

Report on cycle story

1. Header

Sleepless_nights:

Cycling story:

Team members:

Martin M. - Interviewer, Coordinator

Gal D. - Observer, powerpoint

Jasmin K. - Usability testing, documentation

Patrik S. - Final app and design

Everybody (Powerpoint, documentation, app, sketches for design)

Cyclists often ride alone and miss out on the shared experiences that make riding more enjoyable and motivating. Many would like to connect their rides with friends, but current tools make this difficult to organize. We are exploring how to make cycling easier to share and more social by helping riders connect, coordinate, and enjoy their trips together.

2. Problem and Solution

Many cyclists find it frustrating when they cannot join group activities, which can lead to feelings of exclusion and disconnection. It is common to struggle with finding consistent time for exercise and documenting personal rides due to busy work or study schedules. Trips are sometimes forgotten to be tracked or photographed, making it harder to share experiences and feel part of the collective. Cycling alone often feels less motivating, and many miss the social encouragement and camaraderie that come from riding with others.

An app that helps people (cyclists) document and share their trips with images/videos. The app should:

1. Easily log rides: Automatically track trips with GPS and allow users to add photos or videos.
2. Provide reminders: Notify users to take pictures or videos at key locations so moments aren't missed.
3. Enable shared journeys: Let users join or create group rides where everyone can contribute their own part, creating a collective story.
4. Encourage consistency: Include features like fire streaks, weekly goals, or small challenges to motivate regular activity even if daily riding isn't possible.
5. Offer challenges and rewards: Support image/video challenges, badges, or "Spotify Wrapped"-style summaries to make documenting fun and rewarding.

3. Tasks & Final Interface Scenarios

1. Task(Start a new journey at this moment)(Easy)

Look down at the bottom of the page

Find the navigation bar

Find "Home"

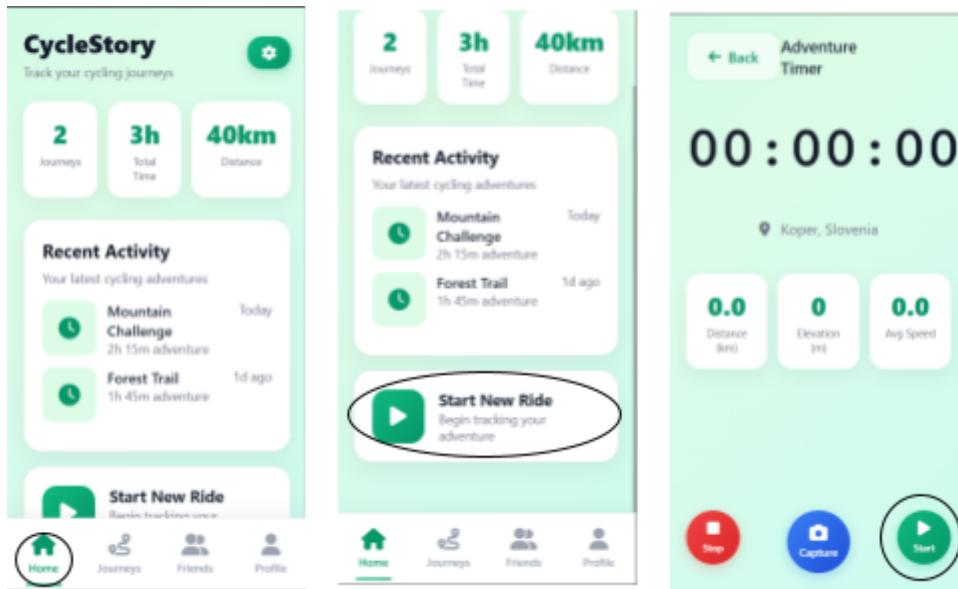
Click "Home"

Find "Start a new ride"

Press "Start a new journey"

Look above the navigation bar

Find the “Start”
Click “Start”.



2. Task(Add a friend)(Easy)

Look down at the bottom of the page

Find the navigation bar

Find "Friends"

Go to the "Friends" page

Find "Add"

Click on "Add"

Find the label "Friend's Email or Username"

Look below and find "Enter Email or username" input

Enter your friend's Email or username

Look below and find "Send Friend Request" button

Click the "Send Friend Request" button

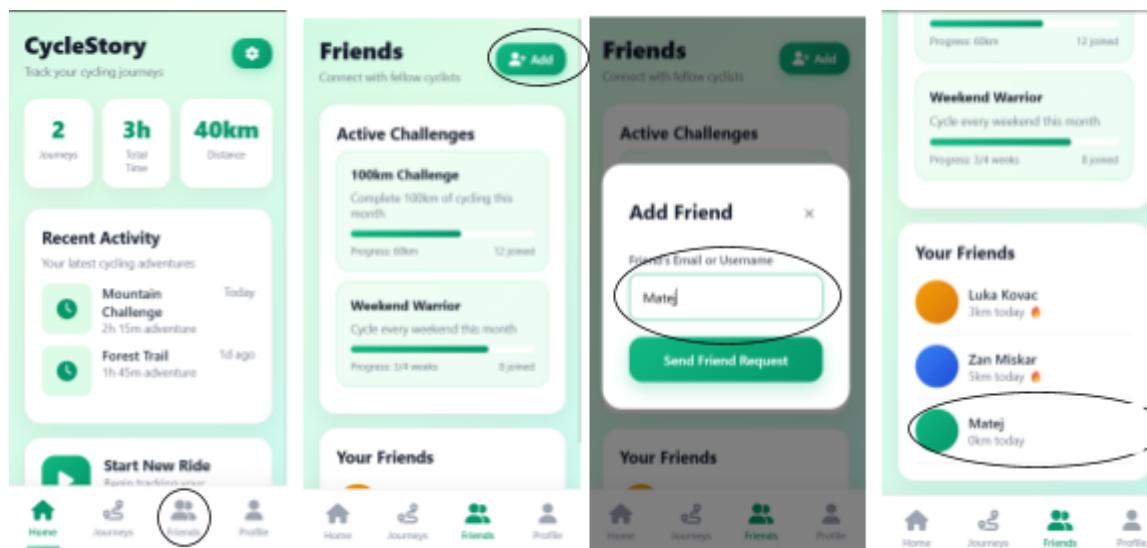
Look at the "Friends" page

Scroll down

Find "Your Friends" label

Look below and find your friends

See if your friend accepted your request



3. Task(Change your personal information in settings)(hard)

Look down at the bottom of the page

Find the navigation bar

Find "Profile"

Click "Profile"

Look at the center of the page

Find "Edit Profile" button

Click "Edit Profile" button

Find the "Name" label

Look below and find "Enter your name" input field

Enter your name

Find "Username" label

Look below and find "Enter username" input field

Enter your desired username

Find "Email" label

Look below and find "Enter your email" input field

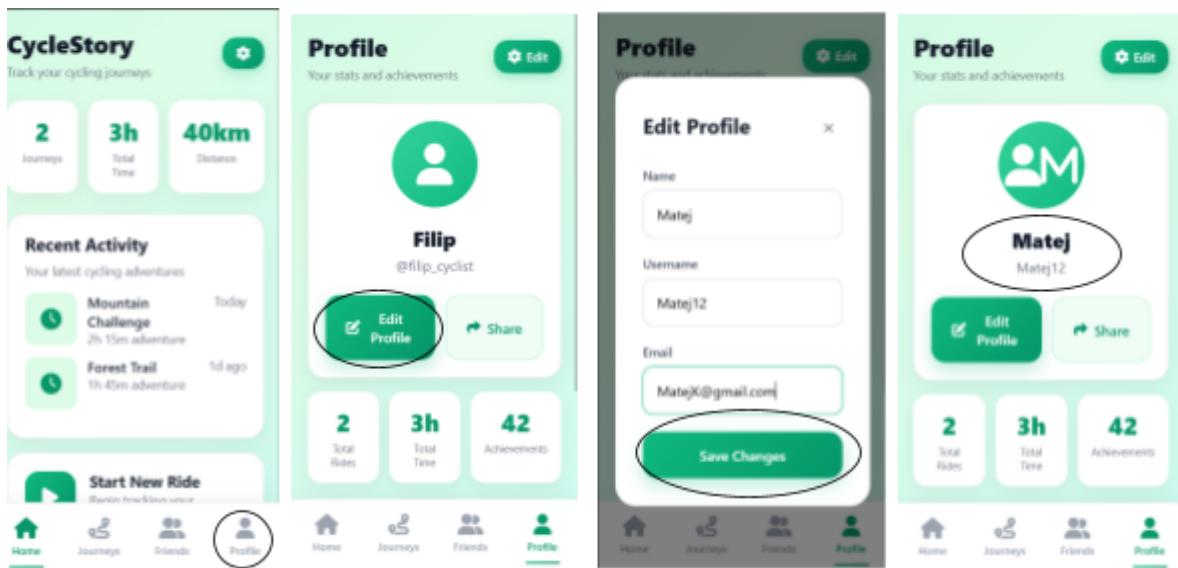
Enter your Email

Look below and find "Save changes" button

Click on "Save changes" button

Look at the profile

See the changed information



4. Task(Schedule a journeys in advance at a specific location)(Hard)

Look down at the bottom of the page

Find the navigation bar

Find "Journeys"

Click "Journeys"

Find "new"

Click on "new"

Find the "Journey name" label

Look below and find the "Enter journey name" input

Enter your journey's name

Find the "Location" label

Look below and find the "Enter location" input field

Enter your desired location of the journey

Find the "Duration(in hours)" label

Look below and find the "Enter duration" input field

Enter your desired duration of the journey

Find the "Distance(in km) label"

Look below and find the "Enter distance" input field

Enter your desired distance of the journey

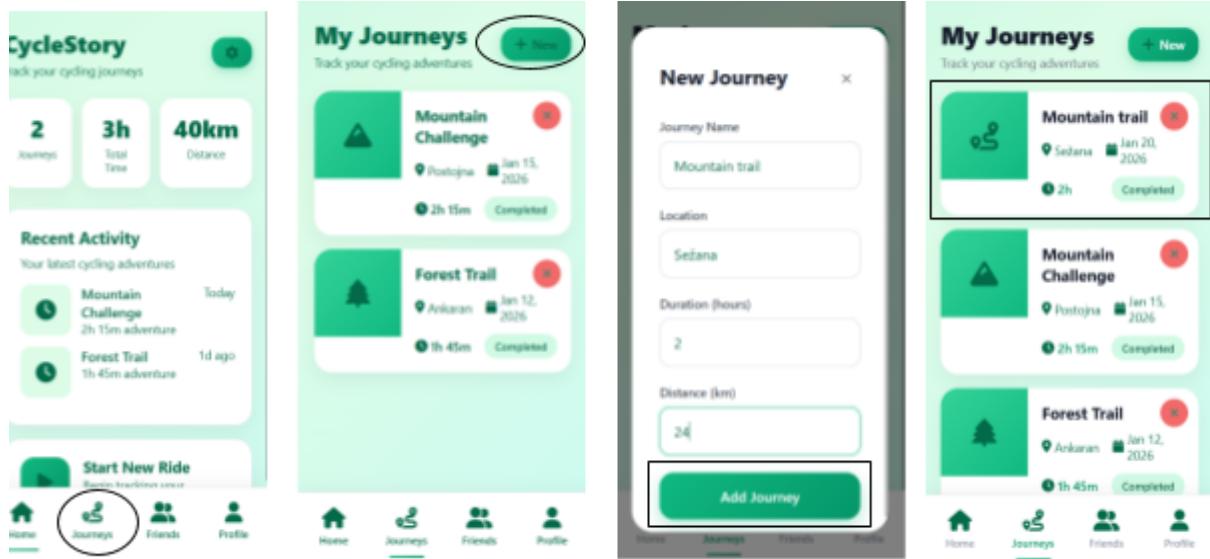
Look below and find "Add journey" button

Click "Add journey button"

Look at the journey page

Find My journeys

Look below at your created journey

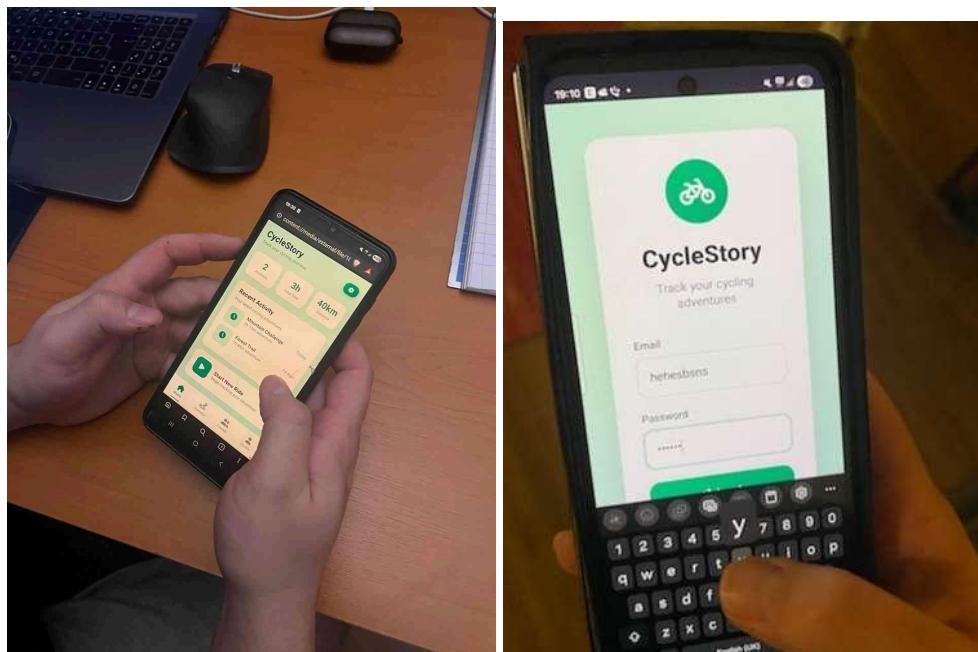
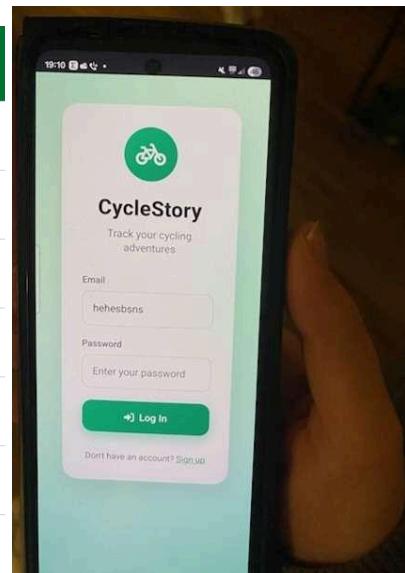


Testing: Heuristics and Usability testing

person/heuristic	1	2	3	4	5	6	7	8	9	10
person1	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE
person2	TRUE	TRUE	FALSE	TRUE	TRUE	TRUE	FALSE	TRUE	TRUE	TRUE
person3	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	FALSE	TRUE	TRUE	TRUE

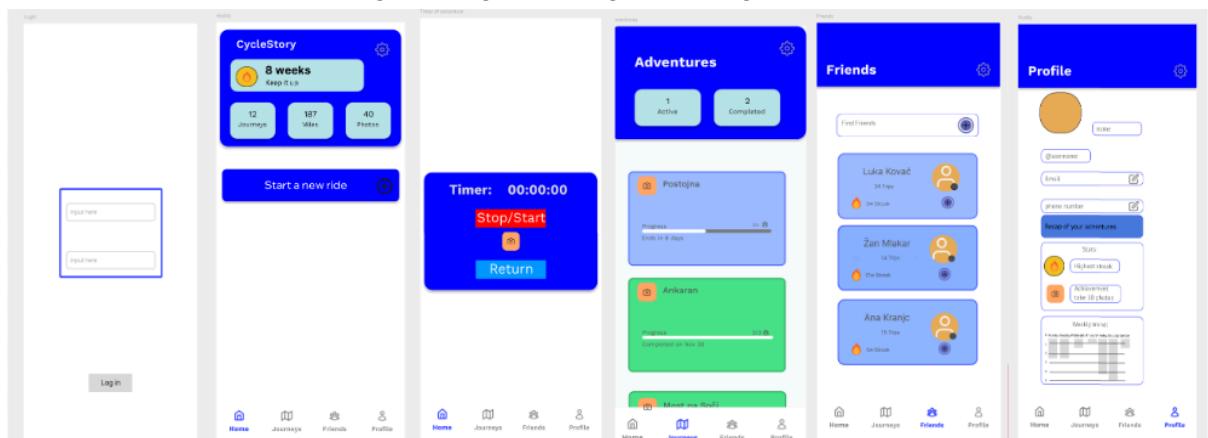
Usability testing table:

USERS	EASY TASK 1	EASY TASK 2	COMPLEX TASK 1	COMPLEX TASK 2	DEMOGRAPHIC
user 1	3s	9s	14s	30s	female, age 26
user 2	2s	8s	13s	28s	male, age 25
user 3	4s	10s	15s	31s	female, age 23
user 4	3.5s	8s	15s	32s	male, age 24
user 5	4s	8s	14.5s	31.5s	male, age 30
user 6	3s	8.5s	15s	33s	male, age 20
user 7	3s	8s	14s	34s	male, age 22

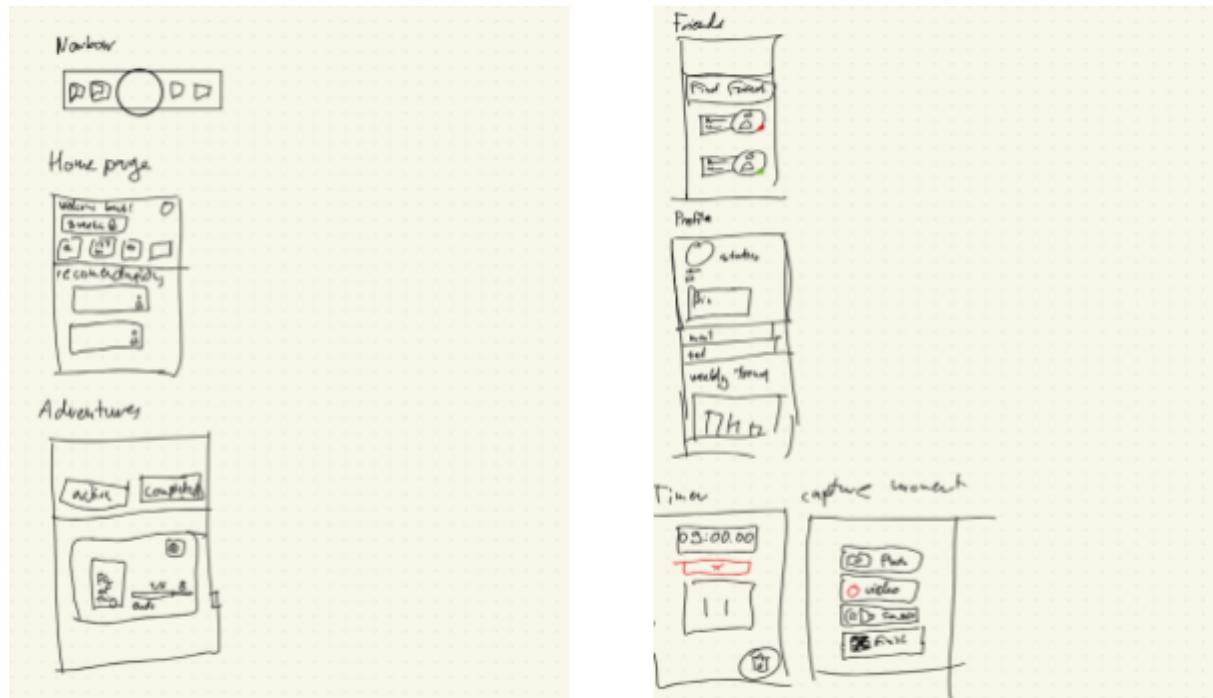


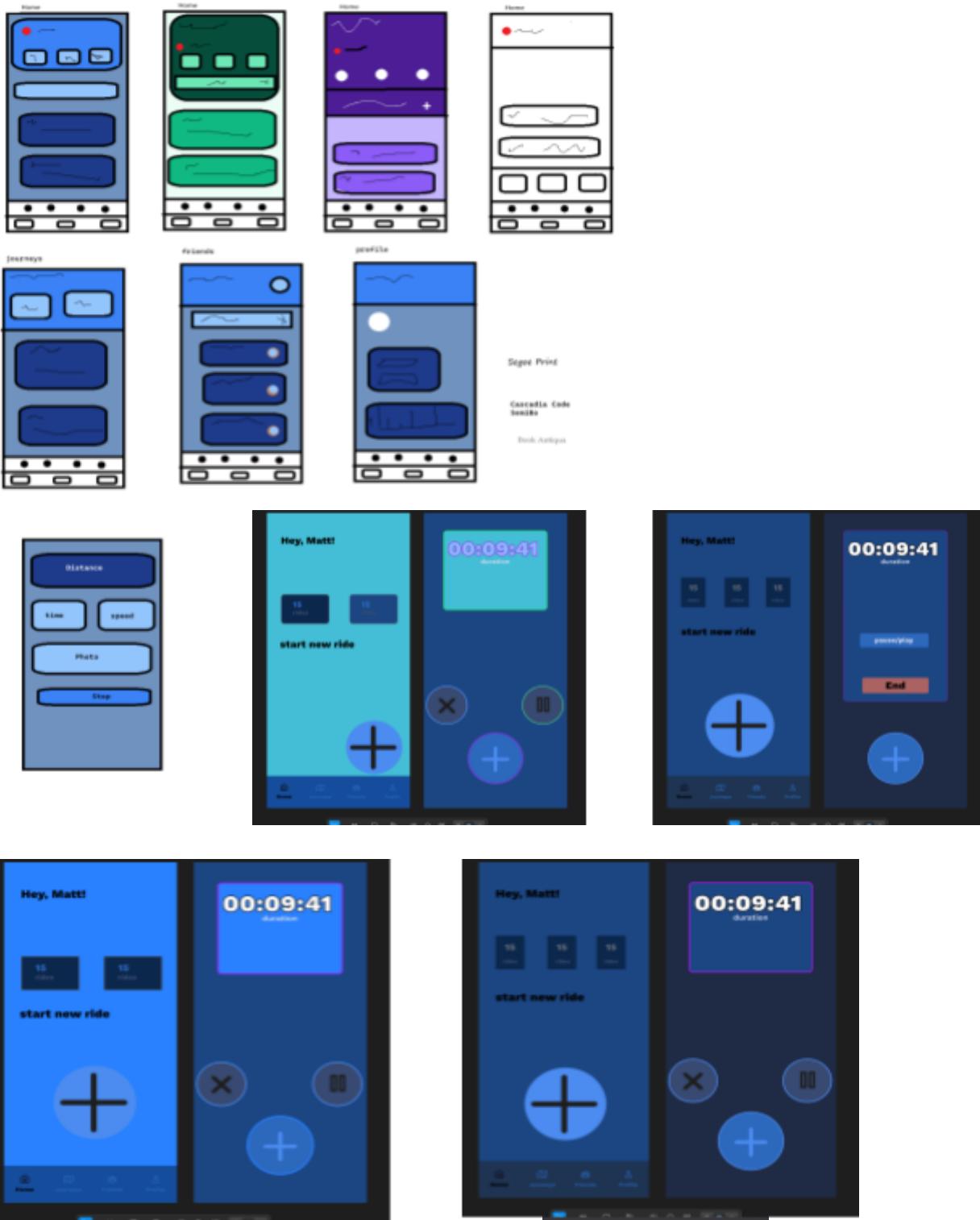
4. Design Evolution

We started with our first design during the design challenge

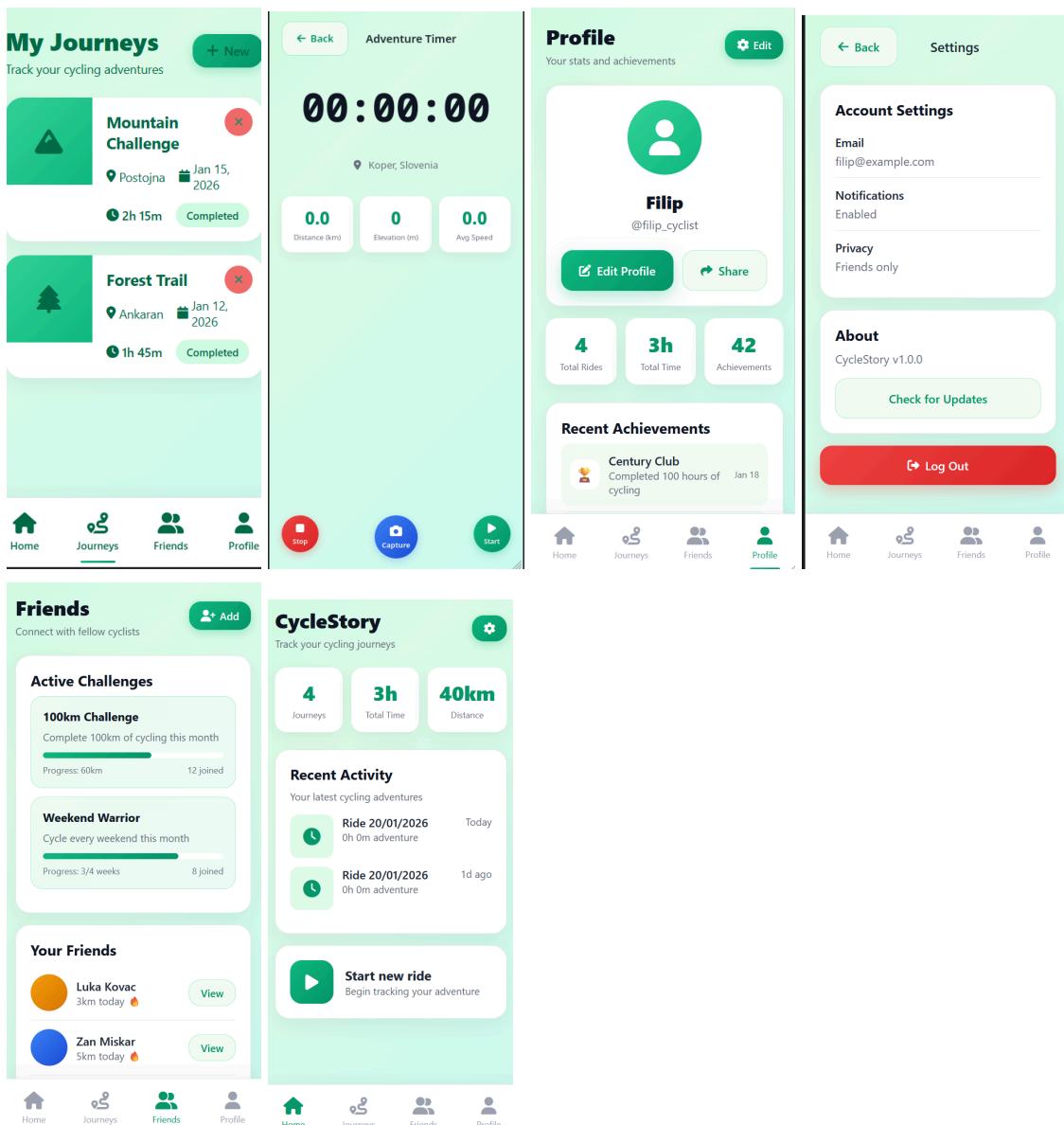


After that we decided that everyone takes time and draws out their preferred design that would work for our app:





After a discussion what would work we took some of the ideas from everyone and combined them together and got the final design:



5. Studies and Major Usability Problems Addressed

Focus group recap

For the first question, the participants were asked about their favorite experience while riding a bike. They all mostly said that nature or the landscape made it the most memorable.

They mostly said that they find cycling an activity they do on their own, especially because they want to have their "tempo" while riding, though two pointed out cycling in a group is also fun.

For the second question, they said that they mostly see that sport as an individual sport and they usually do it by themselves especially because they like to have their "tempo" while riding. They do sometimes post a photo on Instagram or share it with close friends but that is it. For the third question, they were asked what was lacking in existing apps meant for bike

riding. Those who cycled more for a hobby

and not just for sport said that they did not really use them... they did like some stats occasionally, but that was it. While one participant pointed out the problem that usually these apps need other accessories like watches or some other additional gear which is usually just another cost you really do not want

They do not really like to share their personal progress with others, and if they do, it's a small group of friends. They see that as personal stuff and they do not want to have it public. They point out here that it's not just cycling and progress in that area. but also calorie intake and weight, which most fitness apps, including those meant for cycling, support. So basically, from what we gathered it's not competition for them; it's more about their lifestyle and their hobby

In the 5th question, they all stated the same answer: that it is a recreational activity where they release their stress and get more energy out of it. For the last question, they all said that the perfect app would be an app with some stats. nothing more, with no accessories needed. while one of them stated that he finds Strava to be very good or quite decent at its job, though again he pointed out the problem of having accessories that are needed for some apps

To ensure that no participant would influence others' answers, the order of asking them was mixed for every question

Recording:

https://drive.google.com/file/d/1fSwDa0oR72ykx7x269GoES_PFMGmULfO/view?usp=drive_link

Heuristic evaluation

person/heuristic	1	2	3	4	5	6	7	8	9	10
1	FALSE	TRUE	FALSE	TRUE	TRUE	TRUE	TRUE	TRUE	FALSE	TRUE
2	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	FALSE	TRUE	FALSE	FALSE
3	TRUE	TRUE	FALSE	TRUE	TRUE	TRUE	TRUE	TRUE	FALSE	TRUE

Person 1: Comment on 1st: Moment point detection is not necessarily look like a clickable button; Comment on 3rd: Only accept option but no way to exit or challenge on the picture; Comment on 9th: No error messages (still prototype)

Person 2: Comment on 7th: missing personalisation for color; Comment on 9th: no error messages; Comment on 10th: missing the documentation and help feature

Person 3: Comment on 3rd: No way to choose other option (can't deny); Comment on 9th: no error messages
(People asked wanted to stay anonymous)

Usability testing:

USERS	EASY TASK 1	EASY TASK 2	COMPLEX TASK 1	COMPLEX TASK 2	DEMOGRAPHIC
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user 6	3s	8.5s	15s	33s	male, age 20
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So to summarize the above. We did usability testing. For the user study with focus group participants went smoothly without issues. The participants gave us varying opinions from their experience. From professional to casual cyclists each preferring different things. However in the end the casual cyclists mostly agreed on using it more as logging activities rather than complex features. However the professionals stated that they would like more statistics and integration with other products. The latter we sadly couldn't implement in the final project but it would be in our consideration if we decide to move on with the project. However on the heuristics part the prototype lacked error prevention and help / user guidelines. Also some features were not implemented correctly such as switching between the capture moments and home page.

We have also decided to change out the color scheme to green since it represents nature and is more pleasing to the eye. Furthermore we changed the design a bit with the mass production of designs in a short time and decided to combine it into one nice looking interface. Finally the project was improved up from high fidelity to the actual app so the camera now works and adding the journeys is seamless. The stats update as well, and so does transitions between the pages.

6. Prototype Implementation

6.1. Tools Used (How the Prototype Was Built)

For the first iteration of the design sprint, the Figma environment was used to create low-fidelity and somewhat interactive prototype. This allowed us to quickly explore layout ideas, navigation flow, and core features without any technical constraints.

After receiving feedback from heuristic evaluation, Figma was used again for a second iteration to fix design mistakes, improve usability, and enhance visual consistency like spacing, component placing.

For the final prototype, we have implemented the application using HTML, CSS, and JavaScript, enabling a more realistic and finished look and better interactive experience with various components.

We used GitHub for version control and file sharing. This allowed us to work faster and more efficiently. The application is hosted on GitHub Pages, allowing easy access through a web browser without installation. This made testing, sharing, and evaluation straightforward.

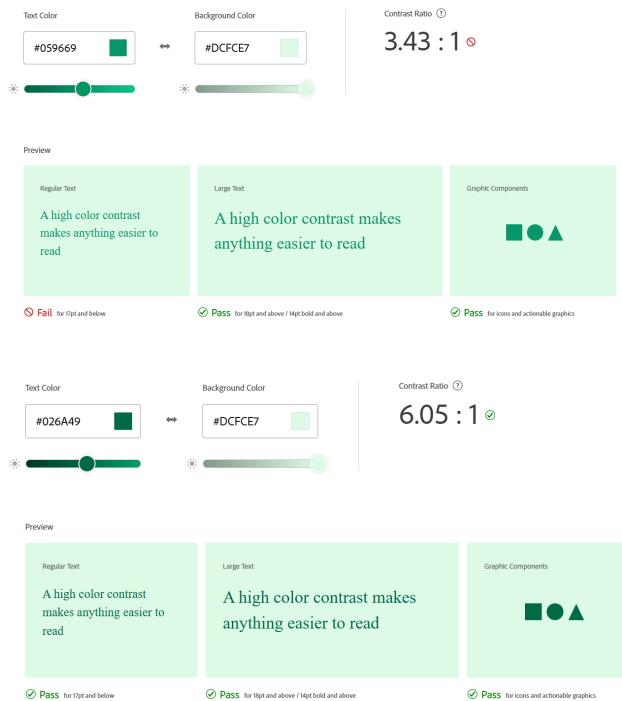
Adobe Color was used to select color palettes. Additionally, numerous YouTube tutorials related to UX/UI design were consulted, focusing on layout, spacing, component positioning, and color usage.

6.2. How the Tools Helped

Figma was particularly helpful during the early stages of the project. It enabled rapid prototyping, easy iteration, and early identification of usability issues, which saved development time later.

GitHub and GitHub Pages significantly improved productivity. GitHub simplified collaboration and change tracking, while GitHub Pages enabled fast deployment and easy sharing of the prototype, allowing quicker feedback cycles.

Adobe Color helped ensure proper contrast and visual balance, reducing guesswork in color selection. The knowledge gained from YouTube tutorials influenced design choices and helped the team follow common UX/UI best practices, improving the overall user experience.



6.3. UI Components

The prototype uses common mobile app UI components: (A bottom navigation bar for main app sections, card-based components for journeys, friends, profile information, and actions, action buttons visually distinguished from informational cards, spacing).

This structure improves clarity, consistency, and ease of use.

6.4. Interaction Design & Visual Design

We were focused on creating a simple, modern, and intuitive design. Cards include hover effects that add a shadow when interacted with, providing visual feedback. Transitions and spacing were designed to guide user attention and reduce cognitive load.

All components follow a unified design system with consistent spacing, typography, and color usage. A single font was used throughout for simplicity. Green was chosen as the primary color due to its association with sport, health, and its calming effect on users.

6.5. Hard-Coded Data

Several elements rely on hard-coded data: (2 journeys, 2 challenges, friends lists, user profile information, location detection). We used hard-coding as it has enabled us faster development of the app. Of course in end application those elements would work and would be loaded from database.

6.6. Wizard of Oz Technique

We have used WoZ technique on feature that could not have been implemented fully at this stage. Real-time location detection is not supported, instead predefined location data is used to create the illusion that location detection is working. This approach helped us communicate the intended concept despite technical limitations.

6.7 Technical Challenges

Perhaps a major challenge was lack of database support on github pages, because of that we had to implement everything in one file. The file then temporarily for the time of users session stores data in javascript code. And this way we created a feeling that there is an actual working database.

The prototype is intentionally limited in scope and is designed to demonstrate the core concept, user flow, and interaction design rather than a complete system. Some features, such as location tracking and data storage. The goal was more to actually show what application could become.

6.8 Missing Features and Future Improvements

Future improvements include: (Real-time location tracking, server based database, user authentication)

A full version would use a client–server architecture, with HTML, CSS, and JavaScript on the client side and a backend solution such as Node.js with a database to manage users and journeys.

7. Summary

All in all we learned a lot throughout the process. From analyzing persona to analysing people's behaviours to making our first prototype. Than we improved that prototype to high fidelity prototype and finally the working app. There were a lot of struggles of along the way such us organising focus groups. But all in all it paid off.