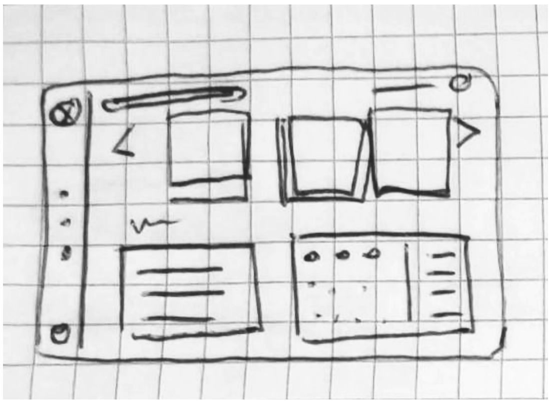
Conceptual design of a browser-based frontend for the Gossik Mobile App

Autumn Term 2022



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Abstract

Objective

A piece of software is only as useful, as the supports it provides to their users and organization to fulfill their goals. The challenging process of building software can dilute the initial goal of any application, which is to serve the user and support them in reaching their goals. Focusing only on the technical aspects of software bares the risk of forgetting the user and their motivations. The result of leaving the user out of the design process of a system can lead to a feature-polluted application with a tedious-to-operate UI, serving no one. The goal of this thesis is to create a conceptual design of a browser-based frontend for the Gossik mobile app in a user-centered manner. This is achieved through multiple UX design iterations and user interviews.

Approach

The conceptual design was created through a multiphase design and improvement process. Through user interviews, the target group's wants and needs were revealed and gave the base for the personas used as orientation in the further process. Over the course of three design iterations, the concept evolves through user feedback and research.

Conclusion

A component-based web prototype was created as the final prototype of the conceptual design. The prototype provides users with multiple ways to reach their goals and is designed to allow them quick access to actions and controls.

Management Summary

Initial Situation

The gossik mobile app's goal is to support its user's busy life by helping them get the most out of their time. However, the current implementation lacks in user-centered design, overcomplicating the workflows users have to undergo to reach their goals.

The lack of consideration of the user's needs should be addressed by treating Gossik's desire to expand to the desktop as a chance to improve user experience. Reconceptualizing the initial system can yield useful information about users and their motivations, which can be used in future decisions outside this project.

Procedure and Technology

Initially, it was necessary to get together with potential users and get to know more about their wants and needs. Persona definition and requirement engineering were done with the gained knowledge and implemented as an Adobe XD Prototype.

The clickable mockups of the prototype underwent user testing and were improved through two iterations. Another, final design iteration showcased the concept's characteristics as a React-based web prototype, which underwent further user testing to lead to the final concept.

Results

The result of the thesis is the final web prototype, implementing the discussed features during the process in an attempt to get feedback on the final experience conceptualized. Additional resources are provided for further information. An overview of the dashboard and Task view can be found in figures 1 and 2.

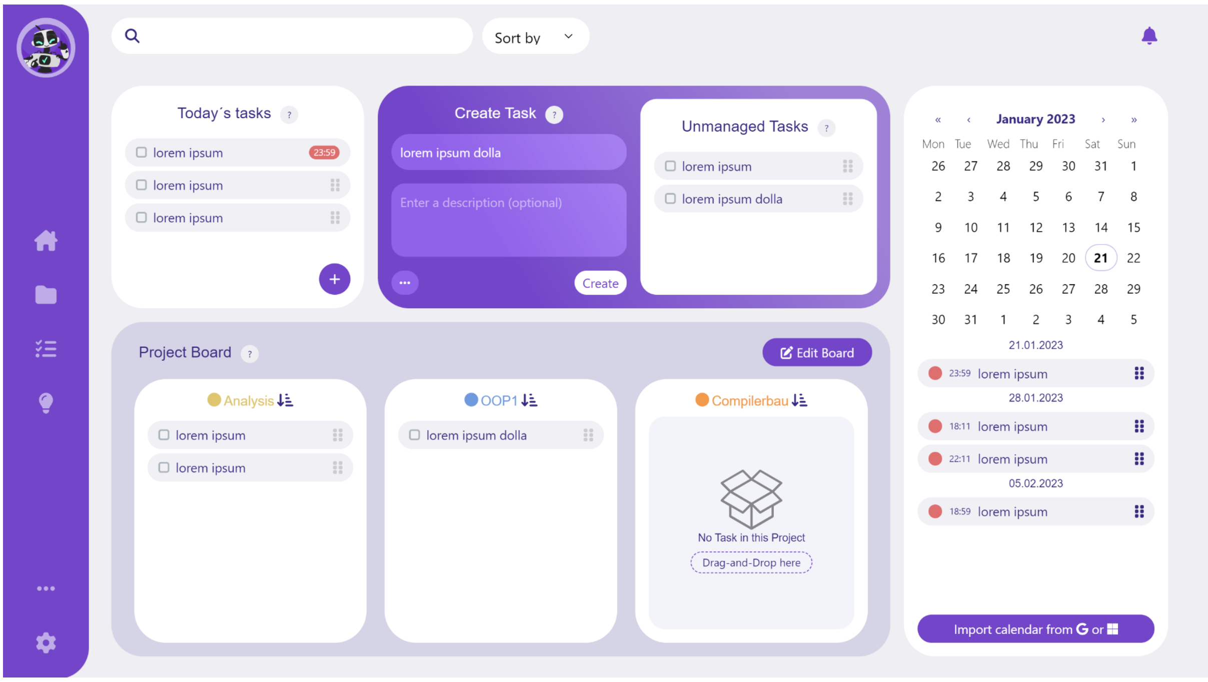
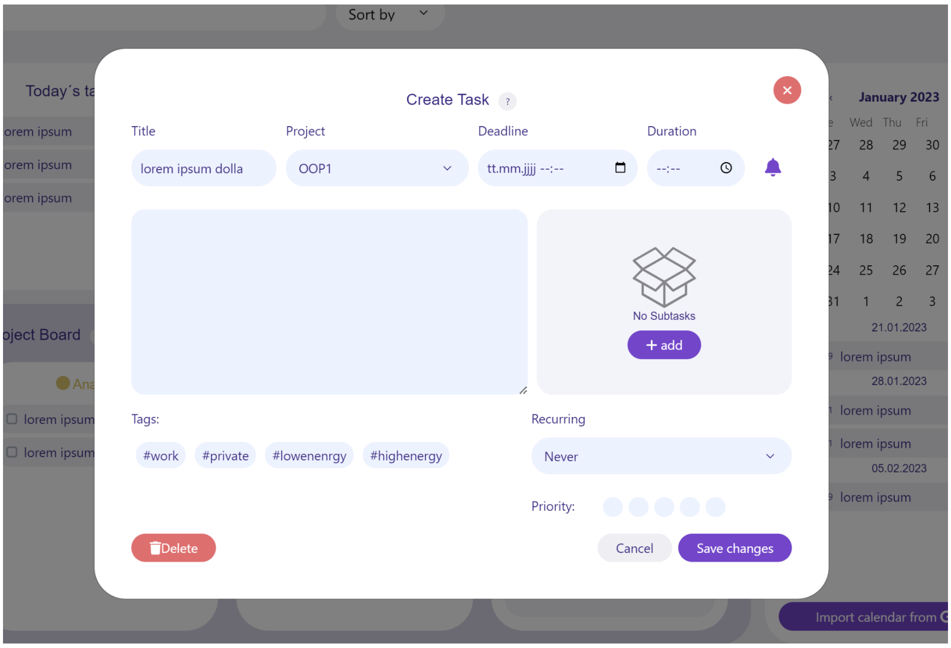


Figure 1: Home dashboard screenshot


Create Task

Title: lorem ipsum dolla

Project: OOP1

Deadline: tt.mm.jjjj --:--

Duration: --:--

Tags: #work #private #lowenenrgy #highenergy

Recurring: Never

Figure 2: Task view Screenshot

Outlook

The final implementation of the concept offers a solid design base for potential implementation as gossiks productive system. The findings of the final testing round provide further suggestions and ideas to evolve the concept and boost user experience.

Contents

Glossary

UI User Interface – A part of a system where human-computer interaction occurs

UX User Experience – A users perception of an interaction with a system

XD Experience design – Designing user experiences to improve user retention

DOM Document object model – defines the structure of an HTML documents

React A open-source JavaScript library build to develop dynamic user interfaces

Angular A open-source TypeScript-based frontend development framework

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Part I

Conceptual design

Chapter 1

User Research

To understand the problem at hand, we need to understand the user.
In this chapter, we specify a target group and learn more about them and their wants and needs by conducting interviews with potential users.

1.1 Target group

Since we don't have access to demographic data of current gossik mobile users or any other collected data giving us a hint on the target group, the group had to be defined from scratch. Therefore, all characteristics are based on assumptions and consist of people having an interest in productivity management.

Age	18 – 50
Occupation	Management intense, task-oriented, educational
User-typ:	Innovators, Early Adopters, Early Majority (Ref: Customer Adoption Patterns)
Possible Traits:	TEC enthusiastic, always busy, self-motivated, perfectionist, curious, impatient, procrastinator, easily distracted
Wants & Needs:	● keeping track of business-related and private projects and to-dos ● a place to collect and organize thoughts and ideas ● optimizing personal productivity and work efficiency
Frustrations:	● lack of time or patience to learn how to use a new tool ● wasting time on planning and organizing ● slow and boring to use tools ● a simple calendar is not flexible enough

Table 1.1: Target group definition

1.2 User-Interviews

To put the users of the target product at the center of its design process, user interviews were conducted. For the interviews, three participants, fitting the target group, were recruited.
The goal of the Interviews is to learn more about the following topics: [1]

- How a product is integrated into a user's life
- What goals and motivations users have
- What domain knowledge users have on what they need to accomplish their goals.
- What problems and frustrations do users have with current products

1.2.1 Thesis

All Participants expressed the need for assistants in planning and organizing their tasks. All of them tested many mobile apps and websites in the past but found themselves not satisfied with the support they get from them. After literal years of trying to find a fitting productivity assistant, they settled on a simple online calendar and post-it notes. Participants strongly emphasized, that for them to ever go back to any kind of To-do or planning app, it has to be revolutionary in the way it can be operated and has to address the concerns they had in the past with such applications.

1.2.2 Data collection

To collect meaningful Insight, a target audience is defined and three participants fitting the frame of potential users are recruited. A 60-minute Interview with each participant discusses the nature of managing tasks and planning deadlines to collect users' wants and needs for a productivity assistant. The interviewee's insight is mainly collected in the form of notes structured into key points. All interview audio is recorded in case further context or elaboration is needed.

1.2.2.1 The Participants

In this study, three people were interviewed.

Name	**Age**	**User Type**	**Occupation**
Linus	20	Early Adopters	Student preparing for university
Mathias	23	Innovators	Part-time university student and developer
Thomas	35+	Innovators	University lecturer and CTO

Table 1.2.2.1: User interview participants

1.2.2.2 Interview outline

The Interview outline acts as a guide for the actual Interview, outlining topics that should be discussed rather than fixed questions to be answered. The outline was created based on the suggestion in A. Cooper's "About Face: The Essentials of Interaction Design, Fourth Edition" [1] regarding conducting ethnographic interviews.

To keep the user interviews productive and direct the dialogue, both open-ended and close-ended questions are defined. The goal of open-ended questions is to provoke nuanced responses and encourage storytelling, while the main focus of the close-ended questions is to direct the conversation and prevent the interview from going off-topic.

All questions were formed considering the following guidelines [1]:

- The user is the expert on their own needs. The goal is to push past assumptions in a non-judgmental way to gain real and detailed insight.
- Questions should be goal-oriented, focusing firstly on users' goals, meaning the “Why” and “How” and secondly on the “What”, meaning the associated task.
- Implementation and technical details should not be discussed.
- The user is not a designer, the questions should aim at examining the user’s frustrations and the
- problems stopping them from accomplishing their goals rather than coming up with an elaborate solution.
- Questions should not contain any bias, suggest an answer, or be used as a tool to verify assumptions.

The questions and topics of the interview outline can be found in the appendix.

1.2.3 Data analysis:

The main method of analysis used is to look for patterns and identify trends in the data collected. By extracting users' wants and needs, stressors and frustrations, this step builds the foundation for the requirements engineering in the next chapter.

1.2.3.1 The Problem with Notifications

While having a To-do app reminding its users about their open tasks may sound like the most straightforward feature to have in such an application, user research shows that more caution is advised when implementing a notifying feature.

Interview Participants strongly expressed their annoyance with the way To-do apps utilize notifications. Too many notifications can either lead to ignoring them and ultimately missing important deadlines, or triggering the user to delete the app entirely.

The “when” and “what” of notifications can also have a serious impact on the user's mood. Getting a notification like “water your sister's plants while she's on vacation” in the midst of switching trains on your way to work, is probably for most people a great example of the wrong information at the wrong time. The consequences of such timing could be, that the user dismisses the notification due to timing, ultimately missing the task itself.

“Annoying notifications are probably the most common reason why I uninstall any app”
— Linus on Notifications

“Having an app notify you about all the school work you still have to get done while currently working for your day job adds unnecessary stress to my day and actually makes me ignore whatever it tried to tell me”
— Mathias on Notifications

1.2.3.2 Adding Tasks is also a Task

Tasks or To-dos are the main artifact in any productivity assistant, adding them is therefore one of the most important functionalities in the app. The way Tasks are added, and what information is needed, can make or break the user's experience according to the participants and even decide if a task gets done or not.

“Instead of adding tasks to a to-do app, I also could write down everything on a piece of paper and then throw it in the trash. It has the same effect.”
— Mathias on adding tasks

Adding tasks is a task in itself which is why the participants want to add tasks without thinking, most preferably, even without clicking anything.

“It should be as easy as just telling my girlfriend to remind me ”
— Linus on adding tasks

”There shouldn't be a brain required to add a new task”
— Mathias on adding tasks

“I shouldn’t have to ask myself if it's even worth adding a certain task. It should be that easy that it’s not worth asking”
— Mathias on adding tasks

While that is most of the time true, they claim, sometimes, more features for adding a task are required. For example, in order for Mathias to get a bigger task done, he needs to split them up into doable little steps or subtasks. Allowing nested tasks would eliminate the toxic mindset that tasks have to be done in one sitting from start to finish, according to Mathias.

1.2.3.3 Keeping track of tasks

The main goal of To-do apps is to help users manage and keep up with tasks. But what actually helps keep up with tasks that does not involve pressuring users with notifications?

Participants agreed that some form of Dashboard is a must to keep an overview. According to them, the dashboard should at least show upcoming deadlines, a calendar, and buttons to add tasks and projects.

“I shouldn’t have to click around to find out what's important, it should just tell me”
— Linus on keeping track of tasks

“Again, I don’t want to use my brain. I’m busy getting stuff done”
— Mathias on keeping track of tasks

1.2.4 Results

The in the previous section discussed findings and further input from the interview participants can be found in the table below. The IDs, associated with each finding, can be used as references in the upcoming sections.

ID	Finding
f-1	Dashboard, displaying only what matters
f-2	Make adding task a no-brainer
f-3	Let users decide when they want to receive notifications
f-4	Notifications via email, telegram, WhatsApp. .
f-5	“Fire and forget” inbox or stack for adding tasks
f-6	Auto Generate task from image (screenshot)
f-7	Operating UI via keyboard shortcuts, tab, and voice
f-8	“Procrastinate” or “snooze” button for tasks I don’t want to see or do right now
f-9	Drag and drop to plan and customize the dashboard
f-10	Kanban inspired dashboard

Table 1.2.4: User interview findings overview

1.2.5 Conclusion

The Participant were ruffly all on the same page. Most already existing Productivity assistants are not well-thought-out and rather increase stress by becoming a stressor in itself. Unsolicited notifications, tedious workflows, and finally, the guilt that comes with not being able to keep up, makes To-Do apps miserable to use, according to the participant.

The findings suggest that these apps are constantly at risk of getting associated with the stress they try to reduce instead of soothing users. We conclude, to avoid users experiencing negative feelings, our concept needs to recognize the discussed problems and avoid feeding into toxic patterns.

Chapter 2

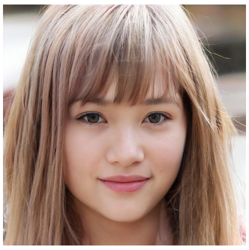
Requirements engineering

This chapter describes the various requirements the final conceptualized system of the thesis needs to fulfill in order to satisfy users' needs.

2.1 Personas

To use the findings of the user interviews in the design decisions of the requirements engineering, the data has to be abstracted into a Model. The Persona user model provides a useful tool to better understand users needs, behavioral patterns, and general goals in the context of the problem domain. Personas are fictional people assembled through the wants and needs of real individuals questioned in the research phase. By personifying our data into archetypical users, we make sure to keep our target groups and their specific needs at the center of the design process. [1]

2.1.1 Ningning



Name:	Ningning
Age:	20
Profession:	Part-Time student
User-typ:	early adopter
Defining Traits:	has ADD, perfectionist, well organized, anxious

Ningning is a very active and passionate person. Besides studying law and working part-time as an assistant, Ningning engages in many on-campus activities and is known as a driving force in her faculty's student association.

To keep track of schoolwork and her tasks as an assistant, Ningning makes a daily effort to keep her agenda up to date. She swears by her physical agenda, which she also uses to organize parties and keep ideas for her students' association.

Although Ningning is pleased with the way she gets things done, depending on a heavy physical object is very risky. Sometimes she forgets it at home, spills her tea all over it, or straight up loses it somewhere.

Wants & Needs	Frustrations & Struggles
● keeping track of school work and tasks for her part-time job ● Collect ideas for student parties ● organize and planning her personal life	● unaesthetic UIs and slow and tedious to use tools ● her agendas physical properties (heavy, can get lost, passive, …)

Table 2.1.1: Ningnings needs and struggles

2.1.2 Simon

Name: Simon
Age: 30
Profession: TEC Startup owner
Level of education: Bachelor degree in Economics
User-typ: innovator
Defining Traits: Self-Motivated, impatient, curious, has ADHD

Simon describes himself as an innovator through and through. He loves trying out new tools and gadgets, playing around with them, and testing out if they add any value to his life. His love for technology and busy mind led him to found his first startup, eager to revolutionize people's life with his products.

But owning and managing a company comes at a price, especially if your mind is as busy as Simon's. He often misses deadlines and appointments, overworking himself, loses control over his private tasks, and neglects relationships. Even his sleep and his leisure time get compromised. He struggles to relax or fall asleep due to his busy mind, always pumping out ideas and thinking about upcoming work.

Wants & Needs	Frustrations & Struggles
● Manage his tasks, ideas, and business appointments ● collect new business ideas and shower thoughts ● Increase productivity, self-optimization ● a free secretary	● hard time focusing on anything slow or tedious ● procrastinating ● missing important things ● work-life balance

Table 2.1.2: Simons needs and struggles

2.1.3 Reto

Name: Reto
Age: 40
Profession: University professor and Team Leader
User-typ: Late adopter
Defining Traits: organized, efficient

Reto is a busy professor, employee, and father. To stay on top of things, Reto writes down all of his tasks that take longer than 10 minutes to complete. Because of his many domains, his tools for planning and organizing are just as plenty. While this bares the advantage of having all his duties separated from each other, it also means that he has to manage them all separately and has no way of seeing the big picture.

"I wish I had a central tool where I can keep track of everything going on in my life while having the option to organize my tasks by context"

Wants & Needs	**Frustrations & Struggles**
● Managing deadlines ● a place to collect thoughts for future decision-making ● use his time as efficient as possible	● wasting time on planning and organizing ● overly complicated apps with too many features

Table 2.1.3: Retos needs and struggles

2.2 Functional requirements

The functional requirements describe users expectations regarding the features of the system to conceptualize. Each requirement was derived from the insight of the user interviews and is presented as a user story.

As…	**I want…**	**so that…**
User	Manage (CRUD) my tasks	-
User	set deadlines for tasks	I don’t have to remember them myself
Ningning	Set how much time a task takes or how much time I want to invest.	So I can plan my tasks
Reto	Spread a group of tasks over the free space in my calendar in a certain interval of days	I don’t have to plan them manually
User	See upcoming deadlines in my calendar	I know what’s coming up
User	set tasks as recurring	I don’t have to recapture them
User	schedule a task in my calendar	so I don’t have to think about it anymore until it comes up
User	create and set tags on tasks	I can group them however I want
User	Set notification for tasks I need to be reminder of	I don’t have to remember it myself
User	snooze notifications	I can push notifications instead of loosing them
User	see all my tasks	I can manage them in one spot
User	sort all my tasks (by date, deadline, …)	I can manage them in a certain context
User	search for tasks	I can find tasks with a certain content
User	add tasks to a project	I can organize them by domain
User	manage (CRUD) my projects	Nest/categorize my Tasks
User	nest tasks	so I can break down big tasks in to doable steps
User	prioritize my Tasks	I know which is the most imported
User	collect and organize my thoughts and ideas	for future decision-making

Simon	feedback on my performance	I can improve myself
Simon	track my performers	I can improve myself
User	get an overview of everything relevant	I don't have to look for it myself
User	see upcoming deadlines on the overview	I know what's important at the moment
User	see my calendar in the overview	I can browse for what's coming up
User	import and synchronize my google and Outlook calendar	I can plan my tasks around them

Table 2.2: Functional requirements definition

2.3 Non-functional Requirements

The non-functional requirements affect the user's experience directly and are usually defined, quantifiable, to hold a system up to a certain standard in performance and usability. Since we don't aim to implement a productive system, the listed NFRs are meant to represent the most relevant factors for users and their experience and therefore don't require quantification.

Functional Completeness	
Scenario	-
Stimulus	-
Expectation	Gossiks set of functions covers all the specified tasks and user objectives mentioned in the user interview

Functional Correctness	
Scenario	A user wants to perform a certain action
Stimulus	Gossik handles the action as expected
Expectation	Gossik provides the correct results with the needed degree of precision

Learnability	
Scenario	A user wants to get started with Gossik
Stimulus	The user uses Gossik for the first time

Expectation	A new user can perform basic use cases after 5 minutes of using Gossik for the first Time

User Error Protection: Confirmation	
Scenario	A user wants to perform a critical operation.
Stimulus	The user clicks to perform a critical operation.
Expectation	The user is asked whether he is not accidentally click said action.

User Error Protection: Reversibility	
Scenario	A user wants to perform a critical operation.
Stimulus	The user clicks to perform a critical operation.
Expectation	The user is able to undo the critical action for a specified amount of time

Screen-Reader-Suppor	
Scenario	A visually impaired user wants to use and understand Gossiks interface
Stimulus	A user triggers the screen reading function.
Expectation	The screen reader understands the applications interface and can translate text into speech.

Color-Blind-Support	
Scenario	A user wants to understand any clickable action despite there colorblindness.
Stimulus	A color-blind user uses Gossik
Expectation	Clickable actions are distinguishable besides their color. 2-Senses principle

Easy-to-Read	
Scenario	A user wants to understand the interface despite minor visual impairment
Stimulus	A user with minor visual impairment uses Gossik

Expectation	If the font size is too small to see, it can be resized. Contrast of colors make it easy to read text.

Maintainability and code quality	
Scenario	A new developer wants to extend the code
Stimulus	A new developer enters the project team
Expectation	Any new developer can easily understand and extend existing code

No brain required	
Scenario	A user want to use Gossik
Stimulus	A user want to use Gossik
Expectation	The user can operate Gossik without having to think about it

Responsive UI design	
Scenario	A user wants to use Gossik on his mobile devices browser
Stimulus	A user opens Gossik in the browser of a non-desktop device
Expectation	Gossiks layout adapts to the target device

No mouse required	
Scenario	A user wants to use only his keyboard to operate Gossik
Stimulus	A user operates Gossik via Tab and shortcuts
Expectation	Gossik behaves the same as when operated via mouse

No typing required	
Scenario	A user wants to enter text without typing anything
Stimulus	A user enters values to Gossik via voice control
Expectation	Speech is transformed to text

Chapter 3

Usability iterations

In this chapter, the conceptual design is developed and improved over the course of three iterations. Each iteration yields a prototype of the concept and ends with a testing round, providing the base for the next iteration.

3.1 Iteration 1: Initial prototyping

In this round, we conceptualize and build the initial prototype and find out how users perceive our interpretation of the user interview insights.

3.1.1 Designing the initial Prototype

The goal of this section is to describe the process undergone, to turn user feedback into an initial concept and prototype.

3.1.1.1 Researching the competition and getting inspired

To get an initial idea of what the UI could look like, we have to take a look at what's already out there and how apps with similar user goals establish their workflows.

For this step, the main focus lies on apps named in user interviews such as Google Calendar, Google notes, Outlook, Microsoft To-do, Trello, and JIRA. Other useful sources used to get general inspiration on the dashboard and cockpit design were behance.net, awwwards.com, and dirbble.com.

3.1.1.2 Sketching and wireframing

While researching the competition and getting inspired by various sites, an array of low-fidelity wireframe sketches has been made to capture visual decisions and ideas in the most intuitive way.

Through this process, a widget-based UI concept emerged, with each widget addressing a certain user Goal.

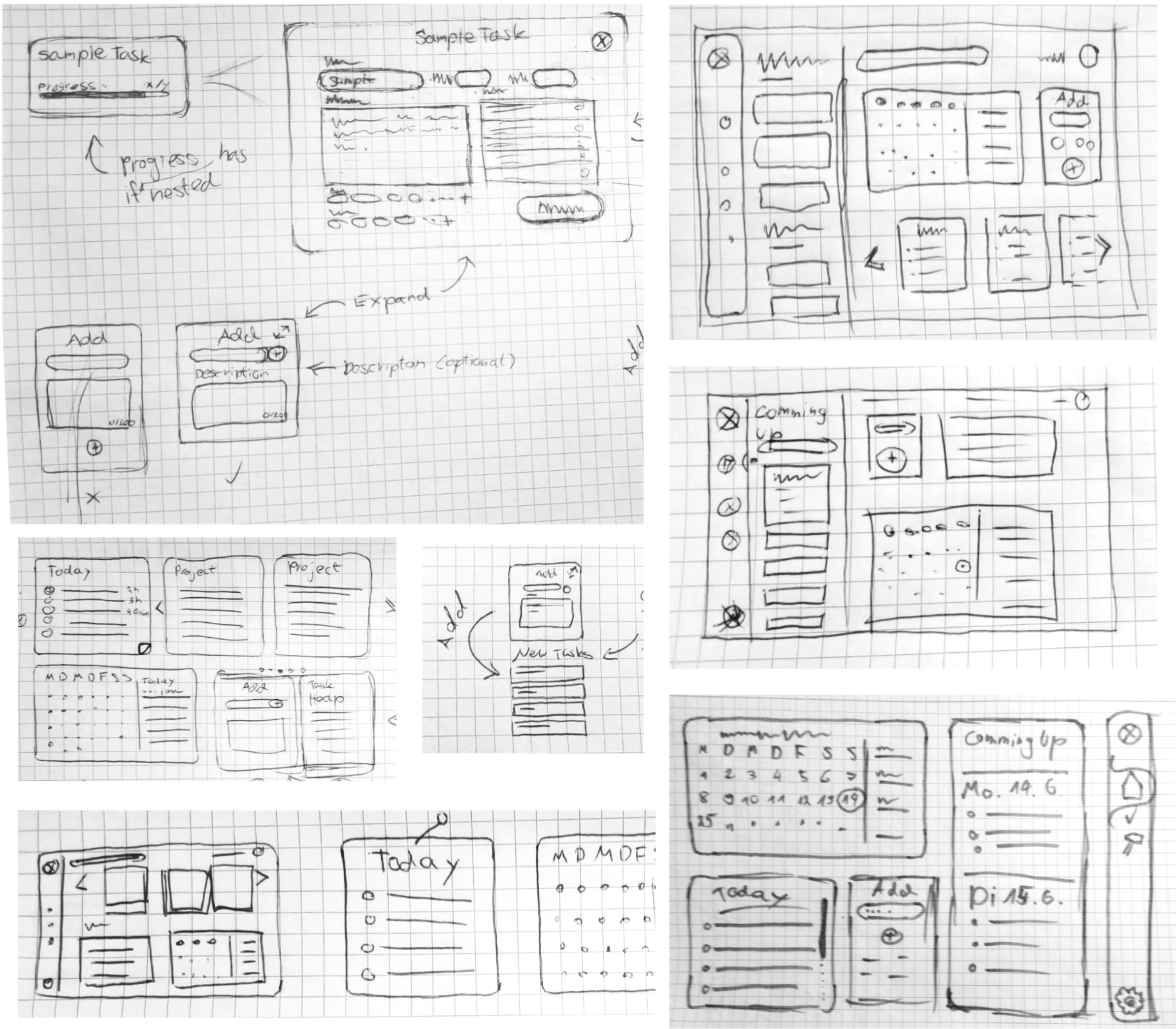


Figure 3.1.1.2: UI sketches

Other, more aesthetically oriented, decisions made during the scribbling were:

- round corners everywhere: more gentle on the eyes and the new current standard (YouTube made all their corners round recently)

3.1.1.3 Building the Prototype

The process of building the initial mockup based prototype, provides an extra chance to further develop the UI and the user's experience, while also revealing potential inconsistencies in the requirements.

Besides wireframe sketches and an already existing corporate identity, the UI design process was guided by the following design principles to enforce usability and accessibility goals [1]:

Consistent Design
Giving each control element a fixed global design will help users find and use controls and learn from experience. Slight variations are allowed as long as they contribute to understandability.

Describability and setting expectations
Labeling actions descriptively and giving intel about the current state through page titles will give the ability to make decisions conscious and with more confidence, besides giving general guidance on how to navigate through the app. Actions should always be labeled in a call-to-action format.

Undo and Go back
Liberating the user from the consequences of their actions by implementing “undo” and “Go Back” buttons, boosts confidence and removes the fear of “breaking something”.

Z-Pattern Layout
The Z pattern exploits the user’s behavior of reading, left to right, top to bottom by placing elements and designing information flow in a Z shape through the view. Placing the Logo in the Left Top corner gives a visual entry point and encourages the user to scan the page in said Z-shaped manner. [2]

Accesiveness and inclusivity
Boosting contrasts and establishing hierarchical structures will increase the accessibility for colorblind and other visually impaired users. Since hierarchical design alone is not enough for a screen reader to interpret the site properly, semantic tag usage in the technical implementation phase is a must.

Minimum effort design
To minimize annoyance and keep the users’ attention, actions should be reachable with as few clicks as possible.

3.1.1.4 Final Mockups

The final mockups were thoughtfully built and designed with Adobe XD and linked with each other.

3.1.1.4.1 Home

The building process led to two slight variations of the same concept, both supporting the same functionalities while setting different priorities on them.

The home page comes as a dashboard of widgets, each contributing to reaching the three user goals we focus on.

Goal 1: create task

The ‘Create task’ widget allows the user to quickly create a simple task on the fly without having to think about it any further. These ‘fire-and-forget-tasks’ get displayed in the ‘Unmanaged’ widget, since they don’t have any further metrics attached to them.

If the user wants to create a task containing more properties than just a title and an optional description, the interface for advanced task creation can be accessed via the expand button on the ‘Create task’ widget.

Goal 2: plan and organize tasks

Tasks can be planned and organized by dragging and dropping them from one to another widget displaying tasks. Dropping a task results in the task metrics being updated depending on the target and origin widgets' roles in the dashboard.

Today Widget:
The ‘Today’ widget acts as a digital post-it note, dedicated to holding tasks the user plans to get done today. Dropping a task here results in it being marketed as ‘do Today’ in the backend. Only the unmanaged widget removes the dragged tasks when acting as the origin in the drag-and-drop event, since the task is no longer unmanaged.

Calendar Widget:
In the calendar widget, users can find all their tasks having a deadline attached to them, in upcoming order. Dropping a task in the calendar widget adds a deadline or updates the deadline of a task, if the origin widget is the calendar widget itself, in any case, causing it to be removed from the unmanaged widget if it was listed there

Project widget pinned to the project board widget: adds or updates the project property of a task, causing it to be removed from the unmanaged Widget if it was displayed there.

Goal 3: See what’s up

The user can easily spot what task requires their attention via the dedicated widgets, aiming to limit the time and effort spent on switching tasks while working productively. As presented earlier in this section, the ‘Today’ widget presents what the user decided to take on that day, while the calendar shows all deadline tasks coming up.

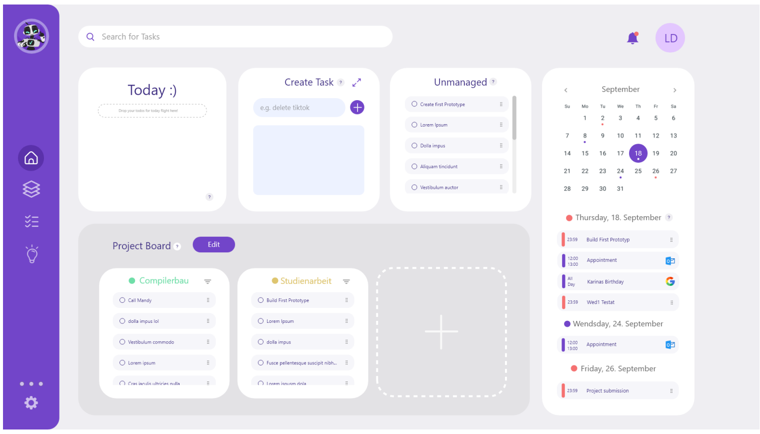


Figure 3.1.1.4.1.a: Home – version 1 mockup

The aim of the first variation is to limit negative feelings from failed planning and task pollution, by tackling tasks in a daily scope.

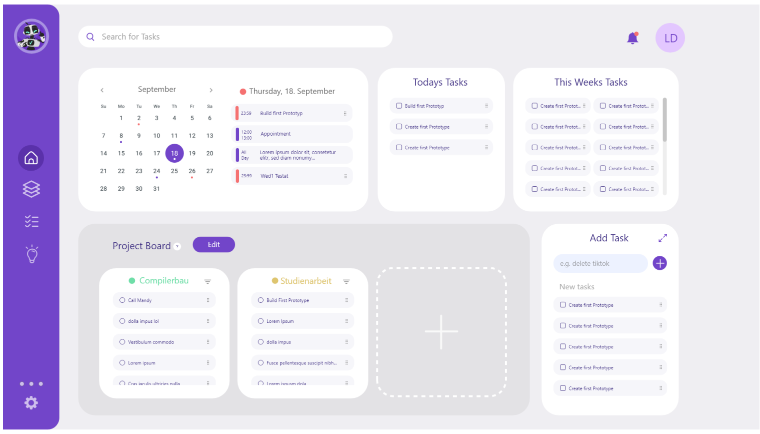


Figure 3.1.1.4.1.b: Home – version 2 mockup

The second version of the home dashboard focuses on providing more organizational widgets, encouraging the user to move tasks around, and letting them travel to fulfillment similar to Trello or JIRA boards.

3.1.1.4.2 Project List

The Project list page, displays all projects the user already created, including their task and thought count. Users are also presented with the possibility to create new projects and sort the project list. A click on a project forwards the view to the project itself.

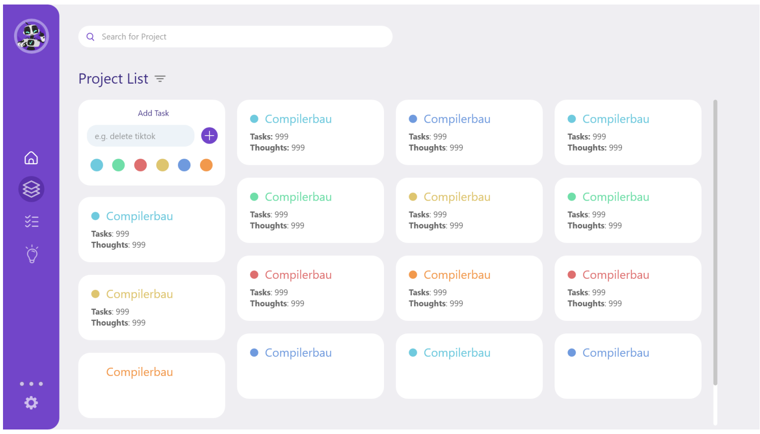


Figure 3.1.1.4.2: Project list mockup

3.1.1.4.3 Project view

The project view should act as a focus switch, allowing the user to work by domain and see upcoming tasks in the project's context.

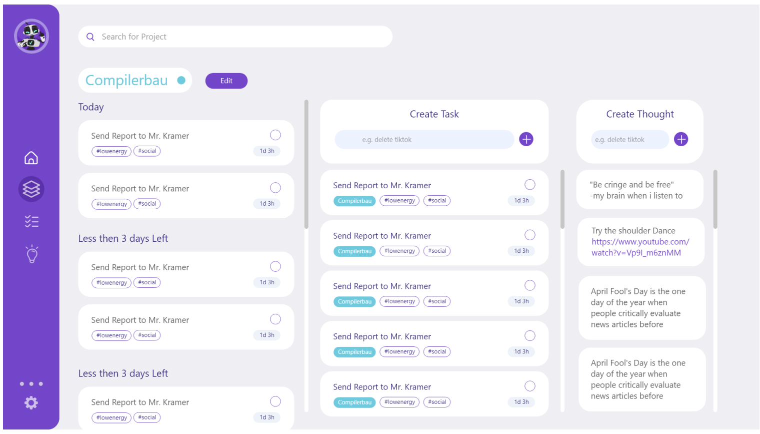

Search for Project
Compilerbau
Edit
Today
Send Report to Mr. Kramer
#lowenergy
#social
1d 3h
Less then 3 days Left
Create Task
e.g. delete tiktok
Compilerbau
Create Thought
"Be cringe and be free"
-my brain when i listen to
Try the shoulder Dance
https://www.youtube.com/watch?v=Vp9l_m6znMM
April Fool's Day is the one day of the year when people critically evaluate news articles before

Figure 3.1.1.4.3: Project view mockup

3.1.1.4.4 Task List

On the task list page, users can see all tasks they have created and which are about to come up. Each task item on this page provides more information than the task items on the home page by displaying additional metrics if any are attached.

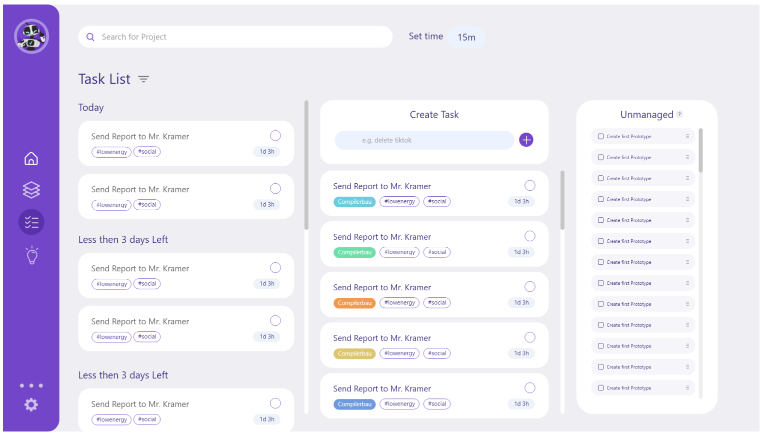
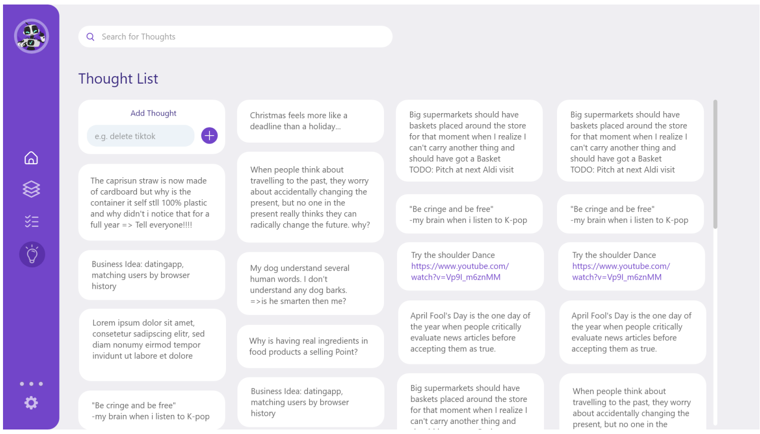


Figure 3.1.1.4.4: Task list mockup

3.1.1.4.5 Thought List

The Thought list is a page listing all thoughts created.



The caprisun straw is now made of cardboard but why is the container it self stll 100% plastic and why didn't i notice that for a full year => Tell everyone!!!!

Business Idea: datingapp, matching users by browser history

Lorem ipsum dolor sit amet, consetetur sadipscing elitr, sed diam nonumy eirmod tempor invidunt ut labore et dolore

"Be cringe and be free"
-my brain when i listen to K-pop

Christmas feels more like a deadline than a holiday...

When people think about travelling to the past, they worry about accidentally changing the present, but no one in the present really thinks they can radically change the future. why?

My dog understand several human words. I don't understand any dog barks. =>is he smarten then me?

Why is having real ingredients in food products a selling Point?

Business Idea: datingapp, matching users by browser history

Big supermarkets should have baskets placed around the store for that moment when I realize I can't carry another thing and should have got a Basket
TODO: Pitch at next Aldi visit

"Be cringe and be free"
-my brain when i listen to K-pop

Try the shoulder Dance
https://www.youtube.com/watch?v=Vp9l_m6znMM

April Fool's Day is the one day of the year when people critically evaluate news articles before accepting them as true.

Big supermarkets should have baskets placed around the store for that moment when I realize I can't carry another thing and

Big supermarkets should have baskets placed around the store for that moment when I realize I can't carry another thing and should have got a Basket
TODO: Pitch at next Aldi visit

"Be cringe and be free"
-my brain when i listen to K-pop

Try the shoulder Dance
https://www.youtube.com/watch?v=Vp9l_m6znMM

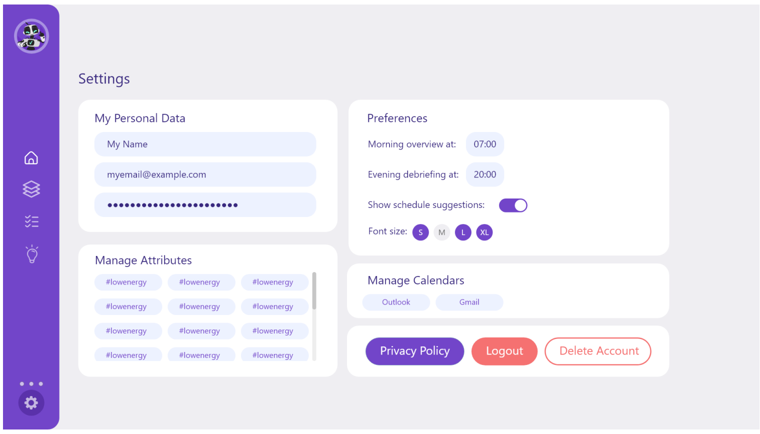
April Fool's Day is the one day of the year when people critically evaluate news articles before accepting them as true.

When people think about travelling to the past, they worry about accidentally changing the present, but no one in the

Figure 3.1.1.4.5: Thought list mockup

3.1.1.4.6 Settings

The setting page allows the user to manage their personal data, attribute tags, calendars linked, and Preferences


Settings

My Personal Data

My Name

myemail@example.com

••••••••••••••••••••••

Preferences

Morning overview at: 07:00

Evening debriefing at: 20:00

Show schedule suggestions:

Font size: S M L XL

Manage Attributes

#lowenergy	#lowenergy	#lowenergy
#lowenergy	#lowenergy	#lowenergy
#lowenergy	#lowenergy	#lowenergy
#lowenergy	#lowenergy	#lowenergy

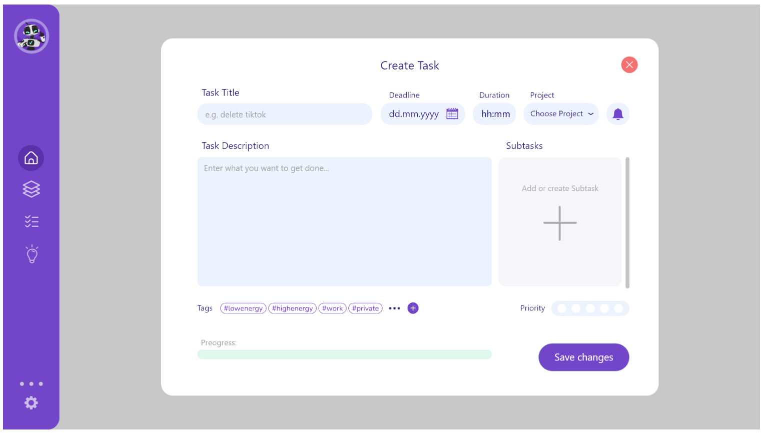
Manage Calendars

Outlook Gmail

Figure 3.1.1.4.6: Settings mockup

3.1.1.4.7 Create task Dialog

To create a complex task with many possible metrics, notifications, and a subtask list, users can utilize the Create task Dialog. Although many properties can be added in this mask, the task's title is still the only required field to create a task.


Create Task

Task Title: e.g. delete tiktok

Deadline: dd.mm.yyyy

Duration: hh:mm

Project: Choose Project

Task Description: Enter what you want to get done...

Subtasks: Add or create Subtask

Tags #lowenergy #highenergy #work #private

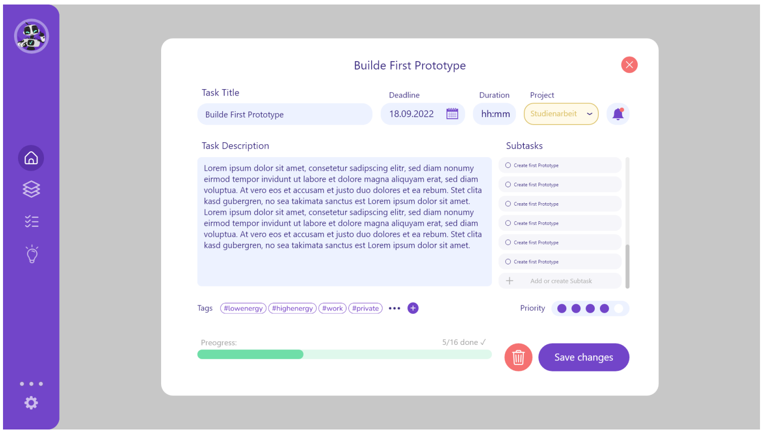
Priority

Preogress:

Figure 3.1.1.4.7: Create task dialog mockup

3.1.1.4.8 Task View Dialog

A click on any task item triggers a task dialog, presenting the attached information in the same way as they were added in the create task dialog. The advantage of displaying the task information in editable fields is, it cuts out the extra step of enabling editing, when a user wants to change something.



Task Title: Builde First Prototype

Deadline: 18.09.2022

Duration: hh:mm

Project: Studienarbeit

Task Description: Lorem ipsum dolor sit amet, consetetur sadipscing elitr, sed diam nonumy eirmod tempor invidunt ut labore et dolore magna aliquyam erat, sed diam voluptua. At vero eos et accusam et justo duo dolores et ea rebum. Stet clita kasd gubergren, no sea takimata sanctus est Lorem ipsum dolor sit amet. Lorem ipsum dolor sit amet, consetetur sadipscing elitr, sed diam nonumy eirmod tempor invidunt ut labore et dolore magna aliquyam erat, sed diam voluptua. At vero eos et accusam et justo duo dolores et ea rebum. Stet clita kasd gubergren, no sea takimata sanctus est Lorem ipsum dolor sit amet.

Subtasks:
- ○ Create first Prototype
- ○ Create first Prototype
- ○ Create first Prototype
- ○ Create first Prototype
- ○ Create first Prototype
- ○ Create first Prototype

Tags: #lowenergy #highenergy #work #private •••

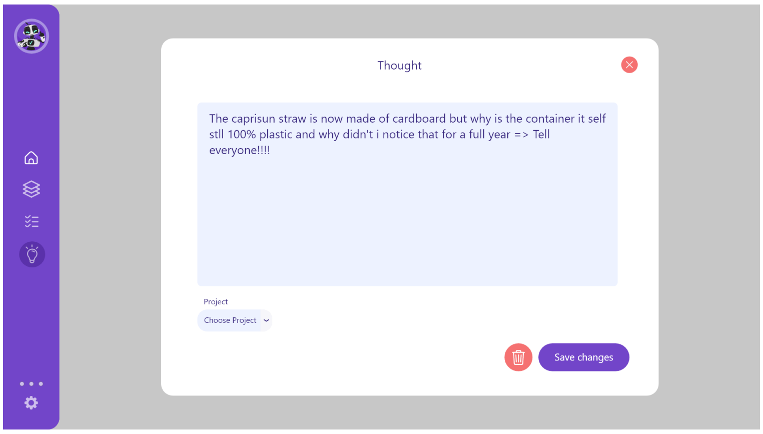
Priority: ● ● ● ● ○

Preogress: 5/16 done ✓

Figure 3.1.1.4.8: Task view dialog mockup

3.1.1.4.9 Thought View Dialog

Displays a thought and lets the user edit it on the spot.



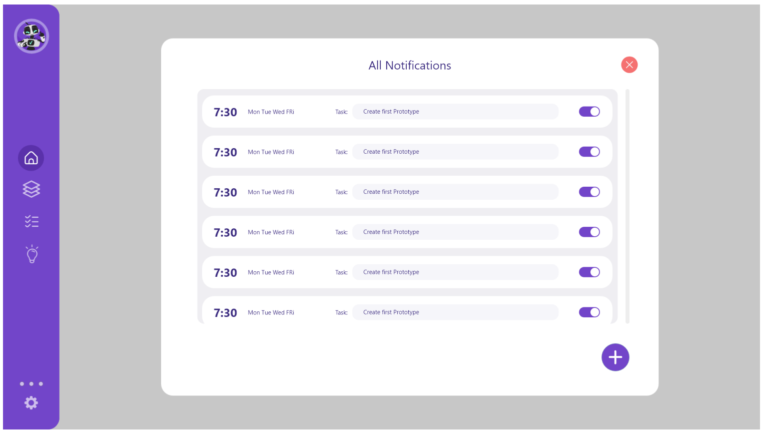
The caprisun straw is now made of cardboard but why is the container it self stll 100% plastic and why didn't i notice that for a full year => Tell everyone!!!!

Project: Choose Project

Figure 3.1.1.4.9: Thought view dialog mockup

3.1.1.4.10 All Notifications

This Dialog, gives a global overview of all enabled notifications, waiting to go off.



7:30 Mon Tue Wed FRi Task: Create first Prototype

7:30 Mon Tue Wed FRi Task: Create first Prototype

7:30 Mon Tue Wed FRi Task: Create first Prototype

7:30 Mon Tue Wed FRi Task: Create first Prototype

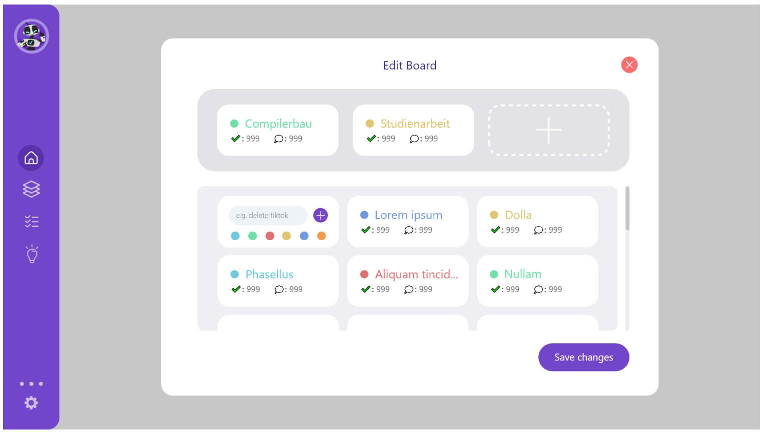
7:30 Mon Tue Wed FRi Task: Create first Prototype

7:30 Mon Tue Wed FRi Task: Create first Prototype

Figure 3.1.1.4.10: All notifications dialog mockup

3.1.1.4.11 Edit Board

The Edit board dialogue lets the user decide what projects to display on the dashboard via the Project board widget and gives quick access to project creation. To pin a project to the board, the user can drag the desired item from the project list and drop them into one of the three slots above.



Compilerbau ✓: 999 : 999

Studienarbeit ✓: 999 : 999

e.g. delete tiktok

Lorem ipsum ✓: 999 : 999

Dolla ✓: 999 : 999

Phasellus ✓: 999 : 999

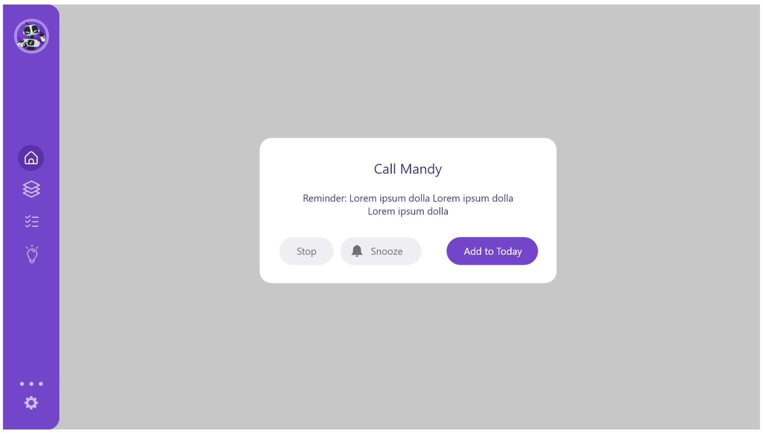
Aliquam tincid... ✓: 999 : 999

Nullam ✓: 999 : 999

Figure 3.1.1.4.11: Edit board dialog mockup

3.1.1.4.12 Notification view

The most important characteristic of notifications, according to the user interviews, is that they need to be snoozable, providing the ability to procrastinate tasks that aren't as important at the moment.



Call Mandy

Reminder: Lorem ipsum dolla Lorem ipsum dolla Lorem ipsum dolla

Figure 3.1.1.4.12: Notification dialog mockup

3.1.2 Hallway Usability Testing

To uncover potential user experience problems, the prototype has to undergo a guerilla testing round, where at least 7 potential users try to navigate through our clickable product mockups. To get the most out of our first UX testing round, thoughtful preparation is required.

Hallway testing bares the risk of not meeting many people whose wants and needs match the target groups since their only thing in common is being in the same busy spot. The circumstances of our project diminish this risk since most people circling through any university campus have probably a need for task management and could match the target group almost comically well.

To create an incentive for people to spend their well-earned break time testing a product, a coffee, or a tee is offered

After pitching the concept and goals of our product, the participant goes through a rough outline of tasks to fulfill and give feedback about. These tasks are a direct derivation of the user goals collected in the user interview phase. In addition, printouts of the two main dashboard variants are provided for the participants to express their feedback and ideas visually.

To capture the testers' non-verbal behavior and feedback (gestures, emotions, etc.), every session gets recorded if permitted by the participant.

3.1.2.1 Participants

In this study, six testers participated. All participants were between 20 and 30 years old and consisted of part-time and full-time engineering students. Each express a need for productivity management and fit the target group defined

3.1.2.2 Findings

While most of the testers' feedback touched on similar issues, and suggestions and ideas mostly harmonized, some parts of the conceptual design turned out to be quite controversial.

The element which caused the most conflicting feedback was the Today Widget. Some testers describe it as “inherently useless” while others loved the idea of having a little virtual post-it note, telling them what to do today.

Further, conflicting feedback regards the order and size of the widgets, the strategy on how to handle old and expired tasks, and the value and legitimacy of tags.

The testers conflicting opinions further highlight, that the way people plan how to get things done is a deeply personal matter. A supporting tool, deemed useless or even annoying by one, can benefit the workflow of another heavily. Meaning, to please the target audience, blindly implementing the feedback is not enough. The concept needs to be elevated to a point where controversial aspects just get ignored at worst rather than making users frustrated.

Besides these few, harder-to-tackle observations, most feedback received, came with concrete suggestions. These suggestions could be developed into ready-to-implement requests through further discussion with the testers:

- make “today” fill itself with deadline tasks expiring on that day
- make the checkbox squared instead of round
- give the today widget a more descriptive title
- make create task more important looking
- use descriptive placeholder texts
- rethink the “Expand” button and how the advanced task dialog can be accessed
- rename unmanaged to something more descriptive like “unclassified”
- rethink nav icons or label them on hover
- add a serial option (repeat deadline every…)
- add time to deadline
- make progress bar only appear in create task if a task has at least one subtask

3.1.2.2.1 Further Input

Apart from criticizing, testers complimented many aspects of the concept, especially praising the Project Board, the calendar widget and the overall look and feel. All testers described their experience with the prototype as positive, and claimed there could imagine themselves using it daily.

3.1.2.3 Method reflection

Although the chosen area was high in foot traffic, people mostly ignored the free coffee offer in return for a quick testing round. As a result of that, all Testers had to be approached directly.

The most productive session, was a session with two participants, since their discussions lead them continuously deeper into the topic.

Another unexpected hurdle was the fact, that testers seemed uncomfortable when asked to scribble their suggestions onto a printout of the mockups. Since the resulting scribbles don’t provide much insight, they were not included in this document.

3.2 Iteration 2: Revision and refinement

In this round, we shrink our focus from the whole application to the Dashboard, and it’s related dialogs, since the scope of the project is limited and improvements have the biggest effect here.

3.2.1 Prototype revision

The revision is based on the user feedback from the UX iteration and aims mainly to add more clarity and guidance to the UI.

3.2.1.1 Home dashboard

The home dashboard was subject to the most drastic change requests, compared to the other mockups. Besides, many small changes like making the checkbox squared, renaming widgets in an attempt to boost understandability, or dedicating an ellipsis button to access the Create advanced task dialog, there were also some bigger changes made.

Users expressed difficulties to spot the Create-task widget and understanding the relationship between that, and the unmanaged task widget. To defuse those usability concerns, the Unmanaged Widget is now nested inside the Created task widget, to create a strong, visual association. The emerging two-in-one widget received a purple background, making it stand out amongst the other, neutral-colored widgets.

Another big change happened to the Today widget. Since some testers questioned the usefulness of that widget, it had to be upgraded from a passive digital post-it note to an active, self-contained task list. Deadline tasks, that are about to expire during the course of the day, should from now on automatically be pinned to the top of the today widget. That way, we can provide extra value to users, without overcomplicating a by some already beloved concept.

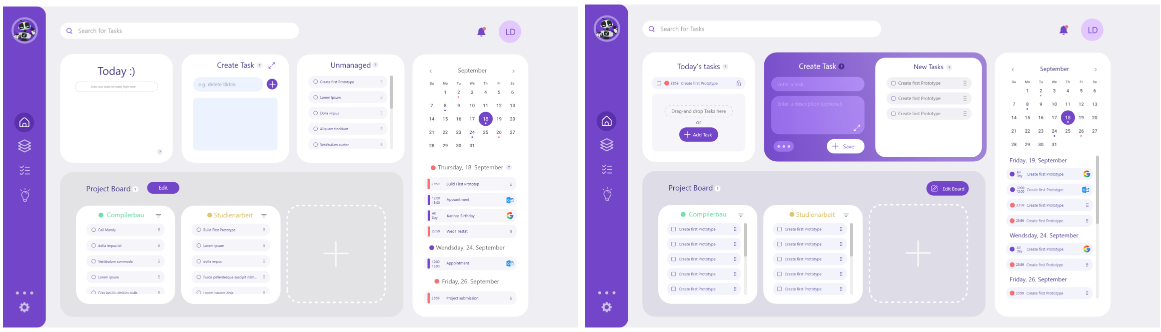
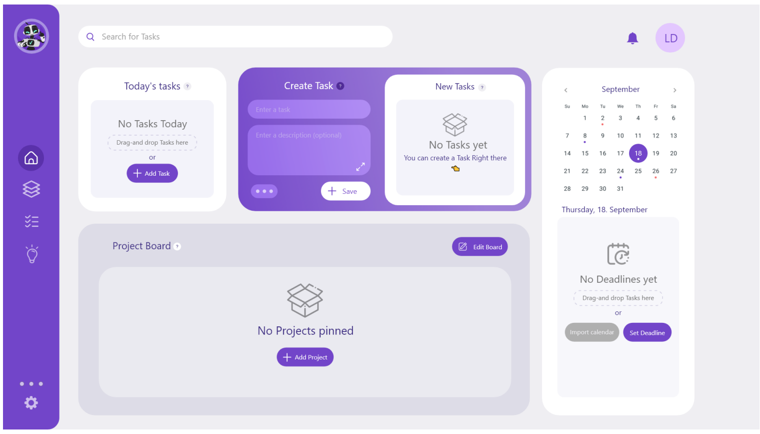


Figure 3.2.1.1: Home dashboard mockups, before (left) and after (right) revision

3.2.1.1.1 The power of the empty state pattern

A UX aspect we haven't discussed yet, is the empty state. When users visit Gossik for the first time, the application doesn't contain any user data and the UI, therefore, doesn't have much to display. Instead of confusing users with blank widgets, the empty state can be utilized as a chance to communicate the system state, and provide learning cues and call to action. [3]



No Tasks Today

Drag-and drop Tasks here

or

Enter a task

Enter a description (optional)

No Tasks yet

You can create a Task Right there

Thursday, 18. September

No Deadlines yet

Drag-and drop Tasks here

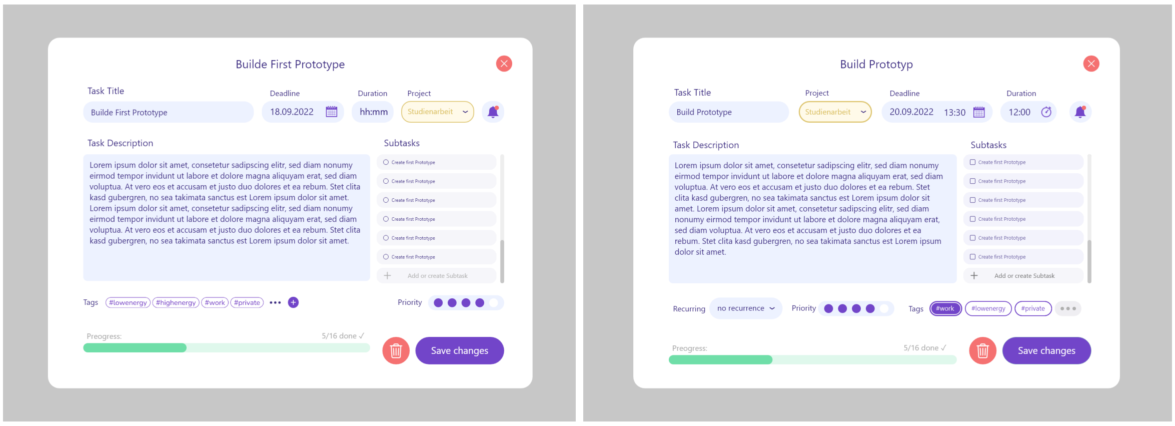
or

No Projects pinned

Figure 3.2.1.1.1: Home dashboard mockup showing the empty state

3.2.1.2 Create/show task dialog

The mockups of the creation/show task dialog experienced only small revisions. A time stamp has been added to the deadline field, and users now have the option to set tasks with deadlines as recurring.



Builde First Prototype

18.09.2022

hh:mm

Studienarbeit

Lorem ipsum dolor sit amet, consetetur sadipscing elitr, sed diam nonumy eirmod tempor invidunt ut labore et dolore magna aliquyam erat, sed diam voluptua. At vero eos et accusam et justo duo dolores et ea rebum. Stet clita kasd gubergren, no sea takimata sanctus est Lorem ipsum dolor sit amet. Lorem ipsum dolor sit amet, consetetur sadipscing elitr, sed diam nonumy eirmod tempor invidunt ut labore et dolore magna aliquyam erat, sed diam voluptua. At vero eos et accusam et justo duo dolores et ea rebum. Stet clita kasd gubergren, no sea takimata sanctus est Lorem ipsum dolor sit amet.

- ○ Create first Prototype
- ○ Create first Prototype
- ○ Create first Prototype
- ○ Create first Prototype
- ○ Create first Prototype
- ○ Create first Prototype

5/16 done ✓

Build Prototype

Studienarbeit

20.09.2022 13:30

12:00

Lorem ipsum dolor sit amet, consetetur sadipscing elitr, sed diam nonumy eirmod tempor invidunt ut labore et dolore magna aliquyam erat, sed diam voluptua. At vero eos et accusam et justo duo dolores et ea rebum. Stet clita kasd gubergren, no sea takimata sanctus est Lorem ipsum dolor sit amet. Lorem ipsum dolor sit amet, consetetur sadipscing elitr, sed diam nonumy eirmod tempor invidunt ut labore et dolore magna aliquyam erat, sed diam voluptua. At vero eos et accusam et justo duo dolores et ea rebum. Stet clita kasd gubergren, no sea takimata sanctus est Lorem ipsum dolor sit amet.

- □ Create first Prototype
- □ Create first Prototype
- □ Create first Prototype
- □ Create first Prototype
- □ Create first Prototype
- □ Create first Prototype

no recurrence

5/16 done ✓

Figure 3.2.1.2: Task view dialog mockups, before (left) and after (right) revision

3.2.1.3 Add task dialog

While we want to provide the ability to manage tasks via drag and drop, it should not be the only way to add tasks to a widget. The Add task dialog displays a list of all tasks, each task providing its categorical data and duration if any is present. It enables users to add multiple tasks at one without using drag and drop.

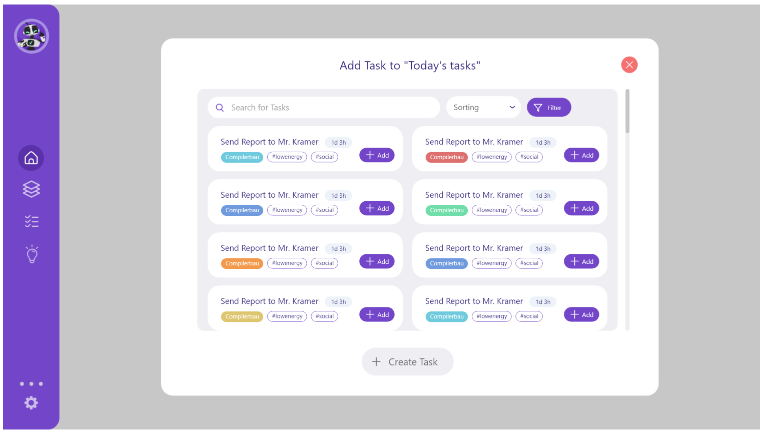


Figure 3.2.1.3: Add task dialog mockup

3.2.2 UX group discussion

Since the last testing session teased the potential of users discussing with each other rather than conducting testing in a one-on-one scenario, a group setting is chosen for the second usability testing round. The goal of this testing round is to reveal opportunities to improve the UX concept and learn more about the potential users.

3.2.2.1 Thesis

All participants express personal investment in the topic and participate in the discussion productively. All of them had previous encounters with to-do apps and mostly had strong opinions about them and their flaws. The group made it clear, that for a productivity assistant to be useful, it has to individually adapt to it's users.

3.2.2.2 Data collection

In this testing round, data is collected through a 60-minute group discussion. For the discussion, 8 potential users are recruited.

At the beginning of the discussion, the participants get introduced to the project and the progress already made so far. After that, each participant explores our clickable mockups and gets to know the concept by themselves, while taking notes about their thoughts before discussing it as a group. That way, each participant is forced to figure out the prototypes on their own and captures their experience without being influenced by others. Once everyone has formed an opinion, the group enters a moderated discussion about their experiences, aiming to develop concrete solutions. The thought-out solutions generated in the discussion are the main way of capturing the results of this testing round.

3.2.2.2.1 Participants

In this study, eight people participated, and all of them are in their twenties. Each participant received a mapping to one of the defined personas, which fits their background and potential usage best.

Name	Persona	Occupation
Lukas	Ningning	Part-time university student and developer
Marco A.	Reto	Part-time university student and developer
Marco Z.	Reto	Part-time university student and developer
Joshua	Ningning	University student
Olivier	Ningning	University student
Adrian	Simon	University student
Simon	Reto	Part-time university student and developer
Caspar	Reto	Part-time university student and developer

Table 3.2.2.2.1: Iteration 2 testing participants

3.2.2.3 Data analysis

The discussions insights get analyzed and evaluated as they come up through the group itself. Further analysis of the data is not needed, since the solutions developed in the group were already analyzed and fleshed out through the discussion.

3.2.2.4 Method reflection

The method of testing proved itself to be very productive since many aspects could be discussed within the 60 minutes of the meeting. The testers all participated very actively and expressed their personal investment in the topic, passionately discussing it with each other. The biggest advantage of this group-based method over one-on-one testing sessions is, that conflicting feedback can be resolved as it comes up. Disagreements between the testers could be taken as a chance to identify problems that were not discussed yet and learn more about users' motivations.

3.2.2.5 Conclusion

The main discussion of the meeting was dedicated to the size and priority of the dashboard widgets. Some testers insisted on it being perfect as it is to them, while others felt very strongly that it was necessary to reorganize the whole board in order to please them. This dispute was resolved by recognizing that there seems to exist no objective answer to that question. The group then came up with a way to still make sure users' expectations can be met in this regard. According to the participants, the only way to please everyone, is to allow customization of the dashboard to rearrange and resize widgets.

Other discussions surrounded topics that could not be expressed so far through Adobe XD, like the drag and drop feature or other dynamic concepts. These dynamic properties have been recognized already in the previous iteration and will be tested later through a web-based prototype.

3.3 Iteration 3: Prototypical web implementation

The goal of this iteration is to implement the concept as a web-based prototype to further test our approach and get feedback on features that wear not testable as Adobe XD based prototype.

3.3.1 Implementation

The implementation includes a short technology evaluation, followed by a realization of the UI through the chosen technology. To add behavior, a small mock backend was built, suitable for testing and demonstration.

3.3.1.1 Technology evaluation

Before we can implement the frontend, the right technology has to be selected.

The two main contestants of our evaluation are angular and react. Both provide the technical requirements to build our concept and are suitable for prototypical implementation. The only, for us, relevant difference is the way the DOM is utilized. Angular uses real DOM, meaning changes to the DOM will result in the whole DOM reloading, while React handles changes much simpler. React uses virtual DOM and has the ability to reload only parts of the DOM if an update happens. This seemingly small difference has a large impact on the potential performance of the system, since reloading the entire DOM takes longer than just reloading parts of it. Taking into account that our target group has no time to waste and is generally impatient, react turns out to be the slightly better-fitting option for our implementation. [5]

3.3.1.2 Frontend

The UI is composed through reacts component library and state hooks, allowing it to re-render its component elements separately on state change without affecting unchanged parts of the DOM.

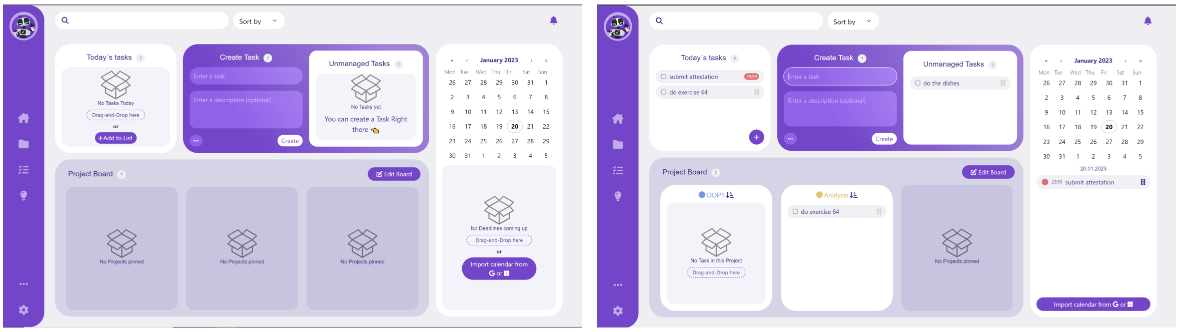


Figure 3.3.1.2: Home dashboard screenshots, without (left) and with user data (right)

3.3.1.2.1 External Components and Libraries Used

To avoid reinventing the wheel, generic Layout elements and controls were implemented via components from external sources and libraries. External Components used were:

react-bootstraps modal component: an out-of-the-box dialog solution, providing many default styles to choose from and customize. The prototypes dialogue only repurposes the functional core of the modal and doesn't load any of react-bootstraps provided styles.

fortawesome: an easy and fast way to add basic icons to the Layout. For the Prototype, the free version provided almost everything needed regarding imagery. Font awesome icons were mainly used to support understandability by adding visual cues to buttons and actions.

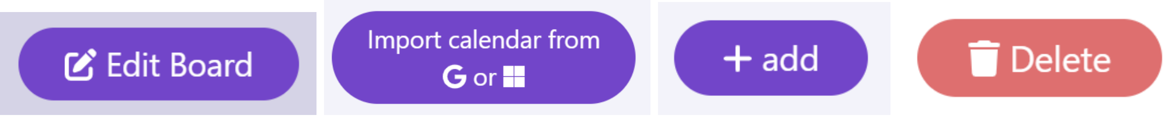


Figure 3.3.1.2.1.a: Screenshots of Font Awesome utilization

react-color-picker: a component library providing an array of different, customizable color picker components. The collections circle picker was used to provide the users with color options when creating a project.

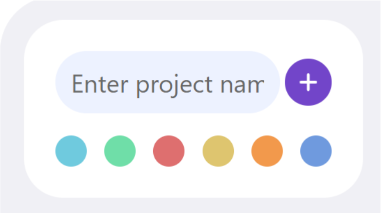
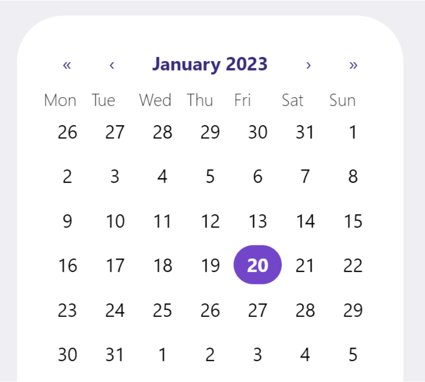


Figure 3.3.1.2.1.b: Screenshots of react-color-picker utilization

react-calendar: a versatile and flexible, yet simple calendar library. The calendar component was used to add a functional correct calendar to the UI and was aesthetically heavily customized.



Mon	Tue	Wed	Thu	Fri	Sat	Sun
26	27	28	29	30	31	1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	29
30	31	1	2	3	4	5

Figure 3.3.1.2.1.c: Screenshots of react-calendar utilization

3.3.1.3 Mock backend

Since the goal of the implementation is to evaluate our concept, rather than build ready-to-use software, a singleton object mocking the backend meets our requirements. To give an overview of the mock backend, its entities and their relationships have been modeled in UML [4].

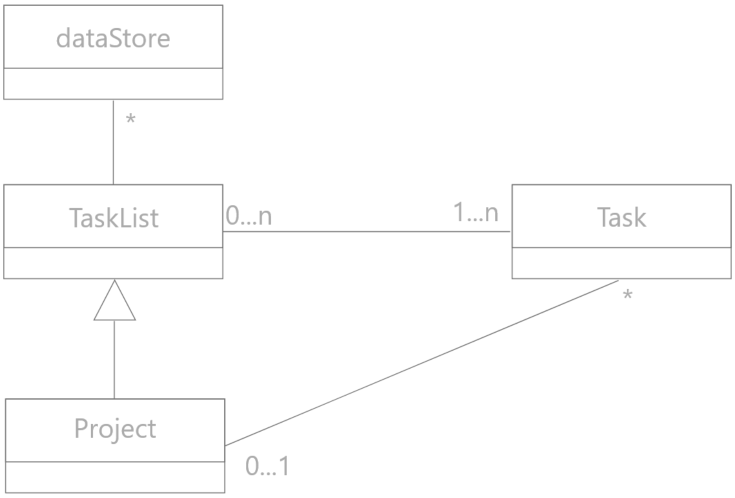


Figure 3.3.1.3: Mock backend overview

dataStore
The dataStore object, is a singleton instance, dedicated to handling data storage and providing business logic and mock data to the frontend.

Task
Instances of the Task class hold the user's task information and metrics.

TaskList
Task List objects store tasks of certain characteristics in an array and provides access methods to that list.

Project
The project class extends the TaskList by a color property and holds the user's project data.

3.3.2 One-on-one UX testing

To uncover opportunities to further improve our UX concept, another testing round is conducted.

3.3.2.1 Thesis

Both Participants described their experience with the prototype as pleasant and fun. The drag-and-drop oriented workflow, was in both testing sessions brought up as a fitting and well utilized concept, by the participants. While the prototypes and experience design received largely positive feedback, participants also revealed a few aspects that still could use some further development.

3.3.2.2 Data collection

For this final testing session, two potential users, fitting the target audience, are recruited for a 20-minute One-on-one UX test and discussion. The insight the participants provide is collected as notes.

3.3.2.2.1 Participants

In this study, two people participated. Each participant received a mapping to one of the defined personas, which fits their background and potential usage best.

Name	**age**	**Persona**	**Occupation**
Lukas	24	Ningning	Part-time university student and developer
Roman	30	Reto	Software developer

Table 3.3.2.2.1: Iteration 3 testing participants

3.3.2.3 Data analysis

The main method of analysis used is to look for patterns and identify trends in the stated observations.

3.3.2.4 Conclusion

The participants reacted positively to the concept and had understandability concerns as their main criticism of the prototype. While most parts of the prototype did not need any further explanations to be utilized by the participants, the drag and drop feature could use some more hints on what to expect, especially on drop, the participants reported.

Besides that, this testing round proved, again, that people are too different to meet their needs with an inflexible product. While the concept of a dashboard is deemed as inherently useful by the participants, what the board is supposed to show and by what priority divides users. Thankfully, the widget-based UI would already allow customizing its content from a layout perspective, since this could be solved by allowing users to resize and reorder widgets.

Additional criticism focused on missing best practice features, like for example that a field should reset on submit or calendar days should be marked if they have deadlines associated with them. Since the absence of these characteristics is due to the project scope rather than negligence, we can take this as a reminder of how, seemingly, small details can make or break an experience.

3.4 Final Conclusion

Overall, the project went roughly as expected. The overall process further underlines the impotence of keeping the user in mind, a product is building for.

3.4.1 Outlook

The concept has the potential to be further fleshed out and tested, but it is also ready for a productive implementation, as the final user test showed. The findings of the project can be used as a guide for implementation in regard to user experience and UI design. A follow-up thesis is not planned.

3.4.1.1 Limitations

Finding testers turned out to be harder than expected, but luckily we still ended up with motivated testers in every testing round

Another limitation was the scope of the project. During the UI iterations, it got clear pretty fast, that the problem at hand could be discussed even deeper than the project scope allowed, forcing to cut results short. This something lead to confused testers, wondering why best practice features were missing.

Part II

Project documentation

Chapter 4

Project Overview

The Goal of the Project documentation is to give an overview of the Gossik UX project and provide insight into its organizational Strategies and Management processes.

The Gossik Mobile App is a productivity assistant that helps users stay on track with tier tasks and use time effectively to conquer their goals. The goal of this project is to bring gossik to the browser in a user-centered manner. By redefining gossiks usability and evolving existing functionalities through
user research and prototyping, users should be able to seamlessly operate the app while also having a fun and satisfying experience.

4.1 Management Method

The choice of the management method is crucial to the success of a project. Since this project is not a typical software engineering project, elaboration goes beyond just picking one of the classics. Due to the project team's modest size and the main subject being research and design rather than implementation, it does not fit the frame of commonly used Management methods like Scrum or Kanban.

Since I have the most experience with the Scrum framework and appreciate its agile characteristics and straightforwardness, the management method of this Project will be a custom derivation of
Scrum.

Meetings like daily scrum and the sprint retrospective lose their purpose in a one-member team and therefore, are tossed completely.

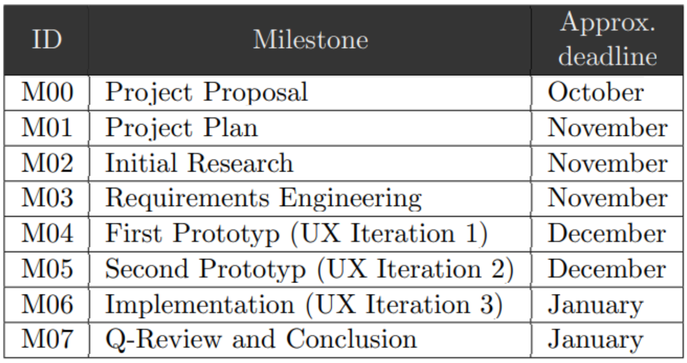
The Concept of Sprints and Sprint Goals are kept in an agile derivative for flexibility and monitoring reasons. In this project, the Sprint Goal is always a Milestone and the issues leading to that milestone represent a Sprint. Sprint Review and the Milestone Meeting are therefore the same and will be held with the supervisor of this project. Sprint Planning takes place as soon as a new milestone is reached. Sprints duration is therefore not fixed and lies between 1 and 4 weeks depending on the corresponding milestone.

4.2 Time Management

Time estimation and time spent on the project are tracked via the JIRA time tracking Plugin directly on the corresponding work items. Finely-grained time management will be conducted after each milestone for each issue of the upcoming milestone.

4.3 Milestones and Project Timeline

This document only provides an overview of the project milestones, since their planning can change through the process.



ID	Milestone	Approx. deadline
M00	Project Proposal	October
M01	Project Plan	November
M02	Initial Research	November
M03	Requirements Engineering	November
M04	First Prototyp (UX Iteration 1)	December
M05	Second Prototyp (UX Iteration 2)	December
M06	Implementation (UX Iteration 3)	January
M07	Q-Review and Conclusion	January

Table 4.3: Milestone overview

4.4 Risk Management

Risks are continuously assessed, and mitigation strategies are derived if possible. Mitigation strategies are based on ISO 27005 and tag each risk with reduce, retain, avoid or transfer.

Chapter 5

Risk Analysis

To recognize and handle project risk, a risk analysis is conducted, and mitigation strategies are defined.

5.1 R1: Unfitting Development Tools

The chosen development tools and technologies do not support the development process.
Mitigation: Tools and Technologies will be reviewed and compared before use.

5.2 R2: Developing the wrong features and implementing unneeded characteristics

Wasting resources on unneeded features and characteristics.
Mitigation: Requirements are constantly reevaluated through regular user feedback and Prototyping

5.3 R3: Overengineering

Designing the product in an overly elaborate manner.
Mitigation: Requirements undergo a cost-benefit analysis before they are implemented and will be dropped if they don't pass the bar.

5.4 R4: Continuously changing requirements

Requirements changing fast and abruptly due to user feedback.
Mitigation: Setting a change threshold for requirements and pushing implementation to the next increment if they pass.

5.5 R5: Staff deficits

Development comes to hold due to illness or exam preparations.
Mitigation: Communicating as soon as potential deficits are foreshadowed and adapting the scope of the project.

5.6 Risk Summary

The in the previous sections discussed risks and their mitigation strategies can be found in the table below.

	Assessment			Mitigation		
Risk ID	**Damage**	**Probability**	**Danger**	**Strategy**	**Effectiveness**	**Remaining Risk**
R1	Moderate	Unlikely	Very low	Reduce	0.8	Very low
R2	Moderate	Remote	Low	Reduce	0.8	Very low
R3	Moderate	Remote	Low	Reduce	0.8	Very low
R4	Minor	Certain	Medium	Reduce	0.8	Very low
R5	Moderate to major	Possible	Medium	Reduce	0.5	Low

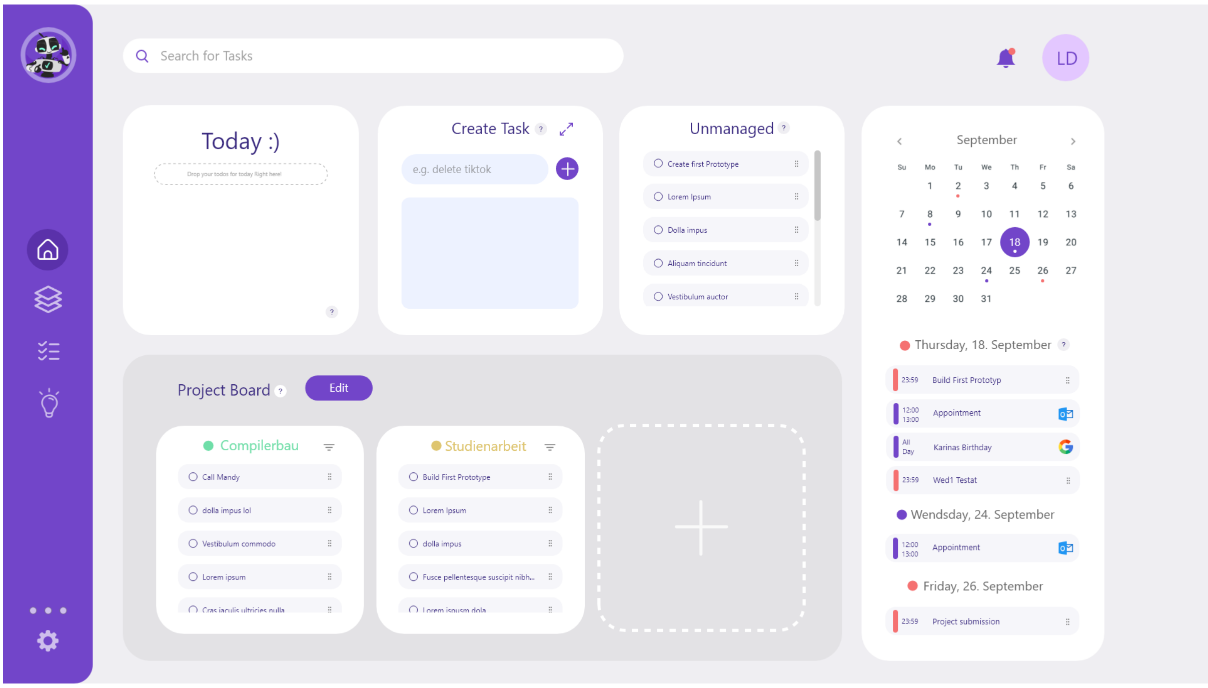
Table 5.6: Risk overview

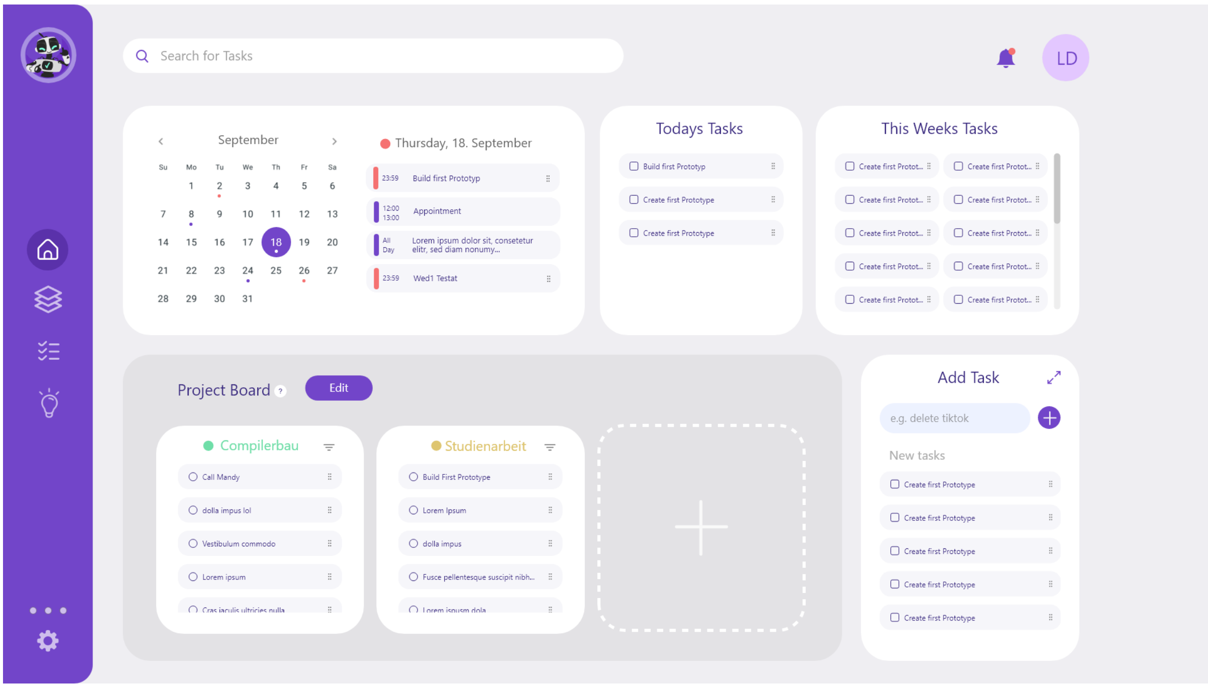
Part III

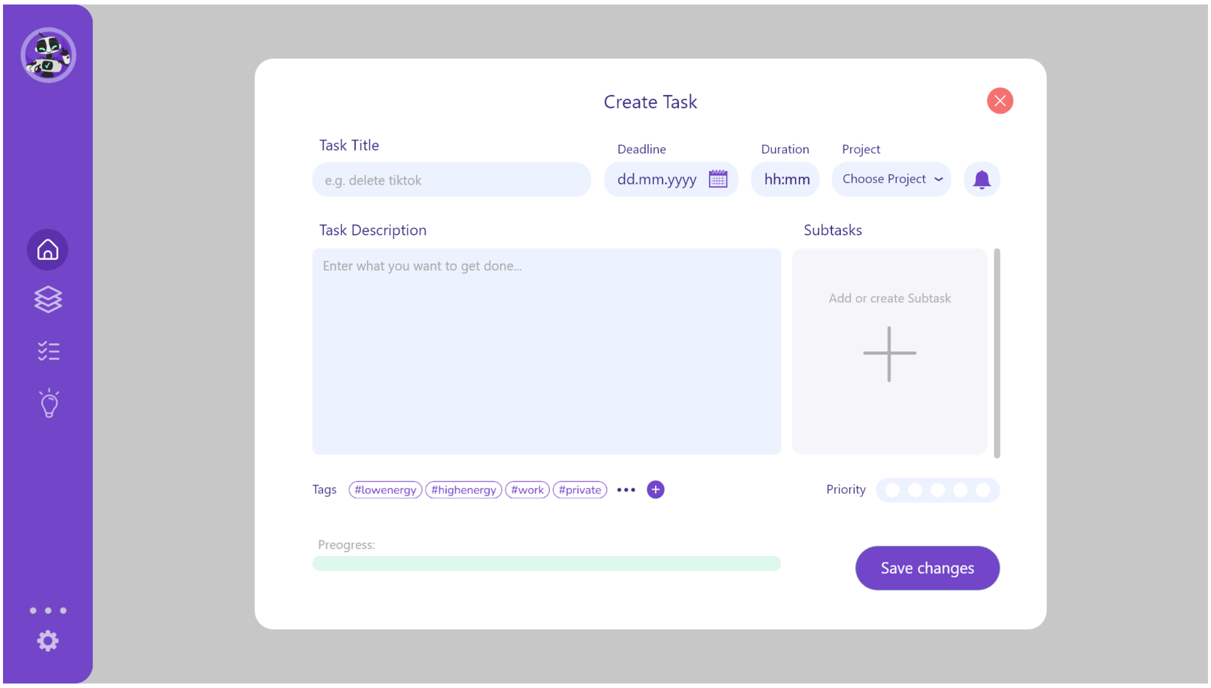
Appendix

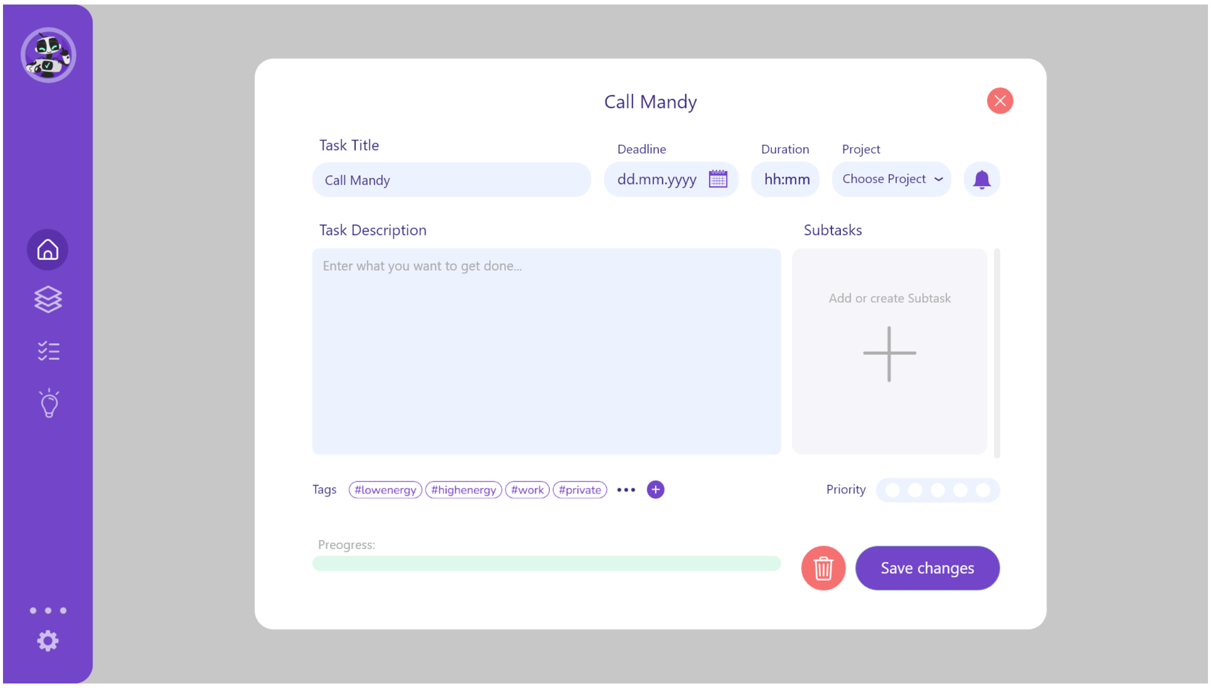
6 Mockups

6.1 Iteration 1

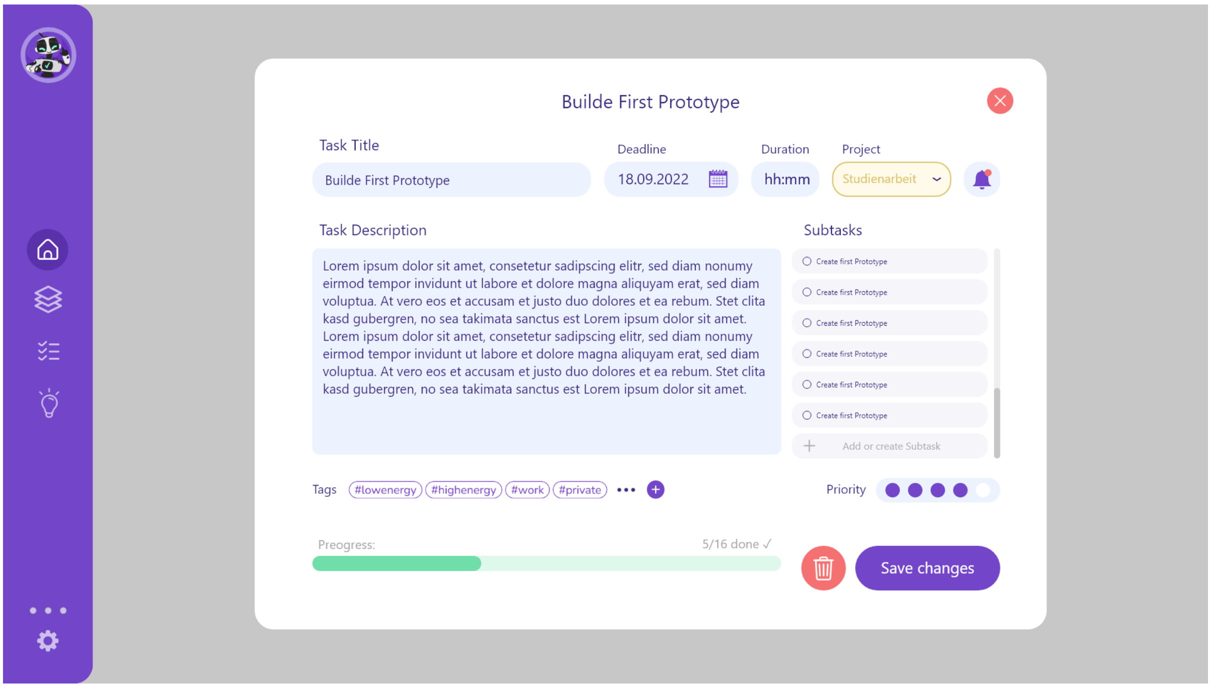







Call Mandy

Task Title: Call Mandy



Builde First Prototype

Task Title

Builde First Prototype

Deadline

18.09.2022

Duration

hh:mm

Project

Studienarbeit

Task Description

Lorem ipsum dolor sit amet, consetetur sadipscing elitr, sed diam nonumy eirmod tempor invidunt ut labore et dolore magna aliquyam erat, sed diam voluptua. At vero eos et accusam et justo duo dolores et ea rebum. Stet clita kasd gubergren, no sea takimata sanctus est Lorem ipsum dolor sit amet. Lorem ipsum dolor sit amet, consetetur sadipscing elitr, sed diam nonumy eirmod tempor invidunt ut labore et dolore magna aliquyam erat, sed diam voluptua. At vero eos et accusam et justo duo dolores et ea rebum. Stet clita kasd gubergren, no sea takimata sanctus est Lorem ipsum dolor sit amet.

Subtasks

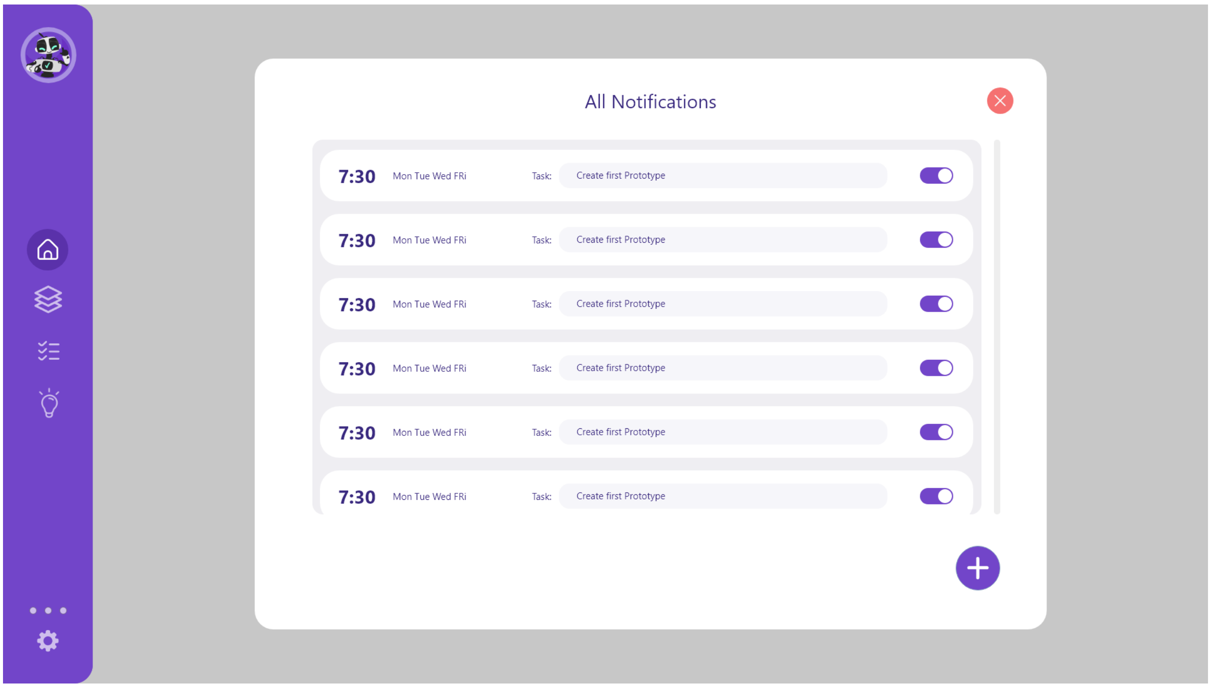
- ○ Create first Prototype
- ○ Create first Prototype
- ○ Create first Prototype
- ○ Create first Prototype
- ○ Create first Prototype
- ○ Create first Prototype
- + Add or create Subtask

Tags #lowenergy #highenergy #work #private ••• +

Priority ● ● ● ● ○

Preogress: 5/16 done ✓

Save changes



All Notifications

7:30	Mon Tue Wed FRi	Task:	Create first Prototype	●
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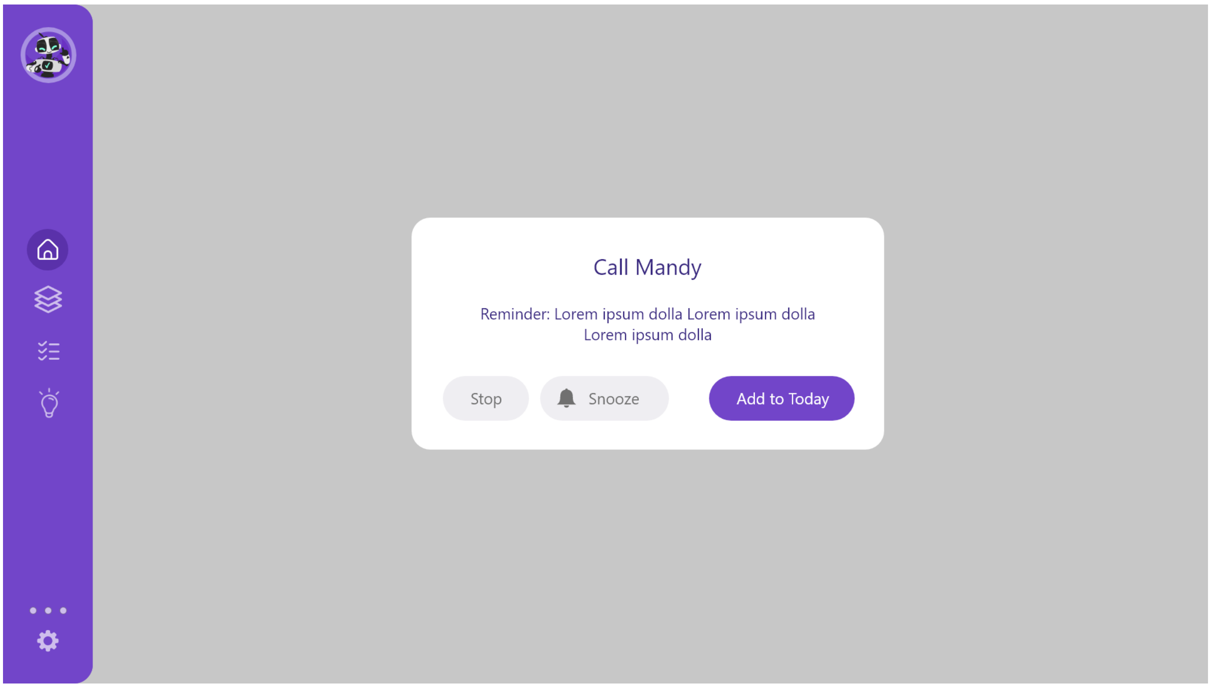
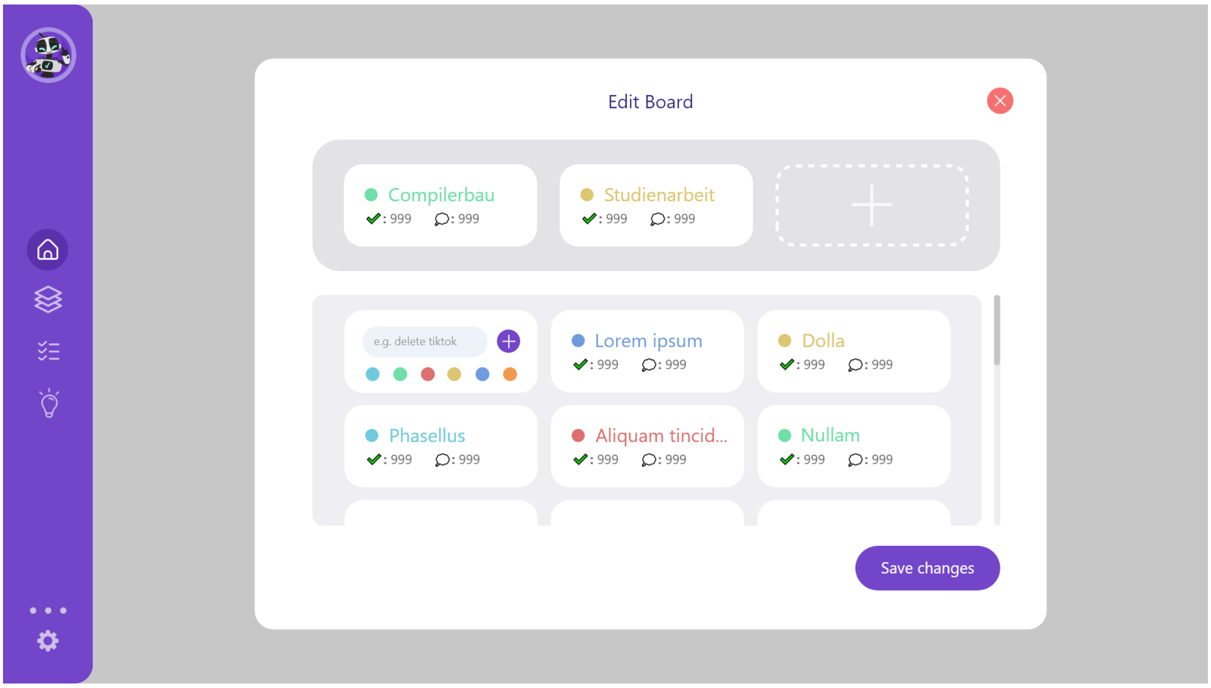
7:30	Mon Tue Wed FRi	Task:	Create first Prototype	●
7:30	Mon Tue Wed FRi	Task:	Create first Prototype	●
7:30	Mon Tue Wed FRi	Task:	Create first Prototype	●

+



Call Mandy

Reminder: Lorem ipsum dolla Lorem ipsum dolla Lorem ipsum dolla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Compilerbau
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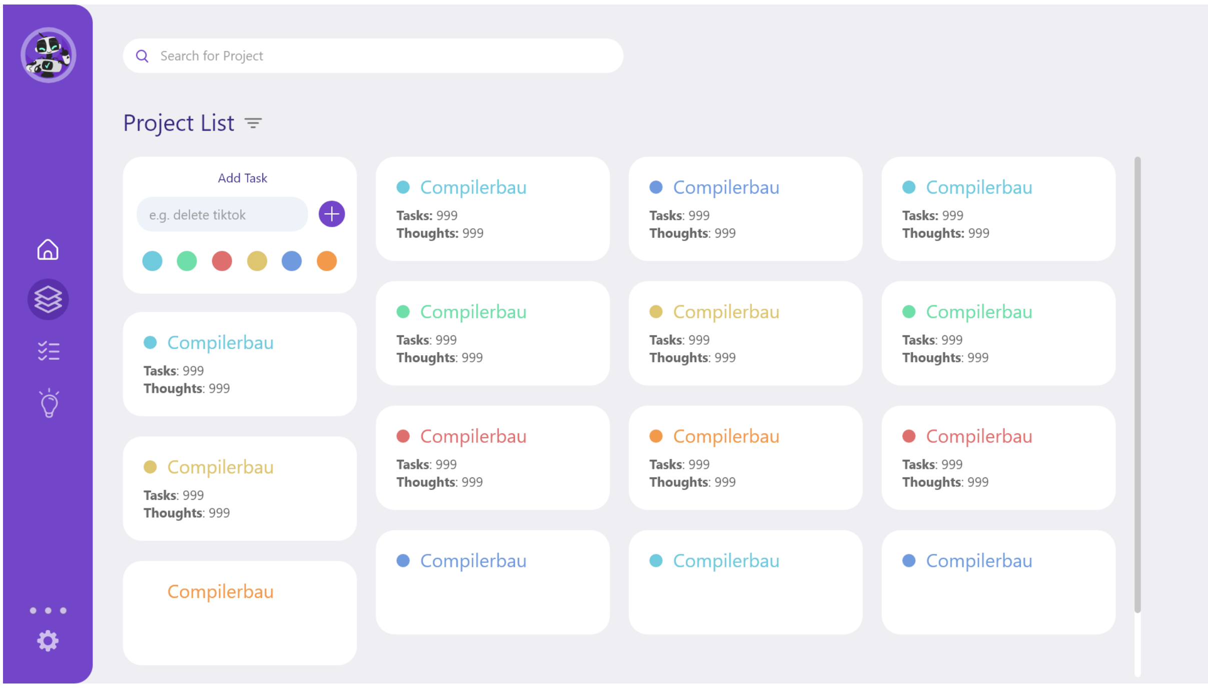
Studienarbeit
: 999 : 999
e.g. delete tiktok
Lorem ipsum
: 999 : 999
Dolla
: 999 : 999
Phasellus
: 999 : 999
Aliquam tincid...
: 999 : 999
Nullam
: 999 : 999
Save changes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Project List
Add Task
e.g. delete tiktok
Compilerbau
Tasks: 999
Thoughts: 999
Compilerbau
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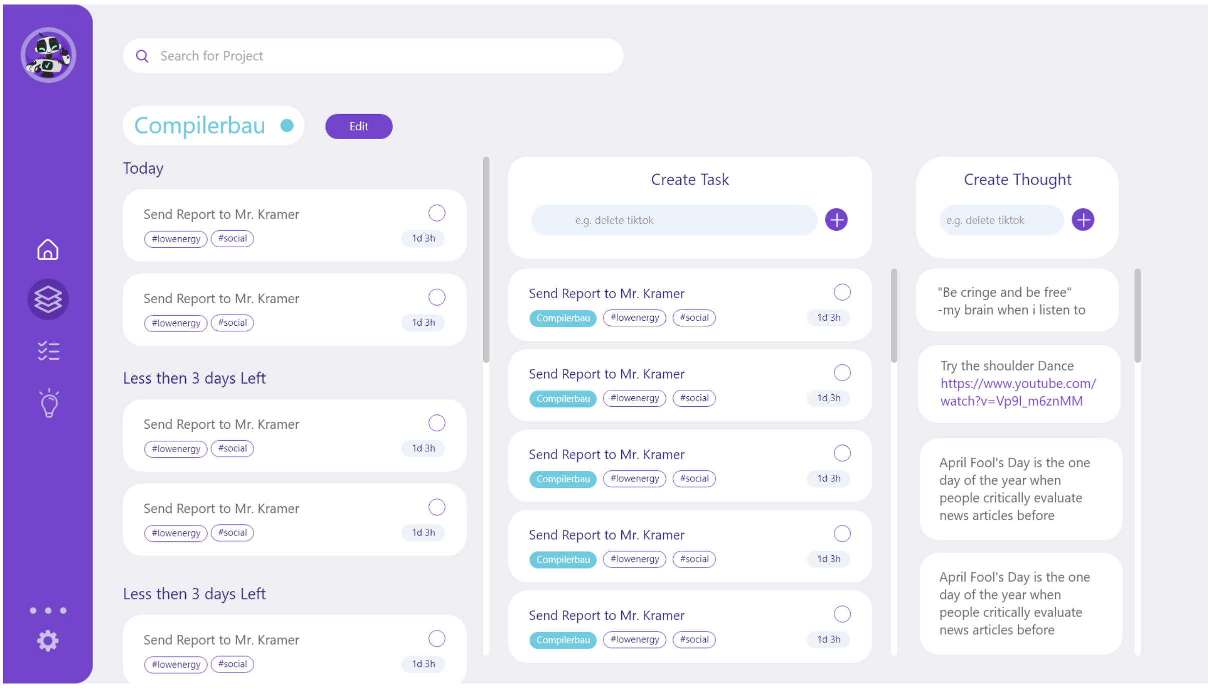


Search for Project

Compilerbau ●

Edit

Today

Send Report to Mr. Kramer #lowenergy #social ○ 1d 3h

Send Report to Mr. Kramer #lowenergy #social ○ 1d 3h

Less then 3 days Left

Send Report to Mr. Kramer #lowenergy #social ○ 1d 3h

Send Report to Mr. Kramer #lowenergy #social ○ 1d 3h

Less then 3 days Left

Send Report to Mr. Kramer #lowenergy #social ○ 1d 3h

Create Task

e.g. delete tiktok +

Send Report to Mr. Kramer Compilerbau #lowenergy #social ○ 1d 3h

Send Report to Mr. Kramer Compilerbau #lowenergy #social ○ 1d 3h

Send Report to Mr. Kramer Compilerbau #lowenergy #social ○ 1d 3h

Send Report to Mr. Kramer Compilerbau #lowenergy #social ○ 1d 3h

Send Report to Mr. Kramer Compilerbau #lowenergy #social ○ 1d 3h

Create Thought

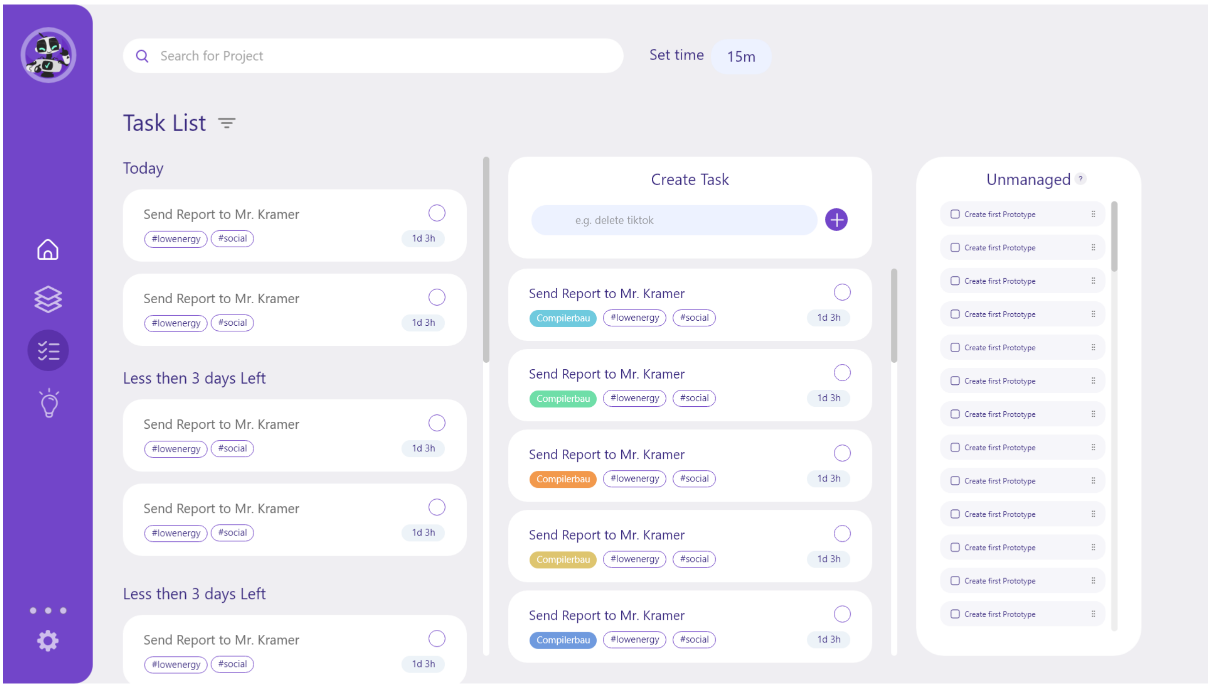
e.g. delete tiktok +

"Be cringe and be free"
-my brain when i listen to

Try the shoulder Dance https://www.youtube.com/watch?v=Vp9I_m6znMM

April Fool's Day is the one day of the year when people critically evaluate news articles before

April Fool's Day is the one day of the year when people critically evaluate news articles before



Search for Project

Set time 15m

Task List

Today

Send Report to Mr. Kramer #lowenergy #social ○ 1d 3h

Send Report to Mr. Kramer #lowenergy #social ○ 1d 3h

Less then 3 days Left

Send Report to Mr. Kramer #lowenergy #social ○ 1d 3h

Send Report to Mr. Kramer #lowenergy #social ○ 1d 3h

Less then 3 days Left

Send Report to Mr. Kramer #lowenergy #social ○ 1d 3h

Create Task

e.g. delete tiktok +

Send Report to Mr. Kramer Compilerbau #lowenergy #social ○ 1d 3h

Send Report to Mr. Kramer Compilerbau #lowenergy #social ○ 1d 3h

Send Report to Mr. Kramer Compilerbau #lowenergy #social ○ 1d 3h

Send Report to Mr. Kramer Compilerbau #lowenergy #social ○ 1d 3h

Send Report to Mr. Kramer Compilerbau #lowenergy #social ○ 1d 3h

Unmanaged ?

□ Create first Prototype

□ Create first Prototype

□ Create first Prototype

□ Create first Prototype

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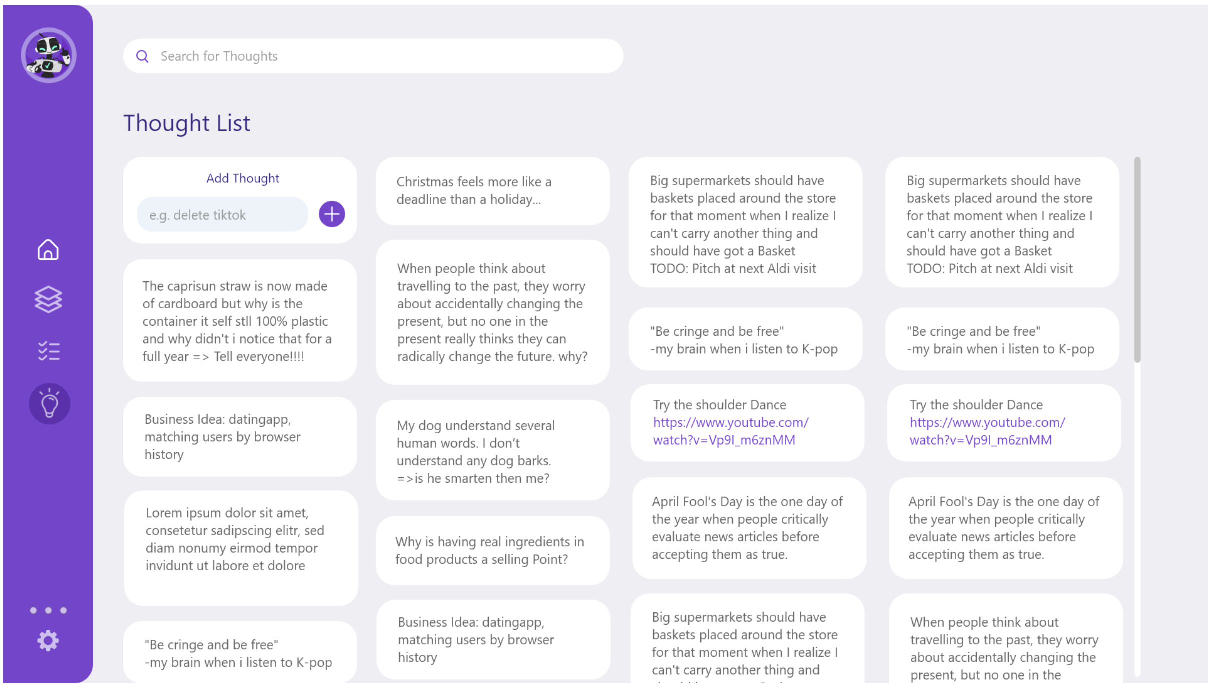

Thought List

The caprisun straw is now made of cardboard but why is the container it self stll 100% plastic and why didn't i notice that for a full year => Tell everyone!!!!

Business Idea: datingapp, matching users by browser history

Lorem ipsum dolor sit amet, consetetur sadipscing elitr, sed diam nonumy eirmod tempor invidunt ut labore et dolore

"Be cringe and be free"
-my brain when i listen to K-pop

Christmas feels more like a deadline than a holiday...

When people think about travelling to the past, they worry about accidentally changing the present, but no one in the present really thinks they can radically change the future. why?

My dog understand several human words. I don't understand any dog barks.
=>is he smarten then me?

Why is having real ingredients in food products a selling Point?

Business Idea: datingapp, matching users by browser history

Big supermarkets should have baskets placed around the store for that moment when I realize I can't carry another thing and should have got a Basket
TODO: Pitch at next Aldi visit

"Be cringe and be free"
-my brain when i listen to K-pop

Try the shoulder Dance
https://www.youtube.com/watch?v=Vp9I_m6znMM

April Fool's Day is the one day of the year when people critically evaluate news articles before accepting them as true.

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Try the shoulder Dance
https://www.youtube.com/watch?v=Vp9I_m6znMM

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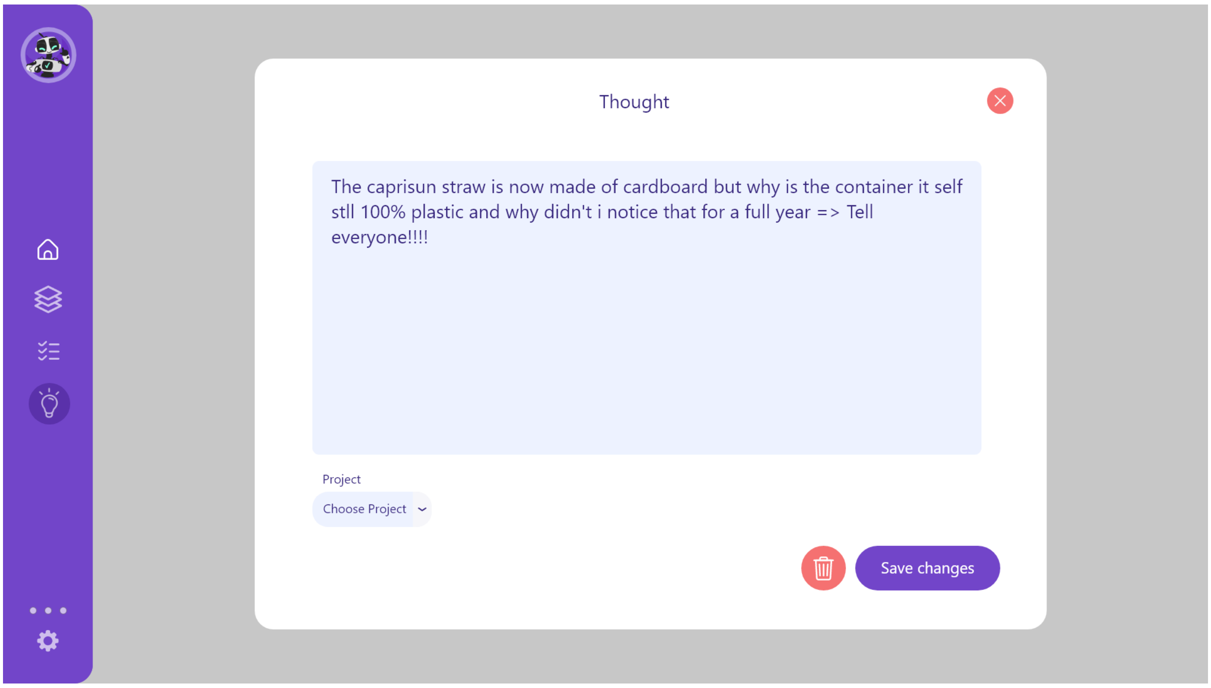
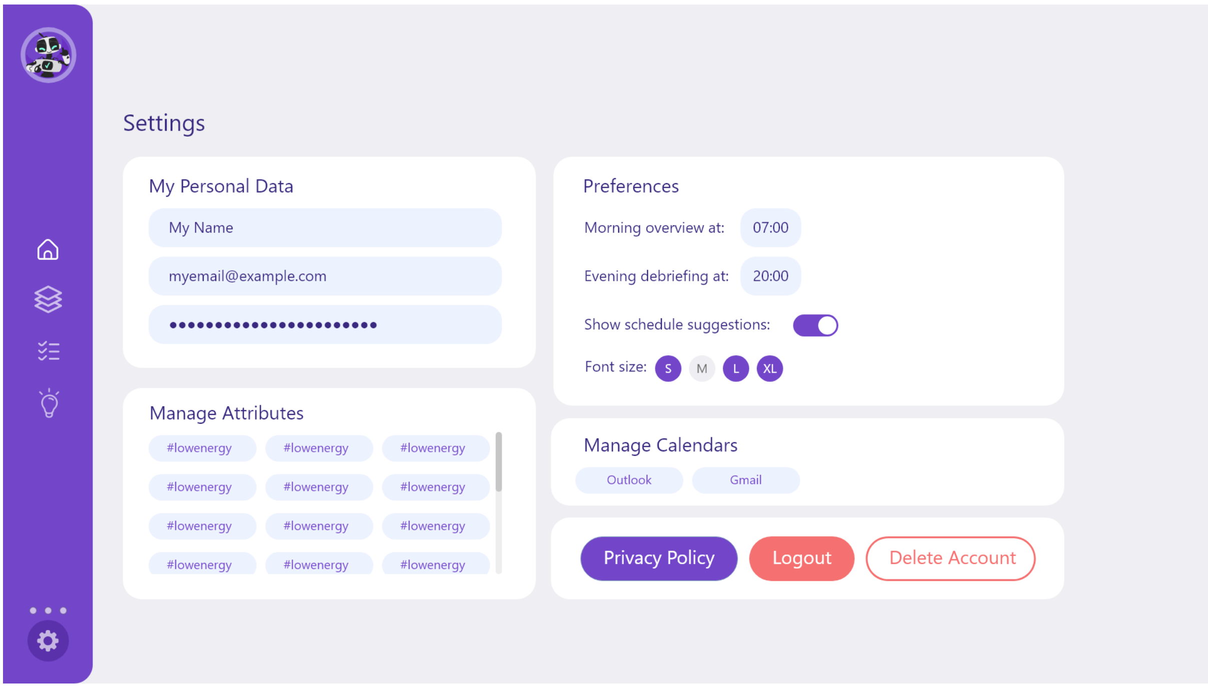


The caprisun straw is now made of cardboard but why is the container it self stll 100% plastic and why didn't i notice that for a full year => Tell everyone!!!!



Settings

My Personal Data

My Name

myemail@example.com

••••••••••••••••••••••

Manage Attributes

Preferences

Morning overview at: 07:00

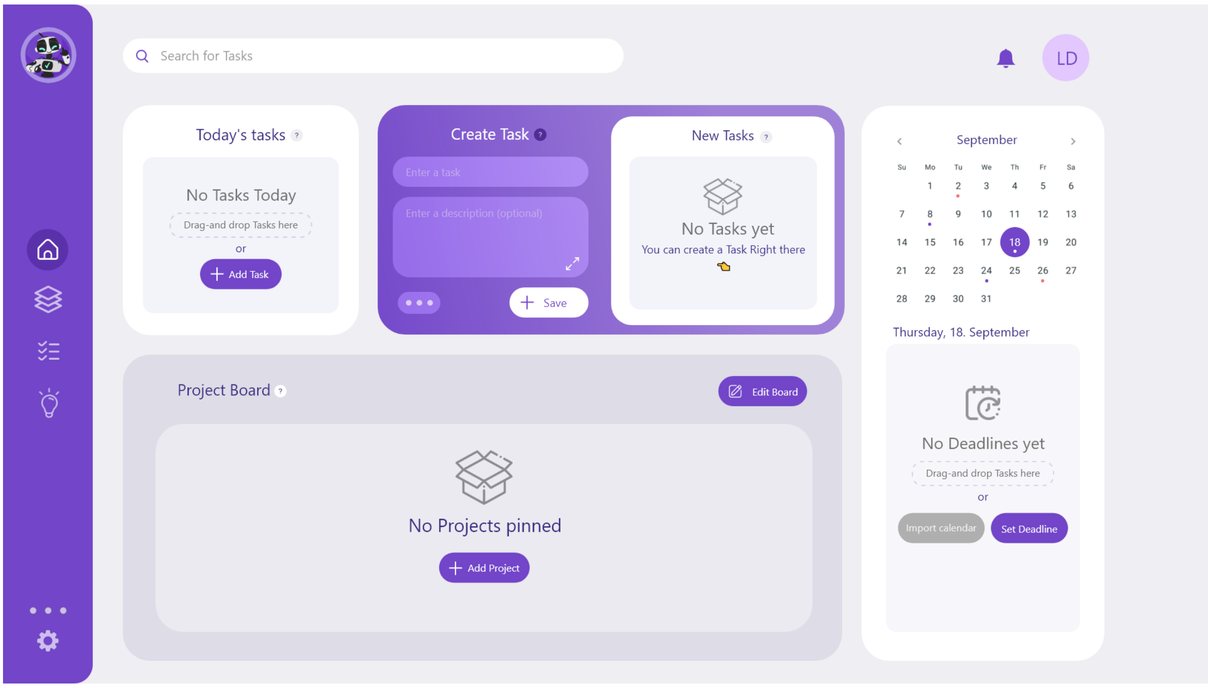
Evening debriefing at: 20:00

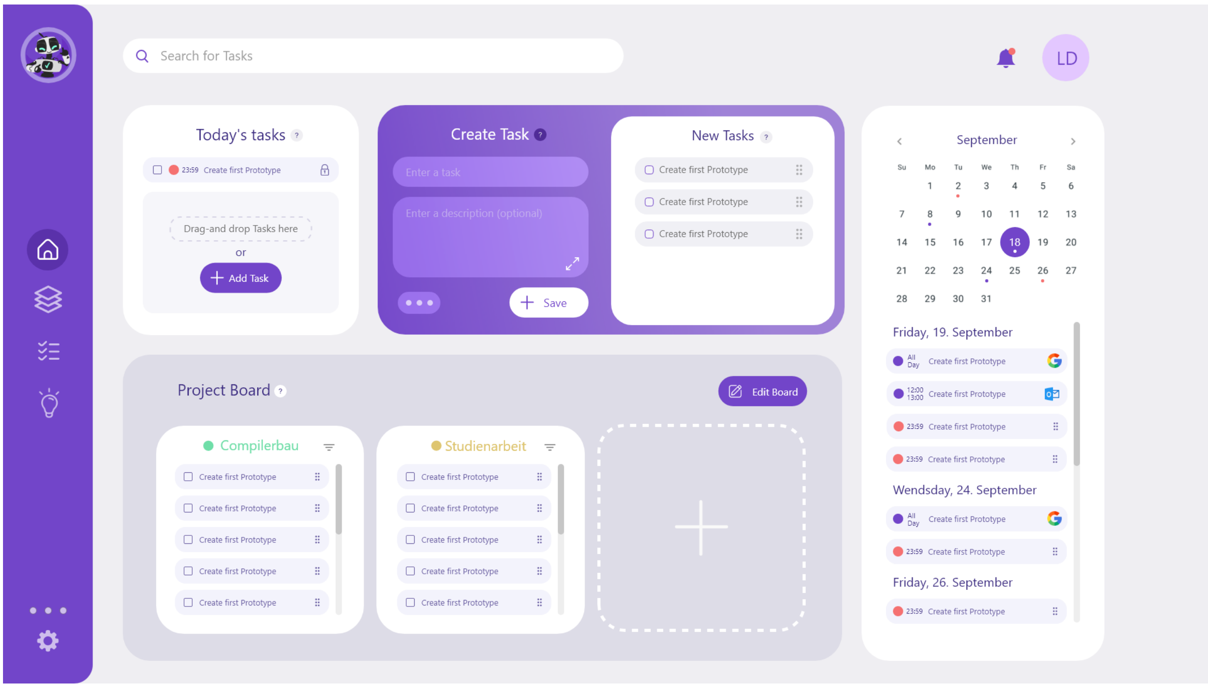
Show schedule suggestions: ●

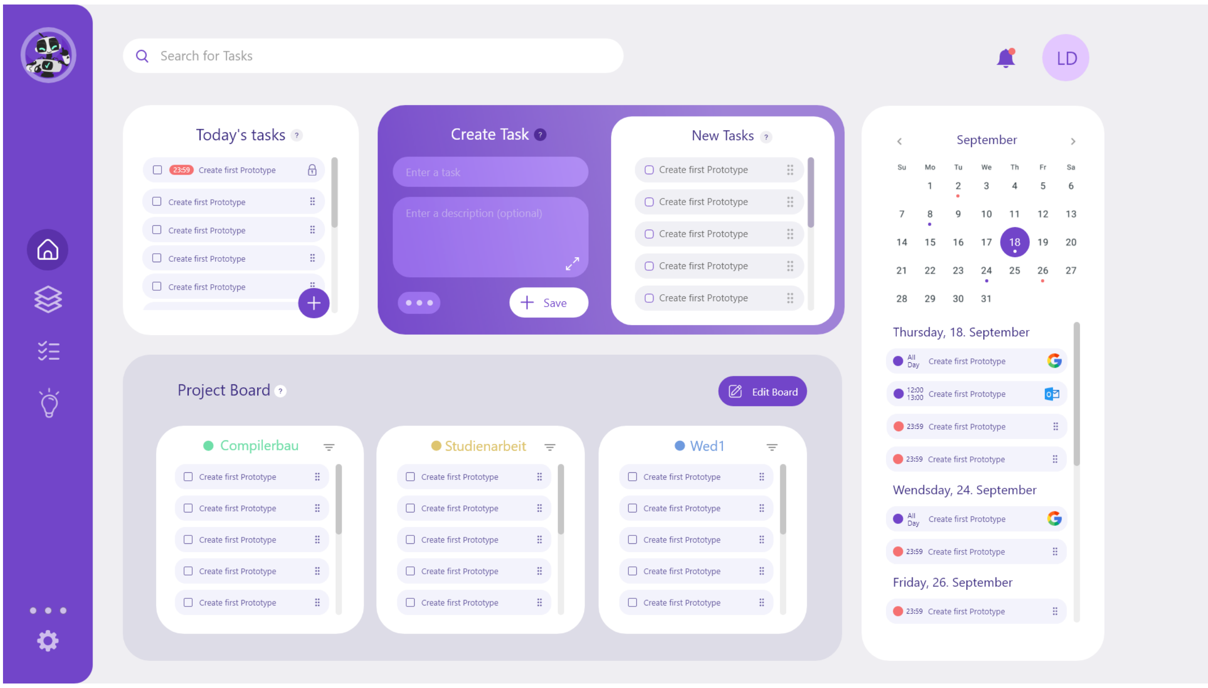
Font size: S M L XL

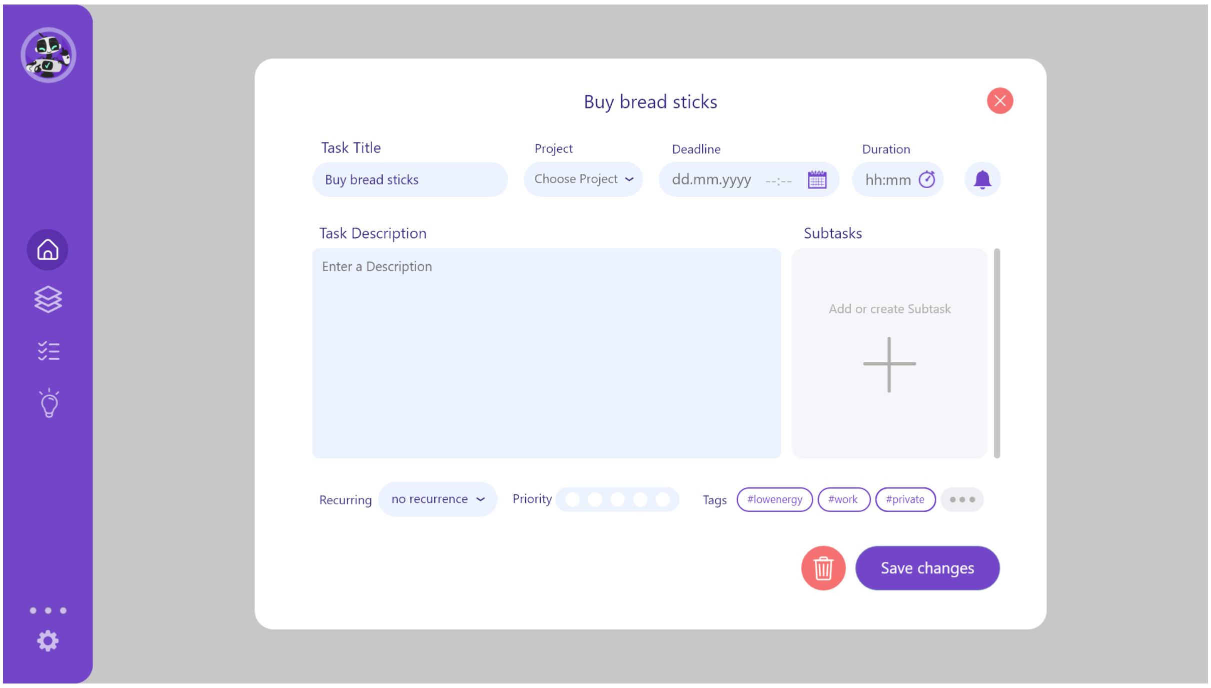
Manage Calendars

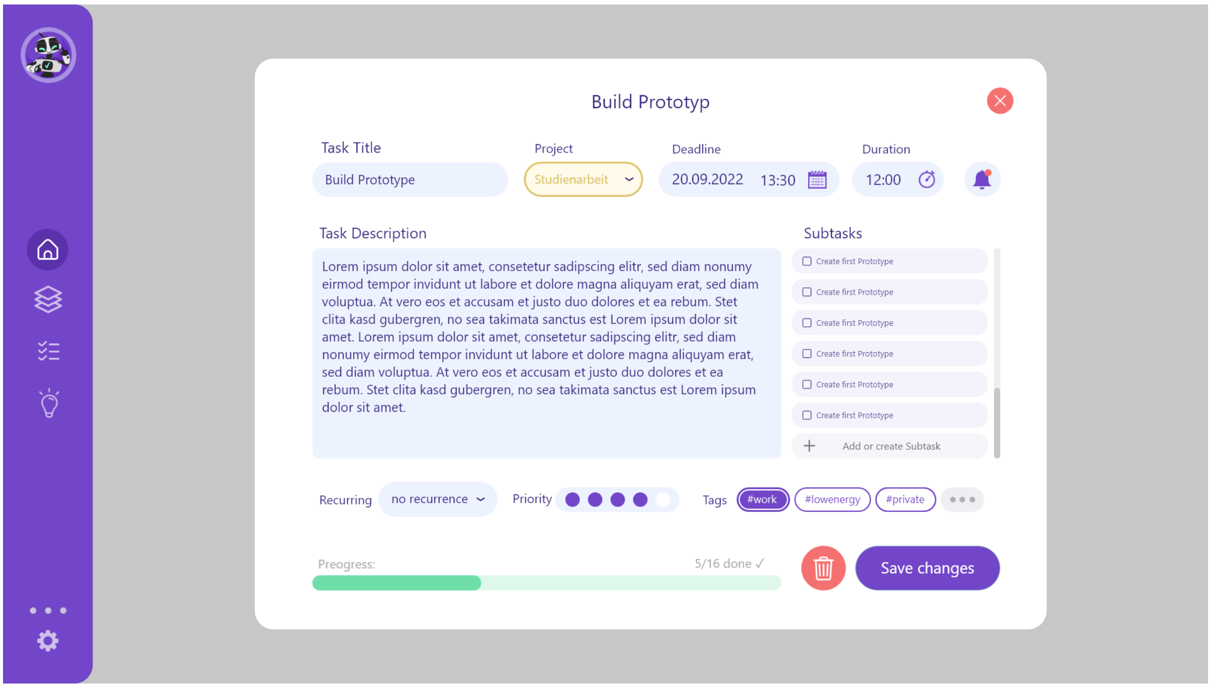
6.2 Iteration 2






Search for Tasks
LD
Today's tasks
23:59 Create first Prototype
Create first Prototype
Create first Prototype
Create first Prototype
Create first Prototype
Create Task
Enter a task
Enter a description (optional)
Save
New Tasks
Create first Prototype
Create first Prototype
Create first Prototype
Create first Prototype
Create first Prototype
September
Su Mo Tu We Th Fr Sa
1 2 3 4 5 6
7 8 9 10 11 12 13
14 15 16 17 18 19 20
21 22 23 24 25 26 27
28 29 30 31
Thursday, 18. September
All Day Create first Prototype
12:00 13:00 Create first Prototype
23:59 Create first Prototype
23:59 Create first Prototype
Wendsday, 24. September
All Day Create first Prototype
23:59 Create first Prototype
Friday, 26. September
23:59 Create first Prototype
Project Board
Edit Board
Compilerbau
Studienarbeit
Wed1
Create first Prototype


Buy bread sticks
Task Title
Buy bread sticks
Project
Choose Project
Deadline
dd.mm.yyyy --:--
Duration
hh:mm
Task Description
Enter a Description
Subtasks
Add or create Subtask
Recurring
no recurrence
Priority
Tags
#lowenergy
#work
#private
Save changes



Build Prototyp

Task Title: Build Prototype

Project: Studienarbeit

Deadline: 20.09.2022 13:30

Duration: 12:00

Task Description

Lorem ipsum dolor sit amet, consetetur sadipscing elitr, sed diam nonumy eirmod tempor invidunt ut labore et dolore magna aliquyam erat, sed diam voluptua. At vero eos et accusam et justo duo dolores et ea rebum. Stet clita kasd gubergren, no sea takimata sanctus est Lorem ipsum dolor sit amet. Lorem ipsum dolor sit amet, consetetur sadipscing elitr, sed diam nonumy eirmod tempor invidunt ut labore et dolore magna aliquyam erat, sed diam voluptua. At vero eos et accusam et justo duo dolores et ea rebum. Stet clita kasd gubergren, no sea takimata sanctus est Lorem ipsum dolor sit amet.

Subtasks

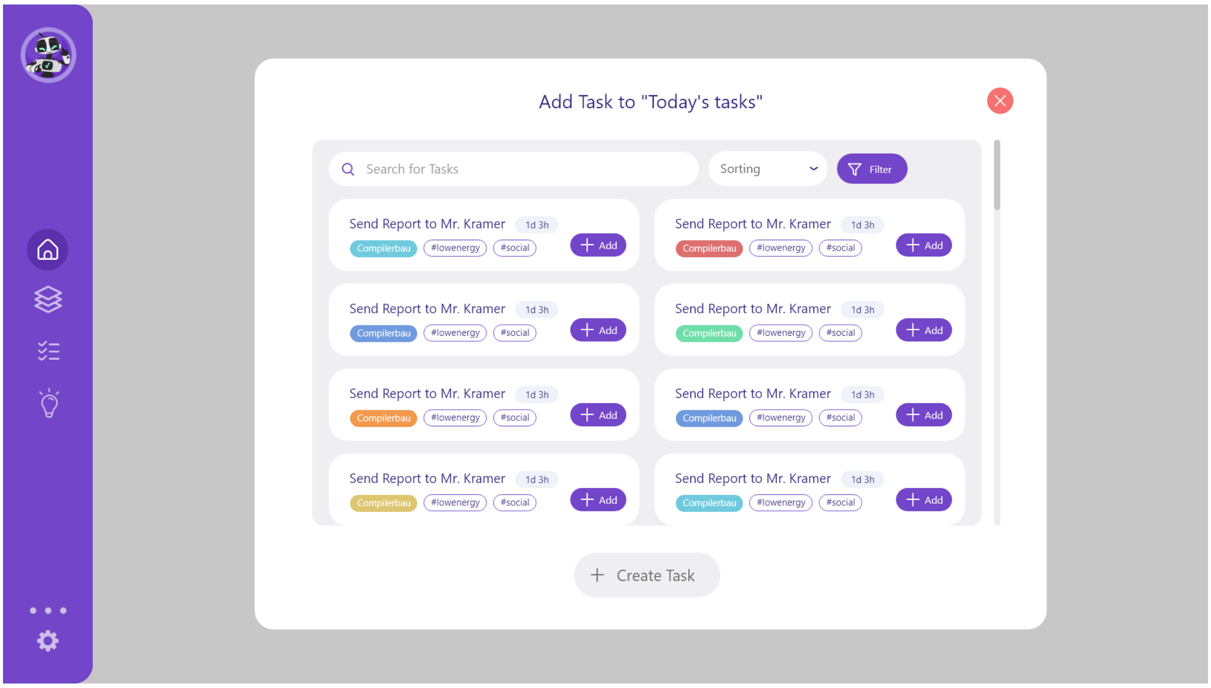
- ☐ Create first Prototype
- ☐ Create first Prototype
- ☐ Create first Prototype
- ☐ Create first Prototype
- ☐ Create first Prototype
- ☐ Create first Prototype

Recurring: no recurrence

Priority: ● ● ● ● ○

Tags: #work #lowenergy #private

Preogress: 5/16 done ✓



Add Task to "Today's tasks"

Send Report to Mr. Kramer	1d 3h	Compilerbau #lowenergy #social
Send Report to Mr. Kramer	1d 3h	Compilerbau #lowenergy #social
Send Report to Mr. Kramer	1d 3h	Compilerbau #lowenergy #social
Send Report to Mr. Kramer	1d 3h	Compilerbau #lowenergy #social
Send Report to Mr. Kramer	1d 3h	Compilerbau #lowenergy #social
Send Report to Mr. Kramer	1d 3h	Compilerbau #lowenergy #social
Send Report to Mr. Kramer	1d 3h	Compilerbau #lowenergy #social
Send Report to Mr. Kramer	1d 3h	Compilerbau #lowenergy #social

7 User Interview Outline

- How does your typical weekday look like?
- How do you plan your week? / How do you keep track of your tasks?
- How much time do you typically spend on planing your week (deadline, to do, appointments, . . .)
- What do you like about how you currently keep track of your tasks?
- How do you make sure a forgettable or annoying task still gets done?
- How do you decide which task gets done first/is the most imported?
- How do you prioritise your tasks?
    - How does something fall under low / high priority ?
    - How do you make sure low-priority tasks still get done? do they even need to?
- What products or tools have you tried out for planing and scheduling?
    - What do you like or dislike about these other products or tools?
    - Why did you stop using it?
- Do you use the Notes app of your phone's OS?
    - What do you write down? What's in your notes app currently (Shopping lists, to-dos, thoughts, . . .)
    - are you using the checklist feature?
- Do you estimate how long a task will take you to complete? / how do you estimate how long a task will take you?
- How do you monitor your productivity? How do you make sure your productivity increases
- rather than decreases?
- Do you like/need feedback of your progress?

8 Time Tracking Report

The project used up all 240 hours of the budget and ended up requiring 21 hours more than expected.

9 Bibliography

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