

Balance

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Overview

Creating and accomplishing goals can be a great way for people to heighten their enjoyment of life and create a feeling of accomplishment. However, it can be difficult to balance working on one's goals and taking care of other life necessities such as sleeping, socializing, and relaxing. Our design integrates the process of creating and working through goals with a healthy, happy lifestyle. Instead of focusing solely on accomplishing a goal, the design emphasizes attaining a greater sense of wellbeing through working on goals in conjunction with other aspects of their lives.

Design Research - Goals, Stakeholders, Participants

We chose to interview four participants who were all either in college or had recently graduated. We specifically chose people between the ages of eighteen and twenty-five because we wanted to focus on a group of people who have similar time commitments and therefore may have some of the same barriers to achieving their goals. For example, people who already have children will need to spend extra time caring for their children, whereas students and younger professionals have more time to devote to their goals, but we hypothesized that they may have built the habit of procrastination and may need a design that could focus on this habit or on other needs that we would find through our research.

As for the specific four participants whom we chose, they were chosen because they all fit into the broad age range that we wanted, had all had some amount of formal higher education and therefore would have had similar environmental pressures as they were forming habits after leaving the household and beginning their adult lives, and they all felt that their physical health was important for their well-being; we wanted to

emphasize goals involving physical fitness in our design, so interviewing participants who viewed physical fitness as important to them and who may have set fitness goals in the past allowed us to further define our focus group.

However, after this point, we intentionally chose participants with different backgrounds to make sure that we were receiving appropriately diverse opinions. We interviewed participants who had different levels of physical fitness and who prioritized it differently in their lives, as well as participants who had tracked different fitness goals and done so in different ways so that we could receive the most diverse, while still focused, range of information.

We chose to do interviews because we found that it was the most effective way to receive large amounts of information. Since goal-setting and goal progress are not inherent to any one environment, it was difficult to think of a good environment for a contextual inquiry. We considered doing a diary study to learn even more from our participants, but only one of the participants was actively pursuing a fitness goal at the time.

Design Research - Results and Themes

We hadn't anticipated that young professionals and students would all be pressed for time - each participant listed lack of time as a hurdle to reaching their goals, and when we asked further, we found that students in particular felt that their chaotic class schedules, with each week having different deadlines and amounts of work associated with it, led to participants pausing their goal progress during chaotic weeks, and generally those paused goals were never resumed.

Additionally, several participants felt that the goal-setting process was too overwhelming. The participants in question said that although they had exercised before, they still felt overwhelmed by the sheer amount of information surrounding exercise, from how long one should exercise to how intensely one should exercise to which exercises one should do. The participants said that they found it hard to set goals given this barrage of information, and one participant added that it even made her lose motivation more quickly because she felt as though she had not chosen the best goal and was not making fruitful process.

Two of the participants had used technology to track their goals via apps and smartwatches. After being asked further about their use of technology to track goals, the participants said that they had used apps and smartwatches that had simple

interfaces and input options. The other two participants said that they had chosen to simply track their progress in their heads without using any external resources.

Finally, participants said that they found a fitness buddy helpful to working toward and achieving their fitness goals . Participants listed various reasons that their fitness buddies were helpful, including increasing the enjoyability of exercise, increasing the priority of exercising, and simply serving as a persistent reminder. However, participants also said that fitness buddies were difficult to coordinate with, and because of this they often chose to not workout with a fitness buddy despite the benefits of a fitness buddy. Not only was scheduling difficult, but simply finding someone who was working toward the same goal and who was enjoyable to workout with was also a challenge.

Answers to Task Analysis Questions

1. Who is going to use the design?

Anyone who wants to find a healthy balance in working on physical fitness and taking care of other important aspects of their lives including diet and sleep. Our design especially targets those who feel held back by their time availability and motivation.

2. What tasks do they now perform?

They can set fitness goals and record them on paper or via mobile apps and set reminders to work on those goals. However, goal tracking is limited and reflection is often overlooked.

3. What tasks are desired?

Easy, quick ability to enter, track, and complete fitness goals as well as to track wellness data (sleep, water intake, etc.). Easy way to enter metadata about how working on each goals makes the user feel. Simple way to log information such as heart rate and sleep status. Some way to contact and coordinate with friends who also want to achieve these goals, as well as the ability to leverage other trusted and reliable people working on similar goals for advice and expertise. Reflect on how the different tracked aspects of one's life are affecting things like mood.

4. How are the tasks learned?

The first time that each aspect of the design is used there will be a small pop up message explaining how to interact with that specific page of the design. We will also have a broad walk-through about the general features at the customer's disposal and how to get started the first time they use our design. The UI will stick to common design principles to make it intuitive for new users.

5. Where are the tasks performed?

The design will likely be an app, allowing people to perform these tasks anywhere and anytime, making the design very convenient. They will also be able to easily input more complicated data to track that we may not be able to track through a wearable, such as mood, or description of feelings. Other than a phone app, we also plan to design a smart watch app that help to track some metadata such as sleep status and heart rate. Because the software will be running on mobile devices, the tasks can be performed anywhere the user is.

6. What is the relationship between the person and data?

User data is collected as people go to workout. Heart rate, personal location and destination data is stored privately for each user and is not shared. The person can see basic visualizations of their data and overviews of how the data has changed over time.

7. What other tools does the person have?

Most people have access to various fitness applications on their smartphones or smart watches even though most of them are not great fits. The apps tend to not put any emphasis on reflecting on progress or the lack of it, which is very important for improving. Some people also motivate themselves by watching inspirational videos, talking to friends, trying to find fitness buddies at school or work, etc.

8. How do people communicate with each other?

People can be matched and then communicate with their workout buddies whatever way they see fit. We will have a built in chat or discussion board centered around certain goals people are trying to accomplish, so that like-minded people can help each other out, keep each other accountable, as well as have a sense of community.

9. How often are the tasks performed?

It depends. Some people may want to track their goals everyday, however, due to various reasons such as time limitation, physical injuries, lacking of motivation, etc., some may want to limit it to 2-3 times a week, and others may be working

on long term goals which may require a commitment of 1 day a week or less. We still want to make sure we're emphasizing consistency over sporadic progress.

10. What are the time constraints on the tasks?

It depends on the fitness goal they're working on. For going to the gym, transportation, exercise, changing clothes, and showering can all add up to over an hour. Whereas for improving diet, users just need to be mindful of what they're putting into their bodies, which has a minimal time commitment. Regardless, the users must have some free time for the tasks.

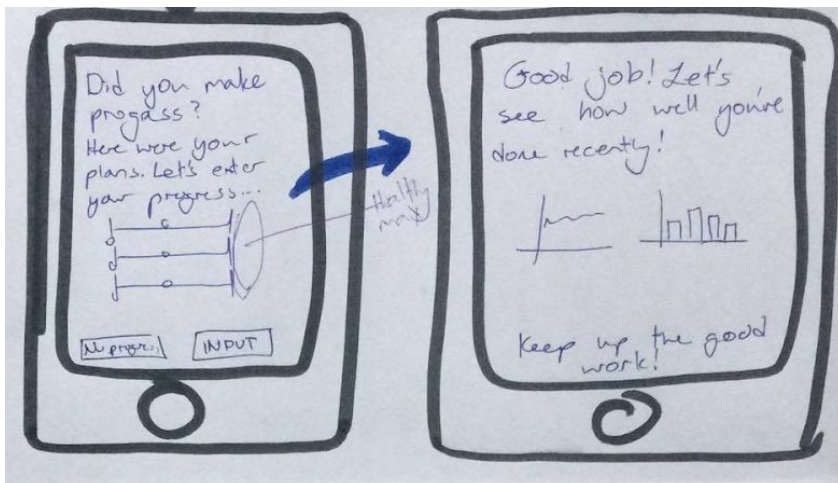
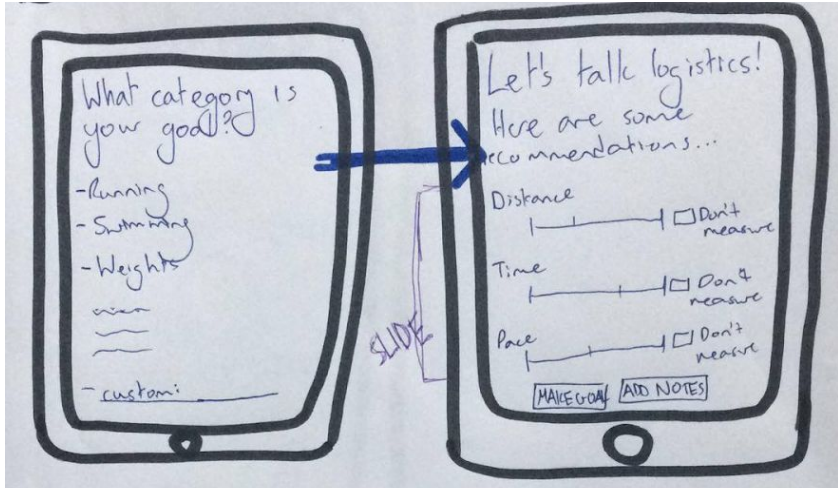
11. What happens when things go wrong?

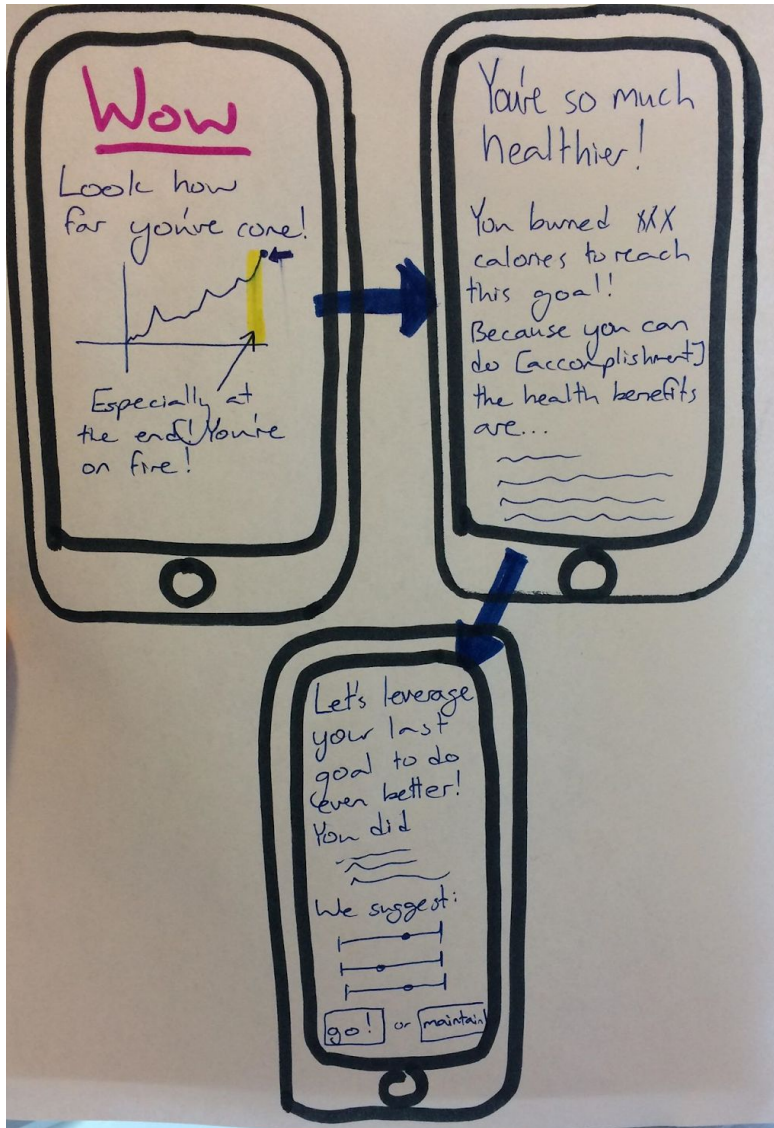
If the person is injured, our design will recommend seeing a doctor and consulting with the doctor about options to continue living a healthy lifestyle and whether there are other goals that the person can complete if the original goal is no longer feasible. If however the person is not injured and does not complete a goal, the design will highlight all of the reasons that the person should continue to make progress to encourage further goal achievement and help the person reflect on barriers which may have prevented them from completing their goal.

Proposed Design Sketches - "3x4"

Design 1:

When you open the app on your phone, the app will greet you. You will be asked what category your goal is and given some recommendations for starting goals, but you can fine tune these recommendations to fit your needs if wanted. You can always choose to change the intensity of your goal so that you have as much control as you want. No matter where you are in the process- setting up, working toward, and completing- a goal, the app is there to motivate you and make sure that you feel good about what you are doing!





Supported Tasks:

The Design 1 supports the following tasks:

- **Set up goal with pertinent information (necessary details)**

The user is guided through the goal-setting process but given some autonomy. Users are given recommendations for good starting goals, but they still have the choice of altering those goals to best suit them

- **Complete a goal and receive recognition**

In this design, users receive a lot of data-driven recognition for completing their goal. Users see data about how far they have come and how they progressed in their goal over time, as well as what this means for their health. Users can then

use the just-completed goal as a springboard toward another goal, or to maintain their success.

- **Break down your big goal into smaller subgoals**

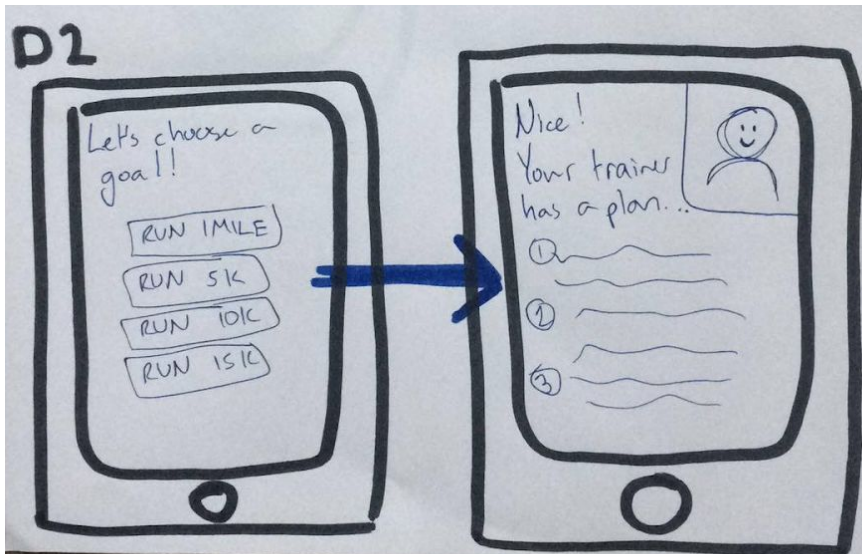
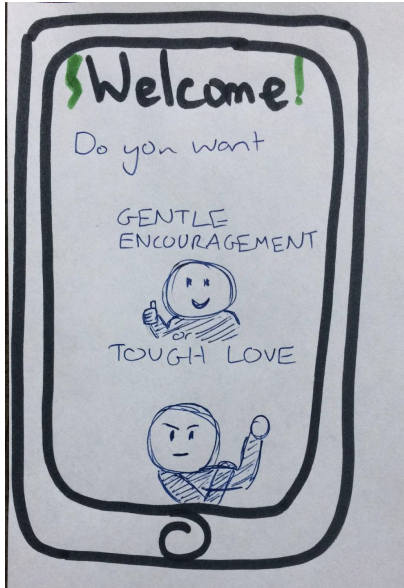
The design automatically provides suggestions for breaking down a goal which the user can modify (as in the goal setting task). Users can at any point in time modify these settings and choose to ramp up the intensity of dial it down so that they are the most satisfied with their workout.

- **Get motivational messages to encourage progress on goals**

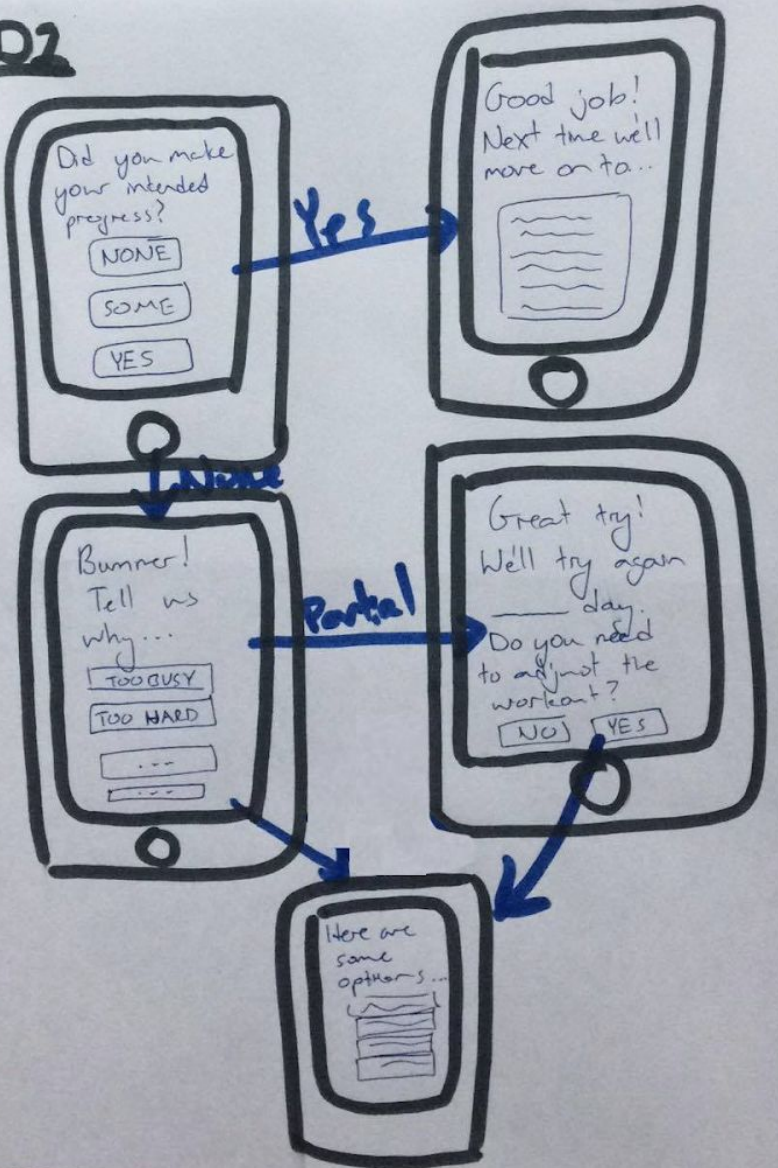
Every step of the way, users receive extra motivation. Whether it's motivation to begin the goal, work toward it, or complete it, users should always feel like the app supports them as it offers positive, data-driven motivation

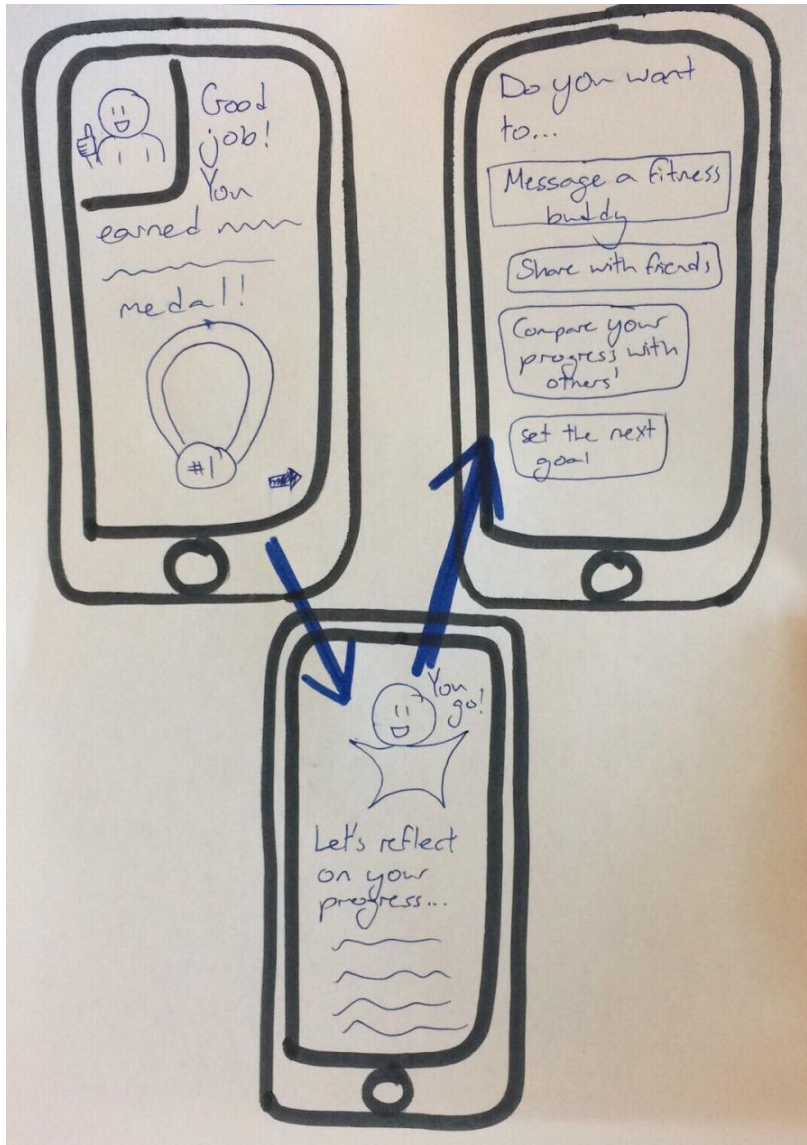
Design 2:

This app focuses on the social aspect of working out. A virtual personal trainer will guide you through what you need to do, and you can join challenges with other people or communicate with real-life friends to get fitness buddy support. True to the personal trainer theme, the trainer will plan your workout for you so that you don't have to worry about the details, and the trainer will keep you on track and adjust your goal for you based off of your feedback as you work toward it.



D2





Tasks involved in Design 2 include:

- **Set up goal with pertinent information (necessary details)**
You can choose your overall goal and open it up for others to join, making it a challenge. You can also join someone's preset challenge.
- **Complete a goal and receive recognition**
When you complete a goal, your trainer will congratulate you and give you a medal. You can also share your achievement with others using the app.
- **Break down your big goal into smaller subgoals**
To make breaking down your goal as easy as possible, the app entirely does the subgoal creation process for you. The trainer will give you a set plan, and then if you give feedback that something about the subgoal isn't working for you, the

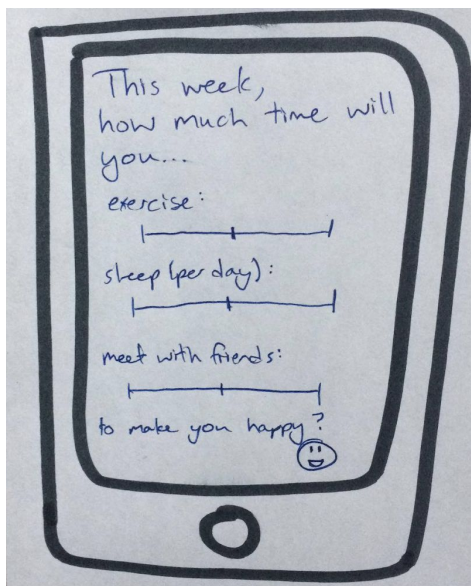
trainer will again automatically adjust the goal so that you don't have to worry about the best ways to break down the goal.

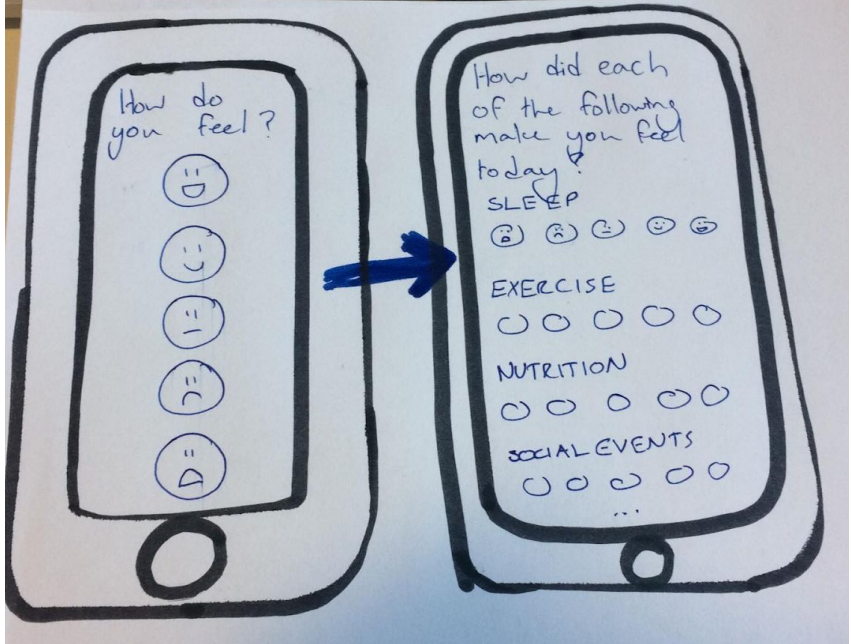
- **After setting up goals, find people who have similar goals, chat about the goals with them, encourage/help each other**

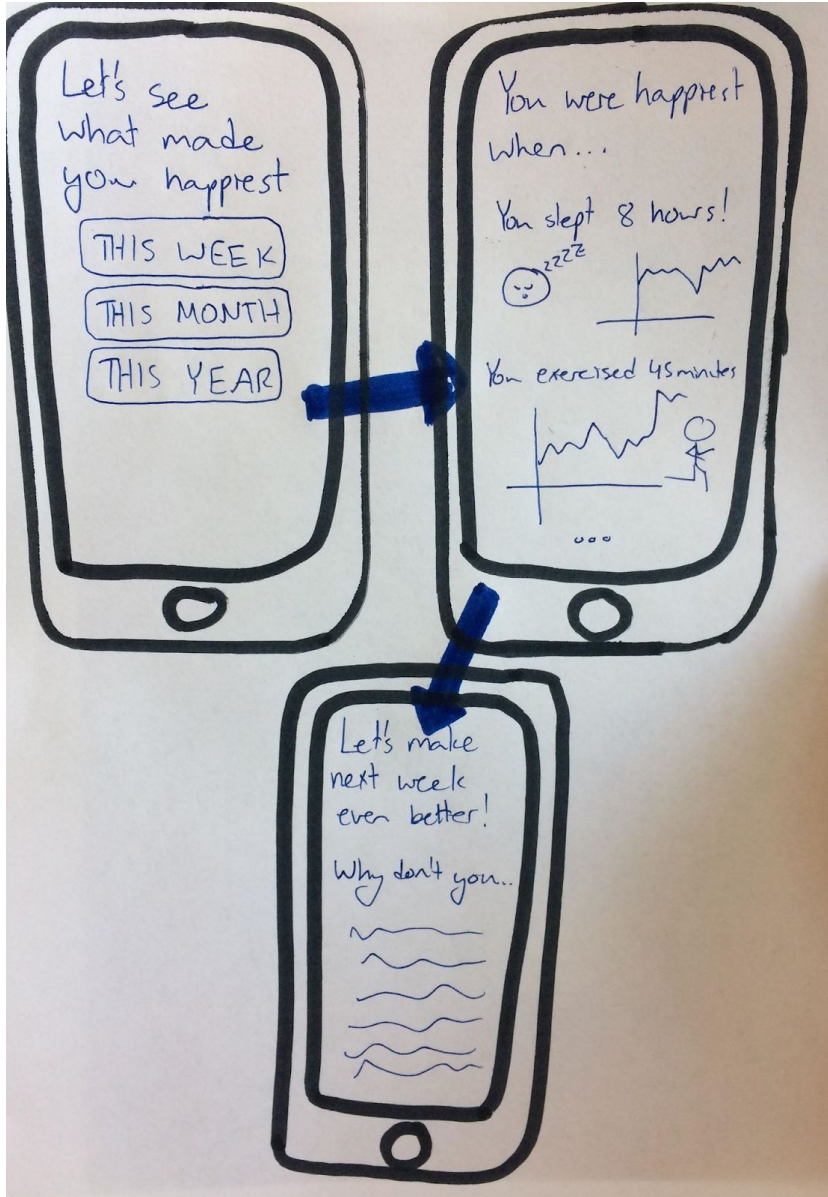
Your virtual fitness trainer has the ability to begin providing a more social aspect to the design, but really the strength of this design comes from your ability to interact with other users. If you have friends using the design, then you can work together to complete your goals as fitness buddies, and whether or not you have friends using the design, you can virtually interact with other people completing the same goals and challenges and interact with them for a more social experience.

Design 3:

This app focuses less on achieving one specific goal, and instead on achieving balance by meeting smaller goals, such as sleeping a certain amount every night, eating well, and meeting your social needs. The app provides a way to log all of these and more, provides suggestions, and helps you to improve your overall health. This app emphasizes being content and well by being conscious of how various factors influence your wellness and mental state, and striving to improve your wellness through those factors. Additionally, this app allows you to interface your smartwatch with the app to make tracking sleep and exercise easier.







Supported Tasks:

- **Set up goal with pertinent information (necessary details)**
Instead of setting up a traditional long-term goal, the app asks you to simply set up some short-term, week-long goals that will contribute to your happiness. These goals are more general (i.e. exercise instead of run) but allow the user more autonomy as the week progresses to do whatever makes them happier.
- **Complete a goal and receive recognition**
Every week, the user will receive a report of how the process they made affected how they did. Regardless of whether it was a good week or a bad week, the app

emphasizes that being conscientious of your wellness is important and that you're taking important steps to increase your wellness

- **Get motivational messages to encourage progress on goals**

Not only do you receive support and validation at the end of the week during the progress report, but throughout the week the app encourages you when you do things that make you happy and makes sure to point out what those things are

- **Balance mental health and physical health for happiness**

The app doesn't judge you for not completing your goals, and doesn't penalize you for not completing them or doing less well than you had hoped. Instead, the app is very understanding about lack of progress and the fact that sometimes life circumstances make mental and physical wellness difficult, and the design offers suggestions to get through tough times

Written Scenarios - "1x2"

Task 1: After setting up goals, find people with similar goals to chat with them, and encourage/help each other (Figure A).

Tim is a college student who always has problems motivating himself to go to gym, though he really wants to keep his daily exercise routine. Thus, he downloaded the Balance application on his smartphone. When he was setting up his goal, "go to gym every morning before the first class", he wondered how to motivate himself to keep it up. After the goal was set, the application congratulates him on moving the first step, and provides him a way to motivate himself everyday, by connecting to his friends that the app found in the contact list, sharing the goal with them, and inviting them to join the challenge and do it with him. Tim invited his friend Amy to do the challenge with him. Amy was interested, and she then invited 2 of their mutual friends, Dan and Bruce. All of them thought that was a good idea to do the challenge together so they joined the challenge together using Balance. The phone app then started tracking their activities and logs the information, and helped them to keep it up.

Task 2: Balancing mental, social, and physical health for happiness and overall wellness (Figure B).

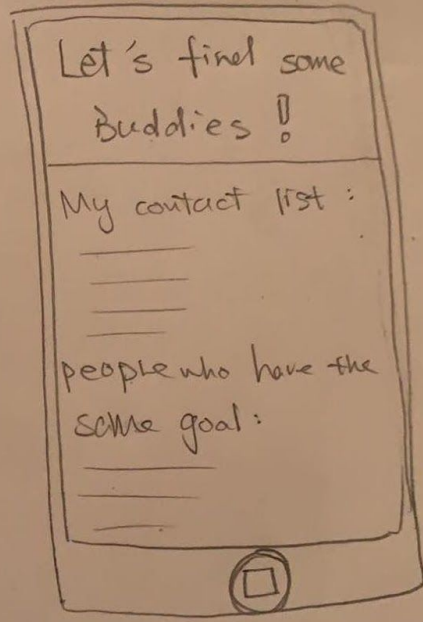
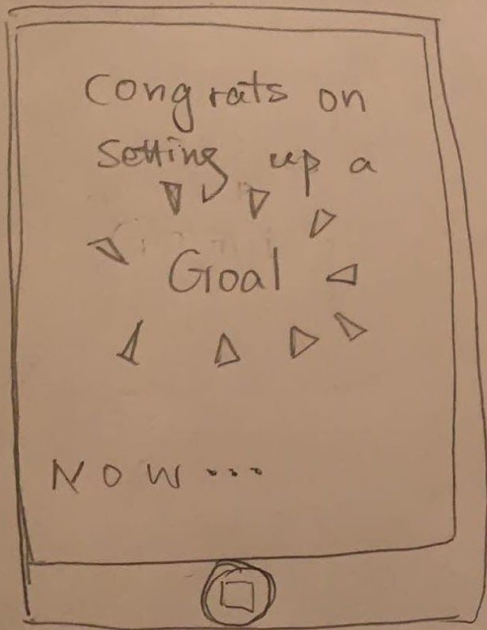
Bran started his career a couple of years ago. He realized that it became difficult to track his health status in general while he is so busy at work. Things like daily mood, weight, heart rate, sleep status, injuries that usually bother him during exercise, etc. are hard to record and keep track of. One day, Bran's friend recommended him a smartphone application, Balance, so he

downloaded it along with wearing a smart watch every day to help track things like exercise and sleep. Occasionally, Balance asks him several questions such as “are you happy today?” but generally the app does not need his attention much. Every day, he measures his weight and it is automatically logged. His heart rate and sleep data are automatically tracked by his watch. A few weeks later, Bran found that all the information is recorded, tracked, and even visualized to help him see the big picture better. The application also analyzes data and sends him tips such as “alcohol can impact the quality of REM during sleep” so Bran realized the wine that he got last night actually impacted his sleep, “you slept 9 hours on Sunday. On that day, you ran 6 miles” so Bran understood that working out might help him with his sleep.

Storyboards of the Selected Design

Note: The first storyboard is disjoint due to odd technology issues. Resizing the images, including making them smaller, resulted in the images becoming blurry





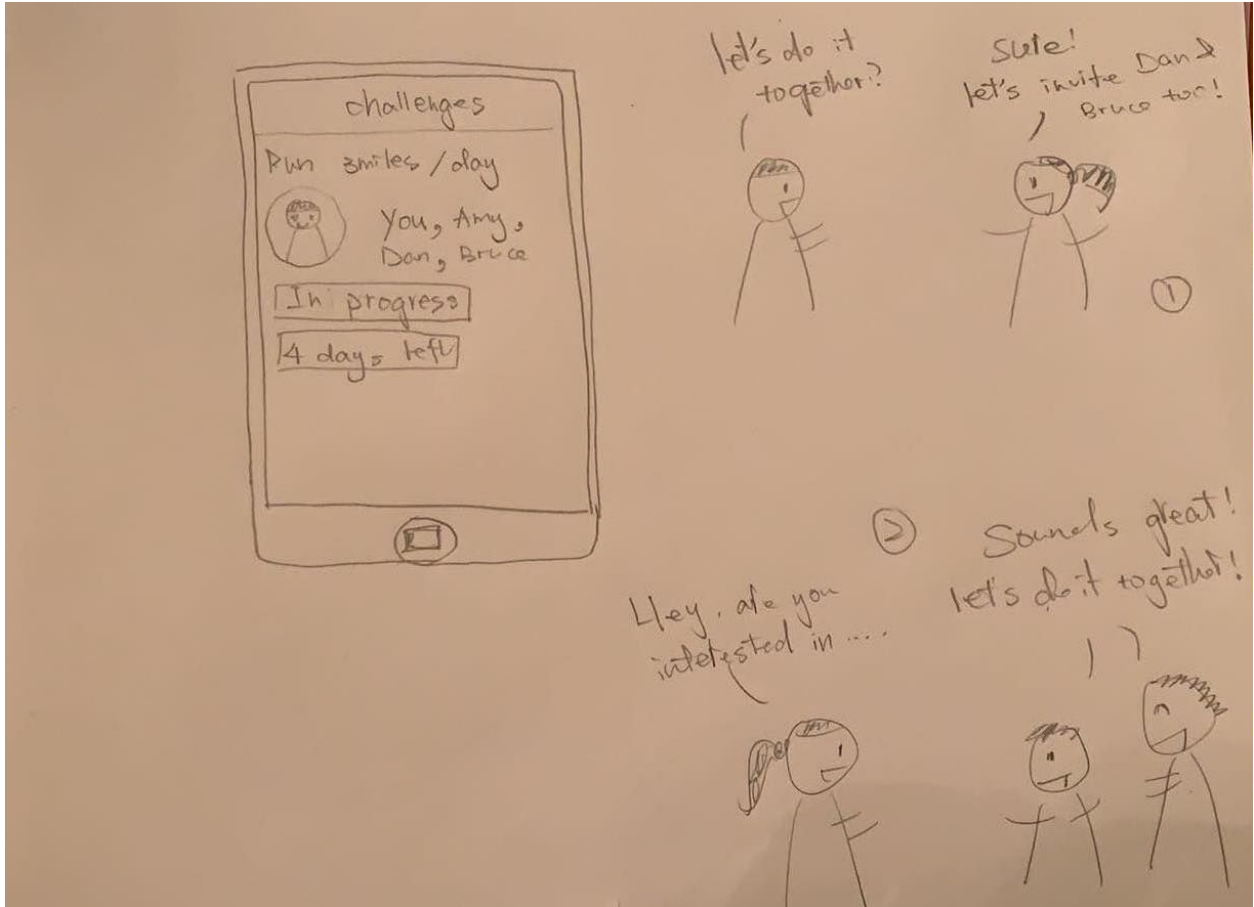


Figure A: find people with similar goals to chat with them, and encourage/help each other

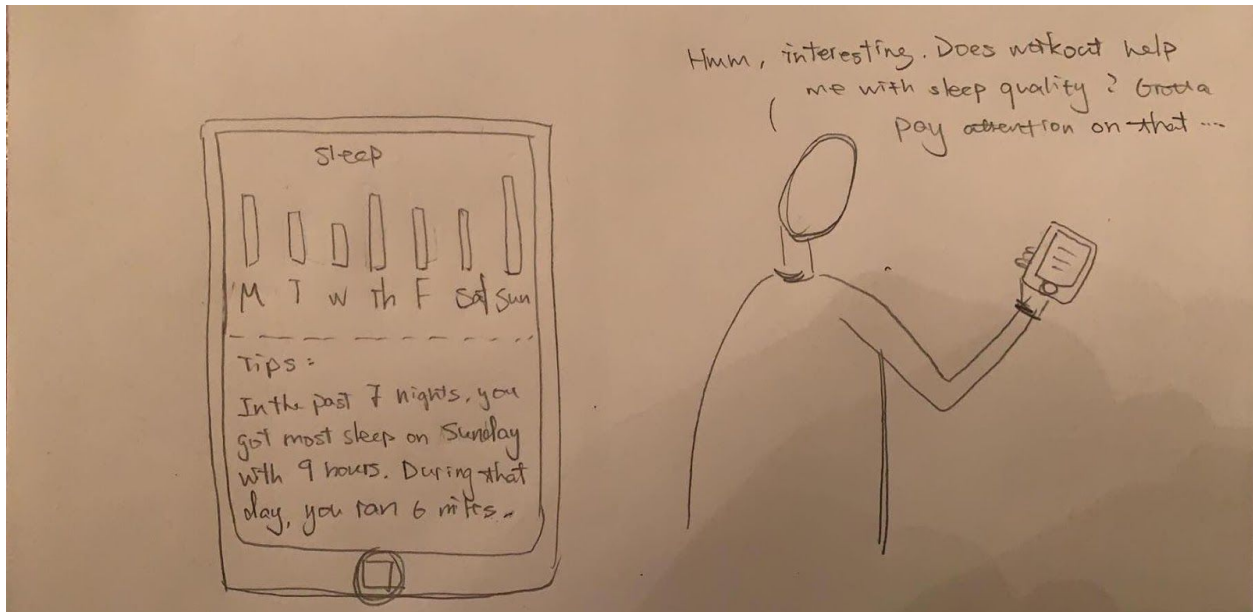
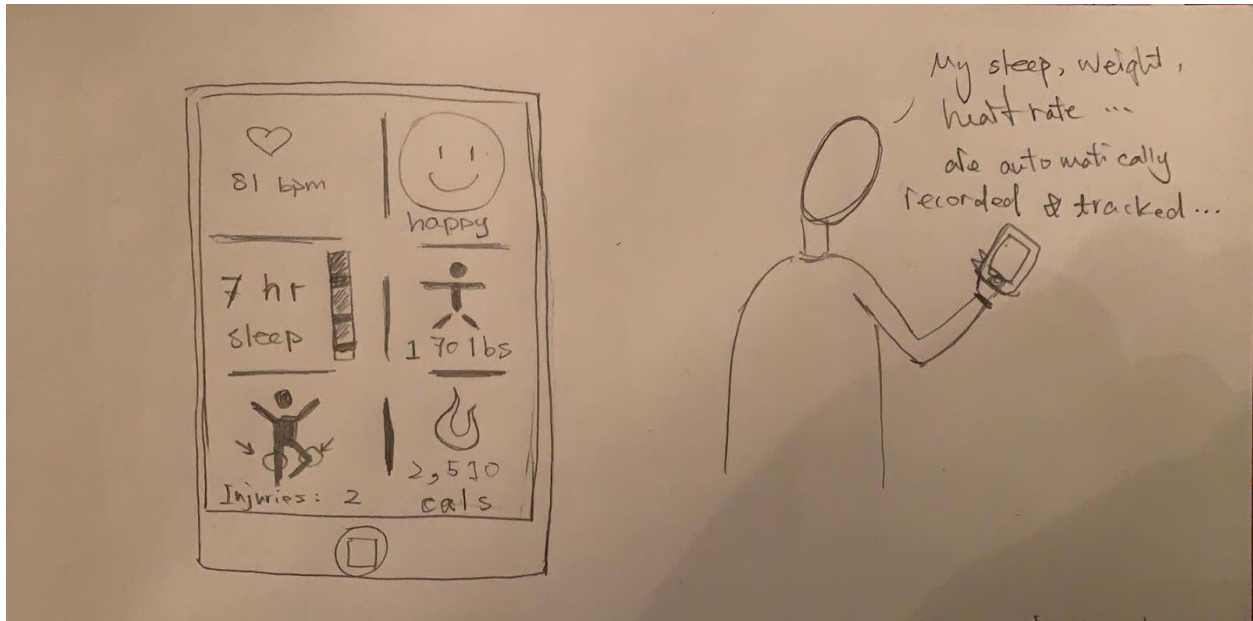


Figure B: Balancing mental, social, and physical health for happiness and overall wellness

Participation:

- Natalie 25% Focused on portions 4-5
- Sophie 25% Focused on portions 6-8
- Garrett 25% Focused on portion 2 and overall support
- Javier 25% Overall support and checking formatting consistency