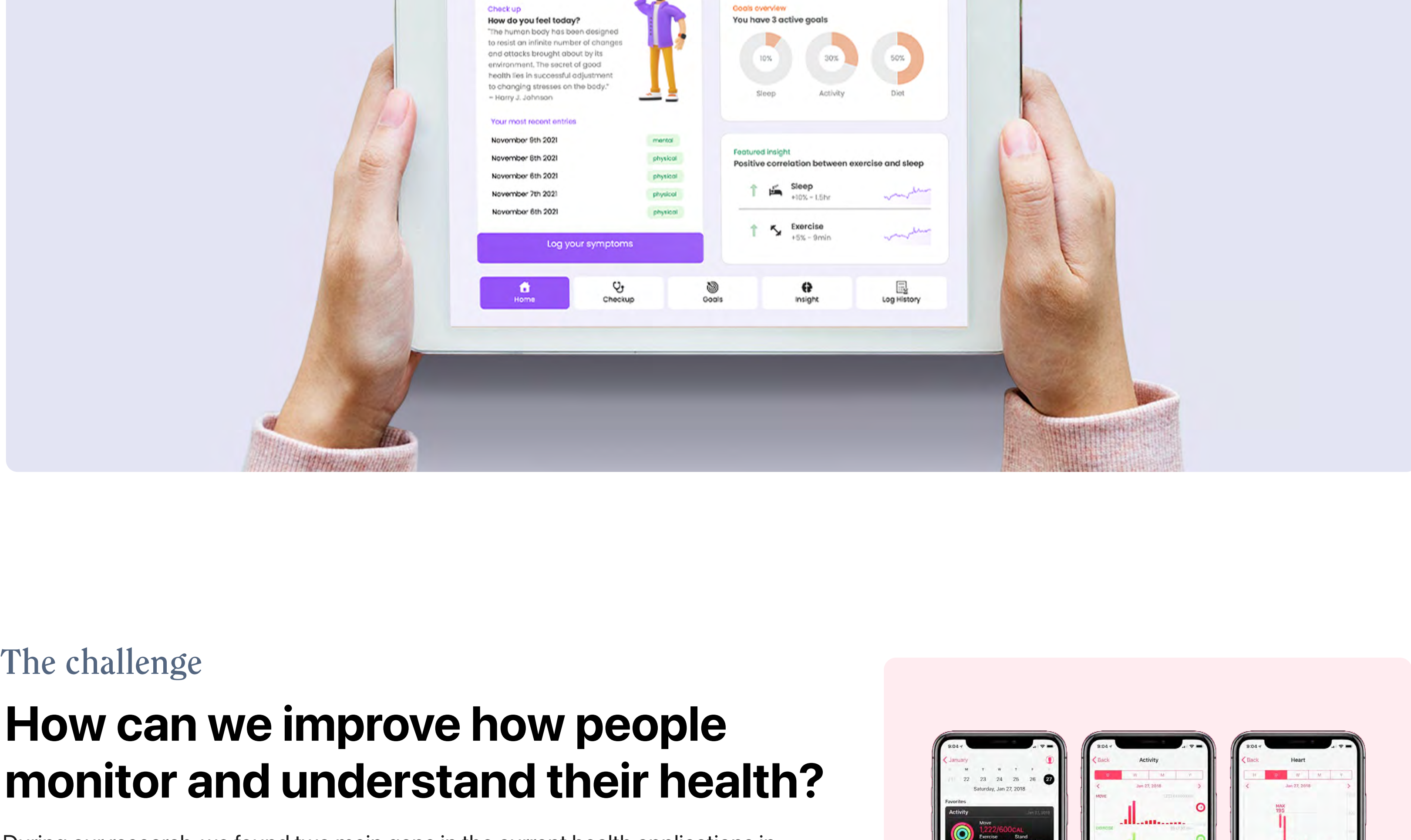


Re-envisioning how we use personal health data tracking for behavioural change

Web App Course Project 4 months Branding, UX Design, and Front-end development

Figma Webflow HTML/CSS JS/JQuery Bootstrap



The challenge

How can we improve how people monitor and understand their health?

During our research, we found two main gaps in the current health applications in the market. First, most health trackers using smart watches, or cellphones only provide you with numbers, graphs and statistics about independent factors such as your heart rate, blood pressure, and exercise duration, when in fact, **those factors can be dependent**, and could be presented as such for better connected data.

In addition, although such statistics can unveil some important insights about your healths, most applications **do not provide personalized suggestions** about what factors you would need to change in your lifestyle to improve your health.

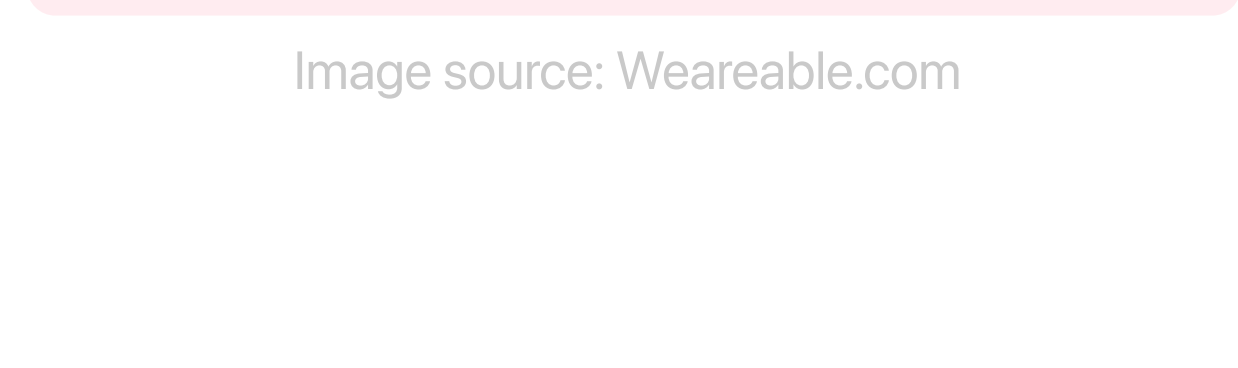
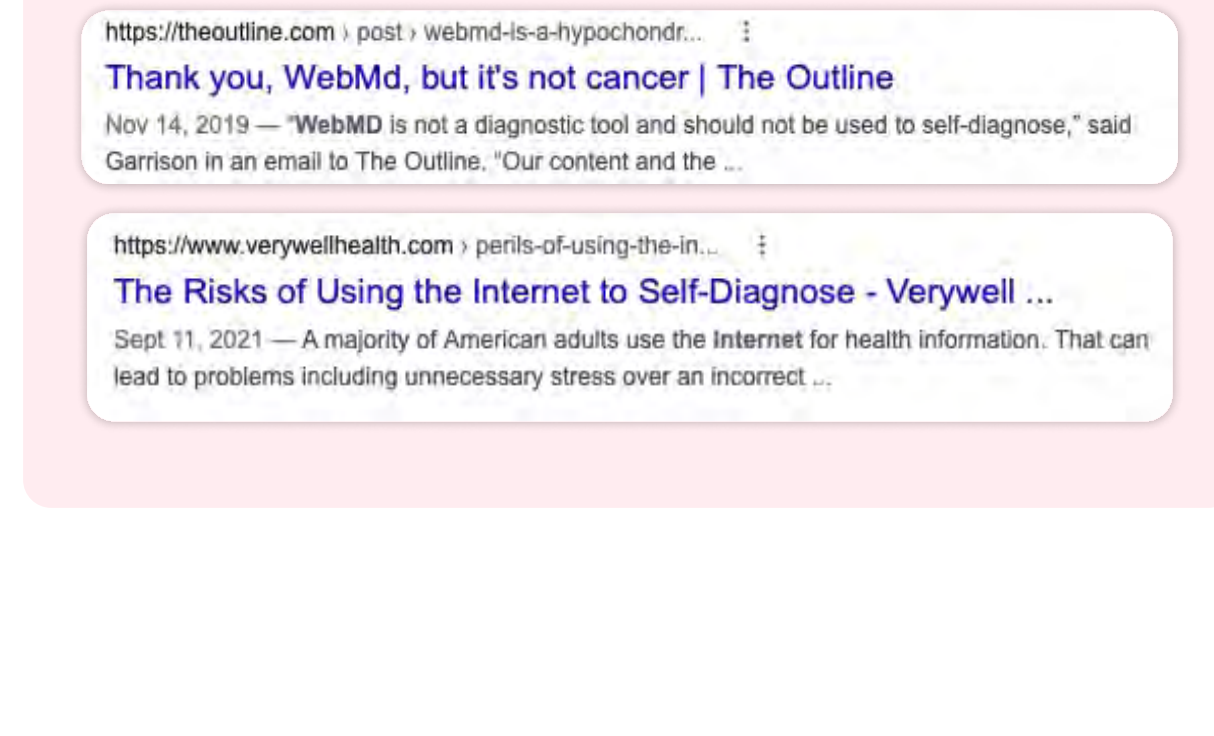


Image source: Wearable.com

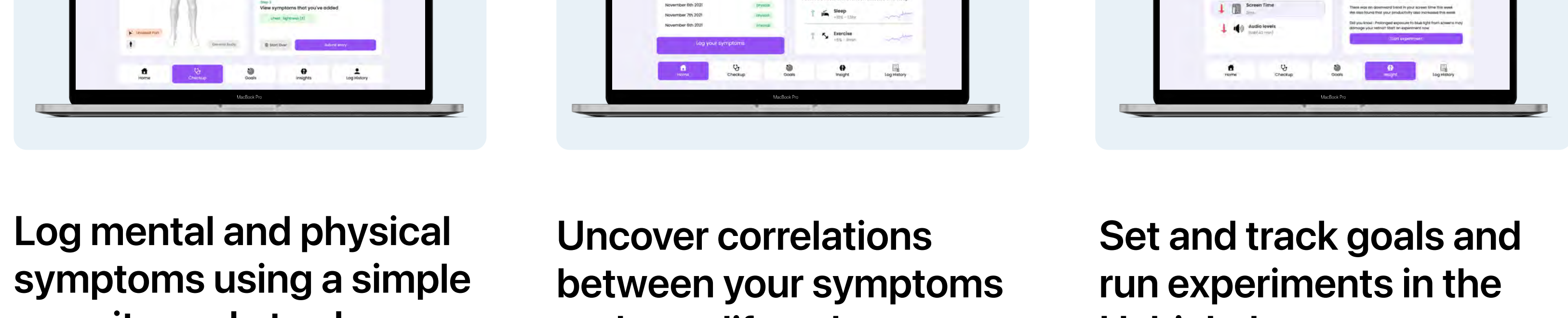


Secondly, many people, especially those without caregivers often struggle to keep track of their health symptoms, as there's no digitalized way to store their symptoms, how often they occurred and how severe they were.

Our research showed that currently, there's no apps or websites on the market that one can use to **safely and accurately** monitor one's health and symptoms, and symptom checkers focus on providing a diagnosis, which has been very problematic as it leads people to self-diagnose rather than aid them in getting help they need.

The solution

Going beyond metrics, to understand lifestyle impact on health and model behavioural change outcomes using connected data



Log mental and physical symptoms using a simple severity scale to share with your doctor

Our solution is a Health Tracker, and analysis app, that allows users to track their symptoms using a medical severity symptom scale and a 3d human figure with an extensive list of symptoms, in order to have accurate, quantified and descriptive data presented to their doctor in the form of an exportable log in the app, rather than relying on memory to recall how they've felt.

Uncover correlations between your symptoms and your lifestyle

The app's technology can uncover correlations between the logged symptoms and data the user chooses to share from third-party apps such as their fitness app or device, music app, screen time and more. This mobilizes the concept of Ubiquitous computing to interconnect all areas of life to a user's health by using data that is often overlooked, and may have significant impact on a user's mental or physical health.

Set and track goals and run experiments in the Habit Lab

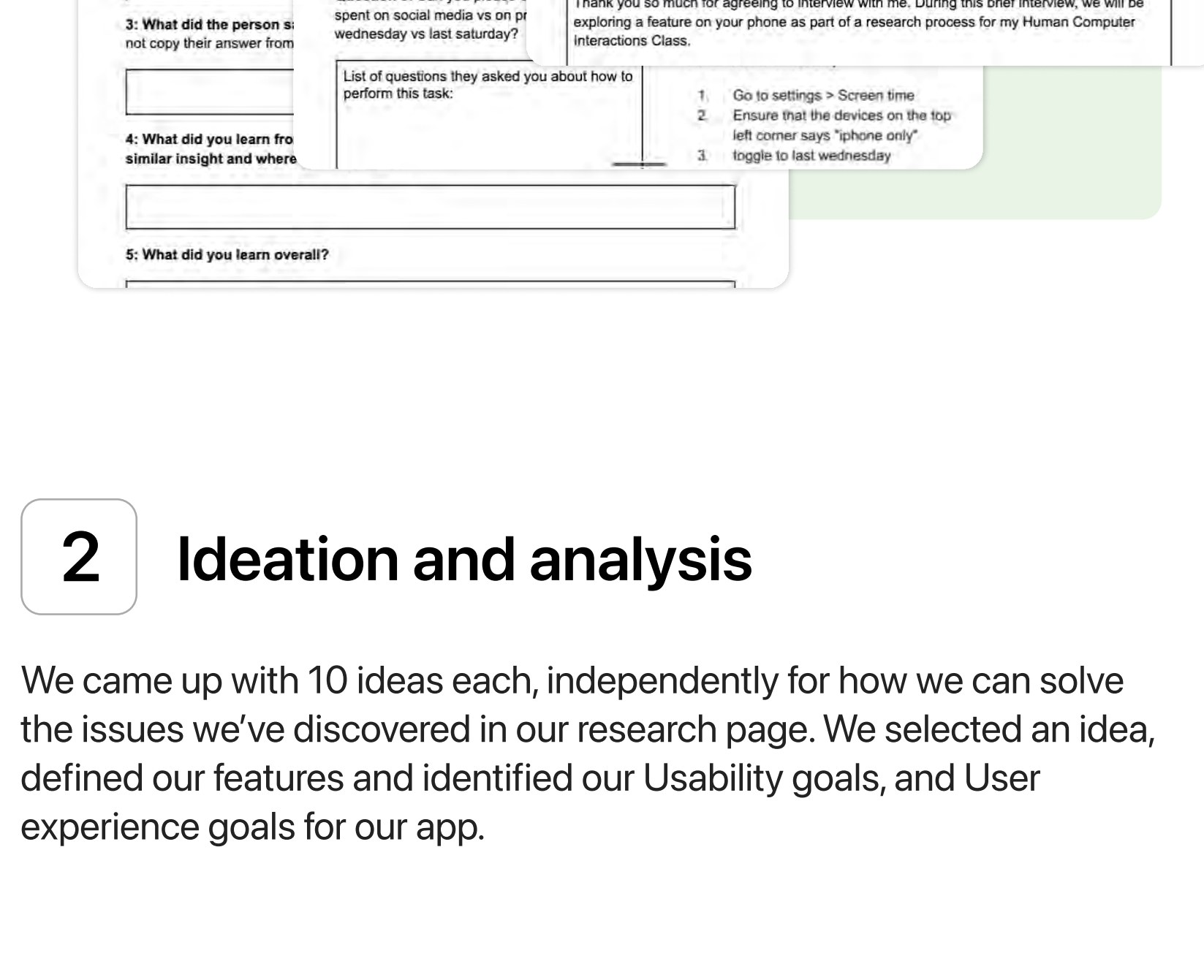
The app supports the user in improving their health by providing them with suggested Experiments that they can choose to run to test if a correlation can be a cause of a certain symptom by measuring how changing an isolated factor would affect the symptoms.

The process

A step-by-step overview of our design and development process

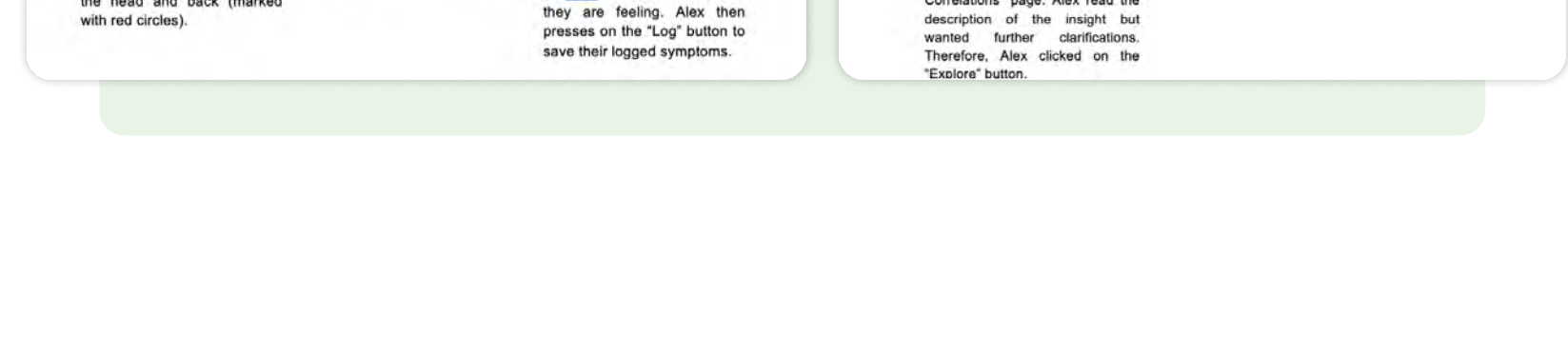
1 Investigation and research

Our team formulated an interview and surveyed a diverse group of participants to learn more about their experience with the health apps that they used. Our team identified areas that we can target to improve, such as poor data visuals, difficulty of navigation and more.



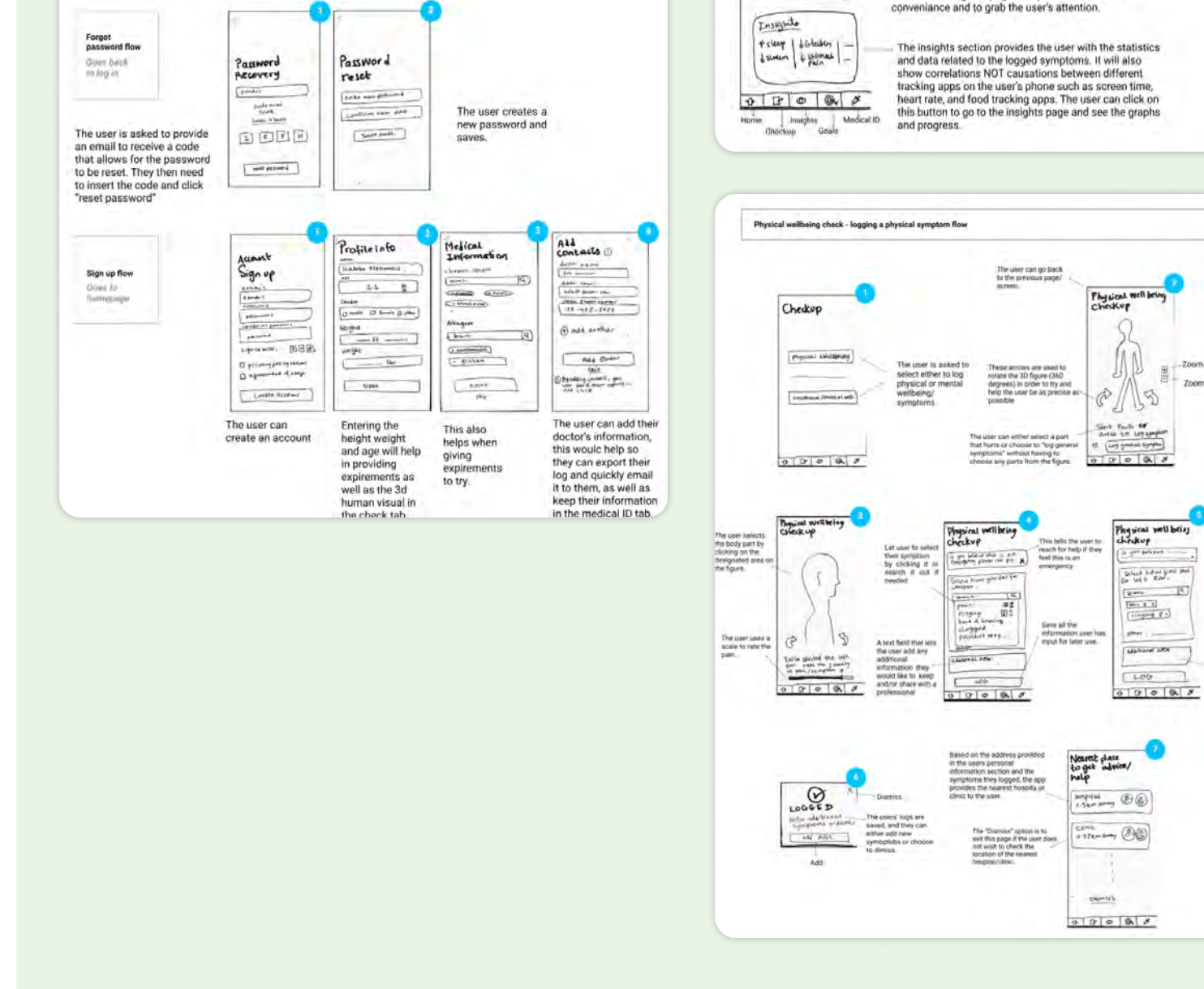
2 Ideation and analysis

We came up with 10 ideas each, independently for how we can solve the issues we've discovered in our research page. We selected an idea, defined our features and identified our Usability goals, and User experience goals for our app.



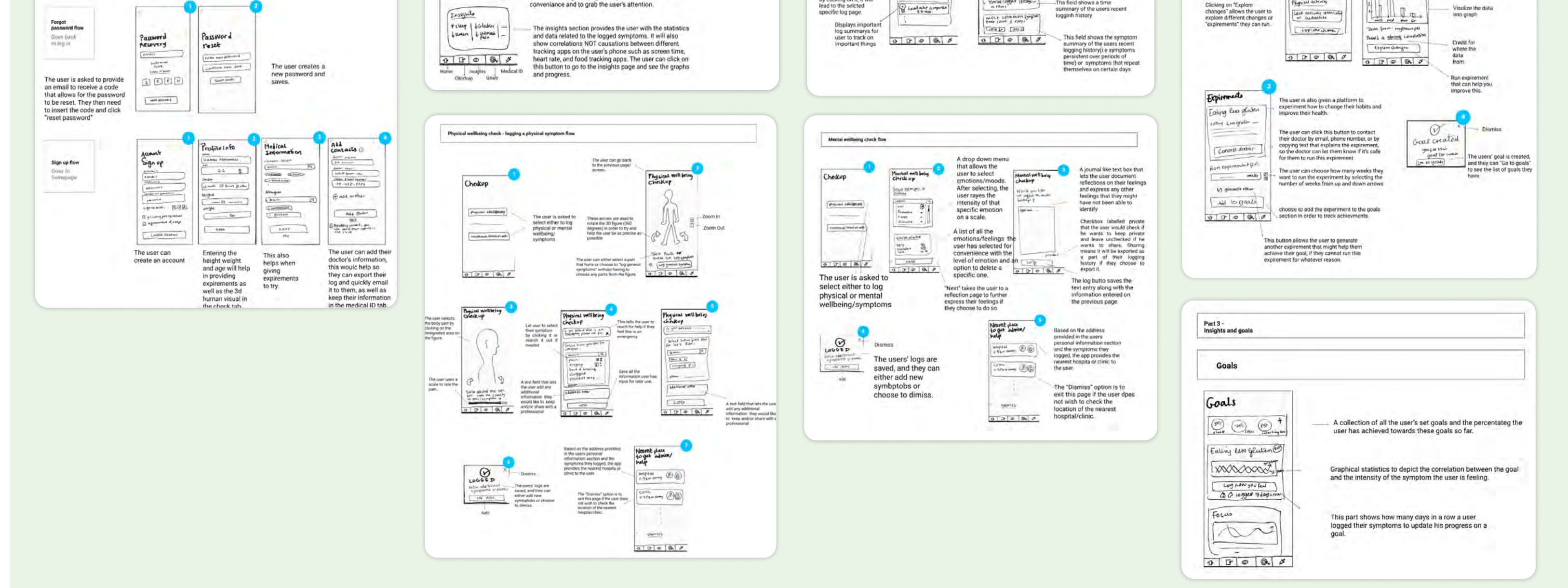
3 Storyboarding

The team came up with multiple storyboards to explore different use cases/scenarios where the app could be used. To the side you can see a sample storyboard created by our team.



4 Low-fidelity paper prototype

We created low-fidelity paper wireframes to further test and evaluate our idea with faculty members, other students in our course and participants we've recruited. We also created this [10 minute video exploring every screen and feature in detail which could be found here](#)



5 Evaluation and Iteration

After completing the paper prototype, our team gathered feedback and tested our prototype to check if it meets our **usability and user experience goals which are** learnability, efficient, feeling, and helpful.

Change: In the next iteration, the most significant change we made from our paper prototype was deciding to **change our app from being a iOS mobile app to a web app**. We made this decision as it allows us to use bigger fonts, a larger display and a wider access for those without smartphones, or do not have Apple Devices. We therefore decided to prioritize app accessibility and switch our solution to a web application.

Change: Another change we made in our design was **changing "profile" tab to "log history"** in the navigation bar as we found this modification to be in favor of better learnability, and efficiency as it makes the log history easier to access, especially in the case where a user needs to quickly access their log in an emergency situation.

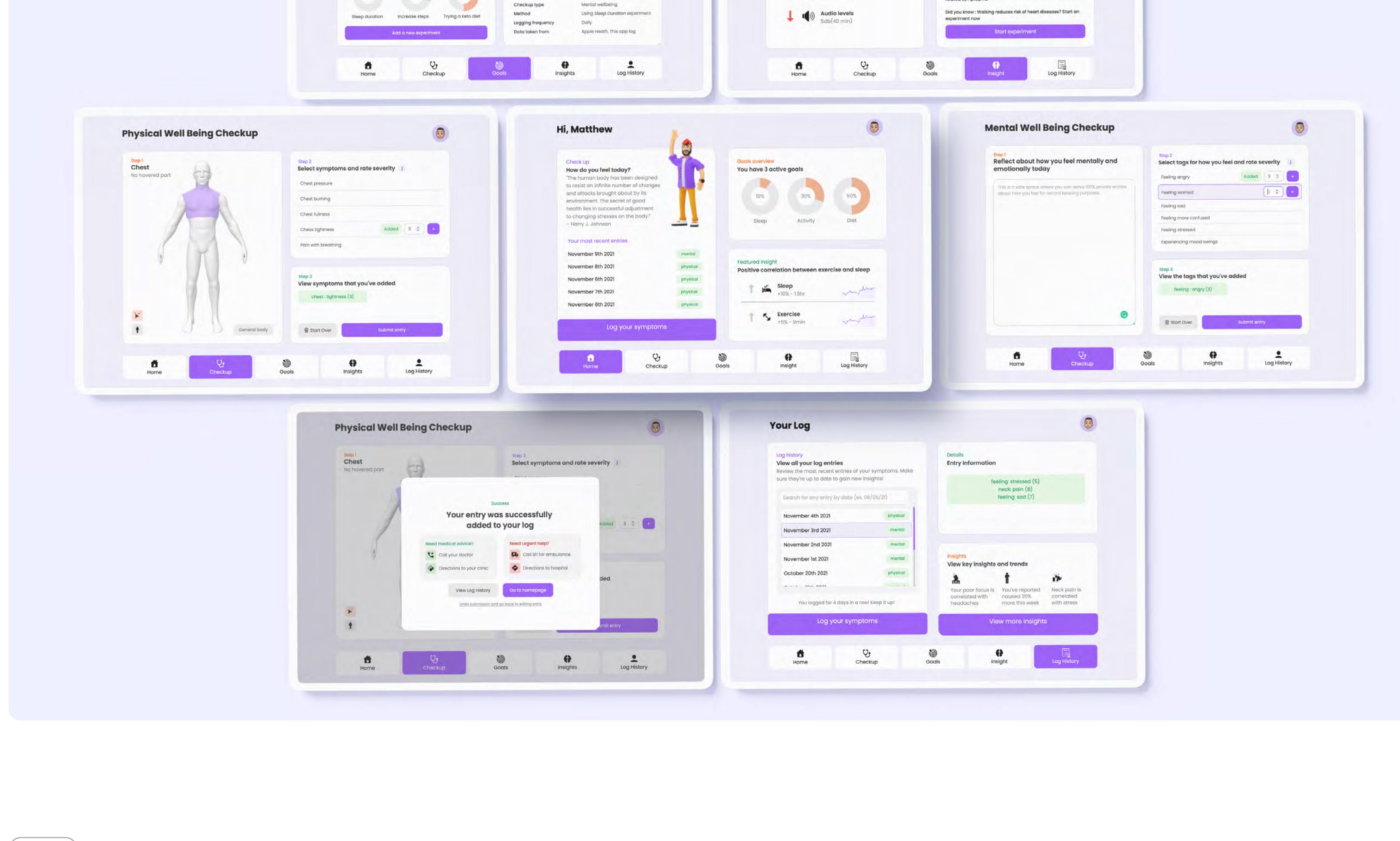
6 High fidelity prototype

Our team created the high fidelity prototype using Webflow. We collaborated on developing this using VScode, and github. All data was JQcoded for the purposes of purely testing the design. However, each component/page was functional. Due to time limitation, some pages such as the profile page were not developed. [You can click here to view and interact with our live prototype on your browser.](#)

Problem: On the goals page, the user is not actually given full or clear help/guidance on what a page is supposed to do, or a feature means. We found that because of the lack of help text on that page, many users don't fully understand the difference and relationship between Goals, Insights, Correlations, and Experiments. **A solution** would be adding a help icon on every page to provide some important definitions, resources, etc.

Problem: On the goals page, when a user selects on generate a new experiment when creating a new goal, they are redirected to the experiments page. There's no way for them to get back to the new goal form without losing their progress. This issue of lack of visibility of system status leaves the user confused as to where they were redirected to, and what happened to their progress. **A solution** would be to improve navigation by including breadcrumbs, **and by** autosaving forms in the backend.

Problem: When a user adds a symptom, they cannot delete the symptom without a starting over. This can mean many users might get frustrated with having to restart their work. **A solution** would be to add the option to double click on a symptom to **delete it** or by including a confirmation dialog before submitting the form where users can edit their added symptoms.



5 Heuristic Evaluation and reflection

Our heuristic evaluation method, conducted by 5 different evaluators, incorporated Nielsen's Ten Heuristics to identify usability violations within our system. Each evaluator carefully walked through the entirety of the high-fidelity prototype, reporting any violations and categorizing them into one of the heuristics defined by Nielsen.

Some of the areas of improvement we've discovered through this evaluation have been the lack of help text on some pages, visibility of system status, and tools to recover from errors. For example:

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Outcomes

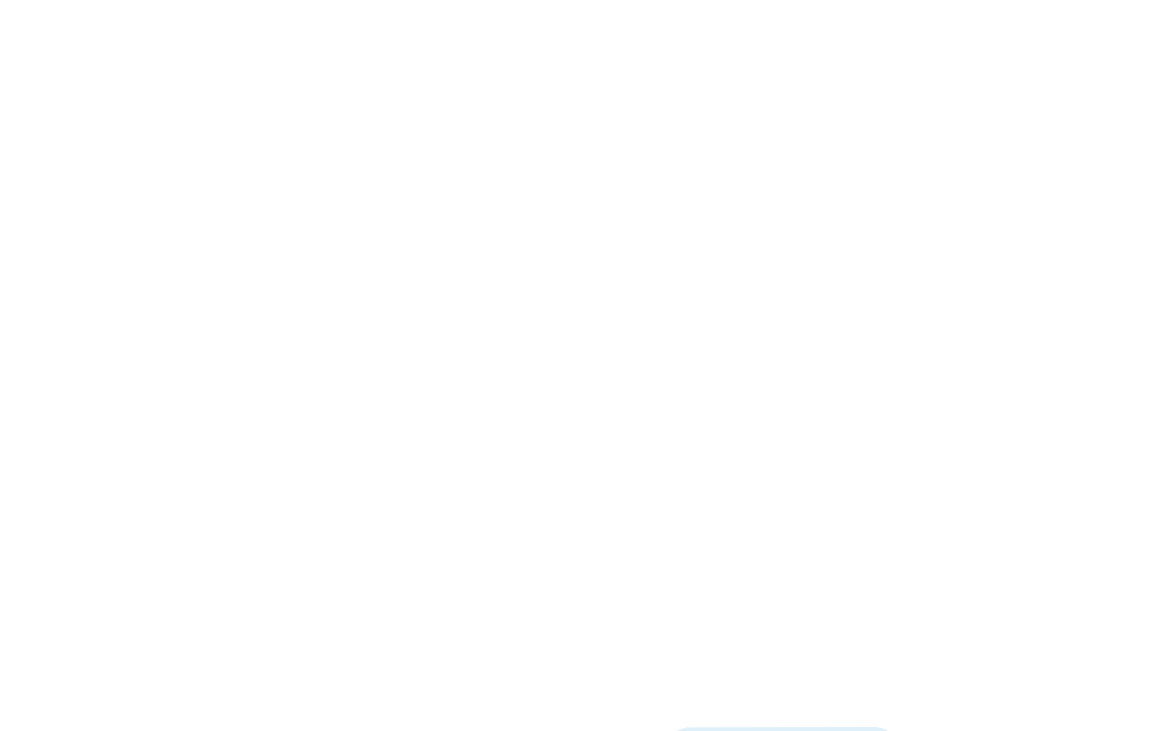
Moving forward with developing the product

Our team earned one of the **highest grades in our prototype submission**. The feedback we received from our university, professor and TA has inspired to **fully develop the prototype**, and potentially launch the project to the web soon to support those who need the services. Development has not yet started.

Behind the project

A great Human-computer interactions course at the UofM

As part of a Human-Computer Interactions course at the University of Manitoba, our team of 5 students was responsible for designing and implementing a High Fidelity prototype to evaluate how we can use technology, created with good HCI practices and design to change how humans interact with their personal health data.



The team

Project contributors

