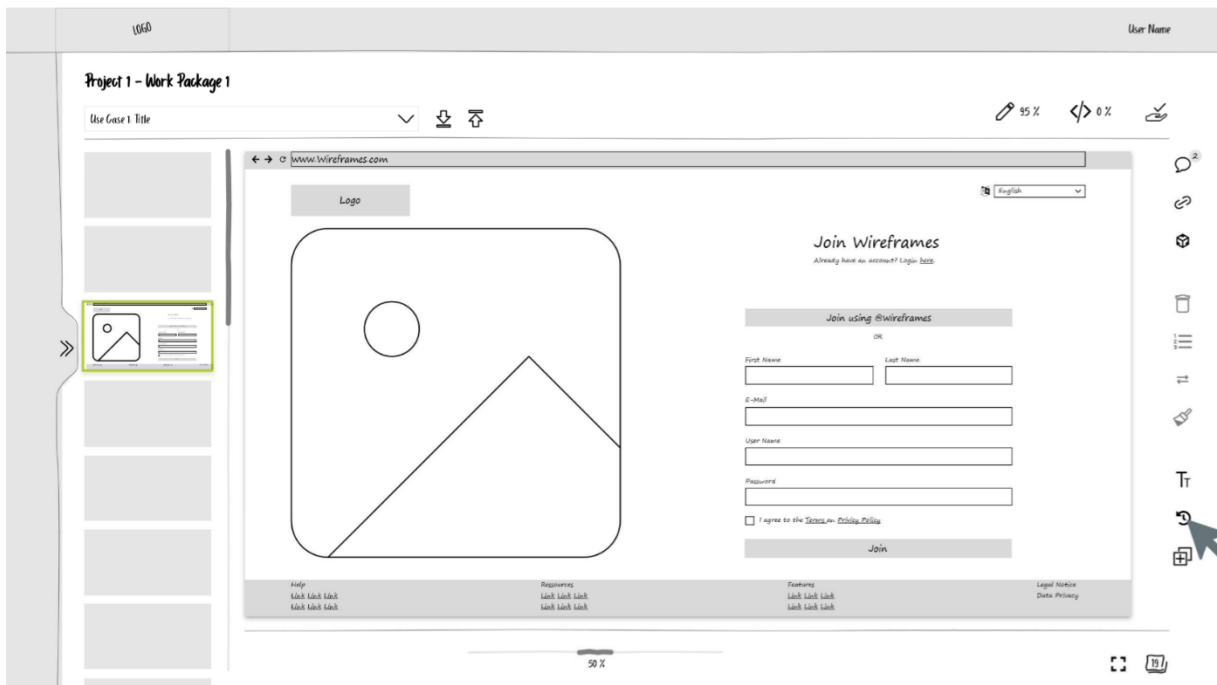


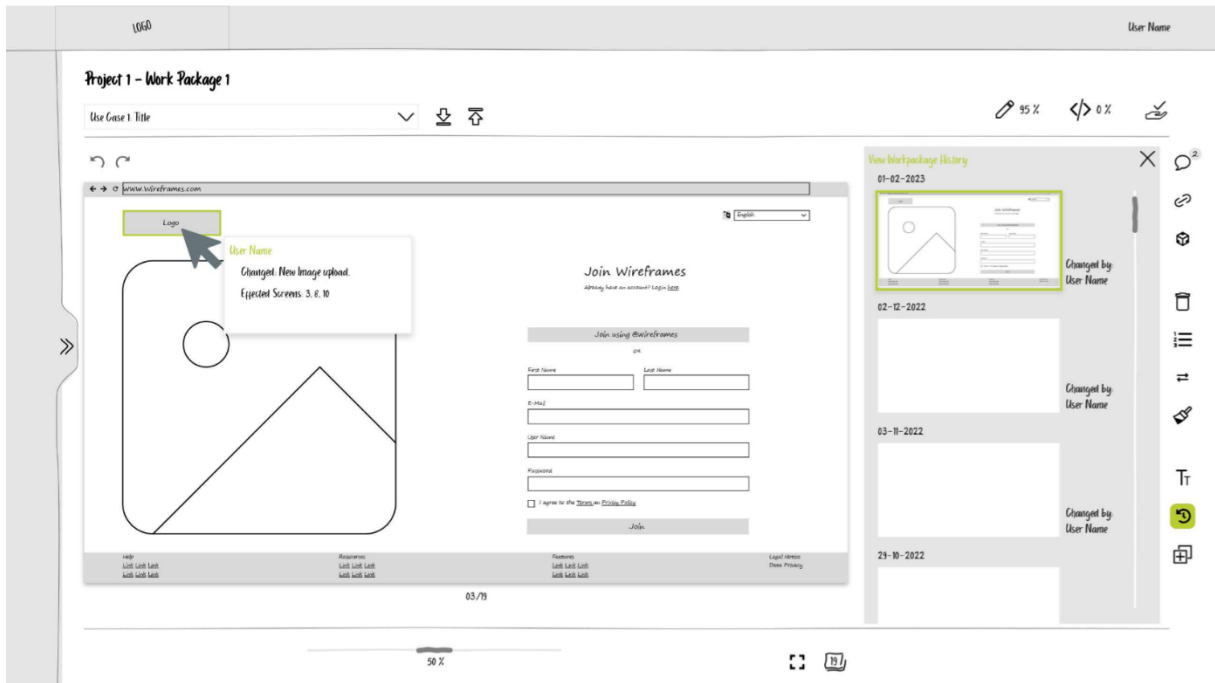
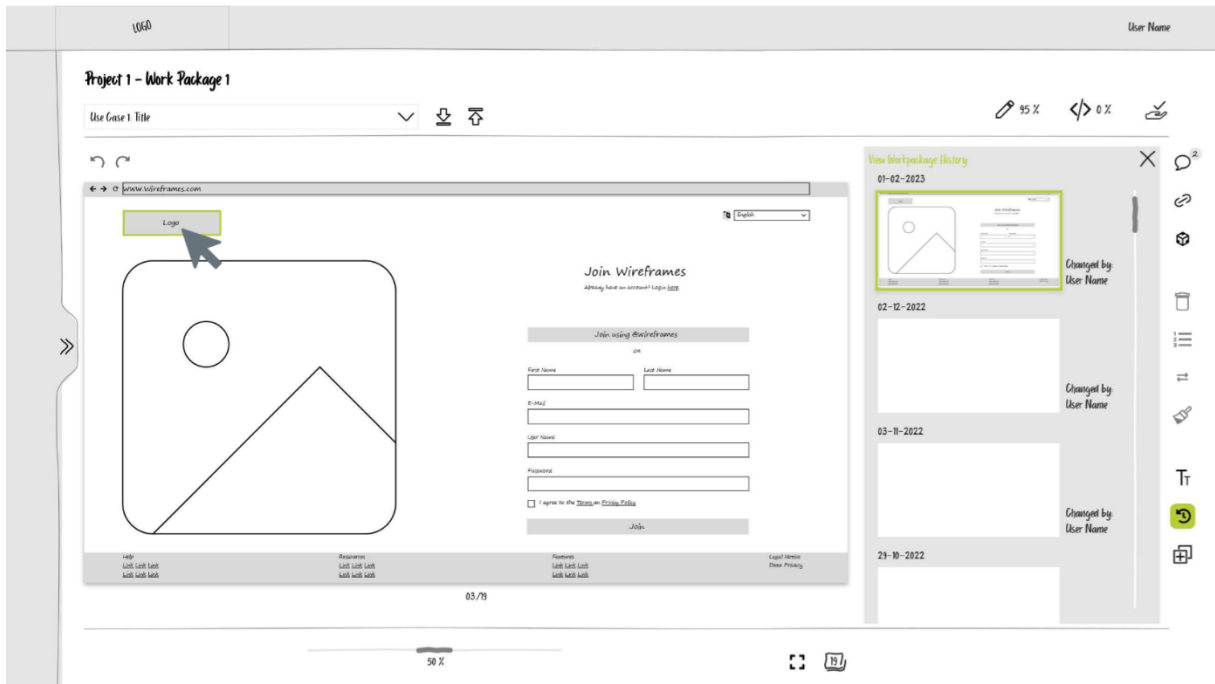


Change labels/texts

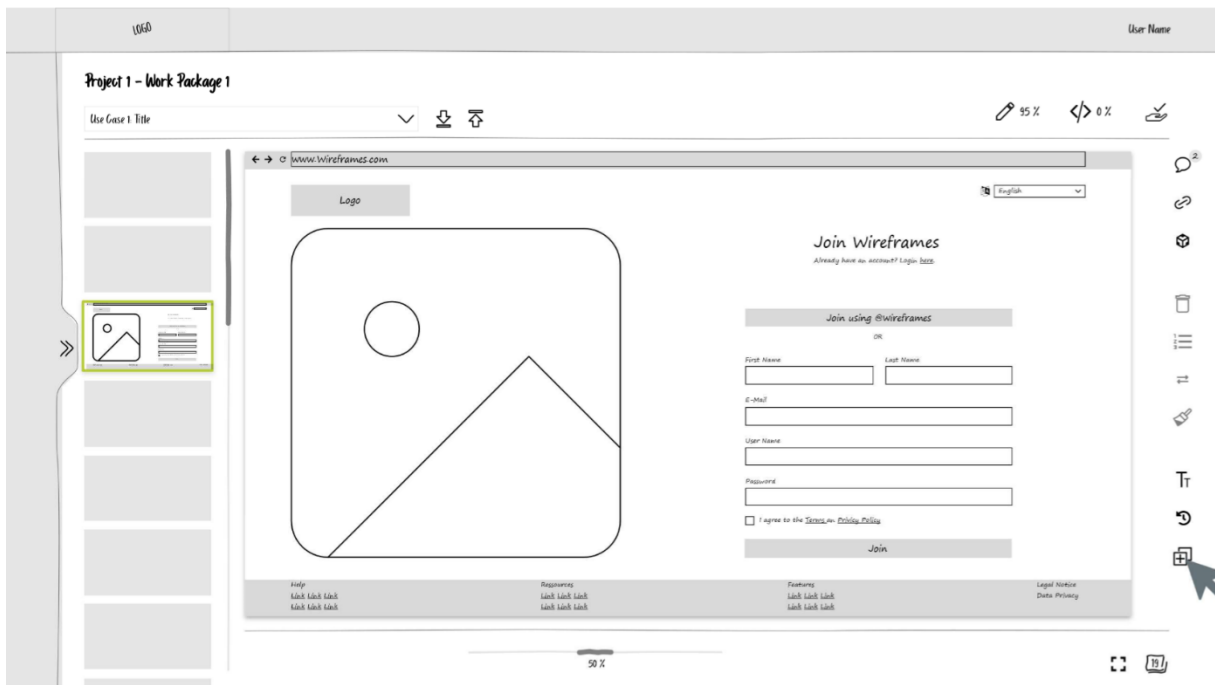


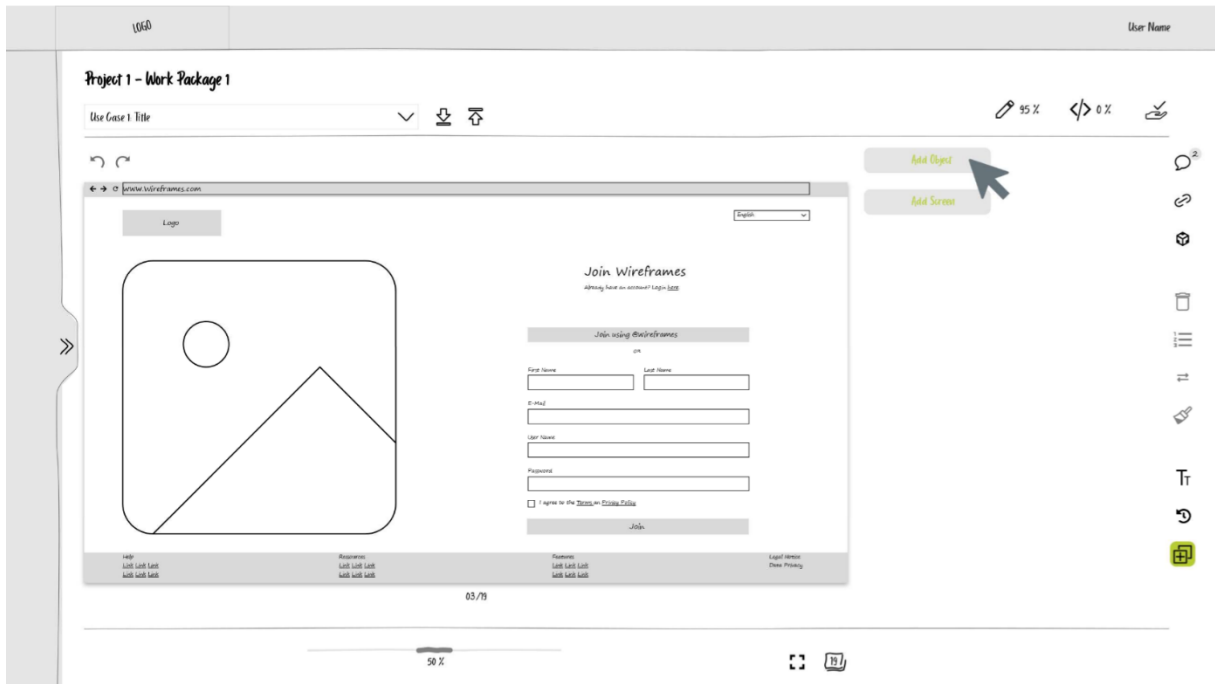
View screen history



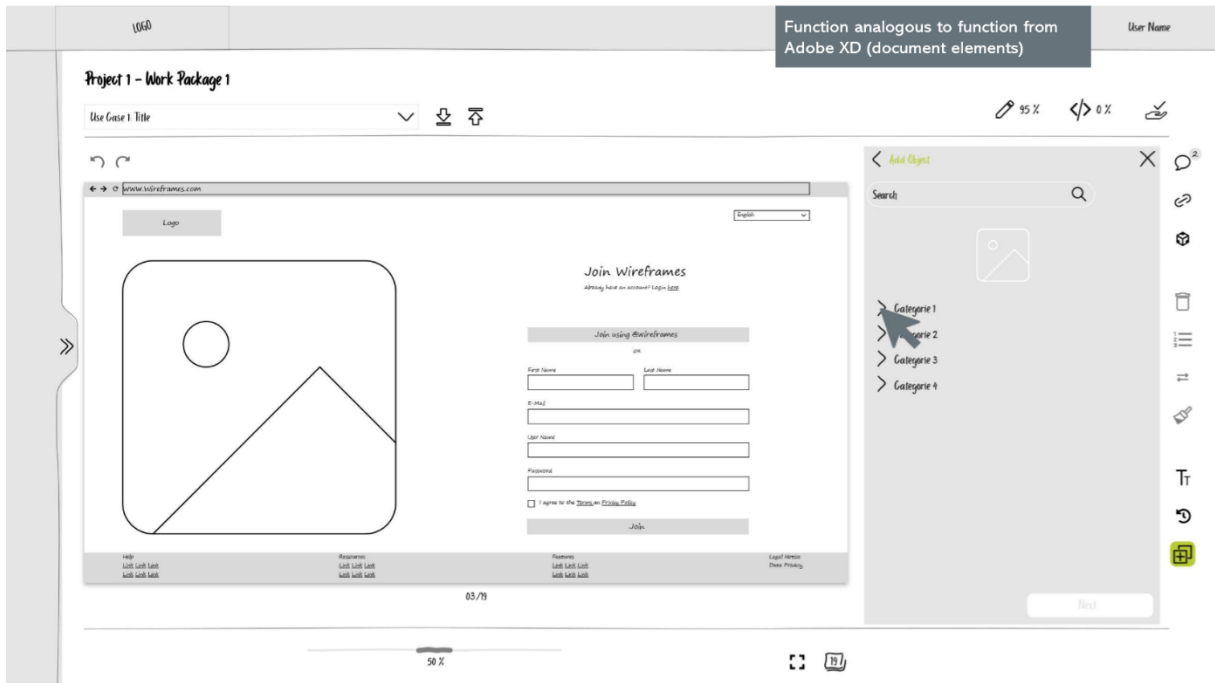


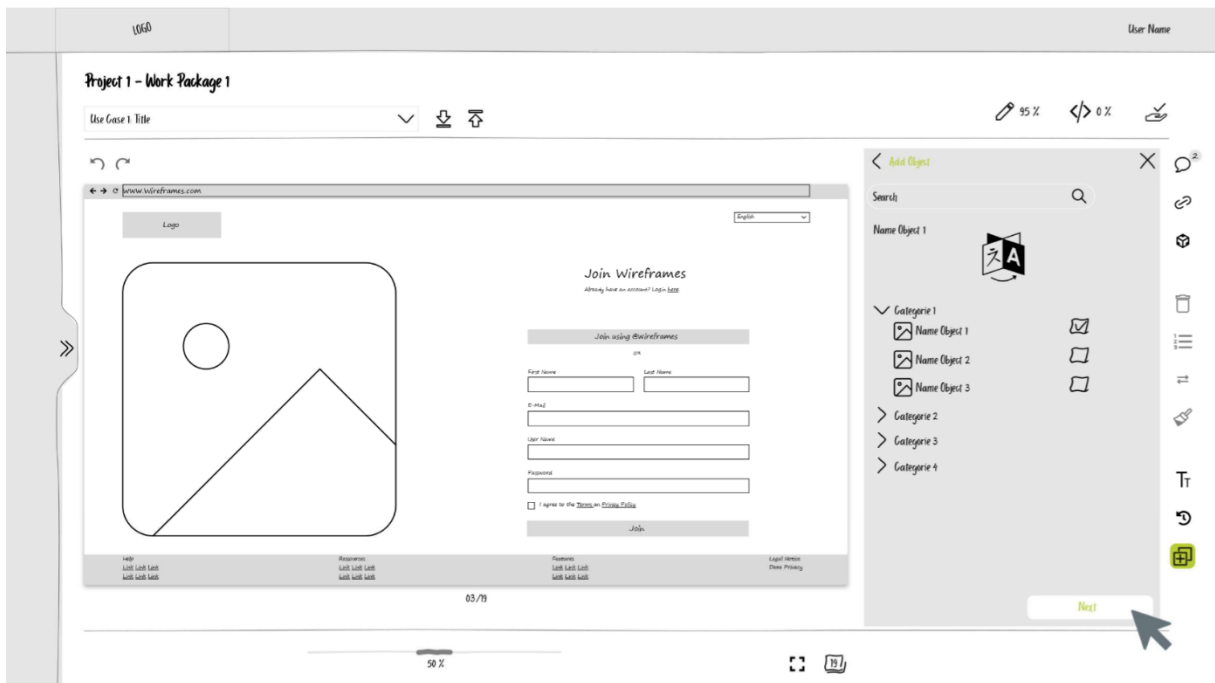
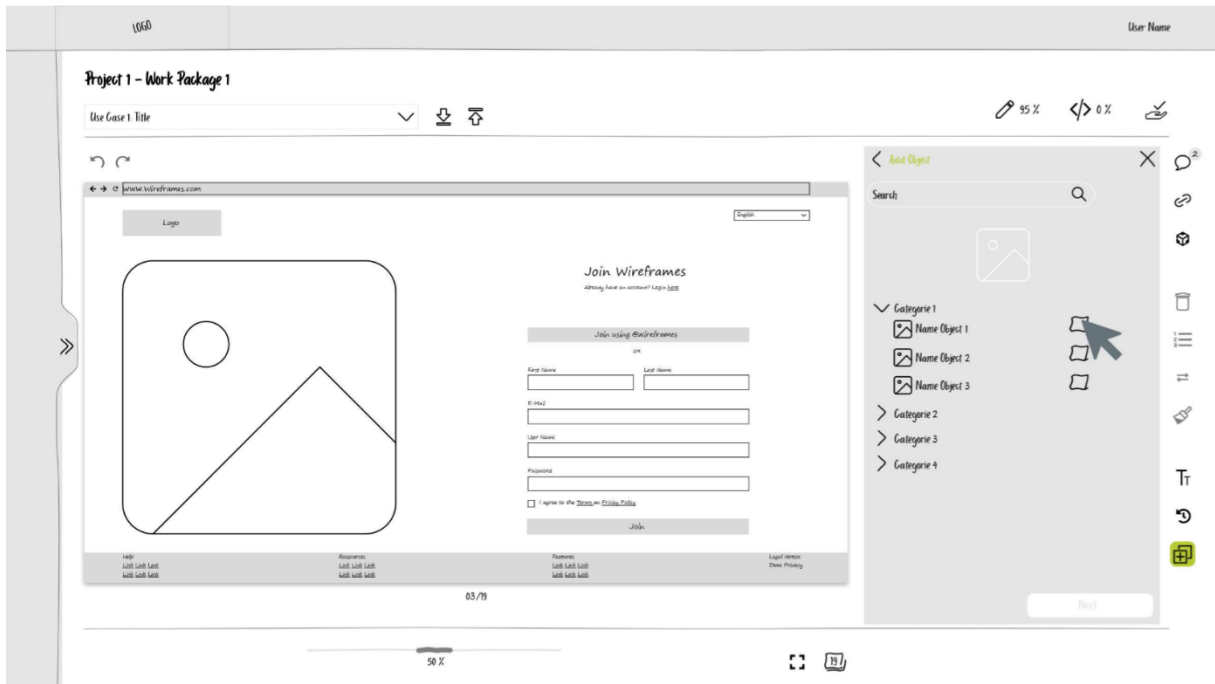
New element on screen add

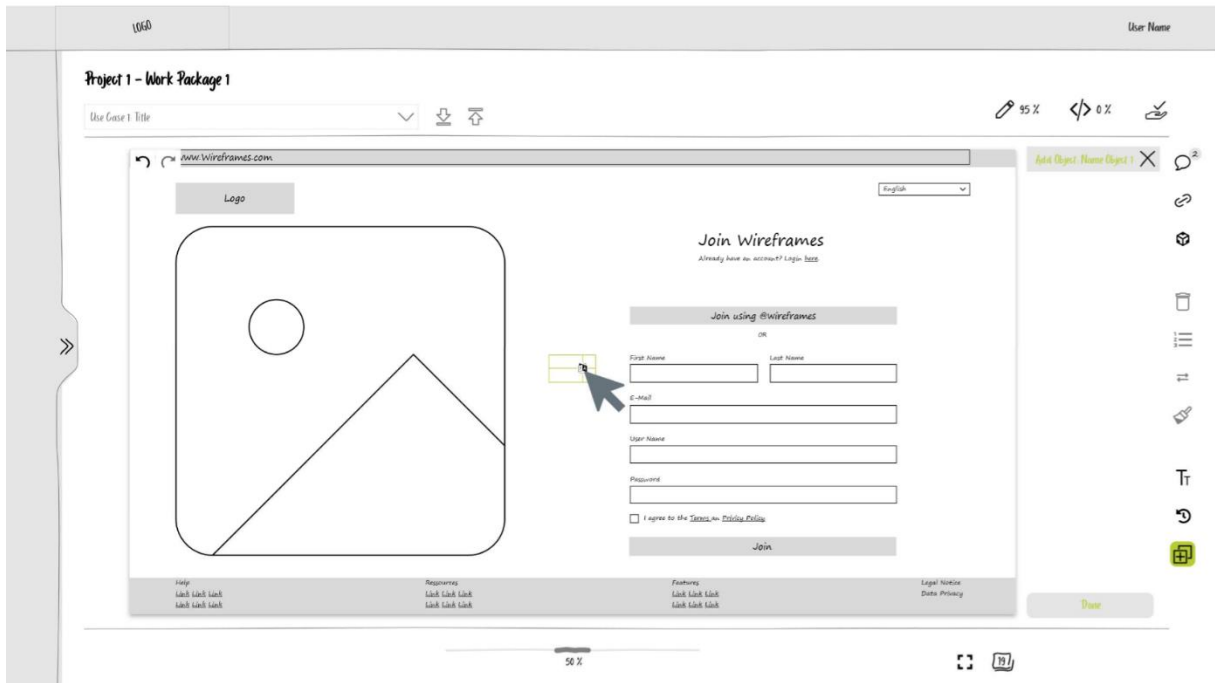
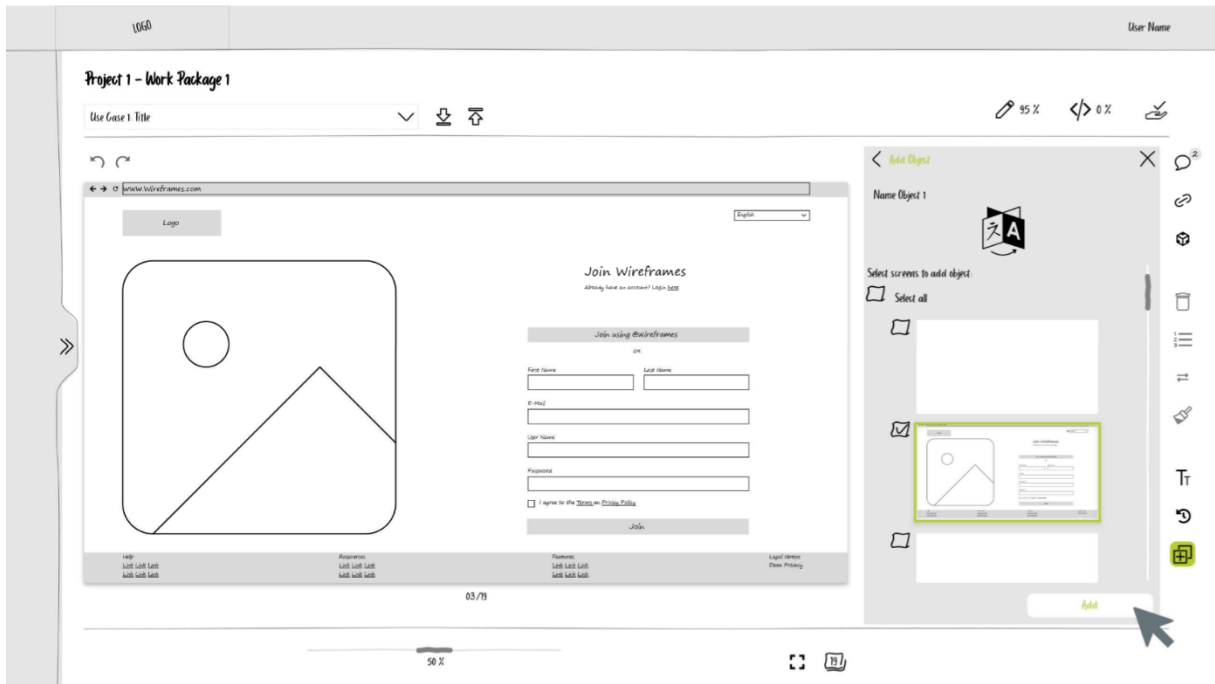


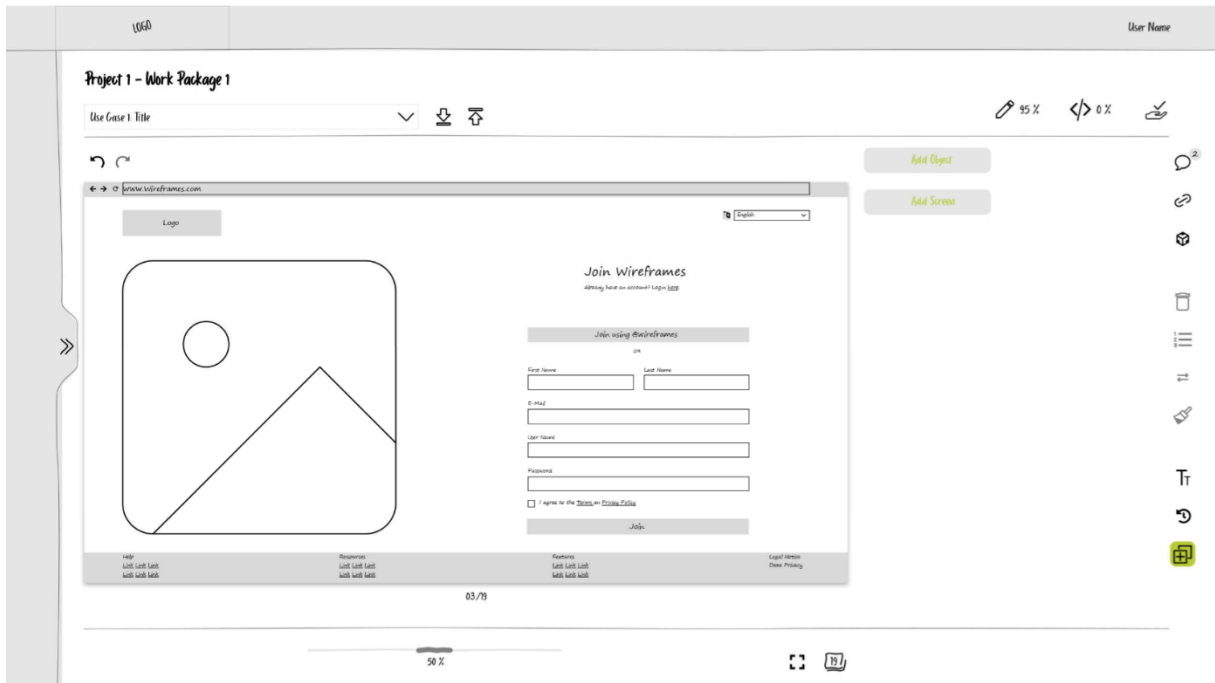
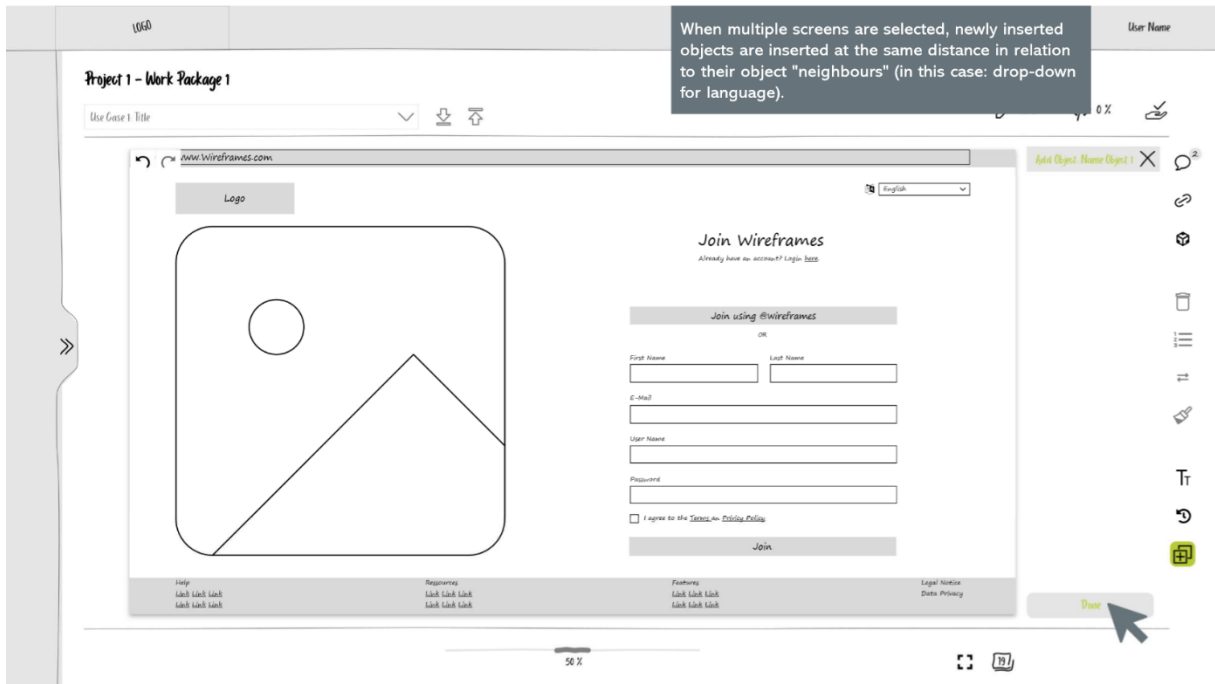


Function analogous to function from Adobe XD (document elements)

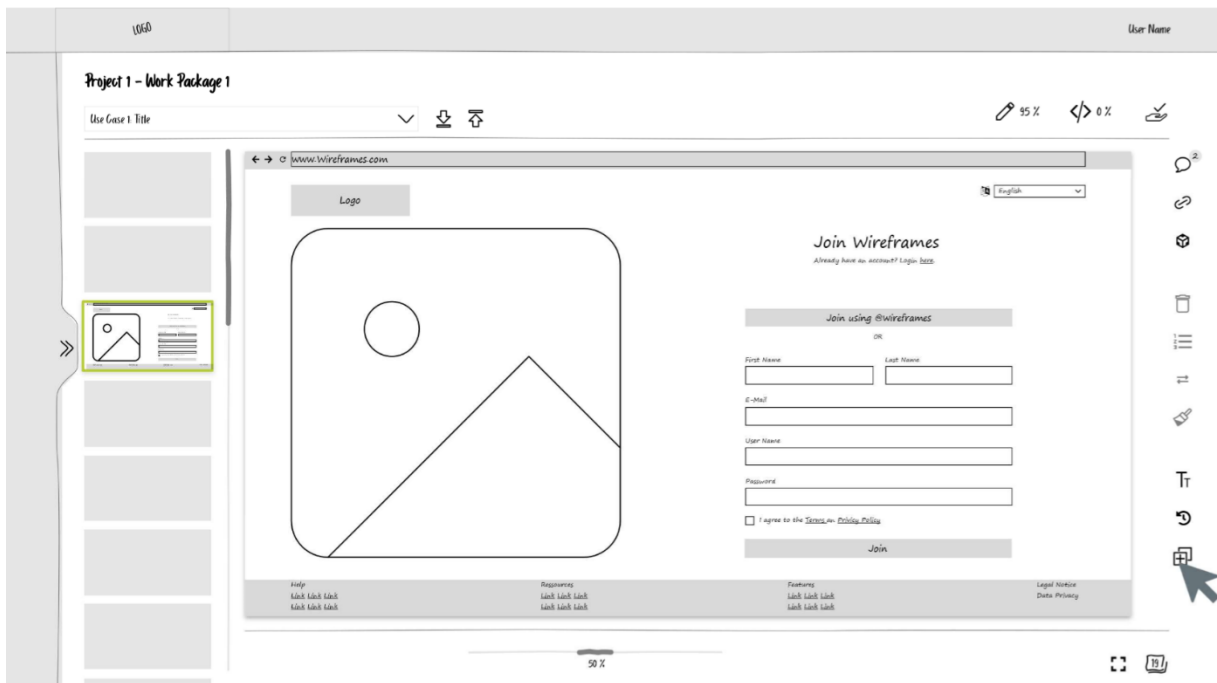


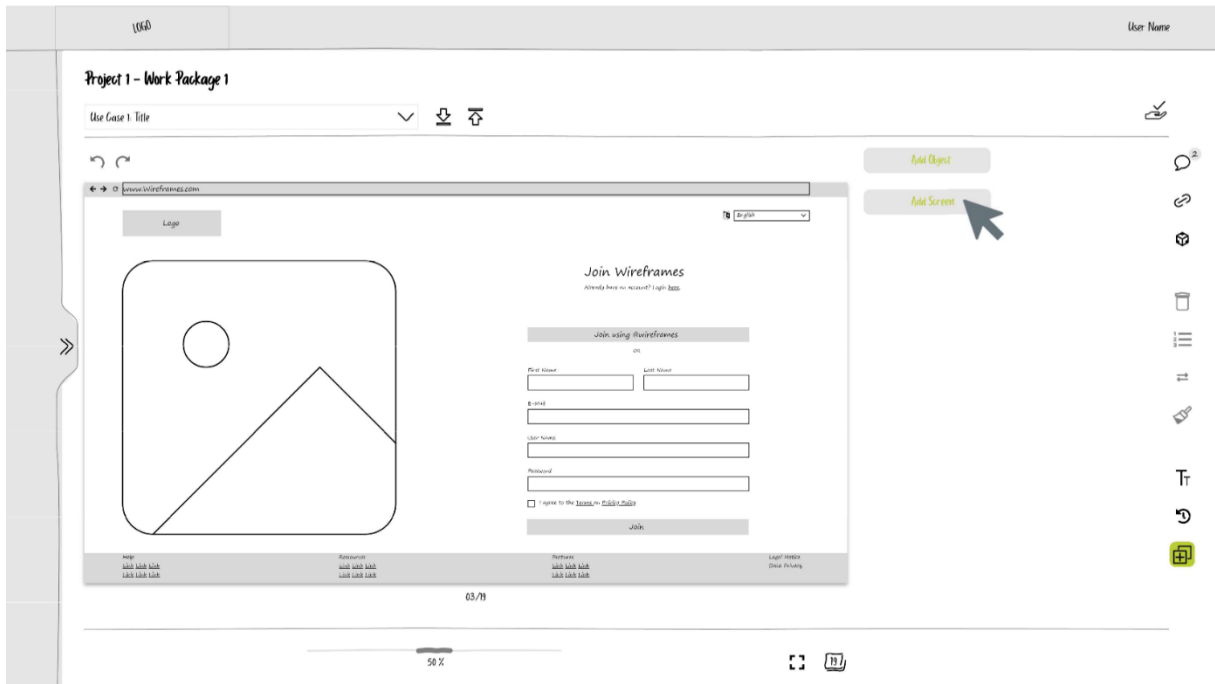






Add a new screen





Component list section

Overview: Brief description of actions

Actions in Component List

Area 4 - Content (individual)

Hints

The designer can display hints (e.g., on accessibility) by uploading initial component data (e.g., images).

Actions in Component List Section

Area 5 - Content-related actions



Synchronize

Designers can synchronise the component list with Adobe Component Library.



Details

All users can open the detailed view of an object.



Edit

Designers can open the detailed view of an object in the edit mode.



Download

All users can open the dialogue to download relevant object data (e.g., image formats, css notes)



History

All users can open the history of an object.



Object Settings

Designers can open the mask to manage the component data.



Add

Designers can open the dialogue to add new objects taking into account stored component data (e.g. font, colours, spacing).

View list (overview)

The screenshot displays a software interface for project management. On the left is a sidebar titled "Title project overview" containing a tree view with the following structure:

- Project 1
 - General
 - Work Package 1
 - General
 - Requirements
 - Work packages
 - Components
 - Work Package 2
 - Work Package 3
- Project 2
- Project 3

A mouse cursor points to the "Components" item under "Work Package 1".

The main content area is titled "Project 1 - Work Package 1" and features a "Current State" progress bar with seven phases:

- Project Phase 0: Completed (checkmark icon)
- Project Phase 1: Completed (checkmark icon)
- Project Phase 2: In Progress (half-filled circle)
- Project Phase 3: Pending (empty circle)
- Project Phase 4: Pending (empty circle)
- Project Phase 5: Pending (empty circle)
- Project Phase 6: Pending (empty circle)

Below the progress bar, there are links for "Version History" and "Latest Version" for each phase. Project Phase 2 includes additional status information: "Reworked Work packages", "Ready for internal Review 100%", and "Überarbeitung für ISH-IT Requirements 60%".

The interface also includes sections for "Workshops" (Next Workshop: 20.02.2022, Latest Information) and "Data & Settings" (Project Components, Work Package Settings, Lorem Ipsum).

1060 User Name

Titel project overview

- ▼ Projekt 1
 - > General
 - ▼ Work Package 1
 - General
 - Requirements
 - Work packages
 - Components
 - > Work Package 2
 - > Work Package 3
 - > Projekt 2
 - > Projekt 3

Projekt 1

Component Overview

ID	Category	Type	Name	Image	Function (specific)	State	Linked Area
10.10.01	Category 1	Type 1	Lorem Ipsum		Lorem Ipsum	State 1	Area 1
10.10.02	Category 1	Type 1	Lorem Ipsum		Lorem Ipsum	State 2	Area 1
10.20.01	Category 2	Type 2	Lorem Ipsum		Lorem Ipsum	State 0	Area 1
10.20.02	Category 2	Type 3	Lorem Ipsum		Lorem Ipsum	State 1	Area 1
10.30.01	Category 3	Type 4	Lorem Ipsum		Lorem Ipsum	State 2	Area 1

1060 User Name

Projekt 1

Component Overview

ID	Category	Type	Name	Image	Function (specific)	State	Linked Area
10.10.01	Category 1	Type 1	Lorem Ipsum		Lorem Ipsum	State 1	Area 1
10.10.02	Category 1	Type 1	Lorem Ipsum		Lorem Ipsum	State 2	Area 1
10.20.01	Category 2	Type 2	Lorem Ipsum		Lorem Ipsum	State 0	Area 1
10.20.02	Category 2	Type 3	Lorem Ipsum		Lorem Ipsum	State 1	Area 1
10.30.01	Category 3	Type 4	Lorem Ipsum		Lorem Ipsum	State 2	Area 1

Add new object

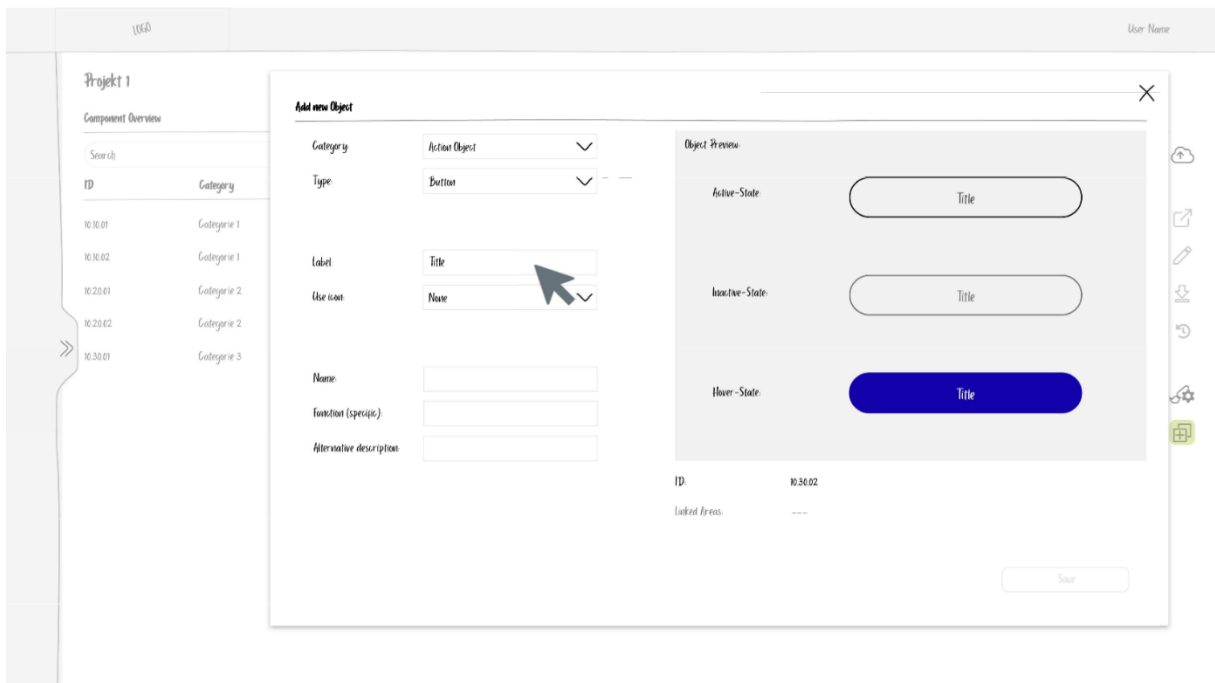
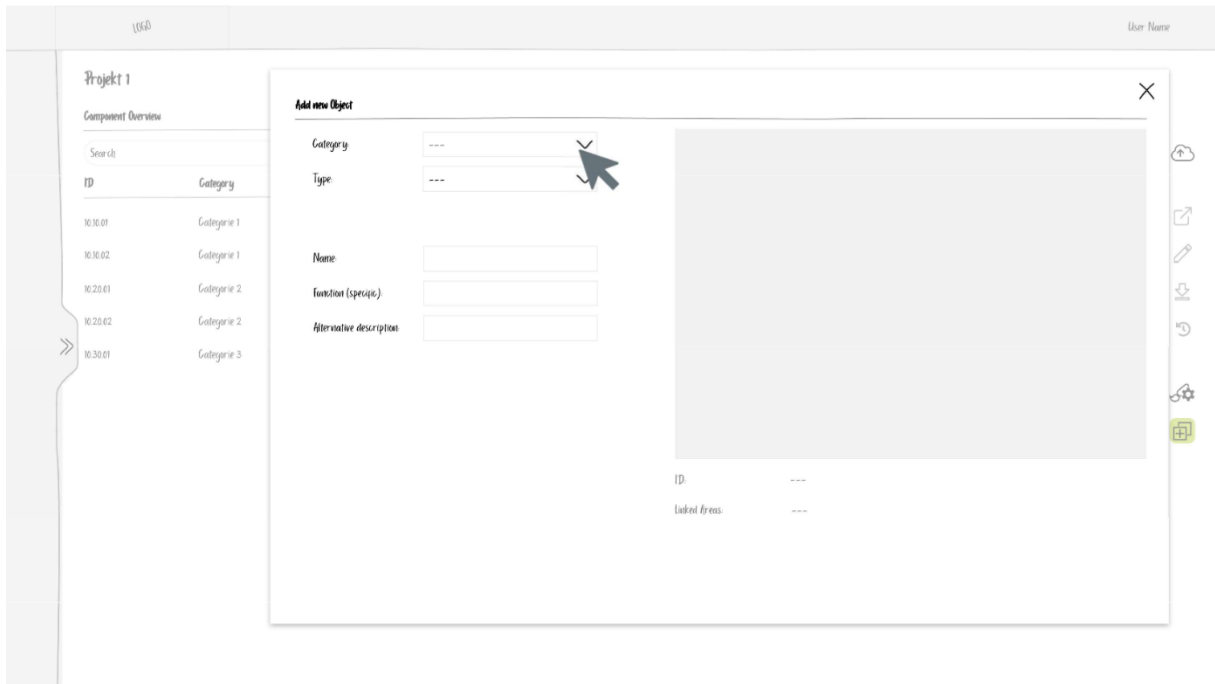
1160 User Name

Projekt 1

Component Overview

Search Filter Sort by

ID	Category	Type	Name	Image	Transition (specification)	State	Linked Area	
10.10.01	Category 1	Type 1	Lorem Ipsum		Lorem Ipsum	State 1	Area 1	
10.10.02	Category 1	Type 1	Lorem Ipsum		Lorem Ipsum	State 2	Area 1	
10.20.01	Category 2	Type 2	Lorem Ipsum		Lorem Ipsum	State 0	Area 1	
10.20.02	Category 2	Type 3	Lorem Ipsum		Lorem Ipsum	State 1	Area 1	
10.30.01	Category 3	Type 4	Lorem Ipsum		Lorem Ipsum	State 2	Area 1	



Project 1

Component Overview

Search

ID	Category
10.10.01	Category 1
10.10.02	Category 1
10.20.01	Category 2
10.20.02	Category 2
10.30.01	Category 3

Add new Object

Category:

Type:

Label:

Use icon:

Name:

Function (specify):

Alternative description:

Object Preview

Active-State:

Inactive-State:

Hover-State:

ID: 10.30.02
Linked Areas: ---

Project 1

Component Overview

Search Filter Sort by

ID	Category	Type	Name	Image	Transition (specify)	State	Linked Area
10.10.01	Category 1	Type 1	Lorem Ipsum		Lorem Ipsum	State 1	Area 1
10.10.02	Category 1	Type 1	Lorem Ipsum		Lorem Ipsum	State 2	Area 1
10.20.01	Category 2	Type 2	Lorem Ipsum		Lorem Ipsum	State 0	Area 1
10.20.02	Category 2	Type 3	Lorem Ipsum		Lorem Ipsum	State 1	Area 1
10.30.01	Category 3	Type 4	Lorem Ipsum		Lorem Ipsum	State 2	Area 1
10.30.02 - 1	Action Object	Button	Download		Download Image	Active	---
10.30.02 - 2	Action Object	Button	Download		Download Image	Inactive	---
10.30.02 - 3	Action Object	Button	Download		Download Image	Hover	---

View object data (details)

1160 User Name

Projekt 1

Component Overview

Search Filter Sort by

ID	Category	Type	Name	Image	Transition (specific)	State	Linked Area	
10.10.01	Category 1	Type 1	Lorem Ipsum		Lorem Ipsum	State 1	Area 1	
10.10.02	Category 1	Type 1	Lorem Ipsum		Lorem Ipsum	State 2	Area 1	
10.20.01	Category 2	Type 2	Lorem Ipsum		Lorem Ipsum	State 0	Area 1	
10.20.02	Category 2	Type 3	Lorem Ipsum		Lorem Ipsum	State 1	Area 1	
10.30.01	Category 3	Type 4	Lorem Ipsum		Lorem Ipsum	State 2	Area 1	
10.30.02 - 1	Action Object	Button	Download		Download Image	Active	---	
10.30.02 - 2	Action Object	Button	Download		Download Image	Inactive	---	
10.30.02 - 3	Action Object	Button	Download		Download Image	Hover	---	

1060 User Name

Projekt 1

Component Overview

Search Filter Sort by

ID	Category	Type	Name	Image	Function (specific)	State	Linked Area
10.10.01	Category 1	Type 1	Lorem Ipsum		Lorem Ipsum	State 1	Area 1
10.10.02	Category 1	Type 1	Lorem Ipsum		Lorem Ipsum	State 2	Area 1
10.20.01	Category 2	Type 2	Lorem Ipsum		Lorem Ipsum	State 0	Area 1
10.20.02	Category 2	Type 3	Lorem Ipsum		Lorem Ipsum	State 1	Area 1
10.30.01	Category 3	Type 4	Lorem Ipsum		Lorem Ipsum	State 2	Area 1
10.30.02 - 1	Action Object	Button	Download		Download Image	Active	---
10.30.02 - 2	Action Object	Button	Download		Download Image	Inactive	---
10.30.02 - 3	Action Object	Button	Download		Download Image	Hover	---

1060 User Name

Projekt 1

< Object: 10.10.03 (Download Button)

Object Data

Category	Action Object
Type	Button
Label	Download
Use icon	Download (10.20.20)
Name	Download
Function (specific)	Download Image
Alternative description	Button with label "Download"

Active-State

Inactive-State

Hover-State

ID: 10.10.03
Linked Area: ---

Details

State: Show graphic information Show dimensions

Frame: Medium Button

Colour: #1f1f2c
Thickness: 2 px
Rounding: 45%

1060 User Name

Projekt 1

< Object: 10.10.03 (Download Button)

Object Data Current State

Category	Action Object
Type	Button
Label	Download
Use icon	Download (10.20.20)
Name	Download
Function (specific)	Download Image
Alternative description	Button with label "Download"

ID: 10.10.03
Linked Areas: ---

Object Data from 10.01.2019

Category	Action Object
Type	Button
Label	Download Image
Use icon	Download (10.20.20)
Name	Download
Function (specific)	Download Image

1060 User Name

1060 User Name

Projekt 1

< Object: 10.10.03 (Download Button)

Object Data

Category	Action Object
Type	Button
Label	Download
Use icon	Download (10.20.20)
Name	Download
Function (specific)	Download Image
Alternative description	Button with label "Download"

ID: 10.10.03
Linked Areas: ---

Details

State: Active Show graphic information Show dimensions

Via Download, a menu can be called up for downloading various data, e.g. PNGs of the object, CSS files as hints, etc.

1060 User Name

1060

User Name

The Accessibility Hints displayed here concern programming point out, for example, sizes of click areas or image character labels.

Projekt 1

< Object: 10.N0.03 (Download Button)

ID: 10.N0.03

Linked frames: ---

Details

State: Active

Show graphic information Show dimensions

Frame: Medium Button

Colour: #1f1f1f

Thickness: 2 px

Rounding: 45%

Icon: 20.20.34 (Download)

Colour: #1f1f1f

Size: 35x35 px

Font: Icons4Design

Keystroke: D

Labeling: Download

Colour: #1f1f1f

Size: 12 pt

Font: Letters4Design

Accessibility hints

Lorem ipsum dolor sit amet, consectetur adipiscing elit. Sed diam mauris ornare imper, vivamus ut. lobore et dolore magna aliquam erat, sed diam volutpat. At vero eos et accusam et justo duo dolores et ea rebum. Sitet utin kasit gabergret, no sira takimola sanctus est Lorem ipsum

Deposit of component data

Project 1

Component Overview

Search: Filter: Sort by:

ID	Category	Type	Name	Image	Function (specify)	State	Linked Area
10.10.01	Category 1	Type 1	Lorem Ipsum		Lorem Ipsum	State 1	Area 1
10.10.02	Category 1	Type 1	Lorem Ipsum		Lorem Ipsum	State 2	Area 1
10.20.01	Category 2	Type 2	Lorem Ipsum		Lorem Ipsum	State 0	Area 1
10.20.02	Category 2	Type 3	Lorem Ipsum		Lorem Ipsum	State 1	Area 1
10.30.01	Category 3	Type 4	Lorem Ipsum		Lorem Ipsum	State 2	Area 1
10.30.02 - 1	Action Object	Button	Download		Download Image	Active	---
10.30.02 - 2	Action Object	Button	Download		Download Image	Inactive	---
10.30.02 - 3	Action Object	Button	Download		Download Image	Hover	---

Project 2

Design Objects

Required objects

Category 1: Type 1 Type 2 Type 3

Category 2: Type 1 Type 2 Type 3

Category 3: Type 1 Type 2 Type 3

Category 4: Type 1 Type 2 Type 3

Object data

Category 1 Type 1

Required object information

Lorem Ipsum Lorem Ipsum Lorem Ipsum Lorem Ipsum
 Lorem Ipsum Lorem Ipsum Lorem Ipsum Lorem Ipsum
 Lorem Ipsum Lorem Ipsum Lorem Ipsum Lorem Ipsum

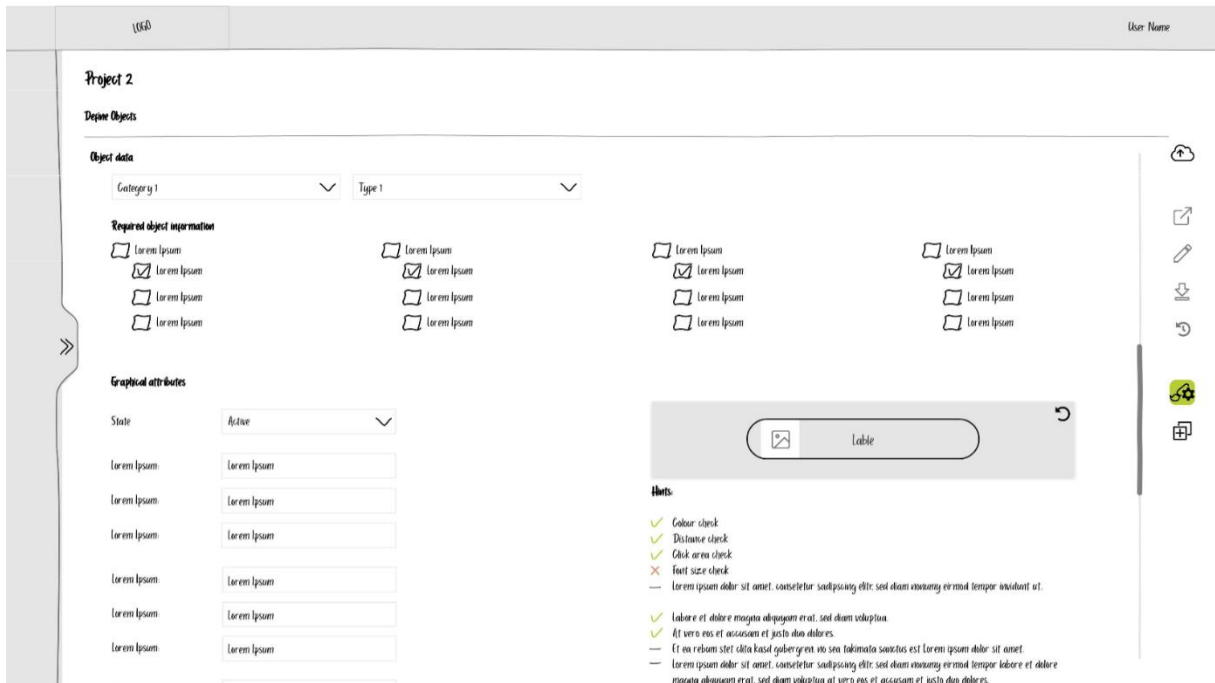
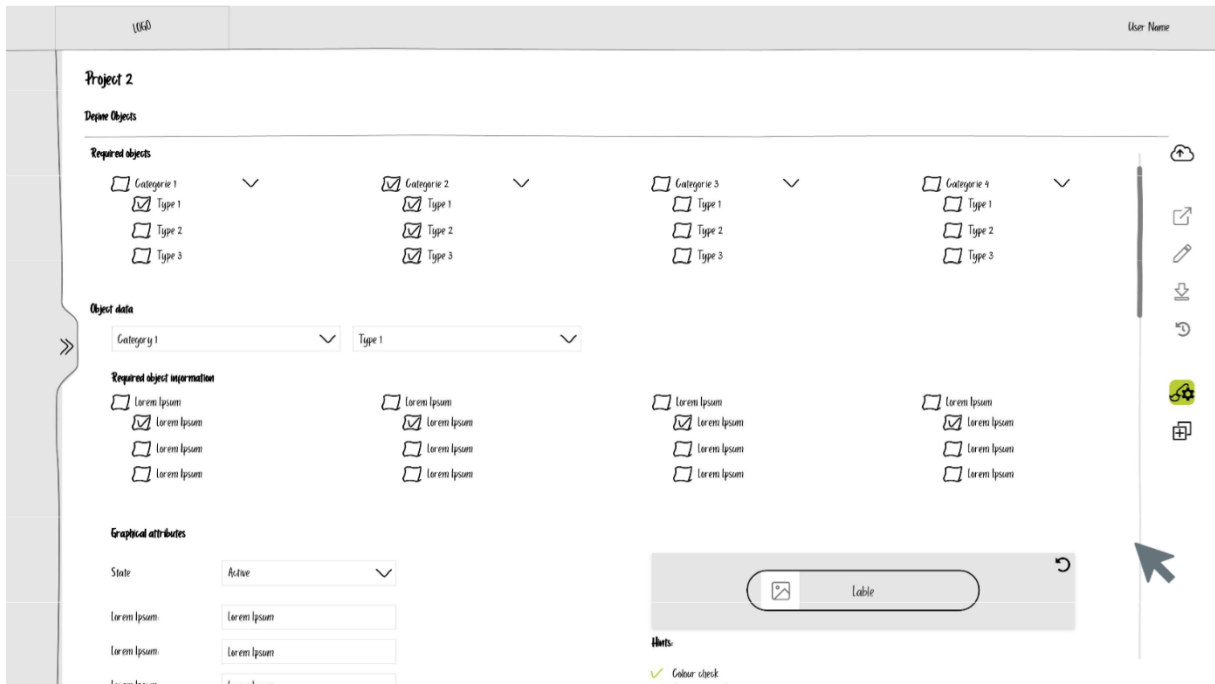
Graphical attributes

State:

Upload Image

Hints

Colour check

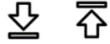


Requirements Section

Overview: Brief description of actions

Actions in Requirements Section

Area 3 - Connection navigation & content



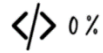
Download & Upload

User Researchers can open a dialogue for uploading files. Information is integrated into the tool according to the system logic.
All users can optionally download displayed wireframes with additional information (comments, links, ...) in the appropriate format.



Processing status

Indicates the processing status of the requirements. This is measured, for example, by solved comments and accepted requirements. Visible for **all users**.



Implementation status

All users can see the implementation status of the programming. This is measured, for example, by the ticket status (To do vs. In Progress vs. Done). Visible for **all users**.



Review

User researchers can release requirements of the open work package or use case for internal review.

Actions in Requirements Section

Area 4 - Content (individual)

Tickets: **Programmers** can view requirements as tickets and sort them (e.g., on a kanban board).

Actions in Requirements Section

Area 5 - Content-related actions



Comments

All users can view comments, reply to them or post them themselves. The comments are always attached to a requirement or part of the requirement.



Links

Overview of system information related to this component or screen (e.g. user stories) can be viewed by every user and edited by designers and user researchers.



Connections

All users can view connection of a selected requirement to other requirements.



Details

All users can open the detailed view of a requirement.



Edit

User Researcher and Programmers can open the detailed view of their requirement types in the edit mode.



Change Text

User Researchers can open the dialogue to select on which requirements one term should be replaced by another.



Multiple Selection

User Researchers can select multiple requirements at once (e.g., to link, delete, shift them).



Add

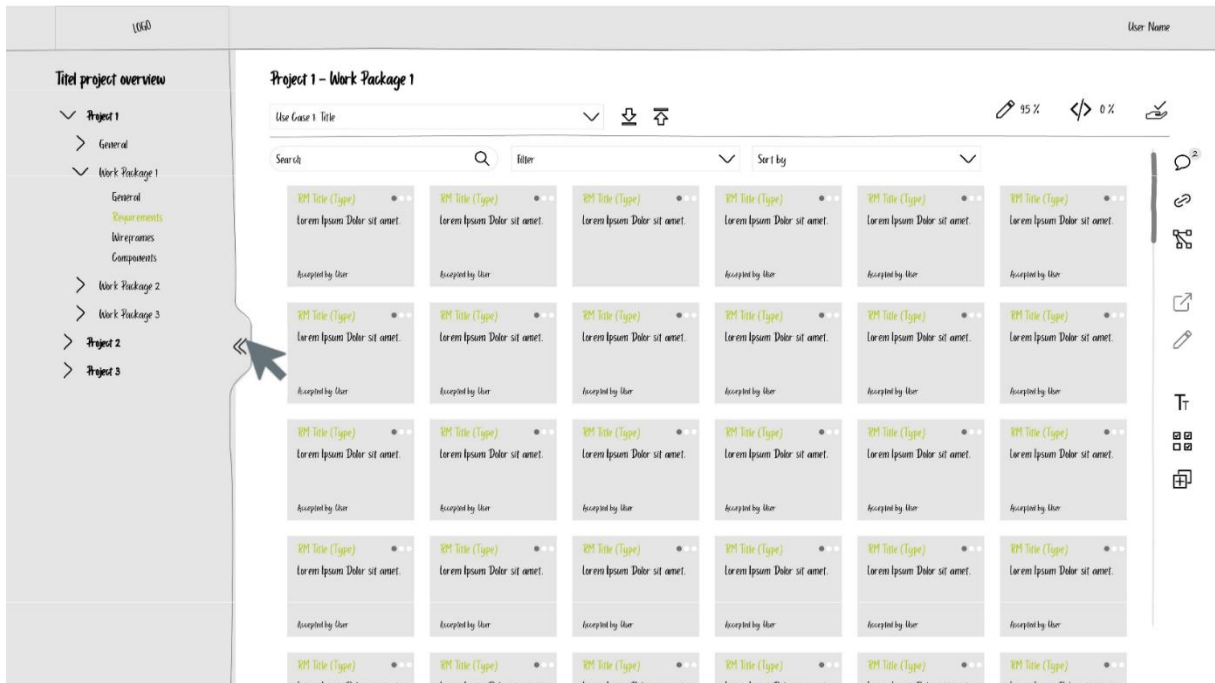
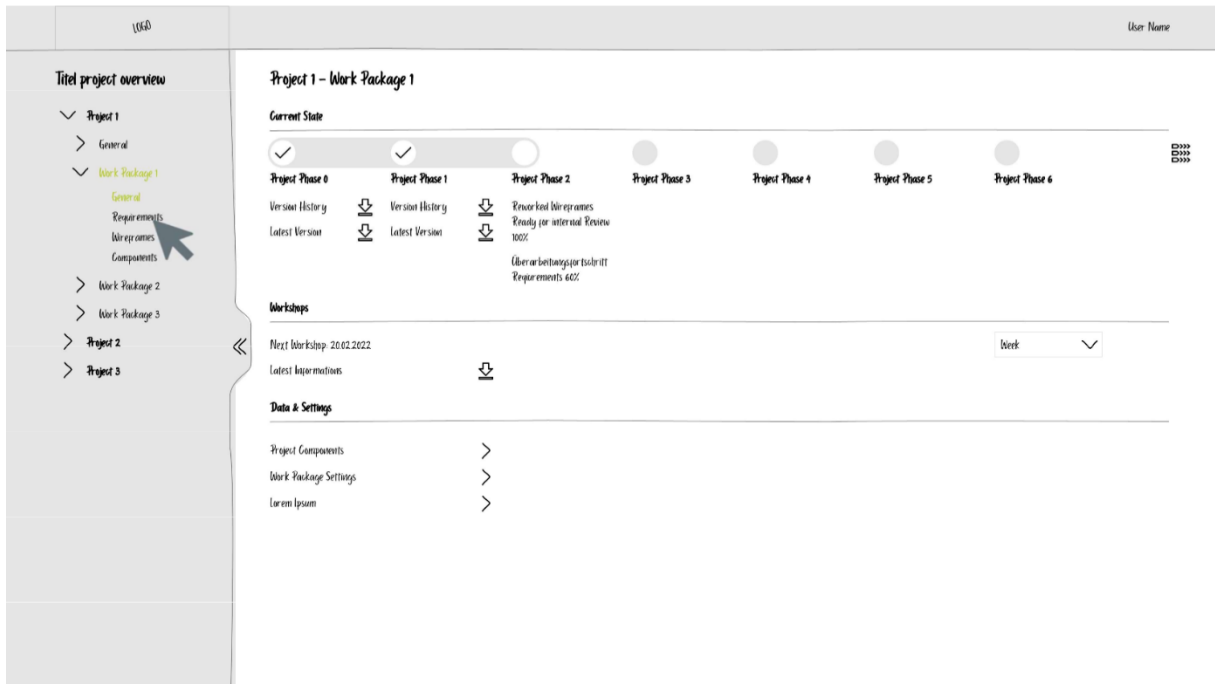
User Researcher and Programmers can add new requirements. In order to increase comprehensibility, a predefined form is filled out for each type of requirement.



Capacity

Programmers can open a screen to view current capacity distribution.

View requirements (overview)



Project 1 - Work Package 1

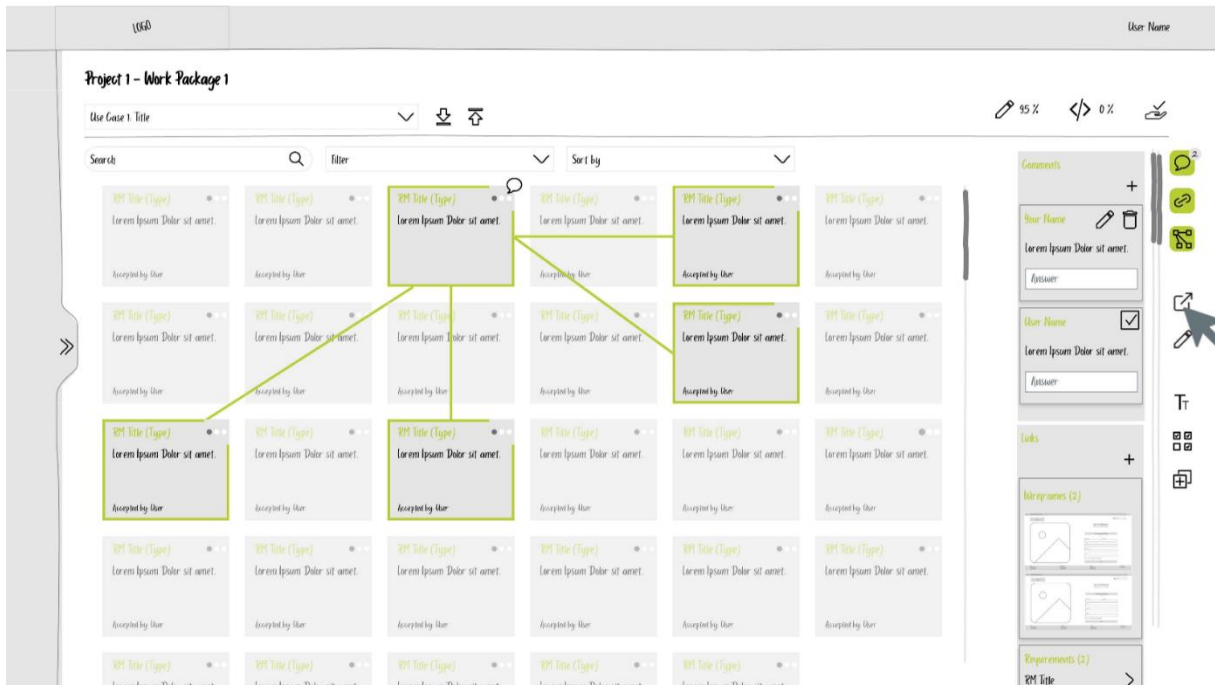
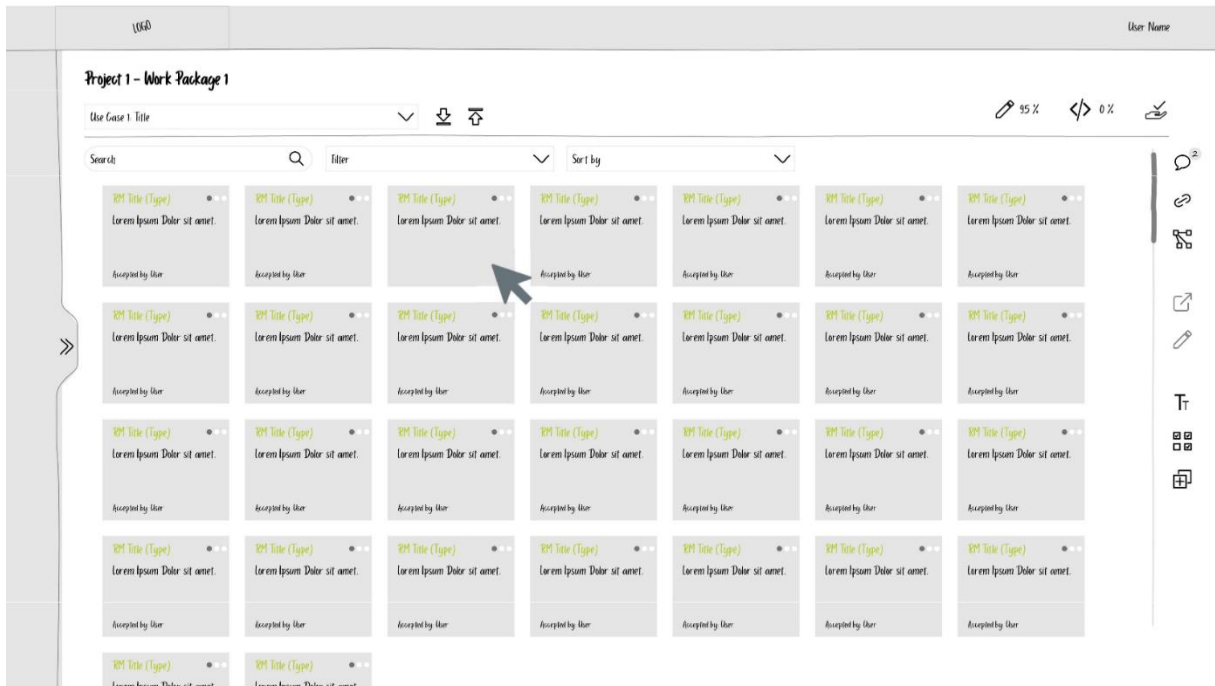
User Case 1: Title

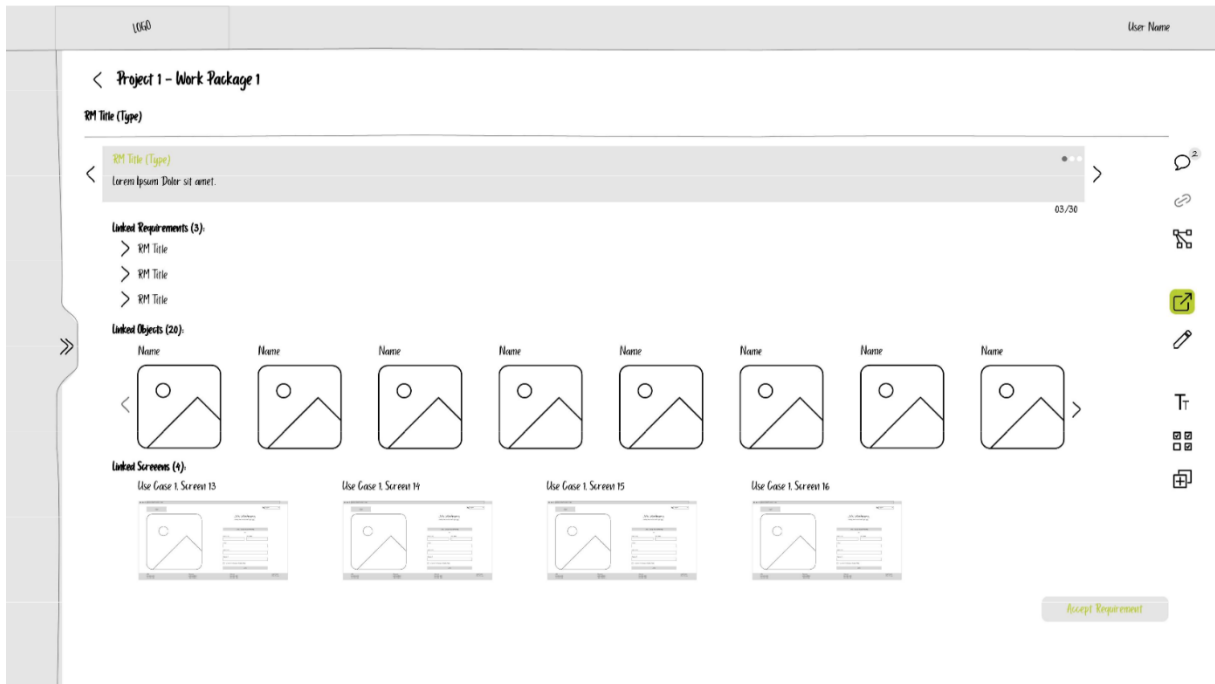
95% 0%

Search Filter Sort by

Req Title (Type) Lorem Ipsum Dolor sit amet. Accepted by User	Req Title (Type) Lorem Ipsum Dolor sit amet. Accepted by User	Req Title (Type) Lorem Ipsum Dolor sit amet. Accepted by User	Req Title (Type) Lorem Ipsum Dolor sit amet. Accepted by User	Req Title (Type) Lorem Ipsum Dolor sit amet. Accepted by User	Req Title (Type) Lorem Ipsum Dolor sit amet. Accepted by User	Req Title (Type) Lorem Ipsum Dolor sit amet. Accepted by User
Req Title (Type) Lorem Ipsum Dolor sit amet. Accepted by User	Req Title (Type) Lorem Ipsum Dolor sit amet. Accepted by User	Req Title (Type) Lorem Ipsum Dolor sit amet. Accepted by User	Req Title (Type) Lorem Ipsum Dolor sit amet. Accepted by User	Req Title (Type) Lorem Ipsum Dolor sit amet. Accepted by User	Req Title (Type) Lorem Ipsum Dolor sit amet. Accepted by User	Req Title (Type) Lorem Ipsum Dolor sit amet. Accepted by User
Req Title (Type) Lorem Ipsum Dolor sit amet. Accepted by User	Req Title (Type) Lorem Ipsum Dolor sit amet. Accepted by User	Req Title (Type) Lorem Ipsum Dolor sit amet. Accepted by User	Req Title (Type) Lorem Ipsum Dolor sit amet. Accepted by User	Req Title (Type) Lorem Ipsum Dolor sit amet. Accepted by User	Req Title (Type) Lorem Ipsum Dolor sit amet. Accepted by User	Req Title (Type) Lorem Ipsum Dolor sit amet. Accepted by User
Req Title (Type) Lorem Ipsum Dolor sit amet. Accepted by User	Req Title (Type) Lorem Ipsum Dolor sit amet. Accepted by User	Req Title (Type) Lorem Ipsum Dolor sit amet. Accepted by User	Req Title (Type) Lorem Ipsum Dolor sit amet. Accepted by User	Req Title (Type) Lorem Ipsum Dolor sit amet. Accepted by User	Req Title (Type) Lorem Ipsum Dolor sit amet. Accepted by User	Req Title (Type) Lorem Ipsum Dolor sit amet. Accepted by User
Req Title (Type) Lorem Ipsum Dolor sit amet. Accepted by User	Req Title (Type) Lorem Ipsum Dolor sit amet. Accepted by User					

View requirement (details)





Exemplary view:
Requirements as a programmer

Appendix 8: Screenshots of the Online Survey Regards Usefulness of Functions

16.02.23, 22:02

Master thesis survey: Enhancing interdisciplinary communication and documentation in UX projects – A human-centred approa...

Master thesis survey: Enhancing interdisciplinary communication and documentation in UX projects – A human-centred approach to internal tool development

During our collaboration, we have already analysed several aspects that are important for interdisciplinary collaboration. These aspects were refined in workshops and summarised in a first tool idea in the form of wireframes. The application was divided into four sections according to essential project components: General, Requirements, Wireframes and an overview of the components used (framework see image below).

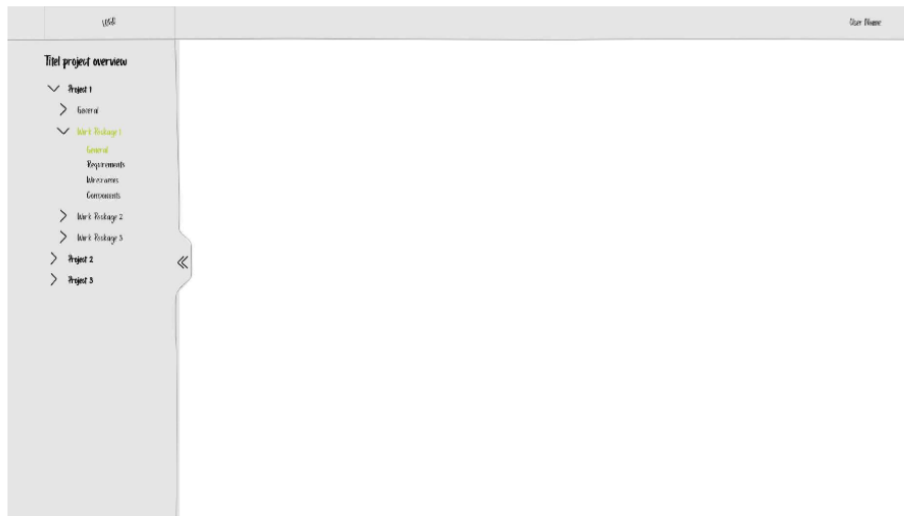
The aim of the present survey is to determine whether derived functions are useful or not from the point of view of practice experts and which aspects should be added in order to set the right focus for further development. Therefore, it is not a question of precisely reproducing the operation of the functions presented, but of evaluating their usefulness in general.

Important to notes:

The concept presented is not intended to replace essential specialist applications (e.g. Adobe XD, Power Point), but rather to **add** further important aspects and **connect** them. Above all, the linking of project information should serve to facilitate cross-disciplinary **communication** between team members as well as **consistent adjustments**. As the concept looks at different roles, representations of one sub-area may differ.

The results of the survey are presented anonymously in the scientific elaboration. Participation is voluntary and can be cancelled at any time without giving reasons. You will not suffer any disadvantages as a result.

Framework of presented content.



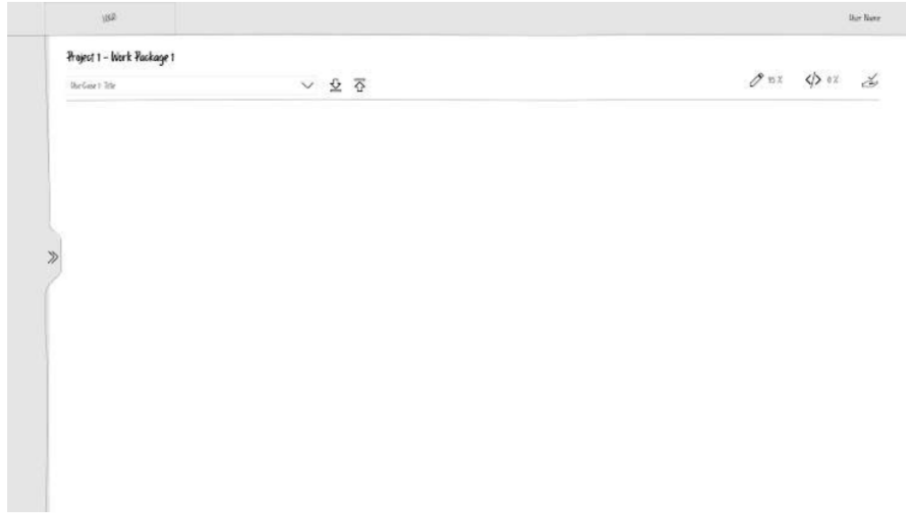
Start questionnaire

1. Which discipline(s) do you belong to?

Wählen Sie alle zutreffenden Antworten aus.

- Design
- User Research
- Programming
- Project Management Office (PMO)

- 2. Please indicate what you think of the features of the "general" work space described below. (Note: This is the general section of a whole project.)



Section: General

not
useful
at all somewhat
useful neither
useful very
useful

Upload:
Designers/
user
researchers
can upload
files to create
content or
replaced the
current, while
retaining the
system
information
created (e.g.
comments on
specific
objects).

Download: All
users can
optionally
download
displayed
wireframes
with additional
information
(comments,
links, ...) in

**the appropriate
format.**

**Processing
status: All
users can see
the processing
status of the
work area.
This is
measured, for
example, by
solved
comments and
accepted
requirements.**

**Implementation
status: All
users can see
the
implementation
status of the
programming.
This is
measured, for
example, by
the ticket
status (To do
vs. In Progress
vs. Done).**

**Review: The
responsible
persons can
release viewed
content for
internal review.**

3. Please indicate what you think of the features of the "general" work space described below. (Note: This is the general section of a whole project.)



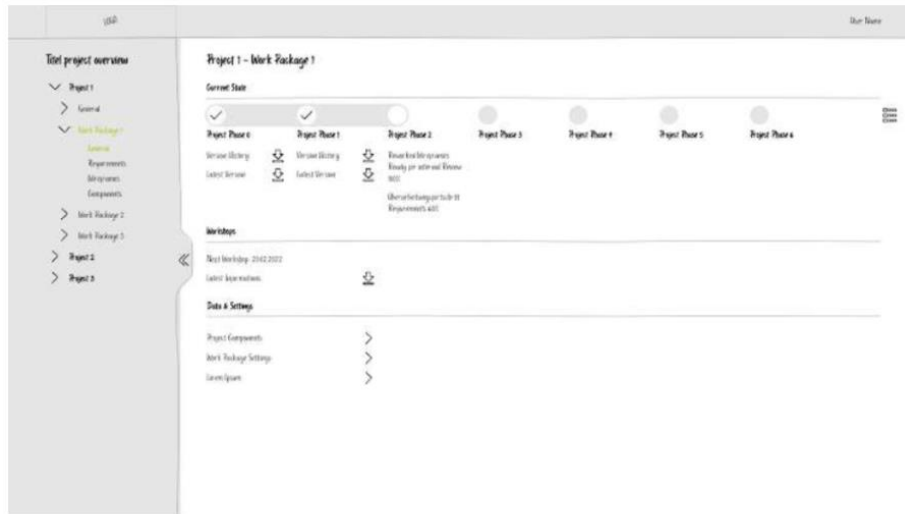
Markieren Sie nur ein Oval pro Zeile.

	not useful at all	somewhat useful	neither	useful	very useful
Project Overview: All users can see an overview of which work package is in which phase.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Phase management: PMO can manage phases (e.g. phase transitions)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Workshops: All users can get an overview of which workshops are coming up. Depending	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

**on their role,
they can call
up
corresponding
data (e.g.
wireframes)
needed for
this
workshop.**

**Project Data &
Settings:
Relevant
settings are
displayed
according to
role**

4. Please indicate what you think of the features of the "general" work space described below. (Note: This is the general section of one working package of a project.)



Markieren Sie nur ein Oval pro Zeile.

not useful at all somewhat useful neither useful very useful

Current State:
All users see the current phase status of the work package and can retrieve last data statuses of the current and past phases.

Phase management:
PMO can manage phases (e.g. phase transitions)

Workshops:
All users can open the

lates
workshop
documents.

Data &
Settings:
Relevant
settings are
displayed
according to
role

5. Are there any other aspects you would like to have considered within the general sections?

Section: Wireframes

Reminder: Wireframes are created in the usual graphics tool and can be uploaded here to manage connections with other system information.

6. Please indicate what you think of the features of the "wireframes" work space described below.

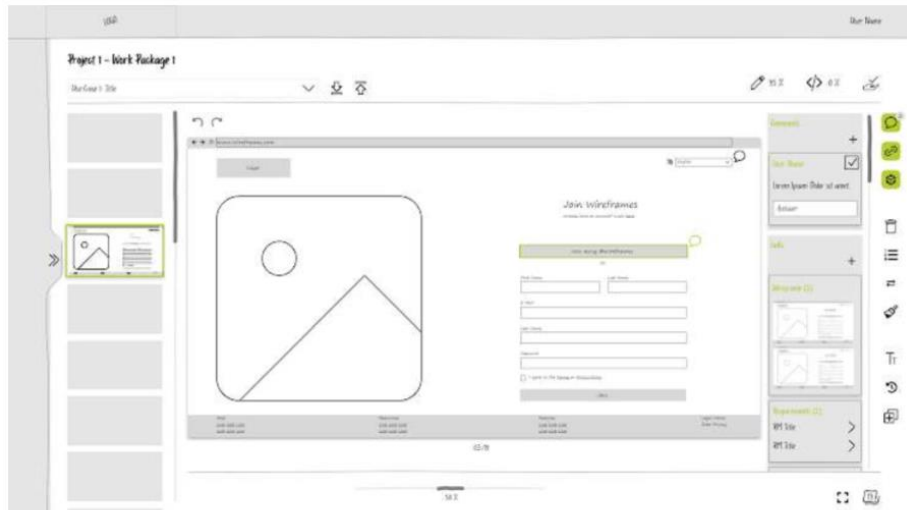


Markieren Sie nur ein Oval pro Zeile.

not useful at all somewhat useful neither useful very useful

Show Recent Changes: Designers can view the last changes that have been done since they last opened the wireframes.

7. Please indicate what you think of the features of the "wireframes" work space described below.



Markieren Sie nur ein Oval pro Zeile.

not useful at all somewhat useful neither useful very useful

Comments:

All users can view comments from other users, reply to them or post them themselves. The comments are always attached to a screen component.

Links:

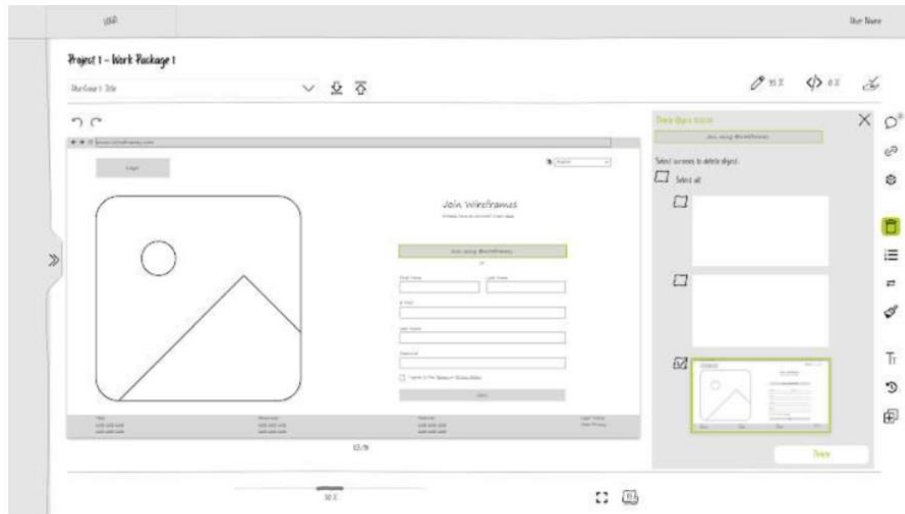
Overview of system information related to this component or screen (e.g. user stories)

**can be
viewed by
every user
and edited by
designers and
user
researchers.**

**Component
Data:**

**Relevant
component
data can be
viewed by
programmers.**

8. Please indicate what you think of the features of the "wireframes" work space described below.



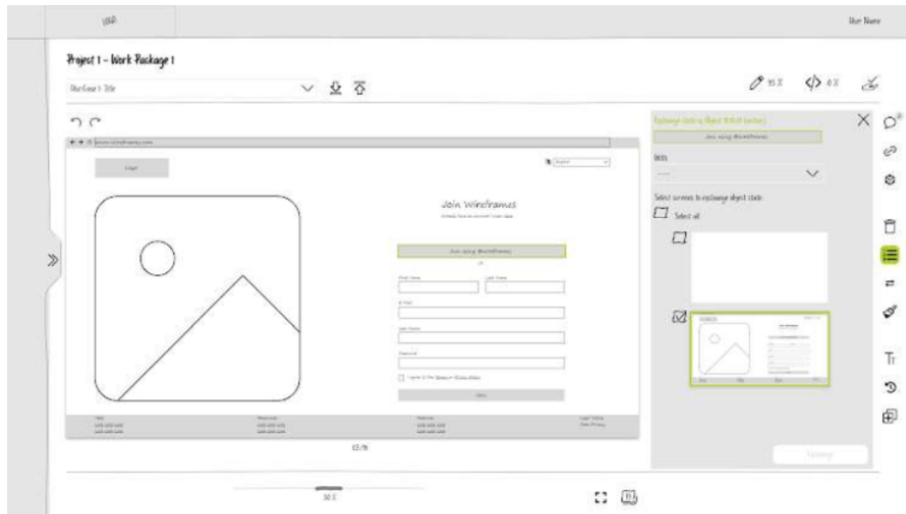
Markieren Sie nur ein Oval pro Zeile.

not
useful
at all somewhat
useful neither useful very
useful

Delete:

**Designers
can open
the
dialogue
to select
on which
screens
the
selected
object
should be
removed.**

- 9. Please indicate what you think of the features of the "wireframes" work space described below.

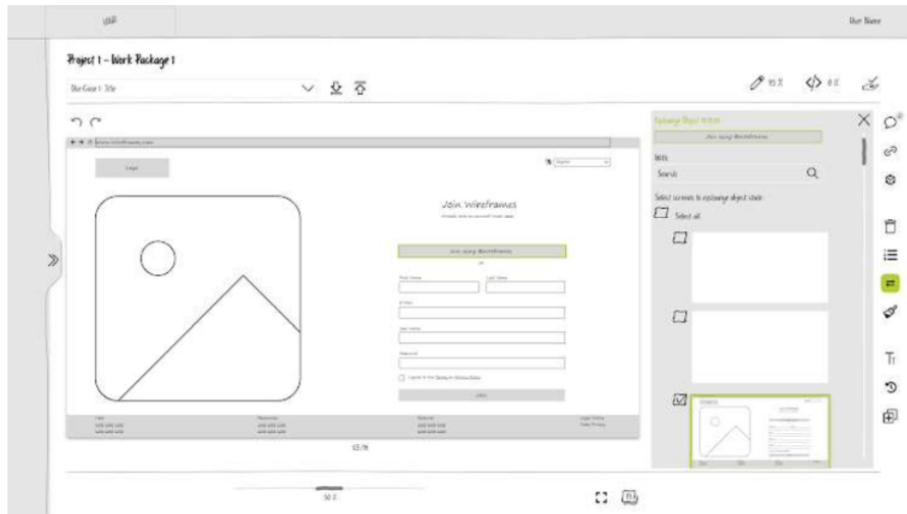


Markieren Sie nur ein Oval pro Zeile.

not useful at all somewhat useful neither useful very useful

Change State: Designers can open the dialogue to select on which screens the state of the selected object should be changed.

- 10. Please indicate what you think of the features of the "wireframes" work space described below.

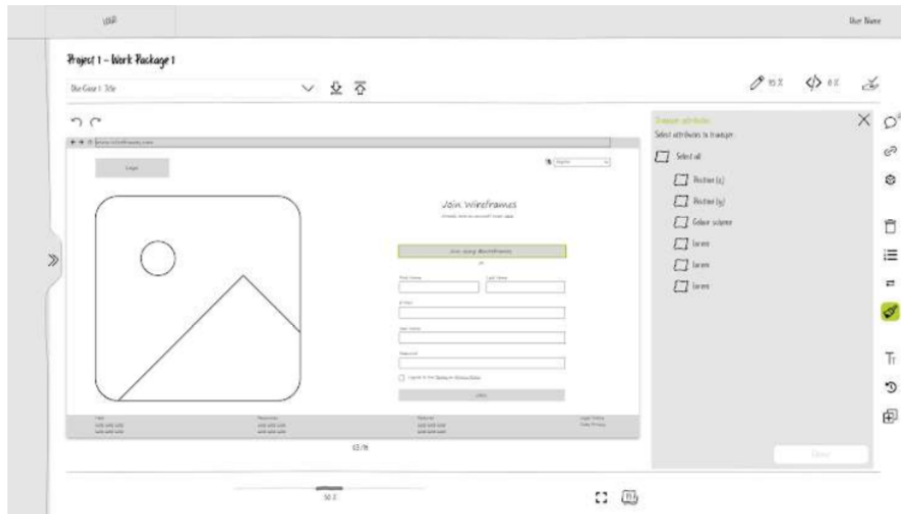


Markieren Sie nur ein Oval pro Zeile.

not useful at all somewhat useful neither useful very useful

Exchange Object:
Designers can open the dialogue to select on which screens the selected object should be exchanged.

11. Please indicate what you think of the features of the "wireframes" work space described below.

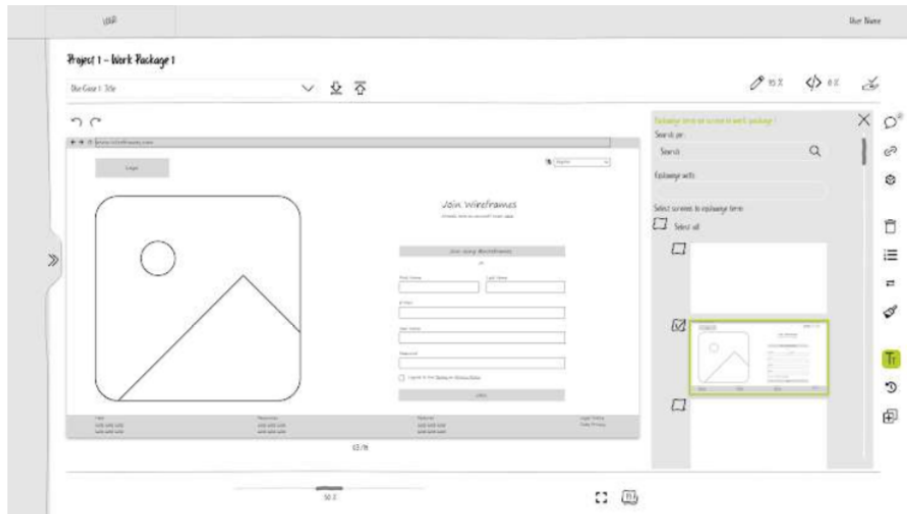


Markieren Sie nur ein Oval pro Zeile.

not useful at all somewhat useful neither useful very useful

Transfer Attributes: Designers can open the dialogue to select which object properties should be transferred to other objects (e.g. position, colour scheme, ...).

12. Please indicate what you think of the features of the "wireframes" work space described below.

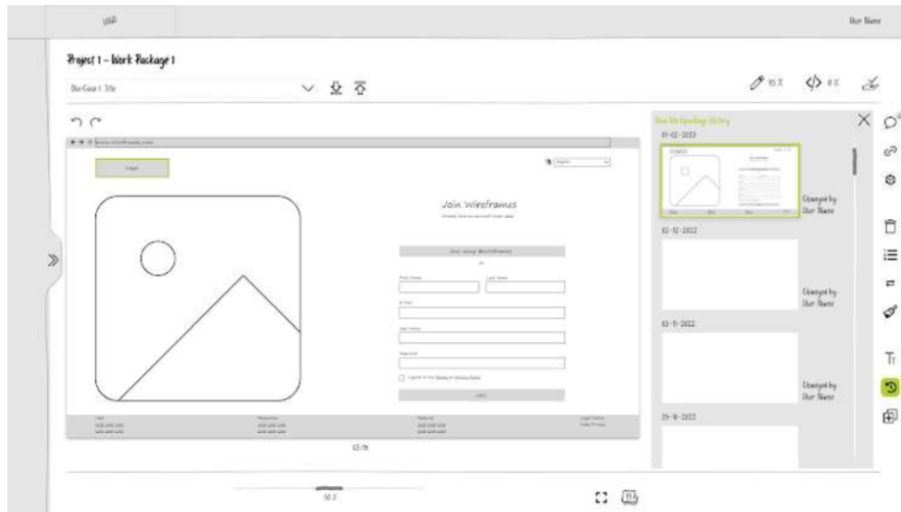


Markieren Sie nur ein Oval pro Zeile.

not useful at all somewath useful neither useful very useful

Change Text: Designers can open the dialogue to select on which screens one term should be replaced by another.

13. Please indicate what you think of the features of the "wireframes" work space described below.



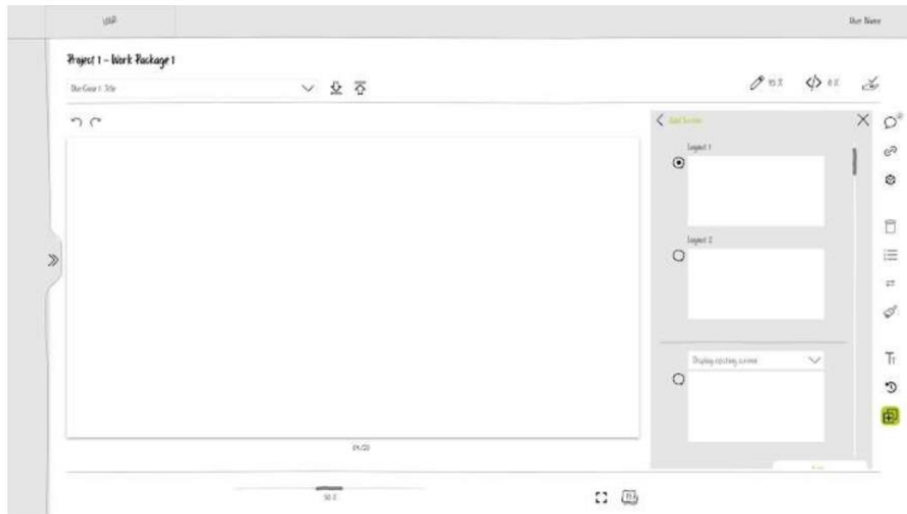
Markieren Sie nur ein Oval pro Zeile.

not
useful
at all somewhat
useful neither useful very
useful

History:

**All
users
can
open
the
dialogue
to view
the
history
of a
screen.**

- 14. Please indicate what you think of the features of the "wireframes" work space described below.

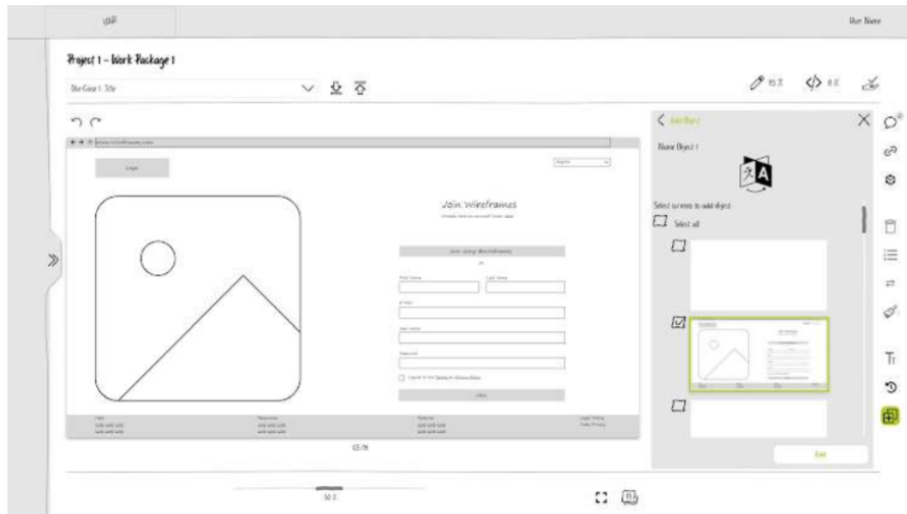


Markieren Sie nur ein Oval pro Zeile.

not useful at all somewhat useful neither useful very useful

Add Screen: Designers can open the dialogue to add a new screen or a reference to an existing screen, that should be displayed here.

15. Please indicate what you think of the features of the "wireframes" work space described below.



Markieren Sie nur ein Oval pro Zeile.

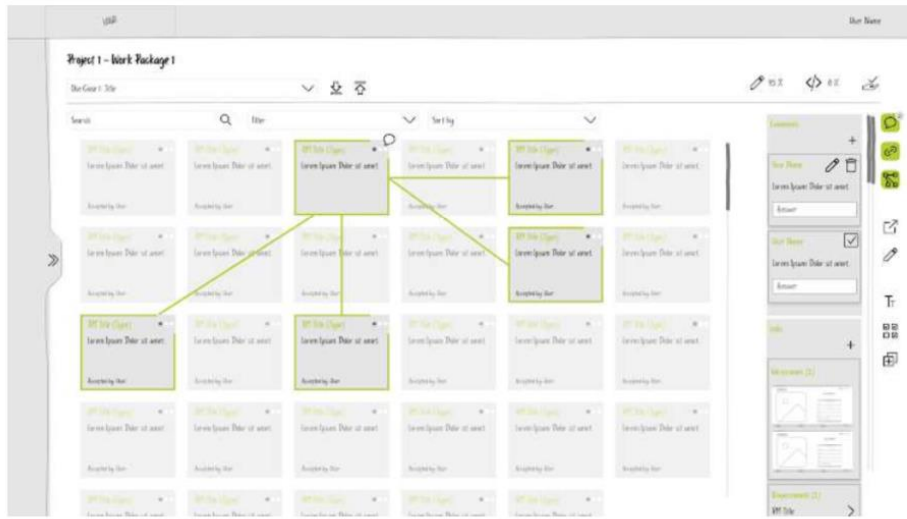
not useful at all somewhat useful neither useful very useful

Add Object:
Designer can open the dialogue to add an object (via selection from component list) to selected screens.

16. Are there any other aspects you would like to have considered within the wireframe section?

Section: Requirements

17. Please indicate what you think of the features of the "requirements" work space described below.



Markieren Sie nur ein Oval pro Zeile.

not useful at all somewhat useful neither useful very useful

Comments:

All users can view comments from other users, reply to them or post them themselves. The comments are always attached to a certain requirements or a part of it.

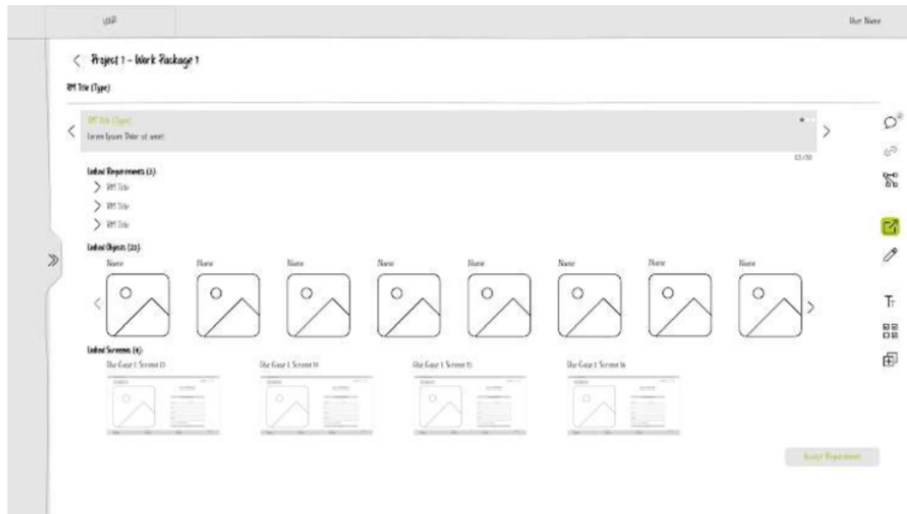
Links:

Overview of system information related to this component or screen

(e.g. user stories) can be viewed by every user and edited by designers and user researchers.

Connection: All users can view connection of a selected requirement to other requirements.

18. Please indicate what you think of the feature of the "requirements" work space described below.



Markieren Sie nur ein Oval pro Zeile.

not useful at all somewhat useful neither useful very useful

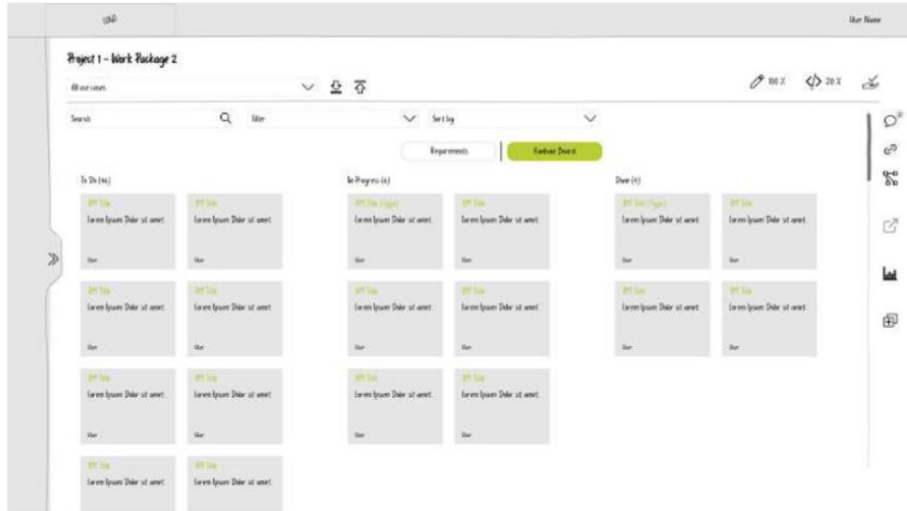
Details: All users can open the detailed view of a requirement.

19. Please indicate what you think of the features of the "requirements" work space described below.

Markieren Sie nur ein Oval pro Zeile.

	not useful at all	somewhat useful	neither	useful	very useful
Edit: User Researcher and Programmers can open the detailed view of their requirement types in the edit mode.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Change Text: User Researchers can open the dialogue to select on which requirements one term should be replaced by another.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Multiple Selection: User Researchers can select multiple requirements at once (e.g., to link, delete, shift them)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Add: User Researcher and Programmers can add new requirements. In order to increase comprehensibility, a predefined form is filled out for each type of requirement.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

20. Please indicate what you think of the features of the "requirements" work space described below. (Note: This view differs from the above seen since it show programmers view)



Markieren Sie nur ein Oval pro Zeile.

not useful at all somewhat useful neither useful very useful

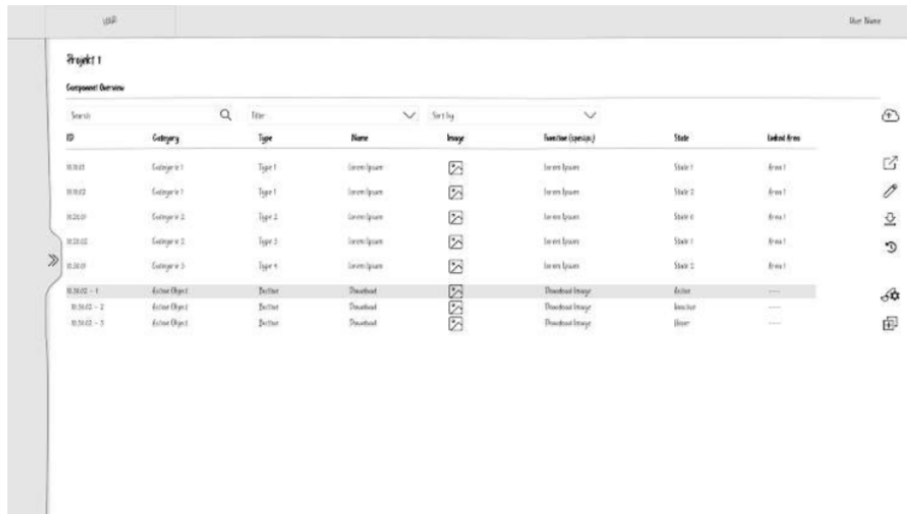
Tickets:
Programmers can view requirements as tickets and sort them (e.g., on a kanban board).

Capacity:
Programmers can open a screen to view current capacity distribution

21. Are there any other aspects you would like to have considered within the requirements section?

Components

22. Please indicate what you think of the features of the "components" work space described below.



Markieren Sie nur ein Oval pro Zeile.

not useful at all somewhat useful neither useful very useful

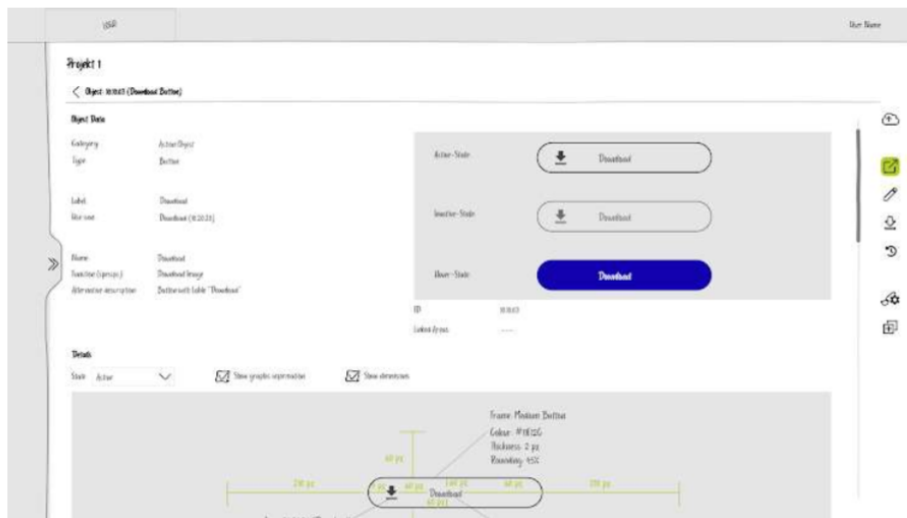
Synchronize:
Designers can synchronize the component list with Adobe Component Library.

Edit:
Designers can open the detailed view of an object in the edit mode.

Download:
All users can open the dialogue to download

**relevant
object data
(e.g., image
formats, css
notes)**

23. Please indicate what you think of the feature of the "components" work space described below.



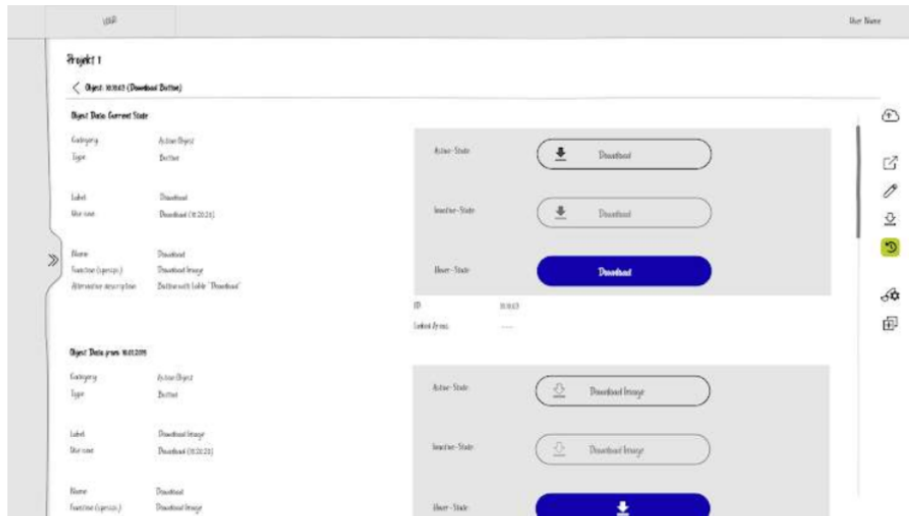
Markieren Sie nur ein Oval pro Zeile.

not useful at all somewhat useful neither useful very useful

Details:

All users can open the detailed view of an object.

24. Please indicate what you think of the feature of the "components" work space described below.



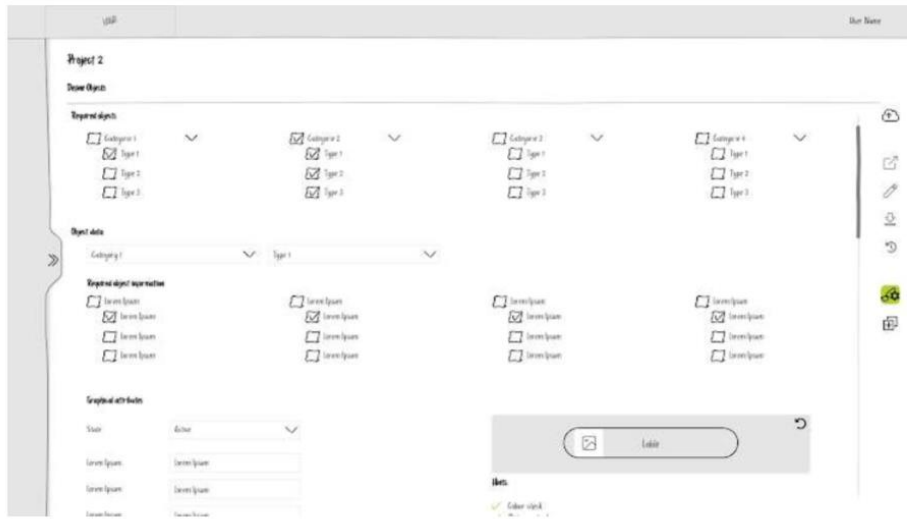
Markieren Sie nur ein Oval pro Zeile.

not useful at all somewhat useful neither useful very useful

History:

All users can open the history of an object.

25. Please indicate what you think of the feature of the "components" work space described below.



Markieren Sie nur ein Oval pro Zeile.

not useful at all somewhat useful neither useful very useful

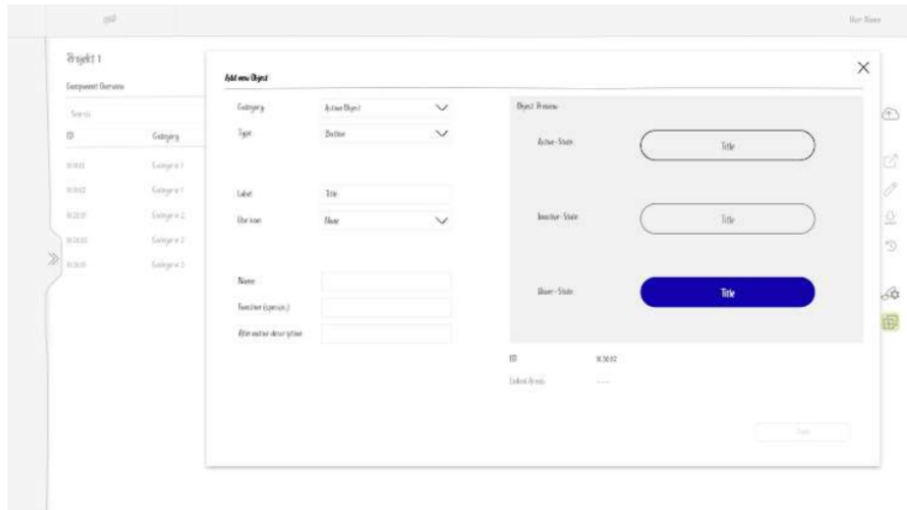
Object Settings:
Designers can open the mask to manage the component data.

Hints:
Designers can display hints (e.g., on accessibility) by uploading initial component data (e.g., images).

Programmers
can display hints for programming

by viewing details to a component.

26. Please indicate what you think of the feature of the "components" work space described below.



Markieren Sie nur ein Oval pro Zeile.

not useful at all somewhat useful neither useful very useful

**Add:
Designers
can open
the
dialogue to
add new
objects
taking into
account
stored
component
data (e.g.
font,
colours,
spacing).**

27. Are there any other aspects you would like to have considered within the component list section?

Complete questionnaire

Thank you for participating!

28. Is there anything else you would like to mention?

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Formulare

Appendix 9: Raw Data of Online Survey

Zeitstempel	Which discipline(s) do you belong to?	Please indicate how you feel about the functions described below. [Upload: Designers/user researchers can upload files to create content or replaced the current, while retaining the system information created (e.g. comments on specific objects).]	Please indicate how you feel about the functions described below. [Download: All users can optionally download displayed wireframes with additional information (comments, links, ...) in the appropriate format.]	Please indicate how you feel about the functions described below. [Processing status: All users can see the processing status of the work area. This is measured, for example, by solved comments and accepted requirements.]	Please indicate how you feel about the functions described below. [Implementation status: All users can see the implementation status of the programming. This is measured, for example, by the ticket status (To do vs. In Progress vs. Done).]	Please indicate how you feel about the functions described below. [Review: The responsible persons can release viewed content for internal review.]
1.25.2023 15:11:54	Programming	very useful	very useful	very useful	very useful	useful
1.26.2023 9:44:38	Design, User Research, Programming, Project Management Office (PMO)	very useful	very useful	very useful	very useful	very useful
1.26.2023 11:16:34	User Research	useful	very useful	useful	useful	useful
1.26.2023 15:58:59	Project Management Office (PMO)	very useful	very useful	very useful	useful	useful
1.27.2023 9:08:27	Design	very useful	neither	very useful	useful	useful
1.27.2023 9:28:01	Design	useful	useful	very useful	useful	very useful
1.27.2023 11:39:57	Programming	useful	useful	useful	useful	very useful
1.27.2023 11:47:30	Design, User Research	very useful	very useful	very useful	very useful	very useful
1.30.2023 7:50:11	User Research, Project Management Office (PMO)	very useful	very useful	very useful	useful	very useful
1.30.2023 12:36:46	Programming, Project Management Office (PMO)	useful	very useful	useful	useful	useful

Please indicate what you think of the features of the "general" work space described below. (Note: This is the general section of a whole project.) [Project Overview: All users can see an overview of which work package is in which phase.]	Please indicate what you think of the features of the "general" work space described below. (Note: This is the general section of a whole project.) [Phase management: PMO can manage phases (e.g. phase transitions)]	Please indicate what you think of the features of the "general" work space described below. (Note: This is the general section of a whole project.) [Workshops: All users can get an overview of which workshops are coming up. Depending on their role, they can call up corresponding data (e.g. wireframes) needed for this workshop.]	Please indicate what you think of the features of the "general" work space described below. (Note: This is the general section of a whole project.) [Project Data & Settings: Relevant settings are displayed according to role]	Please indicate what you think of the features of the "general" work space described below. (Note: This is the general section of one working package of a project.) [Current State: All users see the current phase status of the work package and can retrieve last data statuses of the current and past phases.]	Please indicate what you think of the features of the "general" work space described below. (Note: This is the general section of one working package of a project.) [Phase management: PMO can manage phases (e.g. phase transitions)]	Please indicate what you think of the features of the "general" work space described below. (Note: This is the general section of one working package of a project.) [Workshops: All users can open the latest workshop documents.]
useful	very useful	useful	useful	useful	very useful	very useful
very useful	very useful	very useful	very useful	very useful	very useful	very useful
very useful	neither	useful	useful	very useful	useful	very useful
useful	very useful	very useful	very useful	useful	very useful	useful
very useful	useful	very useful	useful	useful	useful	very useful
very useful	useful	very useful	useful	very useful	useful	very useful
useful	neither	useful	useful	useful	neither	very useful
very useful	very useful	useful	very useful	very useful	useful	very useful
very useful	very useful	very useful	very useful	very useful	very useful	very useful
useful	very useful	useful	useful	useful	very useful	useful

Please indicate what you think of the features of the "general" work space described below. (Note: This is the general section of one working package of a project.) [Data & Settings: Relevant settings are displayed according to role]	Are there any other aspects you would like to have considered within the general sections?	Please indicate what you think of the features of the "wireframes" work space described below. [Show Recent Changes: Designers can view the last changes that have been done since they last opened the wireframes.]	Please indicate what you think of the features of the "wireframes" work space described below. [Links: Overview of system information related to this component or screen (e.g. user stories) can be viewed by every user and edited by designers and user researchers.]	Please indicate what you think of the features of the "wireframes" work space described below. [Component Data: Relevant component data can be viewed by programmers.]	Please indicate what you think of the features of the "wireframes" work space described below. [Delete: Designers can open the dialogue to select on which screens the selected object should be removed.]	Please indicate what you think of the features of the "wireframes" work space described below. [Change State: Designers can open the dialogue to select on which screens the state of the selected object should be changed.]	Please indicate what you think of the features of the "wireframes" work space described below. [Exchange Object: Designers can open the dialogue to select on which screens the selected object should be exchanged.]
useful		very useful	very useful	very useful	useful	useful	very useful
very useful		very useful	very useful	very useful	very useful	very useful	very useful
useful		very useful	very useful	very useful	very useful	very useful	very useful
useful		very useful	useful	useful	very useful	very useful	useful
useful		useful	useful	useful	very useful	very useful	very useful
useful		very useful	very useful	useful	very useful	very useful	very useful
useful		neither	very useful	useful	useful	useful	useful
very useful		very useful	very useful	very useful	very useful	very useful	very useful
very useful		neither	very useful	neither	useful	useful	useful
useful		neither	very useful	very useful	neither	neither	neither

Please indicate what you think of the features of the "wireframes" work space described below. [Transfer Attributes: Designers can open the dialogue to select which object properties should be transferred to other objects (e.g. position, colour scheme, ...)]	Please indicate what you think of the features of the "wireframes" work space described below. [Change Text: Designers can open the dialogue to select on which screens one term should be replaced by another.]	Please indicate what you think of the features of the "wireframes" work space described below. [History: All users can open the dialogue to view the history of a screen.]	Please indicate what you think of the features of the "wireframes" work space described below. [Add Screen: Designers can open the dialogue to add a new screen or a reference to an existing screen, that should be displayed here.]	Please indicate what you think of the features of the "wireframes" work space described below. [Add Object: Designer can open the dialogue to add an object (via selection from component list) to selected screens.]	Are there any other aspects you would like to have considered within the wireframe section?	Please indicate what you think of the features of the "requirements" work space described below. [Comments: All users can view comments from other users, reply to them or post them themselves. The comments are always attached to a certain requirements or a part of it.]
very useful	useful	useful	very useful	useful		very useful
very useful	very useful	very useful	very useful	very useful		very useful
very useful	very useful	very useful	very useful	very useful		very useful
useful	very useful	very useful	very useful	very useful		useful
very useful	very useful	useful	useful	useful	Vielleicht gibt es einen Link auf eine aktuelle Design-Bibliothek. Look von Elementen, Verwendung von Farben & Schriften etc...	useful
very useful	very useful	very useful	very useful	very useful	Viele gute ideen! Alleine mit der textänderungen könnten änderungen viel schneller passieren...	useful
useful	useful	useful	useful	useful		very useful
very useful	very useful	very useful	very useful	useful		useful
useful	very useful	useful	useful	useful		very useful
neither	neither	neither	neither	neither		very useful

<p>Please indicate what you think of the features of the "requirements" work space described below. [Links: Overview of system information related to this component or screen (e.g. user stories) can be viewed by every user and edited by designers and user researchers.]</p>	<p>Please indicate what you think of the features of the "requirements" work space described below. [Connection: All users can view connection of a selected requirement to other requirements.]</p>	<p>Please indicate what you think of the feature of the "requirements" work space described below. [Details: All users can open the detailed view of a requirement.]</p>	<p>Please indicate what you think of the features of the "requirements" work space described below. [Edit: User Researcher and Programmers can open the detailed view of their requirement types in the edit mode.]</p>	<p>Please indicate what you think of the features of the "requirements" work space described below. [Change Text: User Researchers can open the dialogue to select on which requirements one term should be replaced by another.]</p>	<p>Please indicate what you think of the features of the "requirements" work space described below. [Multiple Selection: User Researchers can select multiple requirements at once (e.g., to link, delete, shift them)]</p>	<p>Please indicate what you think of the features of the "requirements" work space described below. [Add: User Researcher and Programmers can add new requirements. In order to increase comprehensibility, a predefined form is filled out for each type of requirement.]</p>
useful	very useful	useful	very useful	useful	very useful	useful
very useful	very useful	very useful	very useful	very useful	very useful	very useful
very useful	very useful	very useful	very useful	very useful	very useful	very useful
very useful	very useful	very useful	very useful	very useful	very useful	useful
useful	useful	neither	useful	useful	useful	useful
useful	useful	very useful	very useful	very useful	very useful	very useful
very useful	very useful	very useful	useful	useful	useful	very useful
very useful	very useful	very useful	very useful	useful	very useful	useful
useful	very useful	very useful	very useful	very useful	useful	very useful
very useful	very useful	very useful	neither	neither	neither	very useful

<p>Please indicate what you think of the features of the "requirements" work space described below. (Note: This view differs from the above seen since it show programmers view) [Tickets: Programmers can view requirements as tickets and sort them (e.g., on a kanban board).]</p>	<p>Please indicate what you think of the features of the "requirements" work space described below. (Note: This view differs from the above seen since it show programmers view) [Capacity: Programmers can open a screen to view current capacity distribution]</p>	<p>Are there any other aspects you would like to have considered within the requirements section?</p>	<p>Please indicate what you think of the features of the "components" work space described below. [Synchronize: Designers can synchronise the component list with Adobe Component Library.]</p>	<p>Please indicate what you think of the features of the "components" work space described below. [Edit: Designers can open the detailed view of an object in the edit mode.]</p>	<p>Please indicate what you think of the features of the "components" work space described below. [Download: All users can open the dialogue to download relevant object data (e.g., image formats, css notes)]</p>	<p>Please indicate what you think of the feature of the "components" work space described below. [History: All users can open the history of an object.]</p>
very useful	useful		useful	very useful	very useful	useful
very useful	very useful		very useful	very useful	very useful	very useful
very useful	very useful		very useful	useful	very useful	very useful
very useful	useful		very useful	very useful	useful	useful
neither	neither		very useful	very useful	useful	useful
neither	useful		very useful	useful	useful	very useful
very useful	very useful		useful	useful	very useful	very useful
useful	very useful		very useful	very useful	useful	very useful
very useful	very useful		very useful	very useful	very useful	very useful
very useful	very useful		neither	neither	useful	useful

Please indicate what you think of the feature of the "components" work space described below. [Object Settings: Designers can open the mask to manage the component data.]	Please indicate what you think of the feature of the "components" work space described below. [Hints: Designers can display hints (e.g., on accessibility) by uploading initial component data (e.g., images).]	Please indicate what you think of the feature of the "components" work space described below. [Hints: Programmers can display hints for programming by viewing details to a component.]	Please indicate what you think of the feature of the "components" work space described below. [Add: Designers can open the dialogue to add new objects taking into account stored component data (e.g. font, colours, spacing).]	Are there any other aspects you would like to have considered within the component list section?	Is there anything else you would like to mention?
useful	useful	very useful	very useful		
very useful	very useful	very useful	very useful	Das automatisches anlegen von den elementen würde alleine schon sehr viel helfen. Auch die historie ist gut.	
very useful	very useful	neither	very useful		
useful	useful	useful	very useful		
useful	very useful	very useful	useful		
useful	very useful	very useful	useful		
useful	useful	useful	useful		
very useful	very useful	useful	very useful		
very useful	useful	useful	very useful		It would be nice to be able to set in the settings which view external persons have and which actions they can perform.
neither	neither	very useful	neither		Good concept. Didn't want to say anything about functions of colleagues. We can continue to work with that. For example: Giving external users individually restricted views could be helpful. Always depends on the customer, what one can "understand" etc. ;) But really good for now

Please indicate what you think of the features of the "wireframes" work space described below. [Comments: All users can view comments from other users, reply to them or post them themselves. The comments are always attached to a screen component.]	Please indicate what you think of the features of the "wireframes" work space described below. [Links: Overview of system information related to this component or screen (e.g. user stories) can be viewed by every user and edited by designers and user researchers.]	Please indicate what you think of the features of the "wireframes" work space described below. [Component Data: Relevant component data can be viewed by programmers.]				
useful	very useful	very useful				
very useful	very useful	very useful				
very useful	very useful	very useful				
useful	useful	useful				
very useful	useful	useful				
very useful	very useful	useful				
very useful	very useful	very useful				
very useful	very useful	very useful				
very useful	very useful	neither				
very useful	very useful	very useful				

Appendix 10: Evaluation of Online Survey

Area 3						
Participant ID	Disciplines	Upload Data	Download Data	Processing status	Implementation status	Review
P01	Programming	4	4	4	4	3
P02	Design, User Research, Programming, Project Management Office (PMO)	4	4	4	4	4
P03	User Research	3	4	3	3	3
P04	Project Management Office (PMO)	4	4	4	3	3
P05	Design	4	2	4	3	3
P06	Design	3	3	4	3	4
P07	Programming	3	3	3	3	4
P08	Design, User Research	4	4	4	4	4
P09	User Research, Project Management Office (PMO)	4	4	4	3	4
P10	Programming, Project Management Office (PMO)	3	4	3	3	3

Function	Upload Data	Download Data	Processing status	Implementation status	Review
Score Overall	3,6	3,6	3,7	3,3	3,5
Score Discipline					

Genral								
Project Overview (overall)	Phase management (overall)	Workshops (overall)	Project Data & Settings (overall)	Current State (Sub-sector)	Phase management (Sub-sector)	Workshops (Sub-sector)	Data & Settings (Sub-sector)	
3	4	3	3	3	4	4	3	3
4	4	4	4	4	4	4	4	4
4	2	3	3	4	3	4	3	3
3	4	4	4	3	4	3	3	3
4	3	4	3	3	3	4	4	3
4	3	4	3	4	3	4	4	3
3	2	3	3	3	2	4	3	3
4	4	3	4	4	3	4	4	4
4	4	4	4	4	4	4	4	4
3	4	3	3	3	4	3	3	3

Project Overview (overall)	Phase management (overall)	Workshops (overall)	Current State (Sub-sector)	Phase management (Sub-sector)	Workshops (Sub-sector)	Data & Settings (Sub-sector)
3,6	3,4	3,5	3,5	3,4	3,8	3,3

Wireframes												
See recent changes	Comments	Links	Component Data	Delete Object or Screen in Wireframe	Change State of Object	Exchange Object	Transfer Attributes of Object	Change Text in Wireframes	Screen History	Add Screen	Add Object	
4		3	4	4	3	3	4	4	3	3	4	3
4	4		4	4	4	4	4	4	4	4	4	4
4	4		4	4	4	4	4	4	4	4	4	4
4	3		3	3	4	4	3	3	4	4	4	4
3	4		3	3	4	4	4	4	4	3	3	3
4	4		4	3	4	4	4	4	4	4	4	4
2	4		4	4	3	3	3	2	3	3	3	3
4	4		4	4	4	4	4	4	4	4	4	3
2	4		4	2	3	3	3	3	4	3	3	3
2	4		4	4	2	2	2	2	2	2	2	2
See recent changes	Comments	Links	Component Data	Delete Object or Screen in Wireframe	Change State of Object	Exchange Object	Transfer Attributes of Object	Change Text in Wireframes	Screen History	Add Screen	Add Object	
3,3	3,8	3,8	3,5	3,5	3,5	3,5	3,4	3,6	3,4	3,5	3,3	3,5
3,75												

Requirements										
Comments	Links	Connections between Requirements	Requirement Details	Edit Requirements	Change Text in Requirements	Multiple Selection of Requirements	Add Requirement	Tickets	Capacity	
4		3	4	3	4	3	4	3	4	3
4		4	4	4	4	4	4	4	4	4
4		4	4	4	4	4	4	4	4	4
3		4	4	4	4	4	4	3	4	3
3		3	3	2	3	3	3	3	2	2
3		3	3	4	4	4	4	4	2	3
4		4	4	4	3	3	3	4	4	4
3		4	4	4	4	3	4	3	3	4
4		3	4	4	4	4	3	4	4	4
4		4	4	4	2	2	2	4	4	4
Comments	Links	Connections between Requirements	Requirement Details	Edit Requirements	Change Text in Requirements	Multiple Selection of Requirements	Add Requirement	Tickets	Capacity	
3,6	3,6	3,8	3,7	3,6	3,4	3,5	3,6	3,5	3,5	

Components

Synchronize Object Data	Edit Object	Download Object	Details to Object	Object History	Object Settings	Design Hints	Programming Hints	Add Object	
3	4	4	4	3	4	3	3	4	4
4	4	4	4	4	4	4	4	4	4
4	3	4	4	4	4	4	4	2	4
4	4	3	3	3	3	3	3	3	4
4	4	3	3	3	3	3	4	4	3
4	3	3	3	3	4	3	4	4	3
3	3	4	4	4	4	3	3	3	3
4	4	3	4	4	4	4	4	3	4
4	4	4	4	4	4	4	3	3	4
2	2	3	4	3	2	2	4	2	2

Synchronize Object Data	Edit Object	Download Object	Details to Object	Object History	Object Settings	Design Hints	Programming Hints	Add Object	Min	Max
3,6	3,5	3,5	3,6	3,7	3,3 3,5	3,4	3,4	3,5	3,3	3,8