

goFIT: Lo-Fi Testing

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Introduction

After conducting our needfinding interviews, coming up with POV's and HMW's, and developing and testing experiencing prototypes based off of these results, we developed our value proposition and problem and solution overview.

Value Proposition

Our mission statement, or value proposition, is what we hope customers will get from our product. We wanted it to be as short and simple as possible and really just focus on our core message. Based off this criteria, our finalized value proposition was to create a product that acted as "inspiration to maintain a healthy lifestyle."

Problem/Solution Overview

This process also resulted in our final problem/solution overview, which outlined the problems we wanted to solve and the way we wanted to go about solving them. Here, our overview is as follows: "Although many people want to stay healthy, they rarely prioritize their health, saying they don't have time, don't want to wait for the long-term benefits, or prefer to do other, more social, activities. We want a product that offers meaningful social connection and immediate rewards when users meet fitness and nutrition goals. This should motivate people to be more excited about maintaining a healthy lifestyle, demonstrating that the act itself - not the incentives - is worth prioritizing."

Sketches

Overview

Keeping our proposition and overview in mind, we brainstormed several different designs to implement our idea. We experimented with a variety of device types (from mobile to AR) to explore our space; although we realized that some of these ideas were more practical than others, we played with some less feasible solutions throughout our brainstorming process.

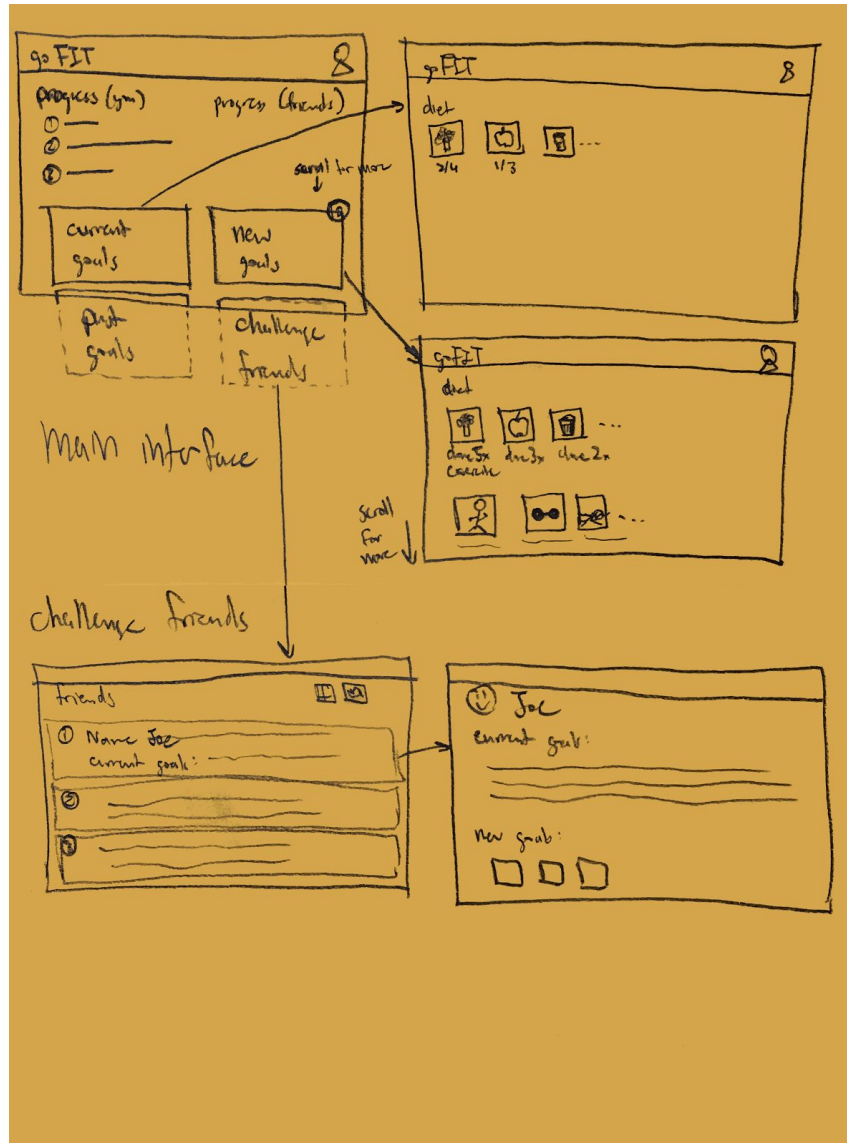


Figure 1: Web Application Brainstorm Sketch

The first interface idea we brainstormed was a web app. The main page focused on a user's current progress, both in individual and pair/group challenges. Below that, links led to different pages, with each page focusing on a specific function or task.

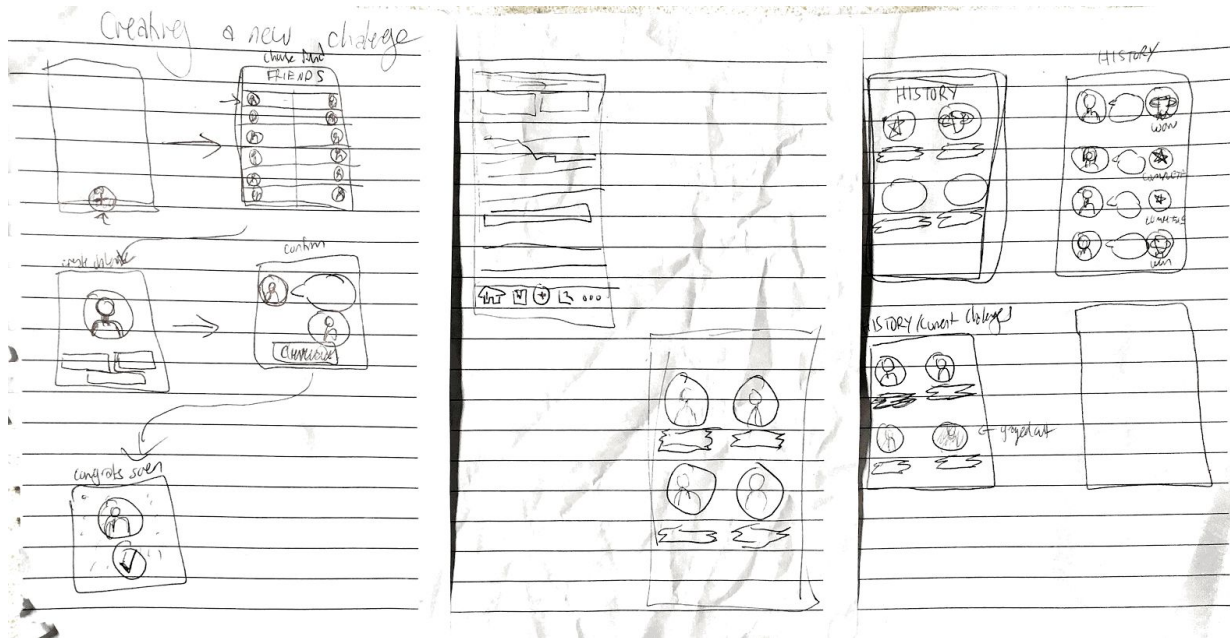


Figure 2: Mobile Application Brainstorm Sketch

Practically, we thought building a mobile app would be best. Because everyone carries their phone, even when they work out or go to the gym, this would be the simplest way of logging activities. This design features a way to view and challenge friends to different activities, message them, and check their progress in current challenges.

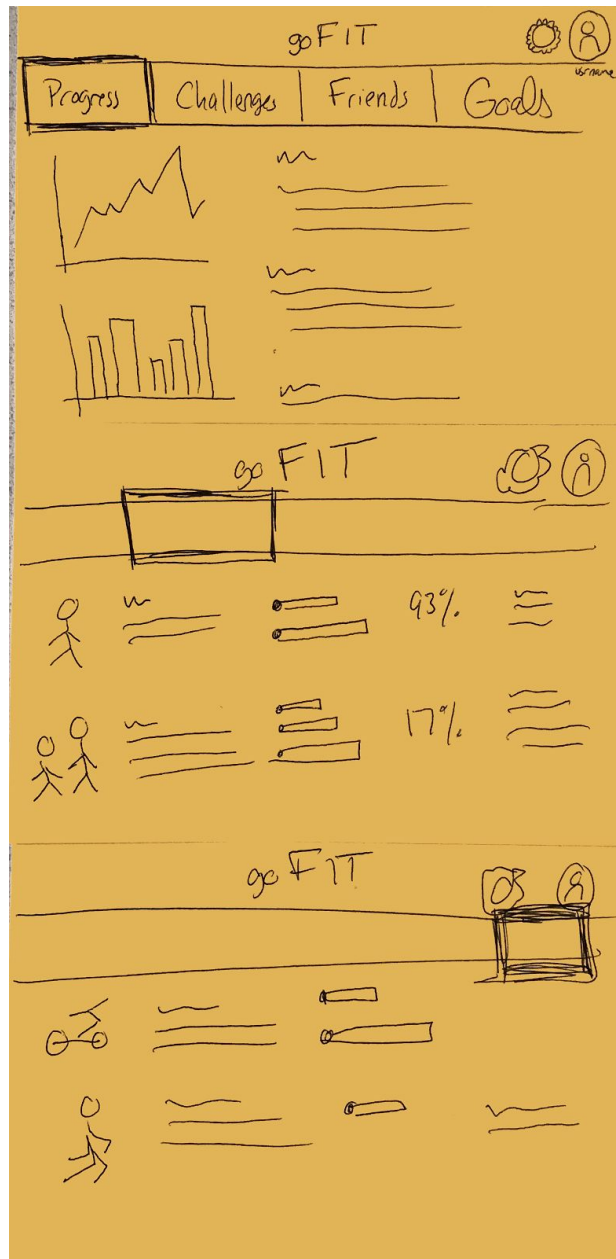


Figure 3: Tablet Application Brainstorm Sketch

This idea was similar, but the interface design centered around having an organized taskbar that separated functions into distinct categories. Unlike the mobile design above, these sketches conveyed a more text- and data-focused tabular setup.

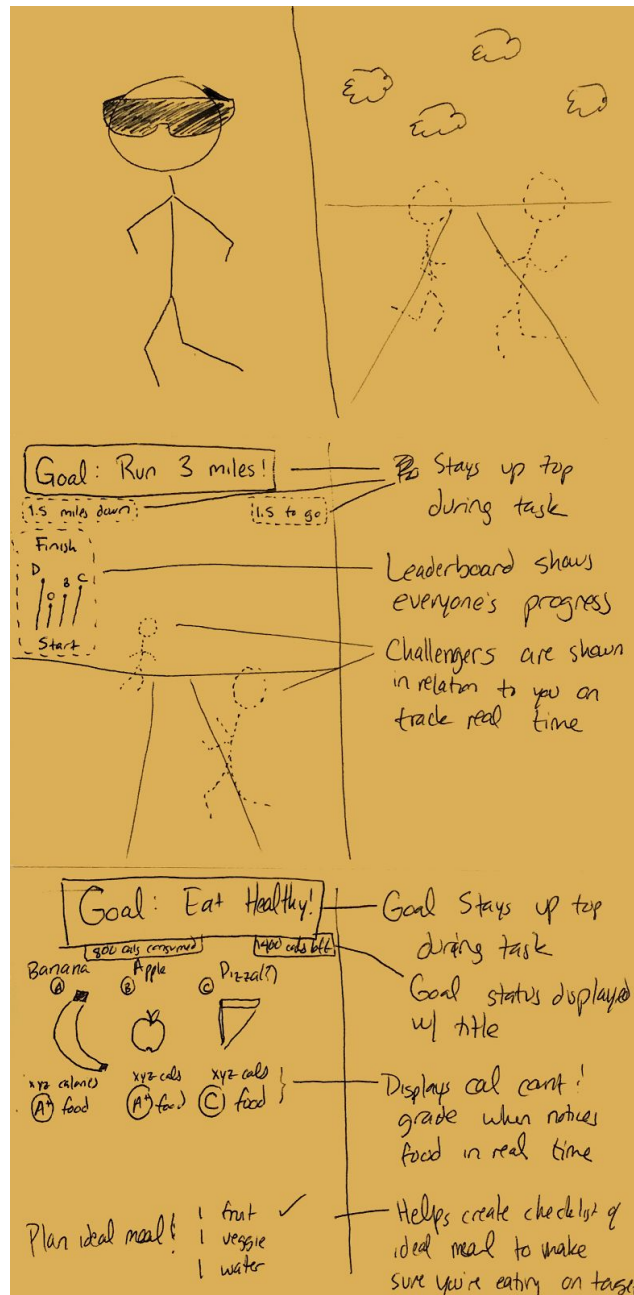


Figure 4: Augmented Reality Brainstorm Sketch

We also brainstormed an AR idea. When exercising, a user wears a pair of glasses and views the current positions of other profiles involved in this challenge to compare their progress with his own. It also gives dietary and nutrient information when looking at food, helping users build a healthy meal.

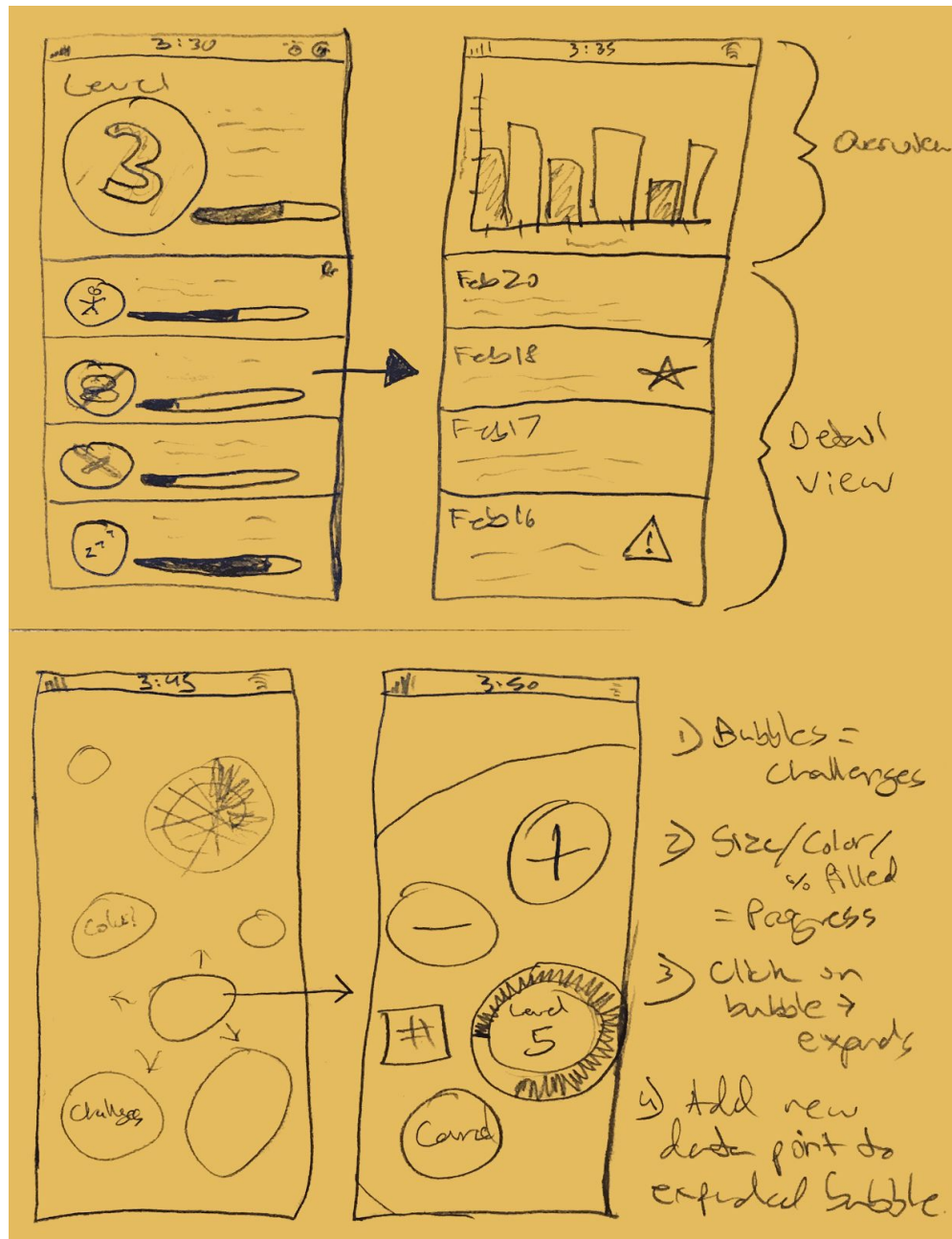


Figure 5: Mobile Application with Automated Fitness Tracking Brainstorm Sketch

We built upon our original mobile app idea and created a similar interface, this one automatically sensing and tracking progress on goals. Users can still log data and view challenges and history. Unlike the chart design of our first mobile app, this design incorporated table rows and circular buttons.

Detailed Sketches

These resulted as a collage of our favorite ideas from our brainstorming session. They were both for mobile apps, as we determined this as the optimal platform for our product.



Figure 6: Detail Sketch: Boxy Mobile

This idea is goal heavy, focused on giving the user as much information as possible and allowing them maximum control over their experience. The design is tabular, image heavy, and navigable by menu.

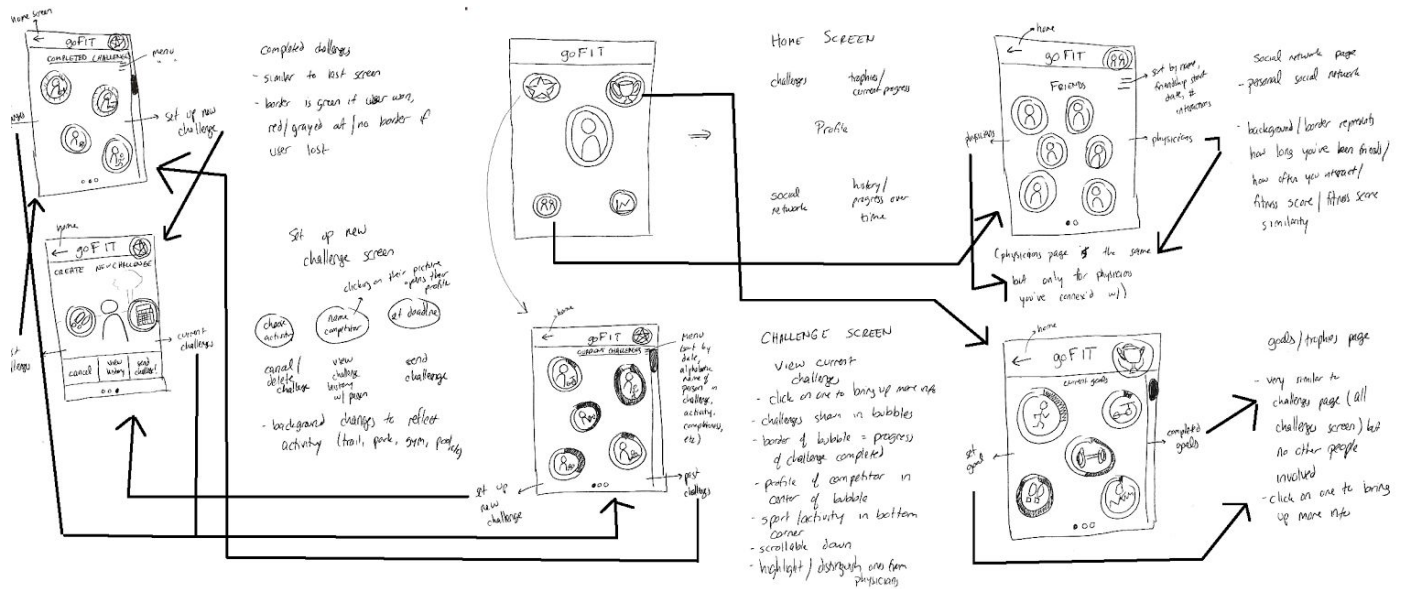


Figure 7: Detail Sketch: Circle Mobile

This idea is image oriented, focusing on easy navigation. It is simpler, emptier, and prioritizes ease of use, with the experience based around a single, central dashboard.

Selected Interface Design (1/4 page)

Reasoning for Selection

Detail Sketch: Boxy Mobile

PROS:

- Very professional-feeling
- Very organized
- More intuitive
- Emphasizes tracking and personal history

CONS:

- More solitary/less social
- Less personality - more standard
- Less playful
- Less casual
- Geared toward expert users
- More cluttered

Detail Sketch: Circle Mobile

PROS:

- Feels more social/ approachable/accessible
- Feels cleaner/simpler/more minimalist
- Geared toward novice users

CONS:

- Looks less organized
- Separates challenges and goals
- Dashboard emphasizes profile, which isn't the focus of the app
- Less intuitive

Eventually our circle mobile design won, since ease of use and approachability were our most important factors. While our product will absolutely have all the data and history accessible for expert, we wanted the primary interface to be easily navigable and friendly, allowing new users easy access.

Feedback from interviews showed that many want to exercise but don't. We want users to feel rewarded when they track, progress on, and complete challenges; we don't want using our app to be a challenge in and of itself.

We also considered that we want users to constantly have our product readily available, which is why the mobile app design won. Finally, we liked that the circular design had a more defined personality and felt less generic than the first.

Task Storyboarding

The three tasks that we wanted to display were:

1. Start a personal goal
2. Challenge a friend
3. Log progress on current activities



Figure 8: Task 1 Storyboard

To start a personal challenge, users click the challenge screen then the add-challenge button. In the modal, they choose the activity, any users involved (for a personal goal, the only user is "ME"), and a deadline. Hitting "OK" starts the challenge.

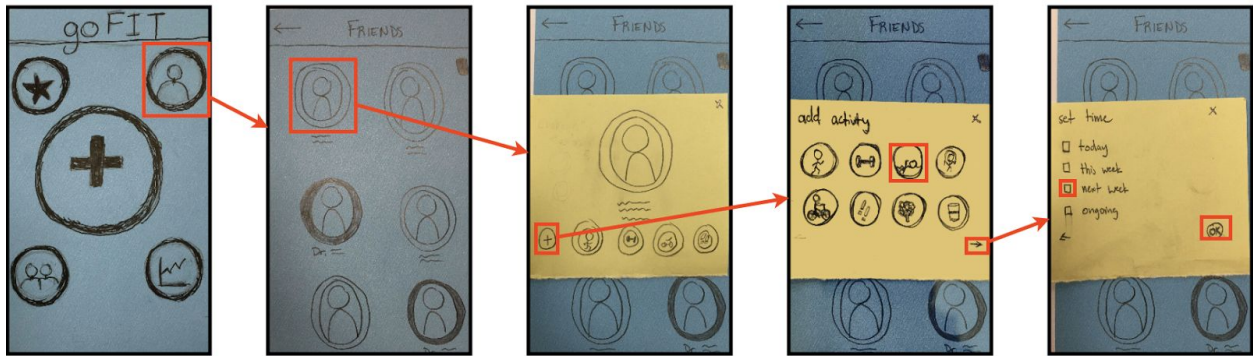


Figure 9: Task 2 Storyboard

Challenging a friend could follow the same task flow as challenging yourself; since these are the main functions of our app, we wanted all paths that could intuitively lead to this task to do so. Here, a user can challenge a friend by opening his friends list. When he clicks on a friend, a modal with that profile appears, and he can add a new challenge. From there, he chooses the activity and the deadline before sending the challenge.

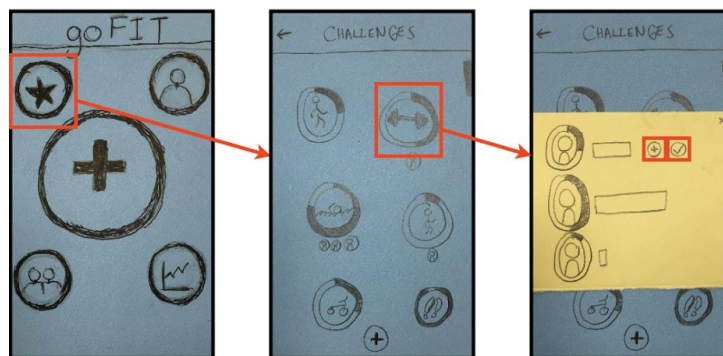


Figure 10: Task 3 Storyboard 1

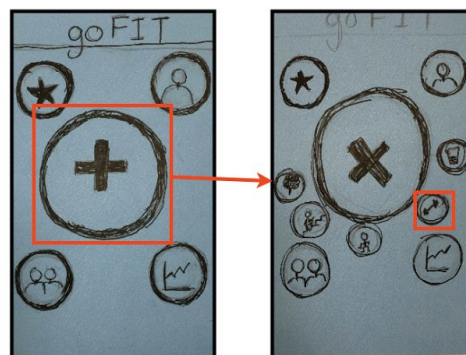


Figure 11: Task 3 Storyboard 2

Interviewees say that logging activity is a pain. We wanted to make it as easy as possible by omitting extra views, making it the main focus on opening our app, and creating many ways to complete this task.

In Figure 10, the user opens his challenges, clicks the challenge where he wants to log activity, and either adds activity or logs he's completed the challenge in the pop-up box.

In Figure 11, the user clicks the main add circle; favorited challenges pop up on the home screen and the user can click one to log activity.

Prototype description (½ page)

Prototype Functionality

Our prototype mimics a mobile based interaction. GPS sensors in the phone will allow it to track some activity (going for walks, bike rides, runs, hikes, etc) and automatically log those activities and progress. It also allows users to manually input fitness and dietary information as well as challenge friends in meeting fitness goals.

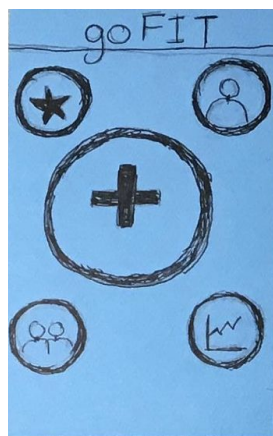



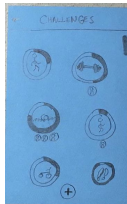

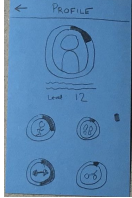



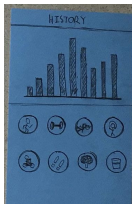


Figure 12: Prototype Dashboard

Button on dashboard	Description of function	Screen for that function
	Ultimately, our prototype mimics a mobile app that logs and tracks workouts. Since this is our focus, it is emphasized in our dashboard.	
	Users can track current and past challenges, as well as create new ones.	
	Users create a personalized profile shareable with friends.	
	Users build a network of friends/physicians who become a part of their experience.	
	They can track personal progress and fitness history.	

Altogether, we are expecting each of these functionalities to contribute to our value proposition, inspiring users to maintain healthier lifestyles.

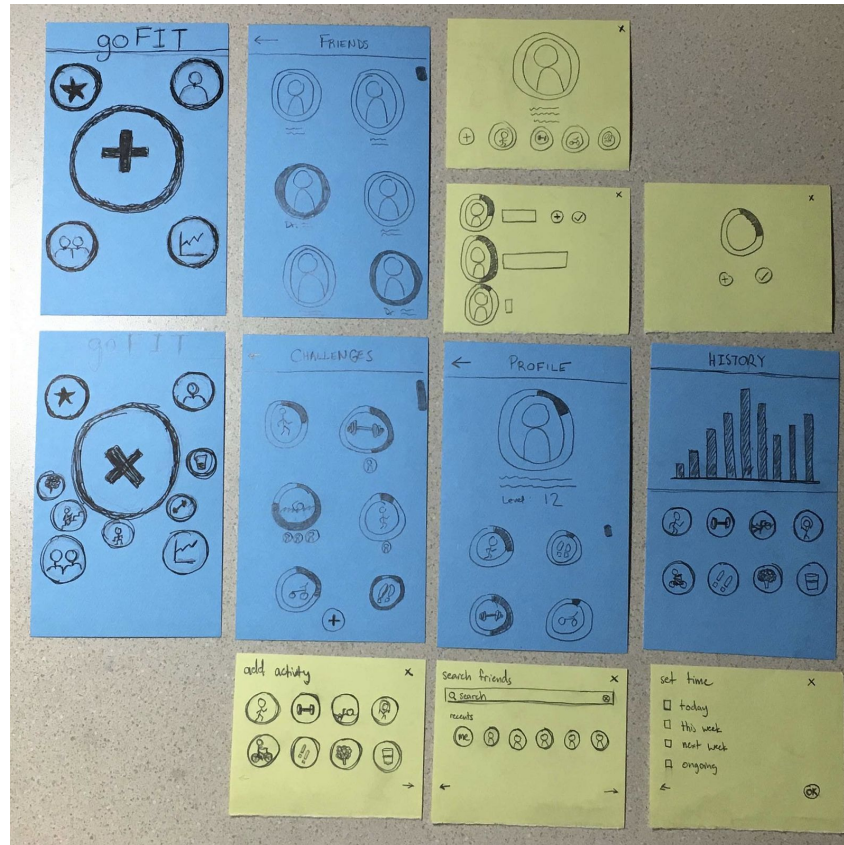


Figure 13: Entire system

Method

In testing our low-fidelity prototype, we wanted to observe how a variety of users interact with our application. Our goal was to determine what improvements could be made to enhance the overall user experience.

Tasks

In particular, we wished to test how easily a user could perform the 3 tasks discussed above. We fleshed them out, making them more specific to avoid any ambiguity:

1. Start a personal running challenge for this week.
2. Start a swimming challenge with a friend for next week.
3. Log progress on your current weightlifting challenge.

As we wanted to make the experience as authentic as possible, we made sure to not tell the user anything about the interface before starting (i.e. we wanted them to figure things out for themselves). This would let us observe which user interface elements work and which don't, as

well as correct any problems that made tasks confusing. Our goal is to inspire users to maintain a healthy lifestyle; they simply will not use an application that is difficult or confusing.

Procedure

Our testing procedure, which allows us to observe what the user does and measure the effectiveness of our prototype, was as follows:

1. Introduce the application to the test user and what its purpose is.
2. Place the paper prototype in front of the test user and ask them to complete a task.
3. If the task is completed in any way that is unexpected, ask the test user if they can think of another way to complete the task.
4. When complete, ask the test user for some general feedback about the experience.
5. Repeat steps 2-4 for the remaining tasks.
6. Discuss and share the test results.

Task Measures

The primary metrics we used were:

- time spent performing the task (we want the user to get things done in the application quickly and intuitively), and
- how many times the user went to the wrong screen (which would mean the user interface was confusing in some particular aspect).

Overall, we wanted to see if users accomplished our tasks easily, with minimal help.

Team Member Roles

We ultimately established the following roles for each test. We switched between roles so we all had the chance to do something different each test.

- 1 greeter/facilitator (we did not separate these two roles). This is the only person who speaks throughout the test.
- 1 computer. This person simulates the application transitions and modal windows from "behind the curtain."
- 1-2 dedicated observers. If we didn't have enough team members acting as dedicated observers, both the greeter/facilitator and the computer act as "silent observers" (i.e. take notes only after the test is complete).

Participants

Our participants were kind enough to willingly donate their time to us when approached in person, and we compensated them by offering to treat them out for food or coffee. The participants we recruited were:

- A young mechanical engineer specializing in mechanochemistry
- A mother who exercises regularly in fitness classes
- A physicist who encourages his family to work out but doesn't himself

Environment

All of our tests were done in a quiet indoor environment.

Results

The following are the results of our tests by task.

The first task was to start a personal running challenge for this week. We found that users tended to want to press the big "+" icon in the middle of the main screen to perform this task, which is not correct and not what we expected. However, upon choosing the correct icon on the second try, completing the task was quick and did not take up much additional time.

The second task was to start a swimming challenge with a friend for next week. There are two ways to complete this task, and the users seemed to want to choose the same actions as the previous task (which is one valid way to complete the task). When asked if they could find another way to do it, the users completed the task as depicted in our task flow quickly and easily.

The third task was to log progress on your current weightlifting challenge. We found that users had the most difficulty completing this task, even though it theoretically should have taken the least amount of time. The main problems stem from the fact that the users could not understand why the "+" button was being used for this task, and so they would try the other icons first before finally completing the task correctly.

Discussion

Our observations and results showed that while our application performed well in some respects, there were a few small problems that prevented the user from completing the tasks as quickly as possible.

The biggest problem with our application right now is the main screen. The icons, while simplistic, seem vague. Users seemed confused as to which icons needed to be pressed in order to continue with each task, particularly with regards to the "+" icon. This problem can be seen in our observations for tasks 1 and 3. In order to fix this problem, we might want to consider either changing the icons themselves or adding labels to make their functionality more obvious. The last task in particular seemed to frustrate most users, and considering that logging

progress is a major component to our application, it is something that definitely needs to be fixed.

One aspect in which our application succeeded is the ability to complete tasks in multiple ways. This is shown explicitly in task 3, but we observed users completing task 2 in multiple ways as well. This redundant functionality may seem wasteful at first, but it allows different users to approach tasks differently. If we wish to reduce redundancy, we may want to organize our views better to make it more obvious to the user what to do to complete each task (though it may be beneficial to keep this functionality anyways).

One thing that stuck out to us when observing users performing task 1 was how quickly they were able to complete it upon getting past the main screen. There seemed to be a logical flow of the views and modals that made sense to every user we tested, and there was almost no confusion whatsoever about how to complete the task. Perhaps we can take what we learned from this particular observation and apply it to the problems discussed above.

Our tests revealed some major functionality pros and cons about the current iteration of our application prototype. However, one of the things we simply couldn't test with this prototype is the potential long-term usage of our application. Our goal is to motivate users and make them want to come back and use our application regularly, but such a metric was impossible to observe in a single test. Our hope is that the ease of use of future iterations of our application will prove to be a major selling point that motivates long-term usage of our application.