

MCORG

A Minecraft project management system

Even Gultvedt

Project overview



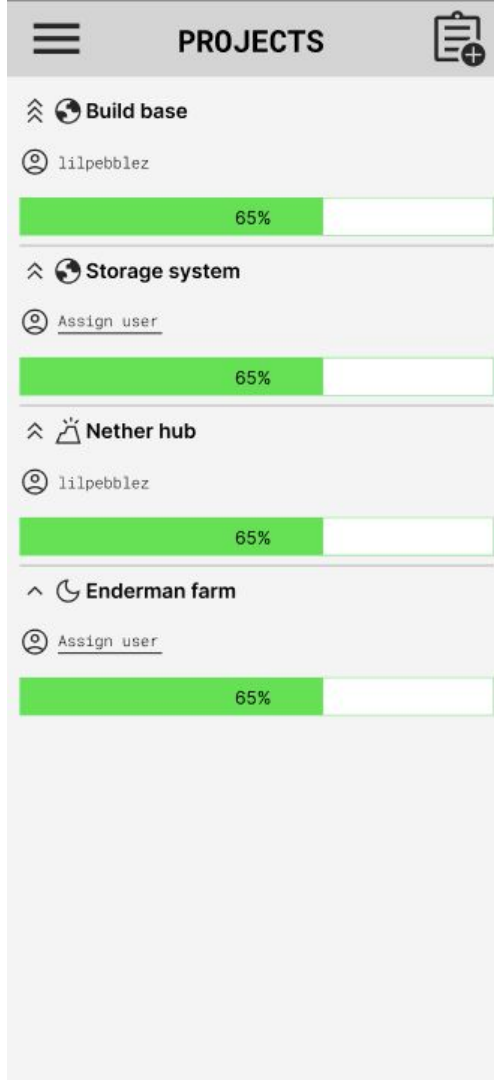
The product:

The app aims to simplify and consolidate the planning process of Minecraft projects into a single system. The users of the app will primarily be technical players with large projects.



Project duration:

04/2024 - 08/2024



Project overview



The problem:

The users have information in a lot of different places, which is hard to share and keep track of.



The goal:

To centralize and simplify the project planning and execution of Minecraft projects.

Project overview



My role:

UX Researcher, UX Designer in a team of 1



Responsibilities:

I did everything, including but not limited to:

- Research
- Designing mockups and connecting prototypes
- User testing

Understanding the user

- User research
- Personas
- Problem statements
- User journey maps

User research: summary



Project research has primarily been done via questionnaires, along with a few test sessions with friends. Before starting, I had some idea of what functionality would be wanted in such a project, but a lot of them were overturned or tweaked by the research.

User research: pain points

1

Calculating raw resources

Given a list of project requirements, it is hard to know what other projects might be needed, as well as the raw resources required to make the final required items.

2

Assignment

A project can take some time, and be split into many parts. Assigning these parts to other users is usually not very easy, along with keeping track of who has said yes to what.

3

Searching the wiki

Given a wanted project, it is hard to find the needed technical information.

4

Sharing

When a project is planned, it needs to be shared with others, which usually happens on Discord. This might not be as organized as it needs to be.

Persona: **Rory**

Problem statement:

Rory is a player with an old world, who needs to know if a farm will work on his world.

Age: 31

Plays: A few times a week

Playtime: 1-2 hours every time

Goals: Create a survival world with a good layout for, and between farms.

Frustrations: No good tools to plan layout in 3D. Inventory issues while creating a build around a farm.

“I want to make my world efficient, and pretty. The farms should be in their logical position, while also looking good. Hopefully, this will help in making a central storage solution, since inventory management is so bad in Minecraft.”

Persona: **Suzy**

Problem statement:

Suzy is a tech server owner who needs task assignment to ensure people do their job

Goals: Being able to plan a good world without having to sit for hours at her computer.

Frustrations: Most good tools require sitting at the computer, while she prefers her phone for things like this.

Age: 24
Plays: 5 days a week
Playtime: Short sessions, due to bad back

“I want to help plan our world from my couch, without having to sit on my computer or keeping track of long lists on Discord.”

Persona: **Gregory**

Problem statement:

Gregory is a farm builder who needs to know what he needs to build a farm

Goals: Building a cool world with their friends.

Frustrations: The ever-growing lists of to-do and gathering and changing mods due to version updates.

Age: 20

Plays: Every night before bed

Playtime: 3-5 hours every time

“I want to build a lot of farms without having to worry about designing and creating new ideas. If only it was easier to find what I need in one place. And not just farm designs, but mods, data packs and texture packs as well.”

Persona: **Elise**

Problem statement:

Rory is a player with an old world, who needs to know if a farm will work on his world.

Goals: Creating the most amazing builds around their friends' technical creations.

Frustrations: She just wants to gather resources and place them back down. And maybe get some help from her friends doing it.

Age: 16

Plays: On the weekends

Playtime: A few hours

User journey map

We have created 3 user journeys, which covers all the pain points found in the research phase.

User journey map

Elise wants to design and build decoration for a complete farm design

Action	Plan layout in relation to other farms	Create design in Create Mode	Gather resources	Build design
Task list	Retrieve the farm size from a schematic or other user Use the layout planner to place the farm in the world in relation to other farms	Build the design. Be inspired.	Split schematic into materials for gathering Assign some materials to other users Gather the resources Mark as done while working	Split into tasks Assign tasks Build the design Bask in its beauty
Feeling	Bothered	Inspired	Bored	Pride
Improvement	3D, see the world. Combine with seed?	See what designs other have used for this farm	Make into a game, with percentages and prizes	Same as gathering

User journey map

Suzy plans a world from scratch

Action	Find goals	Create roadmap	Split into tasks	Build
Task List	Search YouTube Talk to others Find farms and builds the server wants as big, hairy goals	Find schematics for the big goals Find dependency farms Create roadmap based on goals and dependencies	Split each project into smaller tasks. Can be done one at a time. Assign the tasks as needed.	Load the schematics into the world Gather the required resources from the previous step Build everything. Enjoy and find new goals
Feeling	Frustrated	Impressed	Bored	Bored
Improvement	Hard to find the ones that are just right for this server. A custom DB might be a solution.	Farm types with input/output to make roadmap creation easier. Possibility to make one manually at first.	Repetitive? AI? Self-assignment	Make into a game

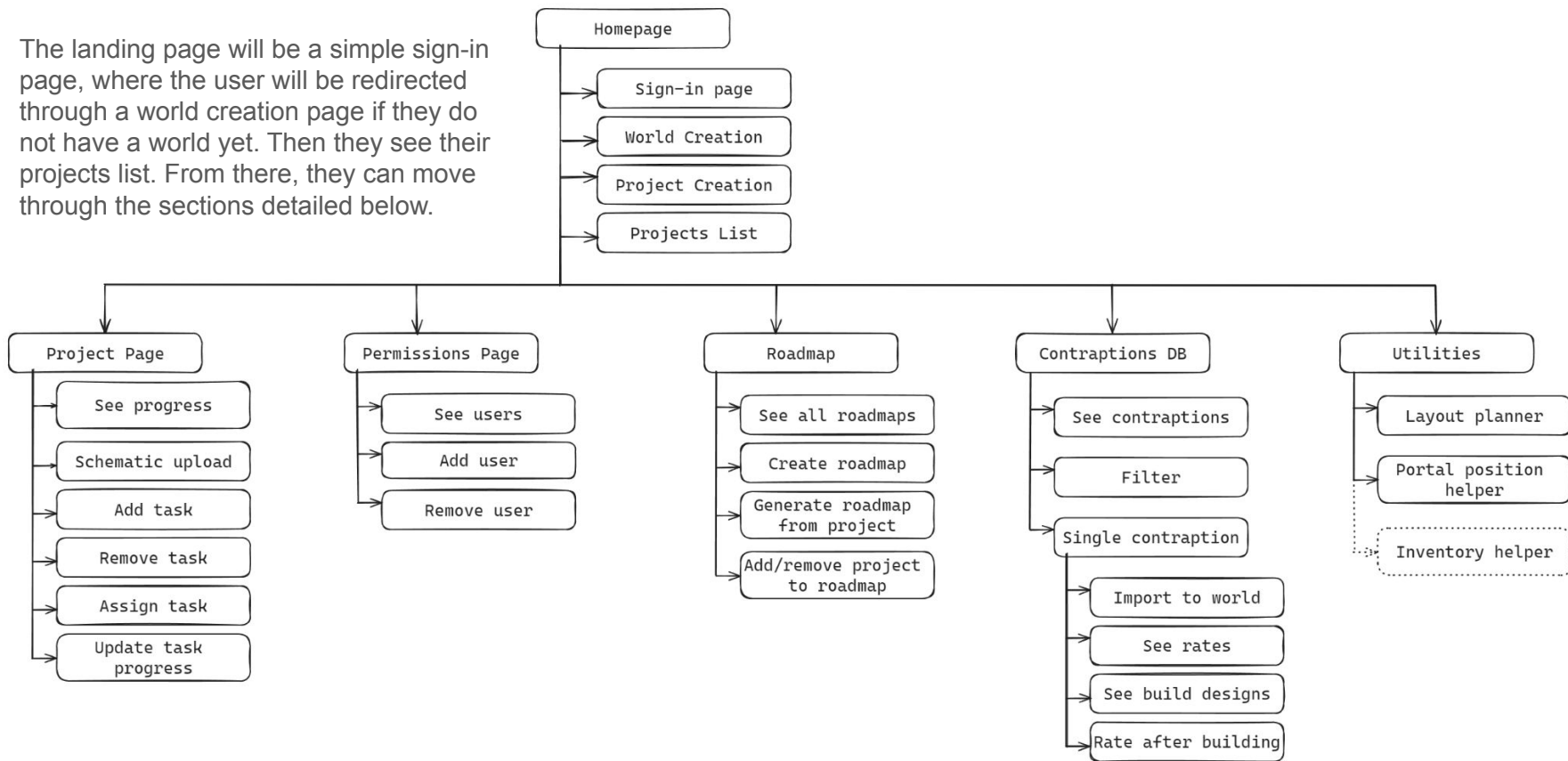
User journey map

Rory creates farm with mobs in older singleplayer world

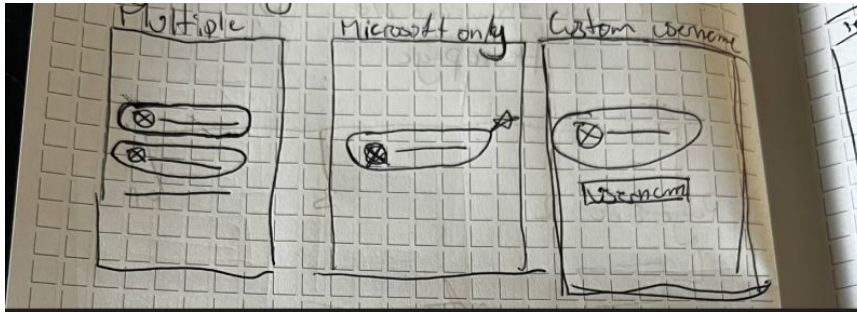
Action	Find farm	Build farm	Action	Find farm
Task List	Find a good farm design with correct version tagged	Arrange inventory Build farm Wrangle mobs Build portals Build farm storage	Task List	Find a good farm design with correct version tagged
Feeling	Frustrated	Frustrated	Feeling	Frustrated
Improvement	Hard to find the best farm in an older version, farm tagging might help.	Inform of best way to arrange inventory Inform of best way to wrangle the required mobs Inform of where to place nether portals based on farm location Inform of how much storage is required for farm output	Improvement	Hard to find the best farm in an older version, farm tagging might help.

Sitemap

The landing page will be a simple sign-in page, where the user will be redirected through a world creation page if they do not have a world yet. Then they see their projects list. From there, they can move through the sections detailed below.

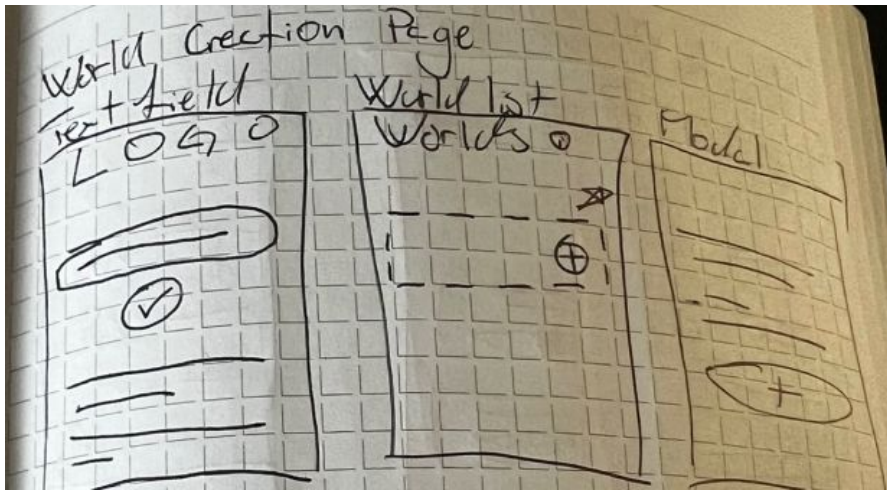


Paper wireframes - Sign in



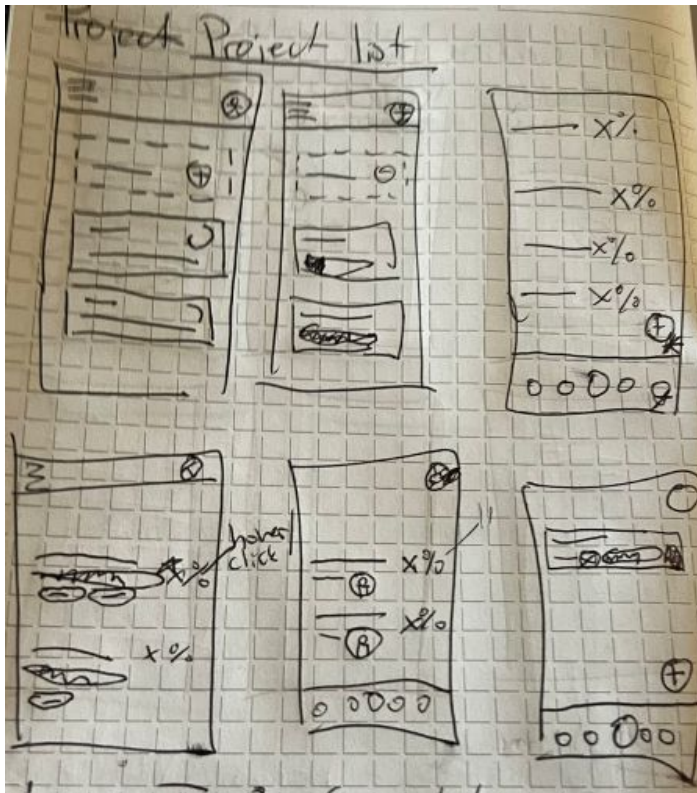
Giving the user 1 method of signing in might seem strange, but Microsoft sign-in allows for connecting with their Minecraft account, which gives everyone their own username.

Paper wireframes - World creation



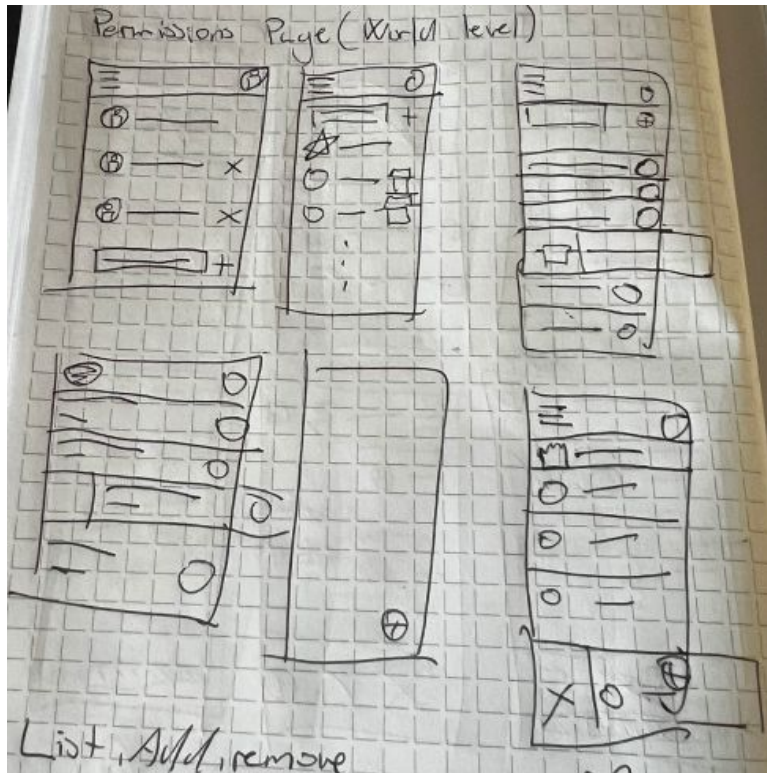
Should there be a simple textfield, the feeling of adding to an empty list, or a popup modal? During this phase, the middle part was selected, for consistency. During testing, the first design was found more intuitive.

Paper wireframes - Projects page



This is the most important page, and the landing page if users are already signed in. Many variants were discovered, but in the end I found the bottom right design with the FAB and cards to be the best for initial testing.

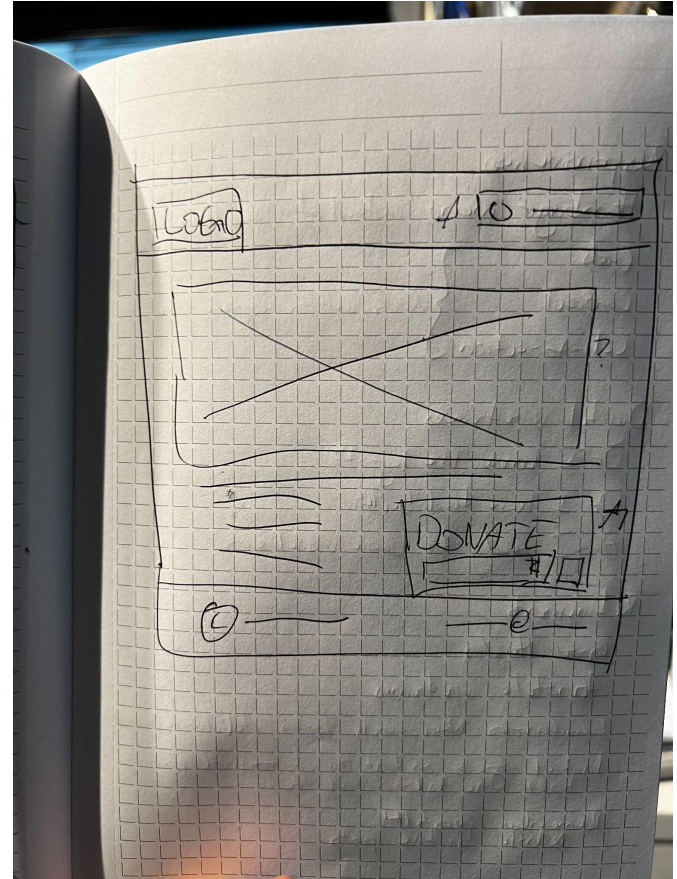
Paper wireframes - Permissions page



Adding and removing permissions is important. I ended up with putting the current user at the top, reusing the FAB for adding, and a swipe animation like an email inbox to remove.

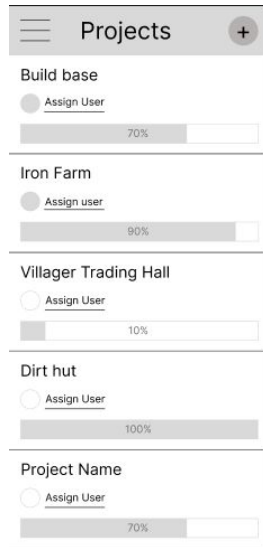
Paper wireframe screen size variation(s)

The landing page for the web can contain a bit more information. Here we have a hero image, and a donate button to ensure we might make some money on the final product. The sign in button is moved to the top right.

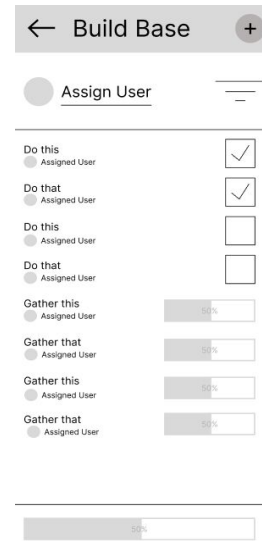


Digital wireframes

During the wireframing phase, the goal was a simple variant which could be tested. During this phase, some of the feedback was that the assignment and filter options used too much space, as well as filtering was not needed.



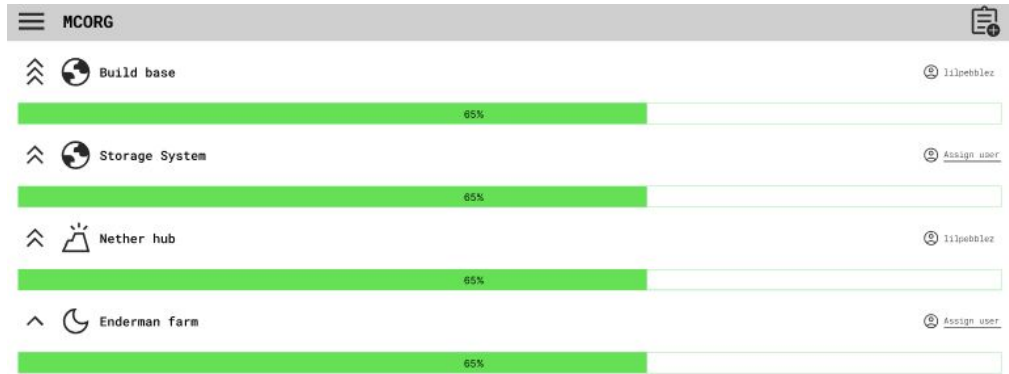
The projects page gives a simple overview of what projects exist in a world, along with who has responsibility for it, and it's progress.



The page for a single project shows in detail what must be done, and who must do it,

Digital wireframe screen size variation(s)

For the responsive site, I went straight to hi-fi mockups, since I already had a sticker sheet and development of this was quicker than lo-fi wireframes. You can see that most of the design is the same, with some added elements.



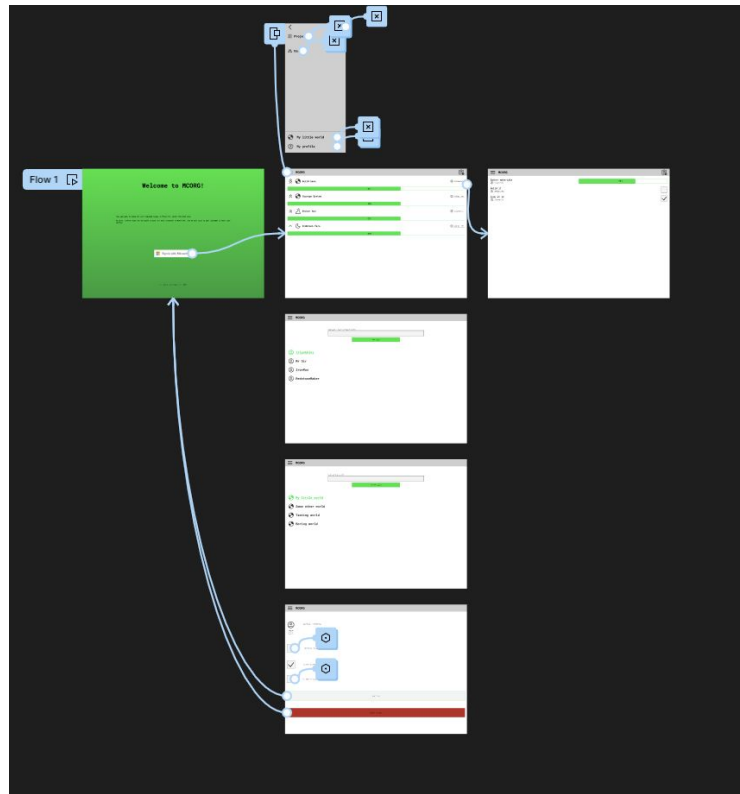
This can be refined even further, taking more use of the space used. But during my testing, there was little feedback on this variant, so it stays like this.

Low-fidelity prototype

[Lo-fi mobile app prototype](#)

[Web app prototype](#) (no lo-fi exists)

One piece of feedback I received was to make some functionality toggleable. What dimension the project was in, and whether it required a perimeter, could be hidden behind a “Technical Player” toggle located on the profile page.



Simple web version of the app, with an overlay menu and inline add-functionality as opposed to their own pages.

Usability study: parameters



Study type:

Unmoderated usability study



Location:

Norway, remote



Participants:

3 participants



Length:

20-30 minutes

Usability study: findings

Insert a one to two sentence introduction to the findings shared below.

1

Finding

Toggle technical details
based on user level

2

Finding

Sign in with only Microsoft
to ensure connection to
Minecraft

3

Finding

Resource Packs are not
needed, other systems
exist that does it better.

Refining the design

- Mockups
- High-fidelity prototype
- Accessibility

Mockups

One of the pieces of feedback was the toggle of technical details. Here we show a perimeter requirement during project creation if the player has sufficient knowledge.

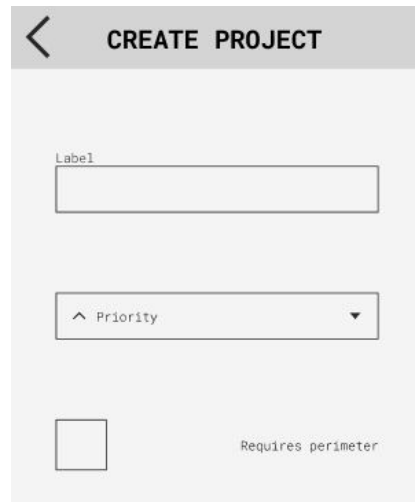
Before usability study



The mockup shows a screen titled 'CREATE PROJECT' with a back arrow. It contains a text input field labeled 'Label' and a dropdown menu labeled 'Priority'.

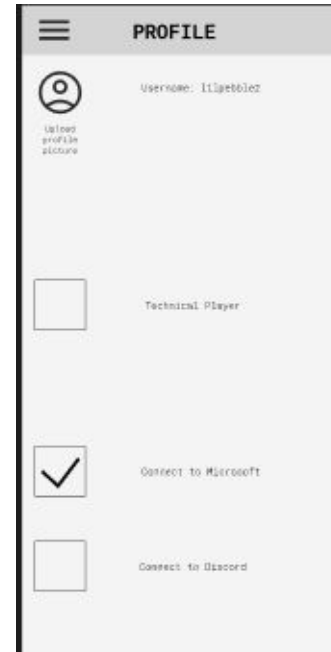
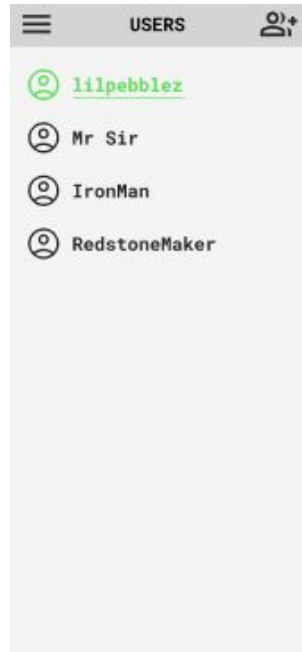


After usability study

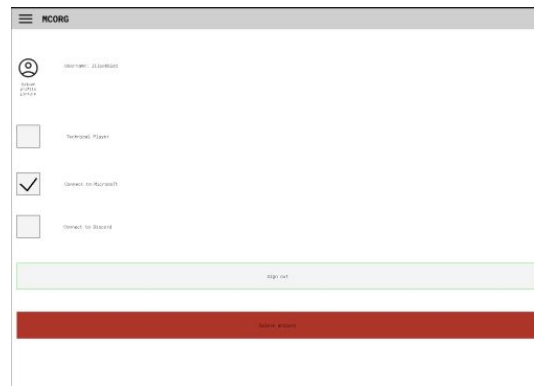
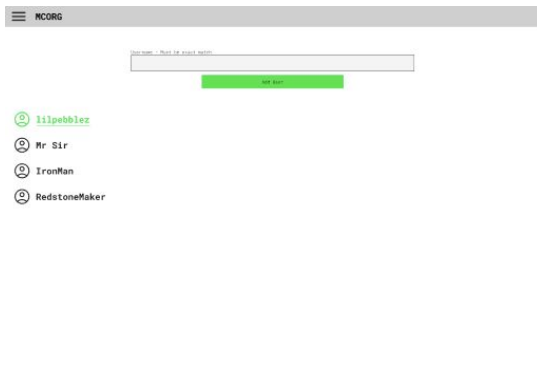
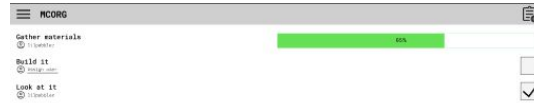
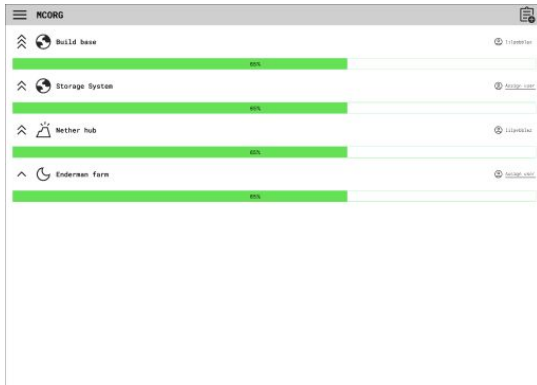


The mockup shows a screen titled 'CREATE PROJECT' with a back arrow. It contains a text input field labeled 'Label', a dropdown menu labeled 'Priority', and a checkbox labeled 'Requires perimeter'.

Mockups: Original screen size



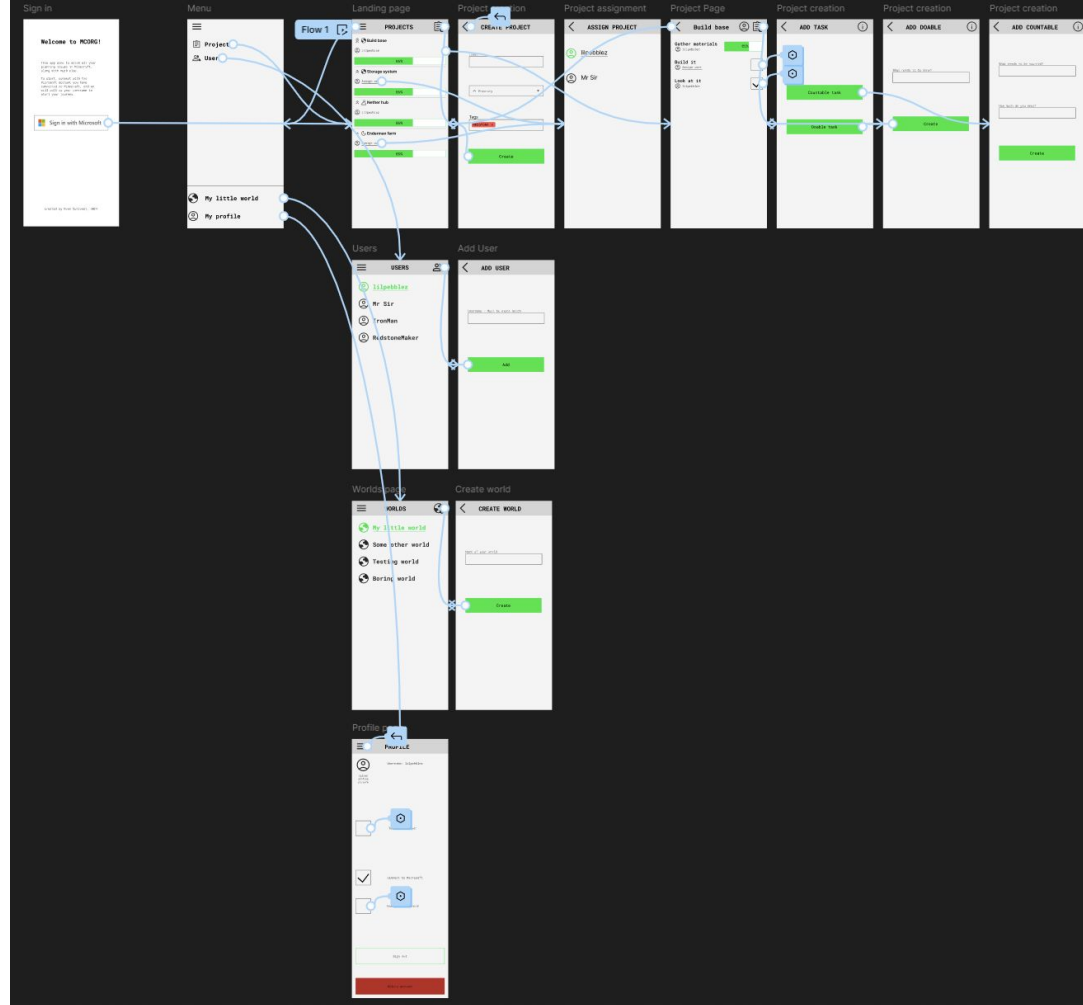
Mockups: Screen size variations



High-fidelity prototype

[Link to prototype](#)

The user starts by signing in, which leads to the projects page. There they might create or go to a project. In this, they might add or update tasks. There are also pages for adding users, creating / selecting worlds and a profile page.



Accessibility considerations

1

Colors are high contrast, and makes sure everything is visible for color blind people.

2

The font is easily readable for people with dyslexia, while also being reminiscent of the Minecraft font.

3

Buttons are big enough to click while moving or for users with limited precision.

Going forward

- Takeaways
- Next steps

Takeaways



Impact:

As one participant said, “I really hope you’ll develop this project, I’d love to use it!”.



What I learned:

I learned a ton about UX, including research, design, user testing and creating design systems!

Next steps

1

Create designs for some of the user stories which are not covered by the initial designs. The plans for the app are quite large, and so not everything could be made at once.

2

Develop a minimum viable product for the web app.

3

Do more research regarding a Discord and Minecraft plugin, to make the use of MCORG even more seamless.

Let's connect!



As this will be delivered for peer review on Coursera, this information is left out.