

CS 147

ASSIGNMENT 5

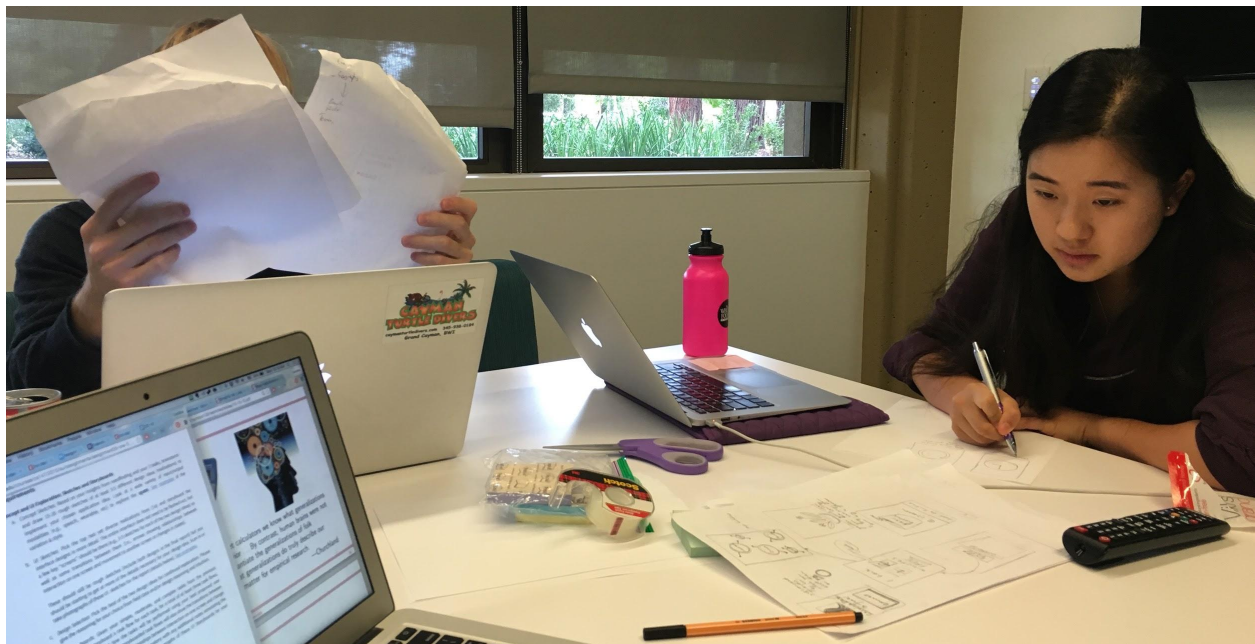
Low-fi Prototyping & Pilot Usability Testing

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Ross T., User Testing

Alexis W., Documentation

Jessica Z., Design/Development



2. Introduction

Mission Statement

We strive to give people the opportunity to live healthier lives in a holistic sense.

Value Proposition

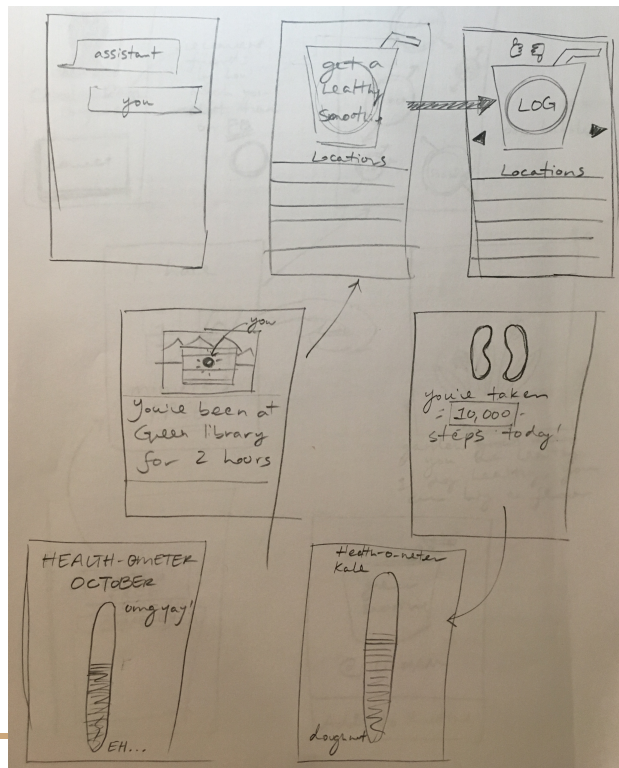
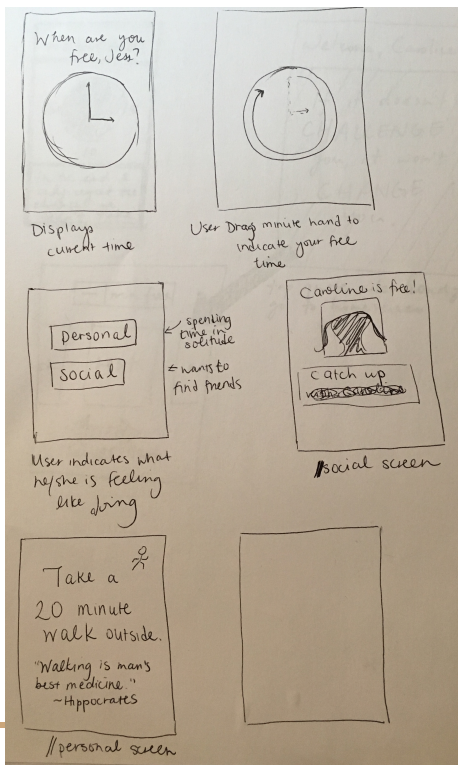
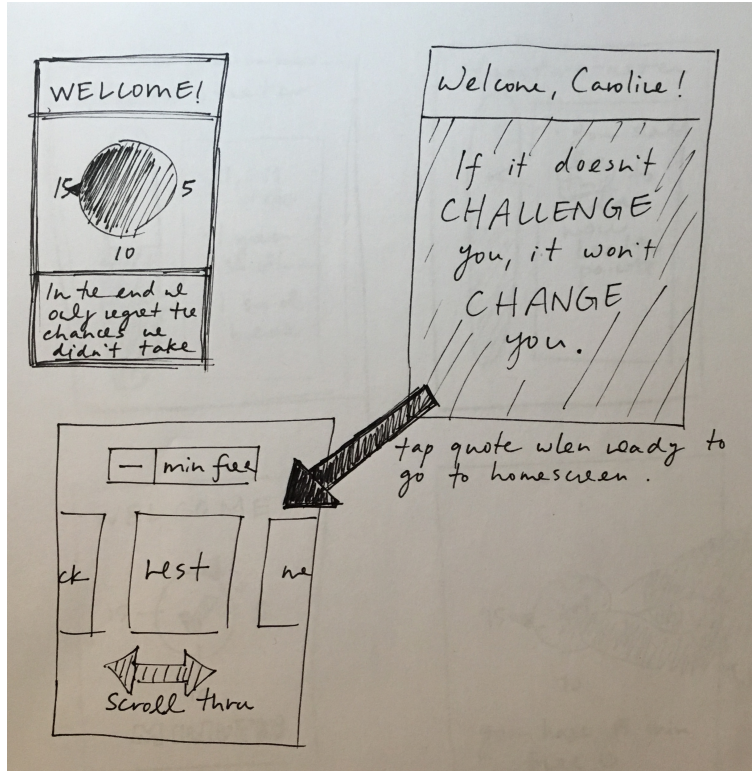
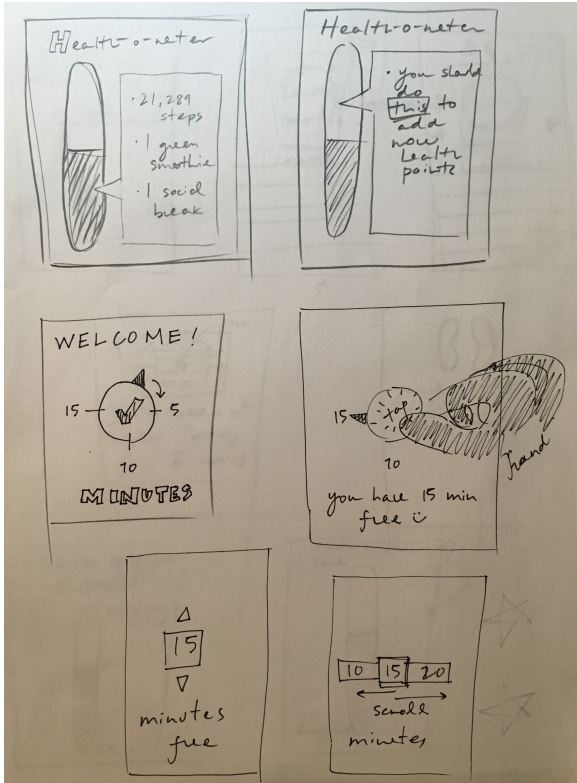
Using free time well to be well

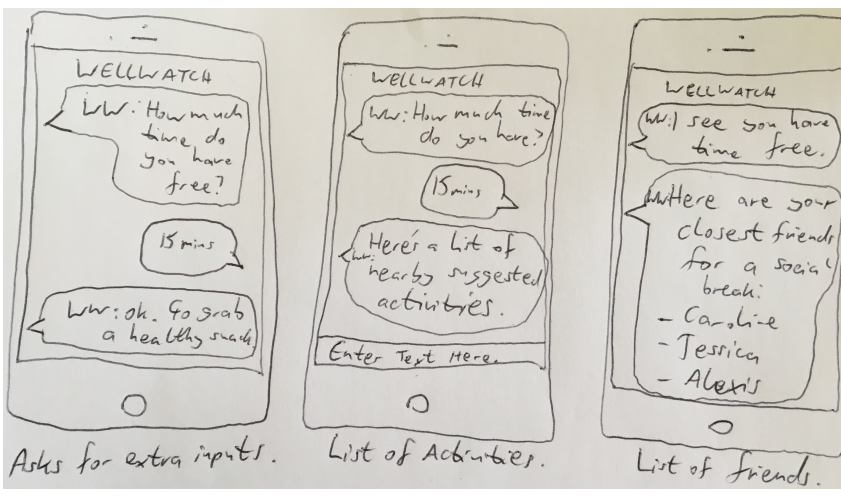
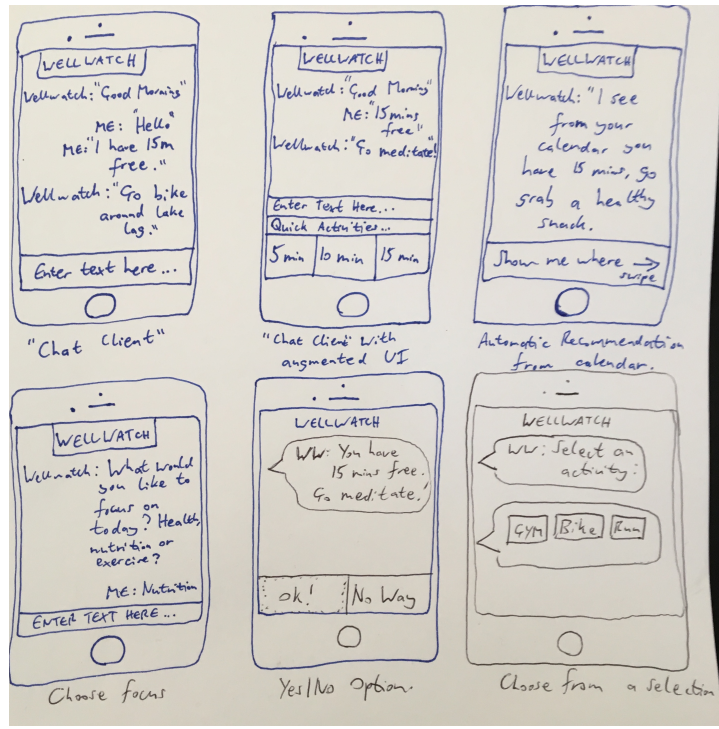
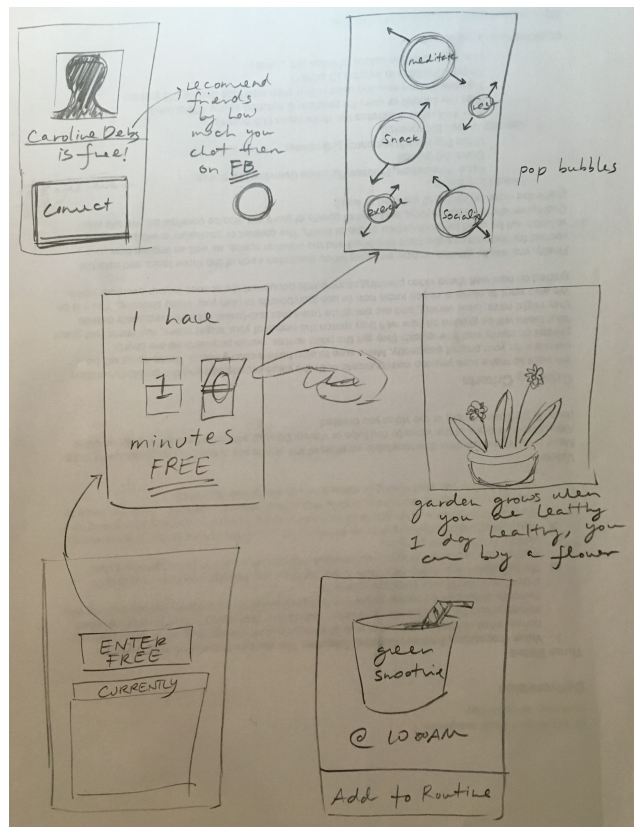
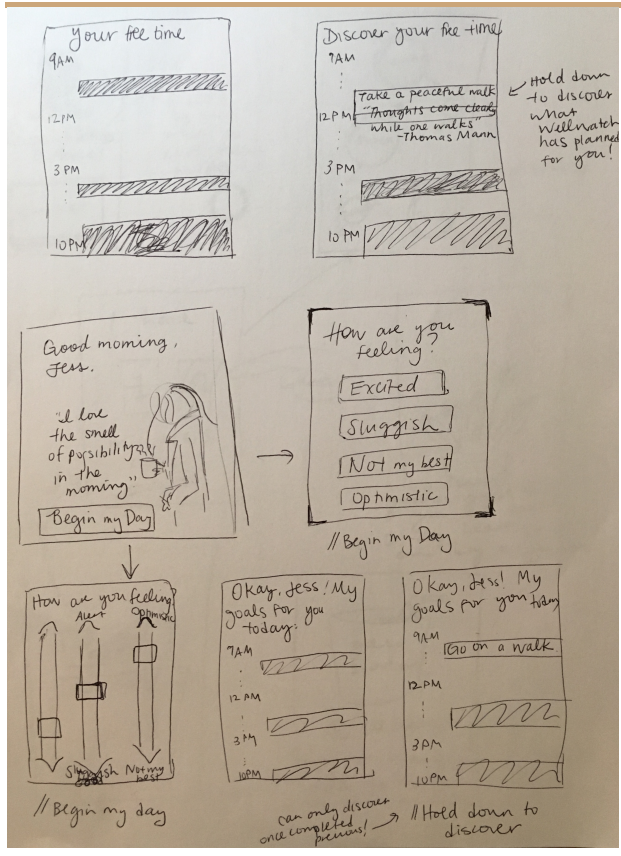
Problem and Solution Overview

People are busy and it is difficult to incorporate positive behaviors into their routine. Our app is a personal assistant that suggests healthy and spontaneous activities based on their schedule, how much time the user has, and the user's surroundings.

3. Sketches

1. Overview Image of Concept Sketches

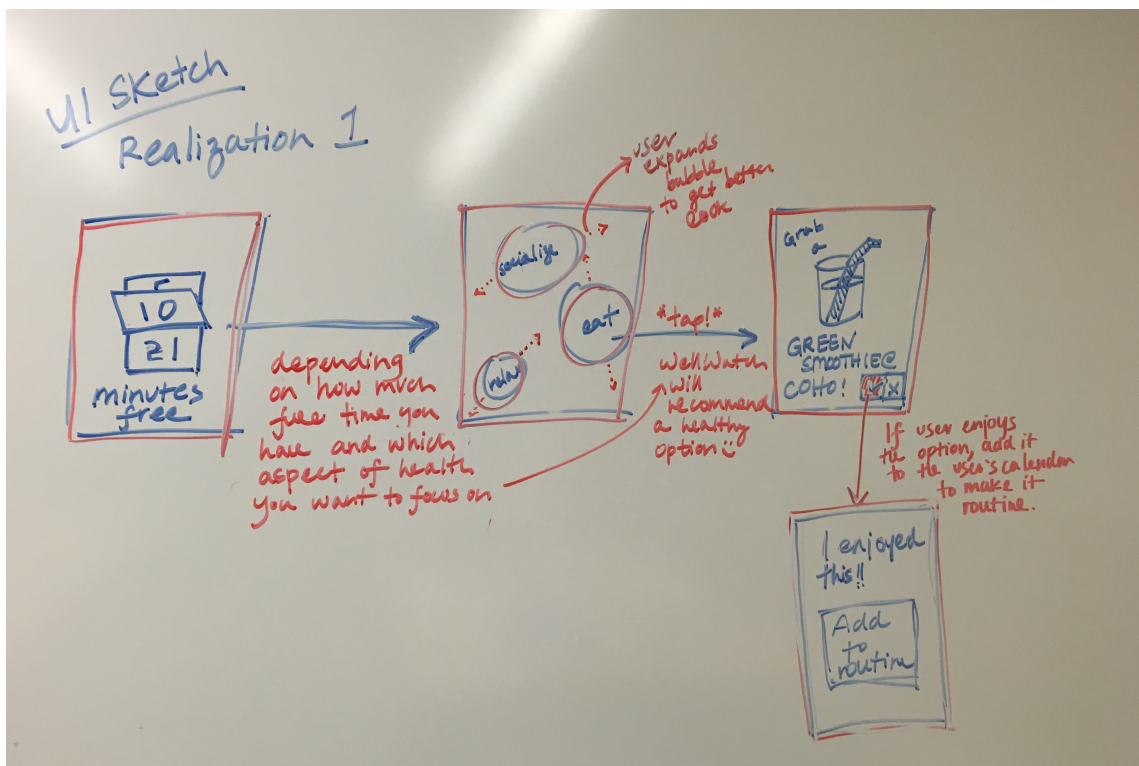




2. Top two sketches storyboarded

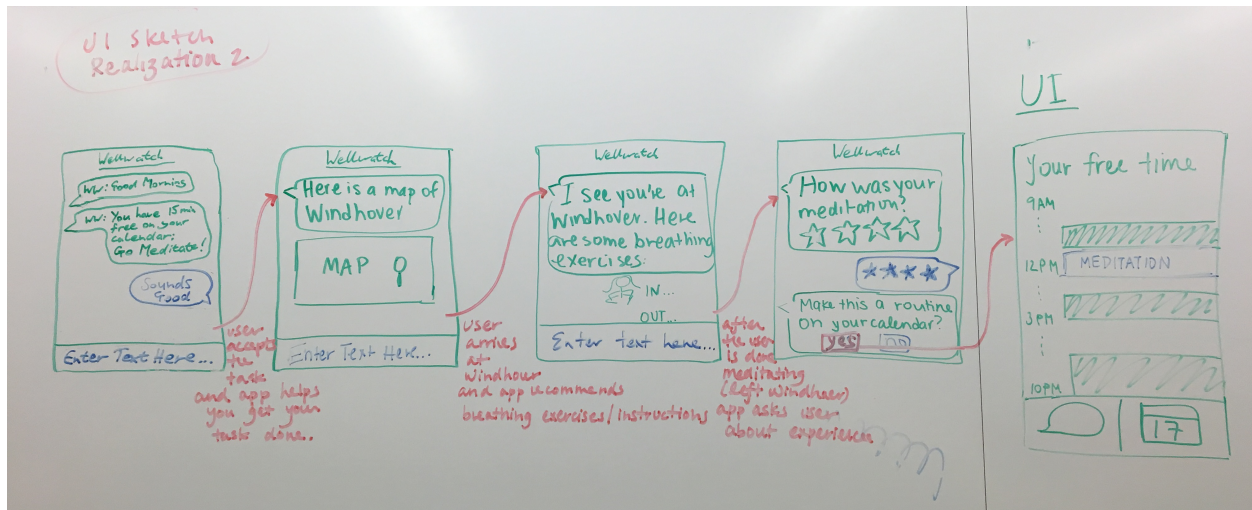
Sketch Storyboard #1

This sketch storyboard focuses on giving the user control over what they want to do during their free time in a visually appealing manner. When the app realizes that the user has some down time, it prompts them to decide what type of activity they want to pursue. The user is then offered multiple choices. If they enjoyed the activity, they can add it to their routine. The interface is mainly button-based, prompting the user each time to choose from a few options.



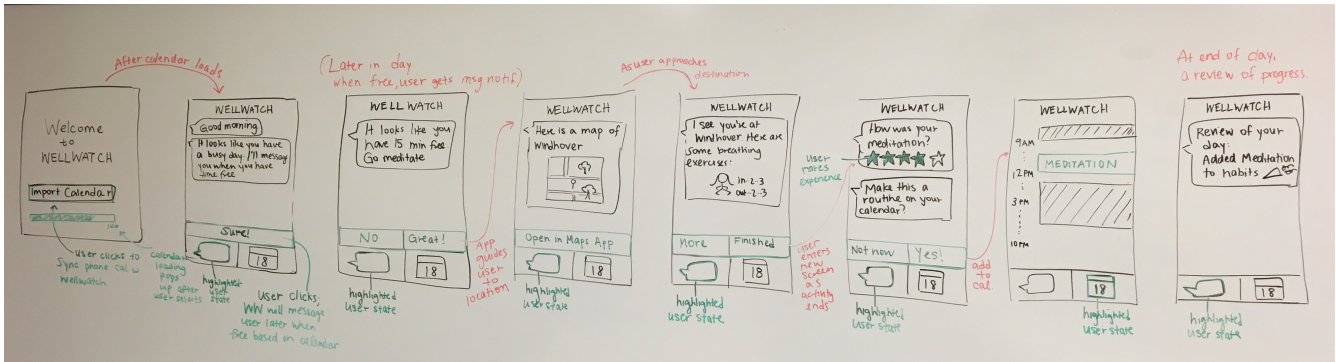
Sketch Storyboard #2

This sketch storyboard focuses on giving the user new healthy experiences. Instead of putting the burden of choosing on the user, it is giving them only one option that they can either accept or reject. If they chose to do it, it provides them with instructions and eventually asks the user for feedback. Based on the level of enjoyment by the user, it can add it to their routine and use that information to provide better new activities next time. This interface is focused on making the choices easy for the user, such as: Yes/No, Rating from 1 to 5. It is presented similarly to a messaging app to make it more conversational, even though the range of user-response would be limited to existing options.

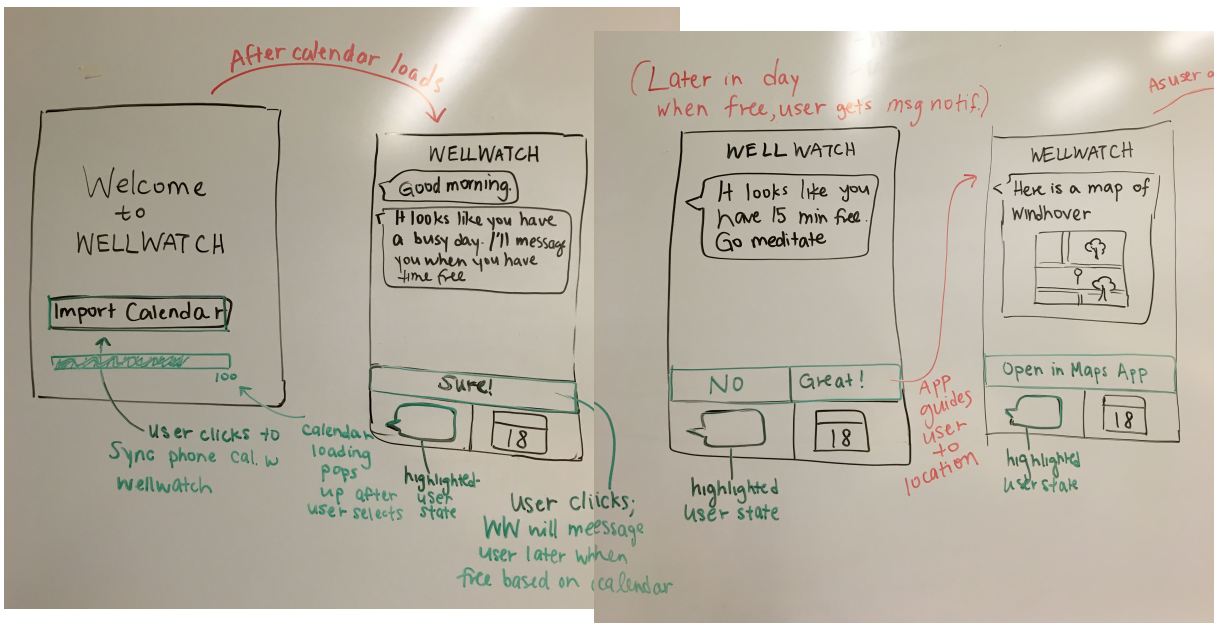


4. Selected Interface Design

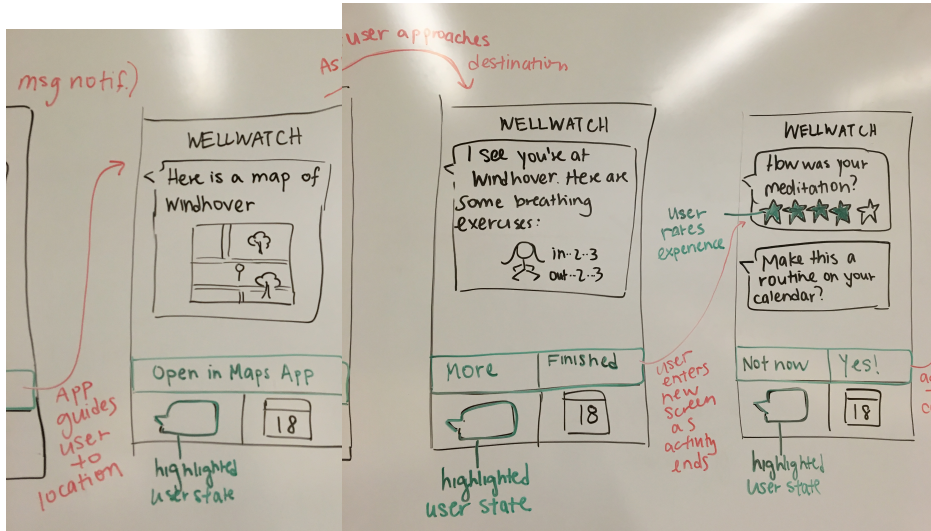
1. Storyboards for 3 tasks



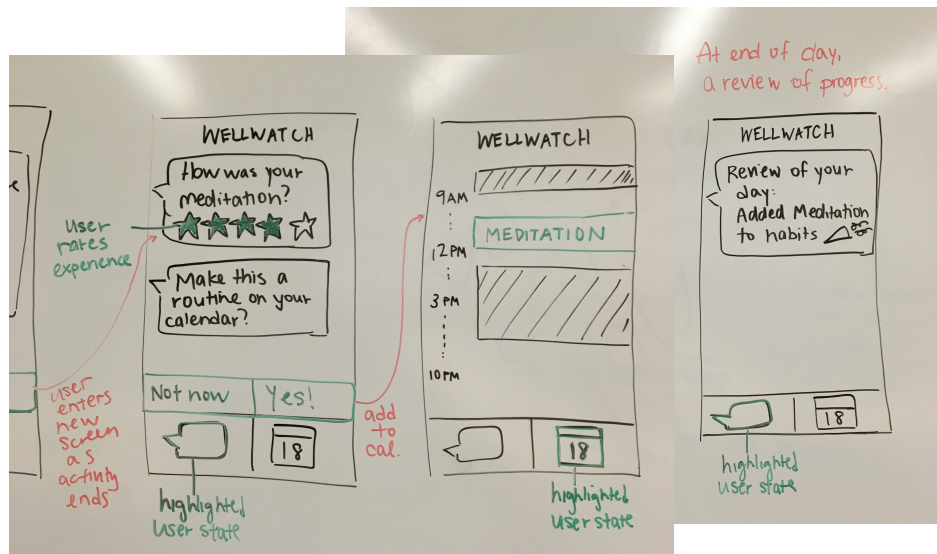
Task 1: Integrate spontaneity in your routine



Task 2: Learn new healthy activities



Task 3: Add positive activities to your routine



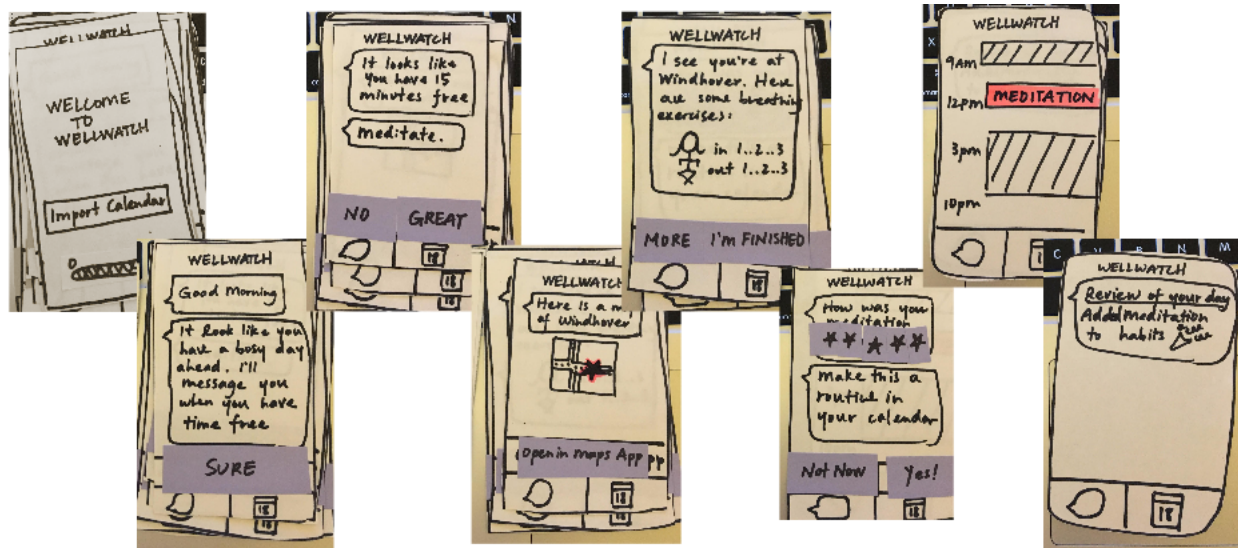
2. Reasoning for selection

This interface was chosen because it aligns well with the feedback we got from interviews. Users tend to feel overwhelmed when faced with constant choices when they are working on building new healthy habits. To reduce that burden, we decide to use the interface that had the lowest friction possible. Providing the user with a single option at a time help make decisions easier given the limited time frame, and offering a limited range of answers make the interaction more straightforward. Instead of putting the burden of most of the decision making process on the user, we let our AI figure out the best options at a given time and let the user decide if they want to act on it. The more the user interacts with the application, the better and the easier the process is for them.

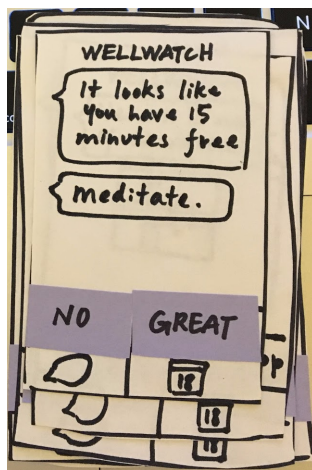
5. Prototype Description

Entire System

WellWatch imports the user's calendar and intelligently suggests time periods in which the user can incorporate spontaneous activities. Once the app suggests an activity, the user can choose to proceed and the app will guide the user toward completing the task. Finally, the app will allow the user to add the task to their routine if they enjoyed it.

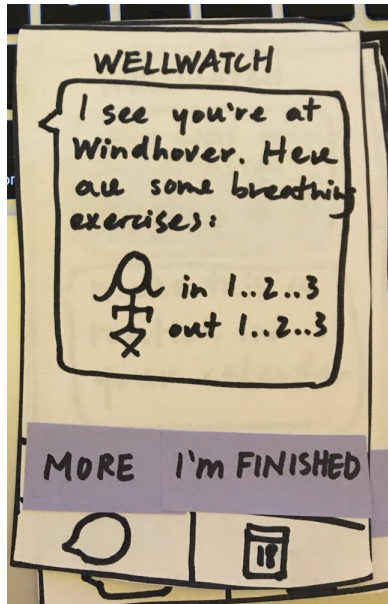


Task 1: Integrate spontaneity in your routine



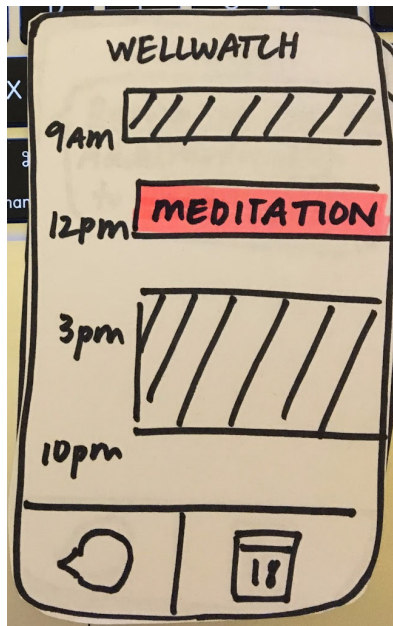
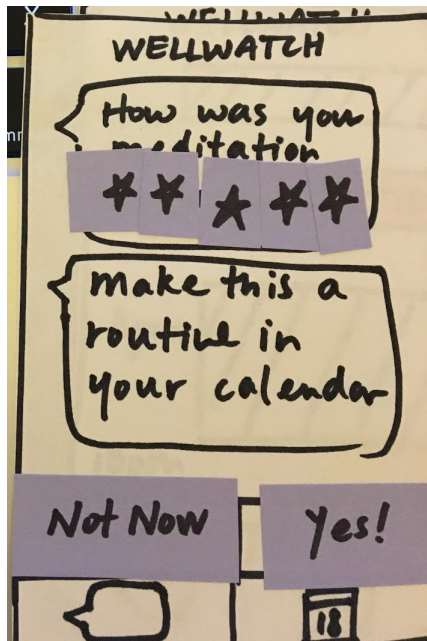
This screen prompts the user to perform a new activity in a period of time the user has free. The activity is random but is health-focused.

Task 2: Learn new activities



WellWatch suggests an activity for you and guides you through the task. The app gives instructional information to the user so he/she can learn a new activity that can contribute to their holistic wellness. For example, the app here is suggesting some breathing exercises for the user's activity.

Task 3: Add new activities to your routine



After completing your spontaneous activity, WellWatch offers users the option of incorporating the activity in their periodic schedule if the user rates the activity as enjoyable.

6. Method

1. Participants: demographics, how recruited/compensated

When we considered which participants to choose, we wanted to have extreme users to get a sense of the range of reaction to our prototype. Since we are focusing on healthy habits, we first interviewed an athlete/health conscious person to see how our product would fit in their already positive habits. We then looked for someone on the other side of the spectrum; someone who has difficulty in making healthy habits part of their routine, as they are too busy to consider wellness because of a stressful workload. We rounded up the participant pool with a professional individual. Because they tend to have very scheduled lives, they have to be very proactive about incorporating new habits in their routines.

2. Environment

We tried to have a neutral environment so that the participants would focus on the test itself. We also wanted to find participants who were sitting down or not in a rush – essentially, participants who could offer a solid 10 minutes, which we estimated as the sufficient time required to both test our prototype and answer some follow-up questions.

3. Tasks

The tasks were (1) to integrate spontaneity into their routine by prompting the user to meditate (2) for the user to learn a new activity (in this case a breathing technique through meditation) and (3) to add the new task to their routine if they found value in it.

4. Procedure

We split tasks among ourselves to test the prototype with the participants. Ross was in charge of introducing the test as well as providing any verbal cues necessary. He was the only one to talk during the test. Jessica was in charge of “dealing the cards”. She had all the pieces of paper representing our prototype and had to “update the interface” with new pieces of paper every time the participant would interact with the prototype. Alexis was present as the scribe, and was in charge of writing every action, reaction or feedback we gathered from the participants. Before we conducted our user study, we first showed the users the concept video in order to explain the app concept in an approachable and visual way. Participants then completed the three tasks with the prototype. They were then given a post-experiment survey to evaluate their experience.

5. Test Measures

During the experiment, we observed where the user pressed on the screen intuitively. We noticed when the user became confused and asked the facilitator a question. We noticed when a user enjoyed a particular feature by noting their body language.

7. Results

See Appendix 1 for the post-testing surveys we conducted with our trial users.

We conducted user studies with three individuals and recorded an incident log for each of the users. We prioritized these events and assign severity ratings to the problems (use the ratings of **0**=no problem, **1**=cosmetic problem only, **2**= minor usability problem, **3**=major usability problem, **4**=usability catastrophe).

The users were able to complete all 3 of 3 tasks, which were: integrating spontaneity in their lives by accepting an app-suggested activity; learning a new wellness-related task with guidance from the app; and making that task a part of their routines by adding it to their calendars.

The first user we interviewed (Participant #1) was a busy investment banker professional.

- **Incident:** User wonders what will happen upon selecting “No” on whether to meditate. This is an action we did not create a screen for and must consider where to take the user following “No”. **3**
- **Incident:** User wonders if there will be a timer to indicate when free time is over, and thus, when the activity will be done. This is an important element we must incorporate. **2**
- **Incident:** User wonders what happens upon clicking calendar. We must consider more flows for landing on calendar; essentially, clicking takes you to the calendar viewer built into the app. **1**
- **Incident:** User enjoys adding habit to calendar. User thinks it’s pretty easy to learn. **0**

The second user we interviewed (Participant #2) is a co-term recruiting for full-time jobs.

- **Incident:** User wants to see permissions for calendar and location services. **1**
- **Incident:** User wonders what to do if undesirable to open in Maps and just want to go without the help of Maps. **2**

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- **Incident:** On option to meditate - user wonders what will happen if “No” is selected (as in, no meditation). User suggested options such as the app saying “see you later!” **3**
 - **Incident:** User wonders what if you say “Great!” and decided not to do it **2**
 - **Incident:** User likes Idea of rating activity, seeing a review of my day. **0**

The third and final user we interviewed (Participant #3) is a triathlon athlete.

- **Incident:** User was confused and thought loading calendar bar was “I’m not 100% well” **1**
- **Incident:** What I select “No” (repeated concern) **3**
 - Suggestion: “No” and nothing else can drive people away from the app; perhaps prompt for doing something else or doing it later
- **Incident:** For location services, on-campus connections (such as connecting meditation to hover) work, but user wonders what will happen if one is away from campus? **3**
- **Incident:** User wants more information on how meditation helps his/her health. For instance, he/she rather go on a bike ride to breathe. **1**
- **Incident:** What if I didn’t rate the activity? But I did it? The app may not know that (However, Apple Watch would know my heart rate went down) **2**
- **Incident:** How does this work if I have no free time? **2**
 - Suggestion: App, “It looks like you’ve been having a busy week, remember to take some time off for yourself this weekend.”

8. Discussion

Overall, users thought the app would help them incorporate holistic wellness and positive habit forming into their routine by allowing them to try new habits and add them to their schedule and by helping them find time to try new health-focused activities.

Though users unanimously thought the interface was not complicated or confusing, there were a few design flaws that we need to consider moving forward. Many users wondered what would happen if they chose not to complete the task (i.e. meditate). This was a repeated concern among all our participants, and to remedy this, we have brainstormed giving the user an alternative task they can complete or have the app respond to their rejection of the task. Furthermore, users were interested in how the activity would help their health goals. For example, one participant expressed skepticism about the benefits of meditation and said he/she would rather “go on a bike ride to breathe.” Therefore, we should consider incorporating more informational data about the app’s suggested tasks -- in this case, trusted sources on wellness studies related to meditation -- as well as potentially personalizing the activity recommendations based on the user’s preferences.

A participant also expressed the need for a timer during his/her activity, in order to complete the activity on time and keep on track with the rest of the day’s schedule. This is an important consideration we envision we can easily incorporate, as the app already suggests a time block the user is free (e.g. “You have 15 minutes free!”). Thus, we can use that data to monitor the user’s progress on the activity and remind the user when he/she may have to leave.

As our app is wellness-focused, we envision the value of integrating a phone’s built-in health-tracking data with our app. One of our users, the triathlon participant, expressed how he/she found valuable the tracking information on heart rate for monitoring overall well being. For example, during our suggested meditation activity, we can monitor the pace of the user’s heart to see the efficacy of the activity -- a slower heart rate can mean the user is more relaxed and absorbed by the meditation activity. Moreover, tracking these analytics over time can indicate user improvement over an activity, especially reinforcing the power of habit in achieving a goal.

From our post-testing surveys with users (see Appendix 1), we see that users strongly agree the app would help them incorporate holistic wellness and positive habit-forming into their routines. They found the concept clear and thought the interface struck the right balance of providing the necessary information without being unnecessarily complicated. They generally found the app easy to use, though one user expressed “I feel I could figure it out...but it was so much easier because [the facilitator] was here.” To address ease and accessibility of the app, one of our key takeaways is creating additional screens and prompts that positively respond to a user’s rejection of a certain

activity by suggesting an alternative or an upbeat “Maybe next time!” message, versus creating a dead end in the flow.

Word count: 2137

9. Appendices

1. Consolidated Survey Results (Participant #1, 2, 3)

This app would help me be more active during my busy schedule: 5, 4, 1

This app would help me take mental breaks when I have free time: 3, 4, 4

This app would help me incorporate holistic wellness & positive habit forming into routine: 4, 4, 4

- By allowing me to try new habits and add them to my schedule. 5, 4, 4
- By helping me find time to try new things/habits. 5, 4, 3

This app integrates spontaneity into my schedule. 5, 3, 4

- By giving spontaneous suggestions of healthy things to do when I have free time. 5, 2, 4

This app was easy to use 5, 4, 3

The concept was confusing 1, 1, 1

The interface was confusing 2, 3, 4

The interface was overly complicated. 1, 1, 2

I would need instructions to navigate through the app 1, "I feel I would figure it out...but it was so much easier because you were here" 2, 1

I would tell friends and family to try this app: 5, 2, "I feel my friends and family would tell me to try this app" 4