

Low-fi Prototyping & Pilot Usability Testing

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TEAM RECHORDS

Introduction

Mission Statement

By connecting music to memories, we hope to add a new dimension to memory keeping.

Value Proposition

Turn music into memories.

Problem / Solution Overview

Journaling is time-consuming, and photos only capture visual details. Instead of simply storing mementos of the past, we aim to recreate the environment of the memory itself. Rechords uses the connection between music and memories to give users a better way to remember. Our app records the location and song associated to a memory. Users can then relive past experiences and share them with friends, loved ones, and even the public.

Sketches

1(a) Concept Sketches (15-20 sketches)

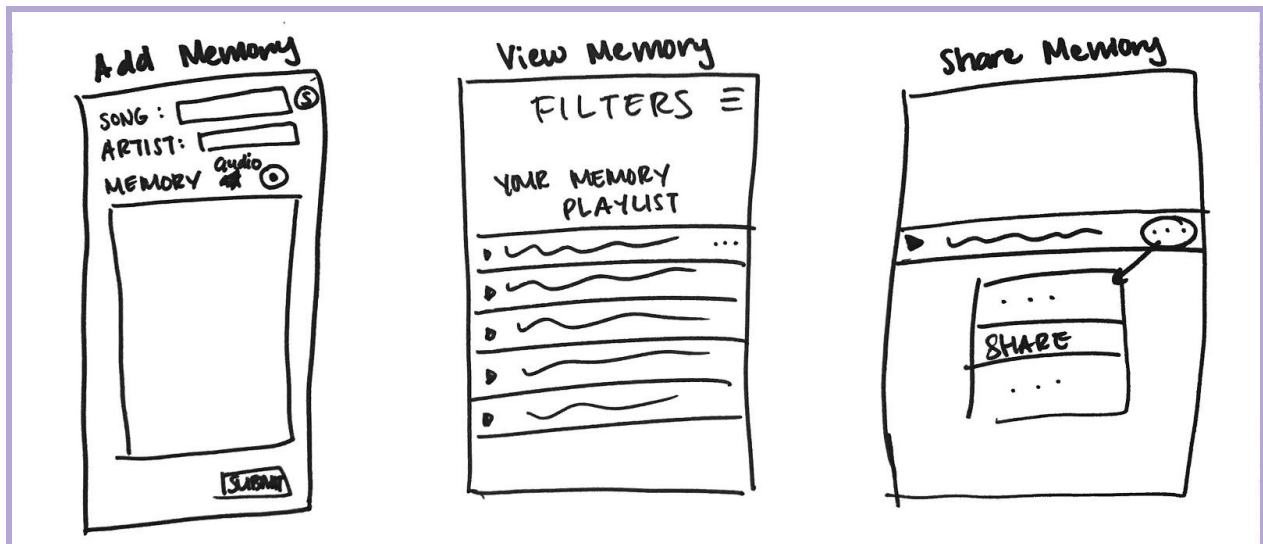


Figure 1: Mobile App Playlist

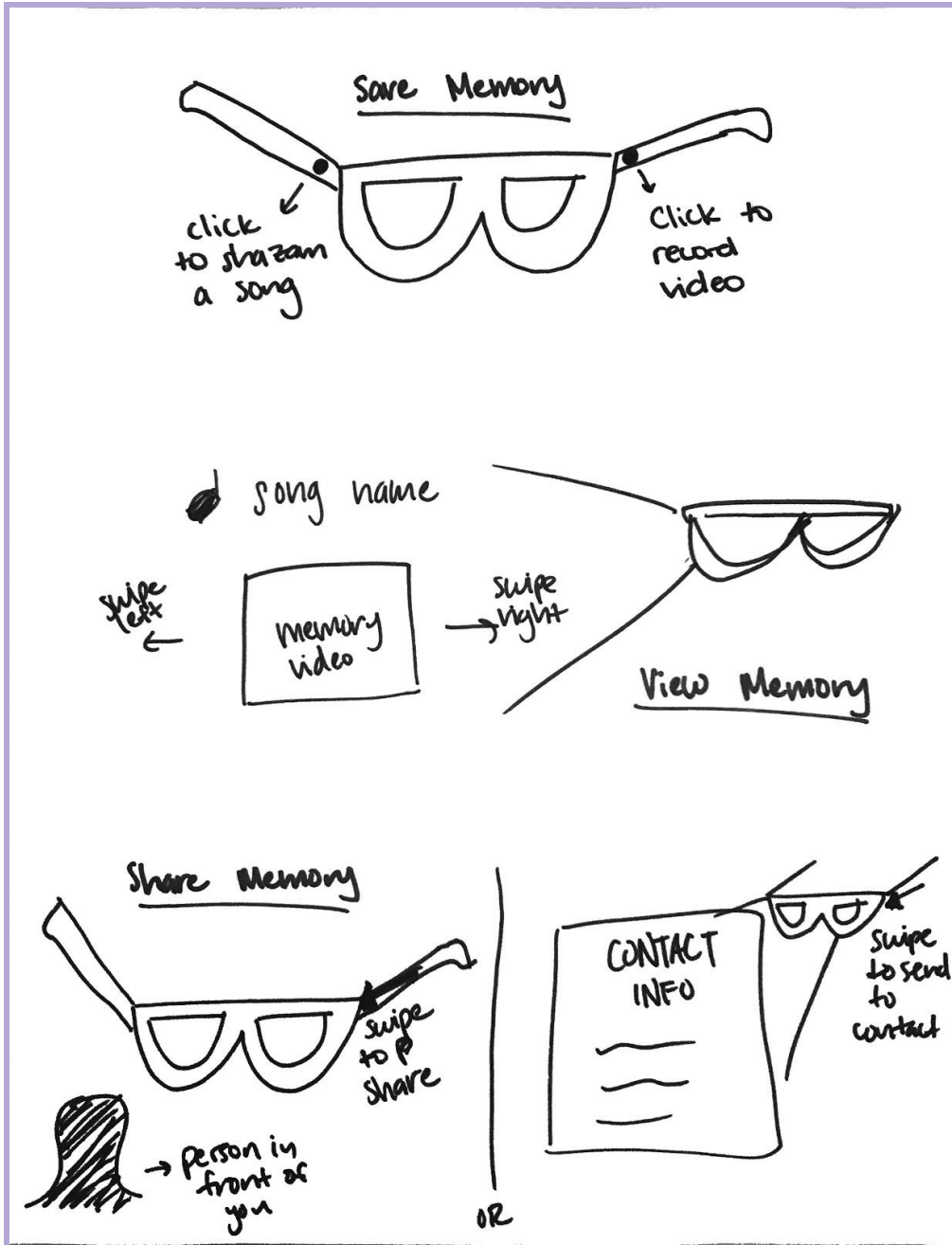


Figure 2: Shazam Glasses

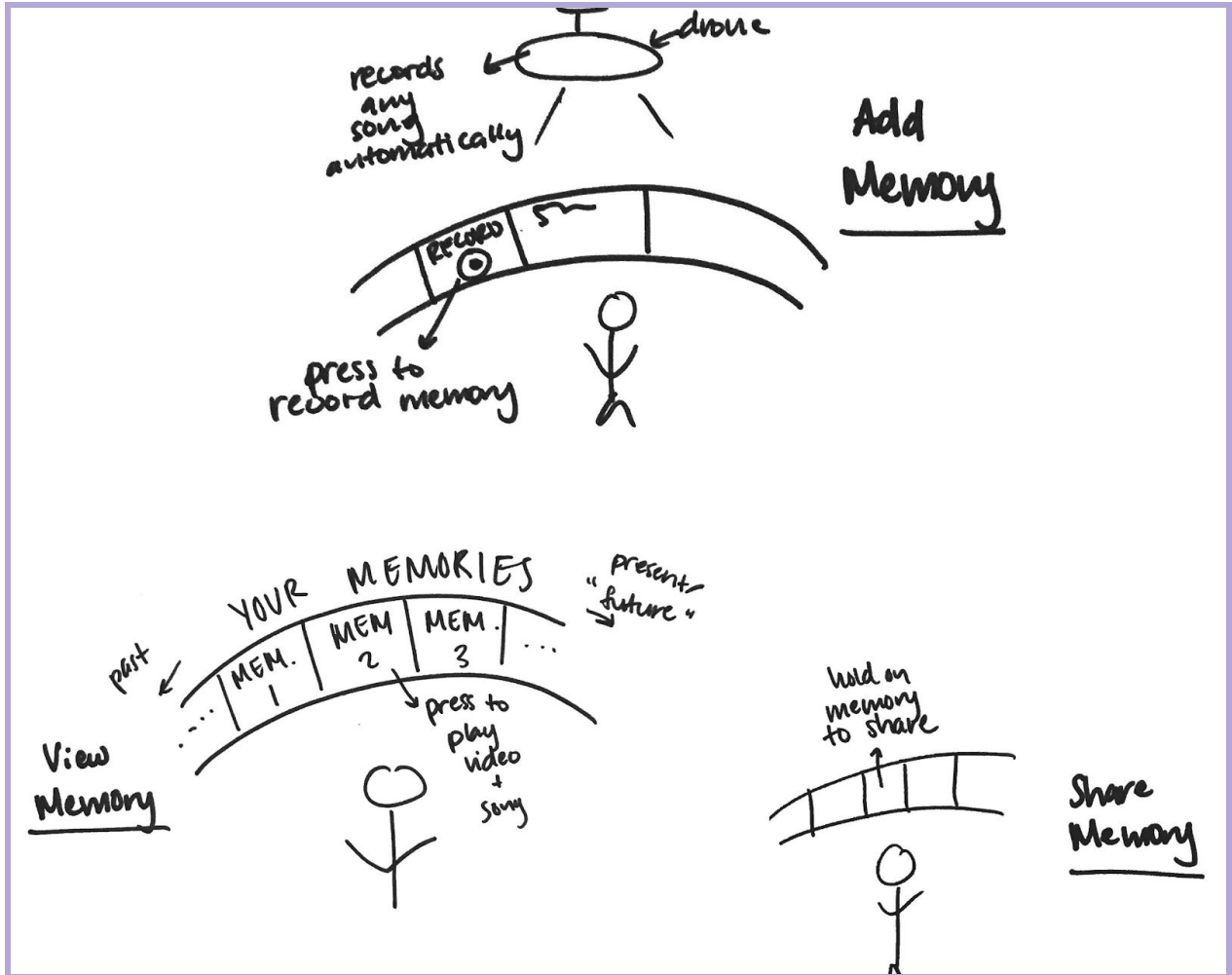


Figure 3: Droid Memory Projection

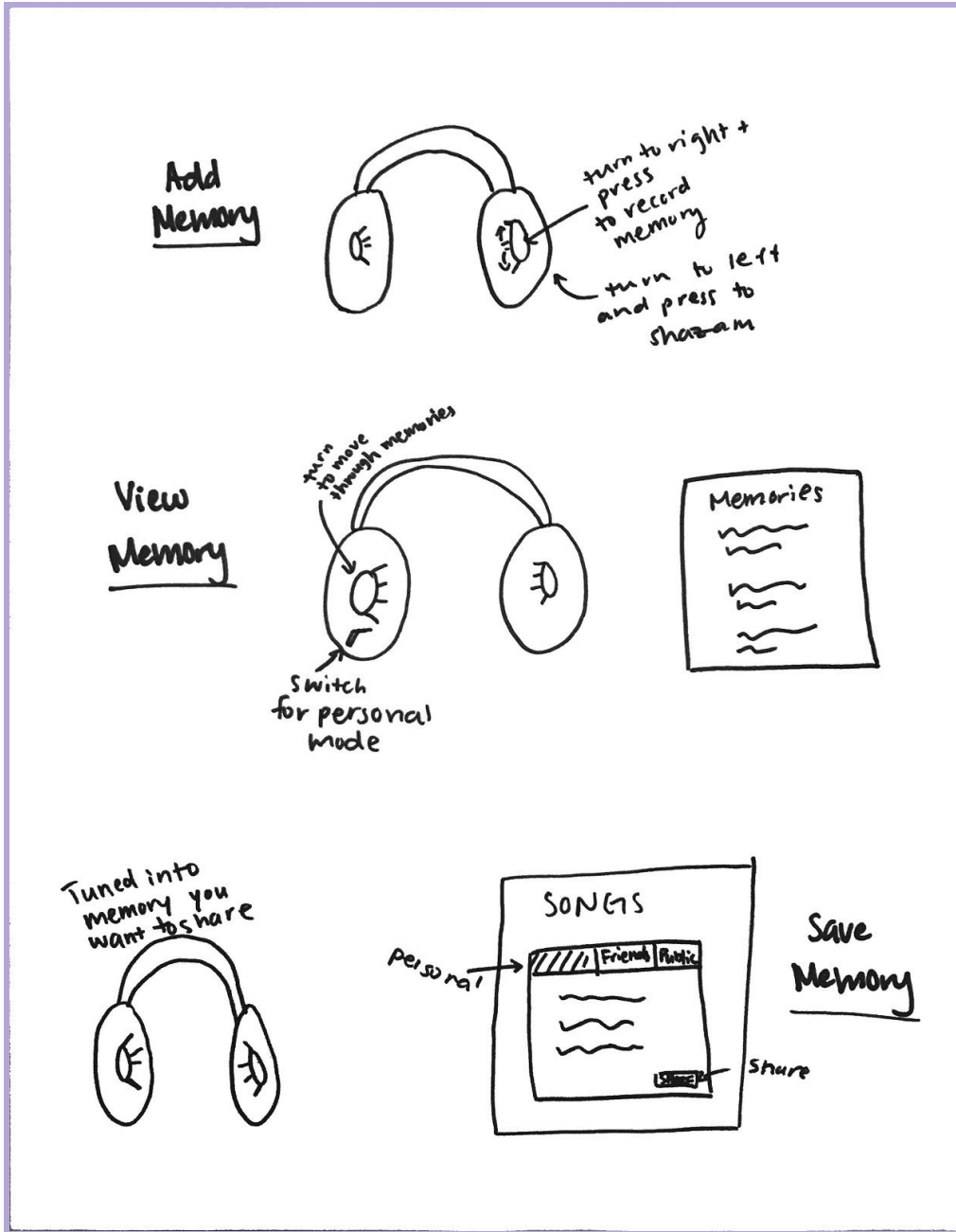


Figure 4: Headphones (Song Saver + Radio)

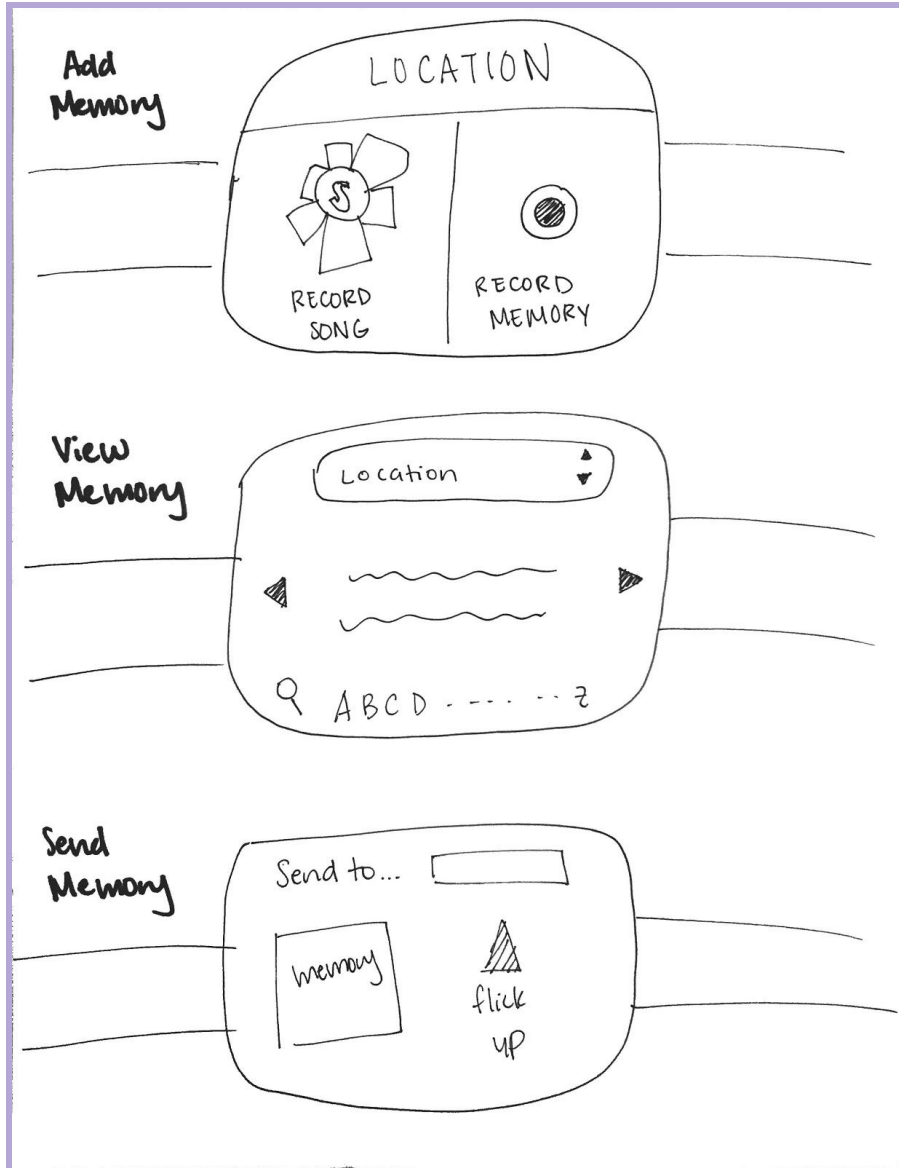


Figure 5: Shazam Wearable

1(b) Top 2 Designs (2 Storyboards)

The top two designs were the **Shazam Wearable** and **Headphones**. Due to the mobile constraint, we created mobile app storyboards for each design below.

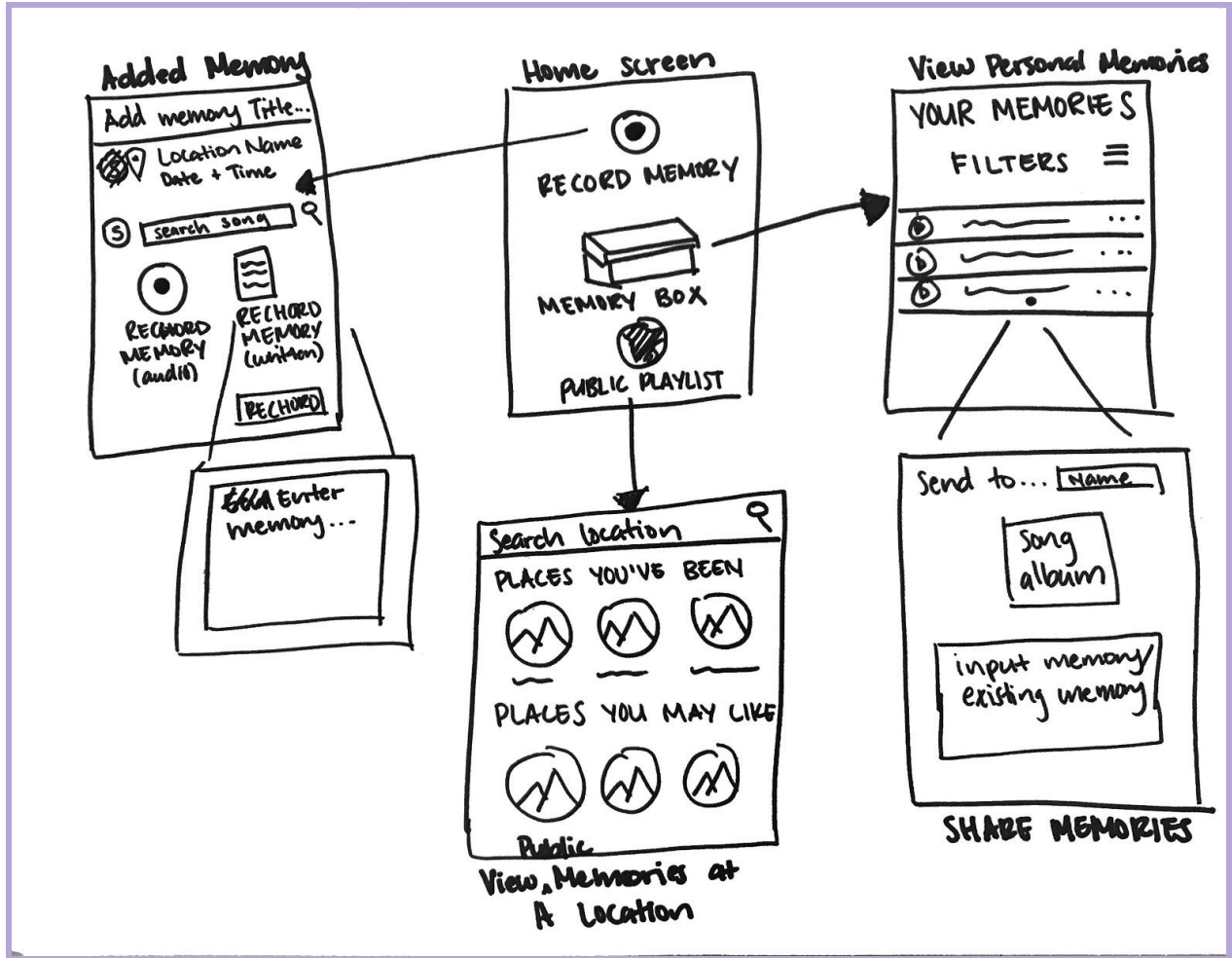


Figure 6: Wearable Watch Storyboard

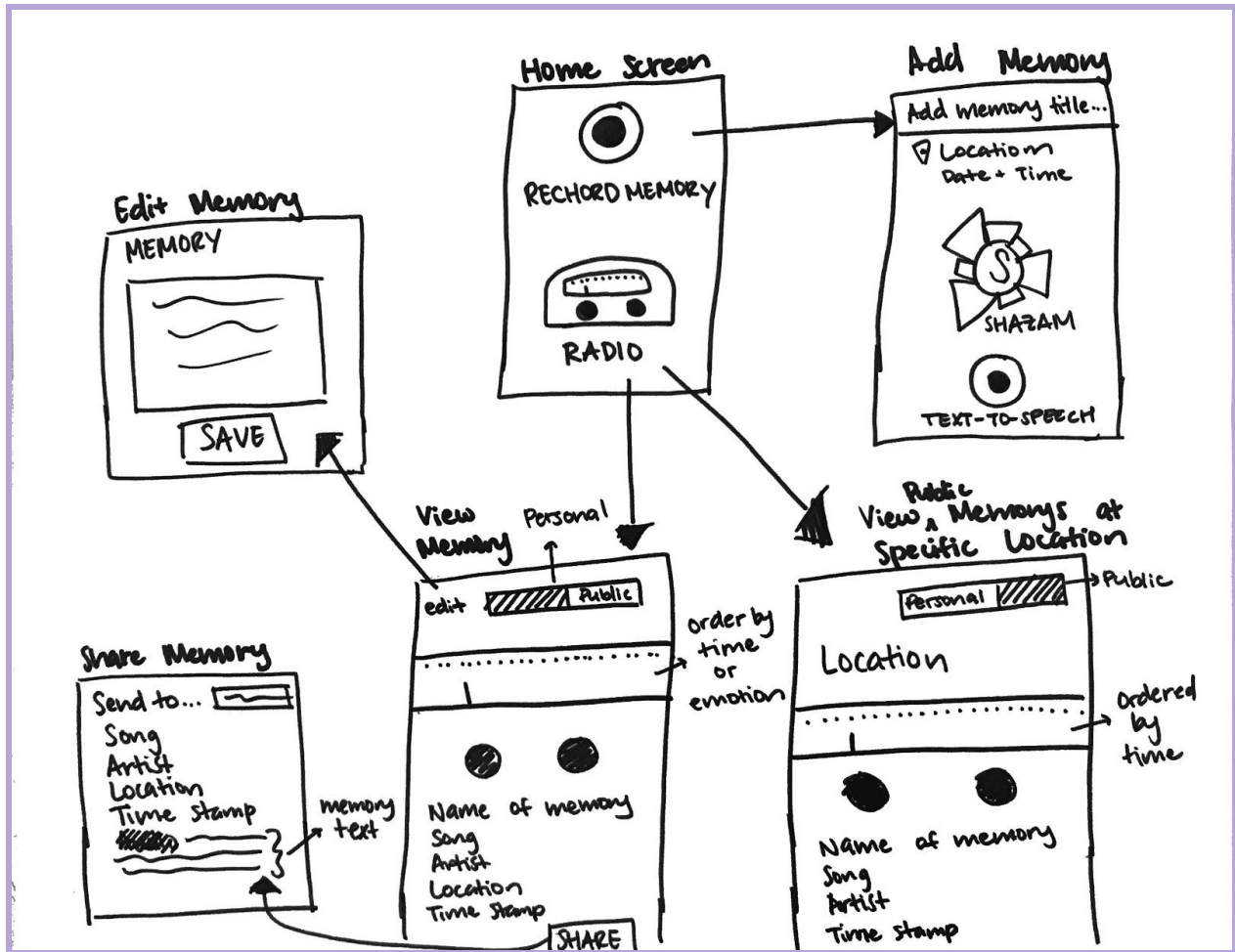


Figure 7: Headphones Storyboard

Pros and Cons

Wearable Watch

Pros	Cons
<ul style="list-style-type: none"> • Allows more range of options for capturing memories <ul style="list-style-type: none"> ◦ By audio, text, search, and shazam • Filters memories for easier access • Can access public playlist without being at the actual location • Users do not have to “click” a lot to complete tasks (hypothesis, will be tested) 	<ul style="list-style-type: none"> • No option for editing a memory • A bit cluttered in functionality • Can be overwhelming for the user to input a memory • “Memory box” clashes with “Rechords”

<ul style="list-style-type: none"> ● Gives users more autonomy on listening to musics from different places at any location ● Has a recognizable playlist design that will be intuitive to user ● Use of icons 	
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Headphones

Pros	Cons
<ul style="list-style-type: none"> ● Easy to use for someone who doesn't want to sit and record memories ● Less taps to accomplish tasks ● Takes into account users' current emotions when playing personal radio ● Cool design ● Easy interface for looking through timeline ● Gets people to go to places to find out other people's memories 	<ul style="list-style-type: none"> ● Must be in location to access public memories ● No option to type memory in (only text-to-speech) ● Radio design clashes with "Rechords" ● Can be difficult and time-consuming to find memory ● Can't edit song associated with memory ● Emotion can be difficult to define and sort"

Selected Interface Design

1(c) Design Selection Rationale

We chose the **Wearable Watch** Design because we liked the range of options we could provide to the user. Even though the design is busy, we thought it made the intent of saving a memory clearer than the headphones.

1(d) UI Task Flows

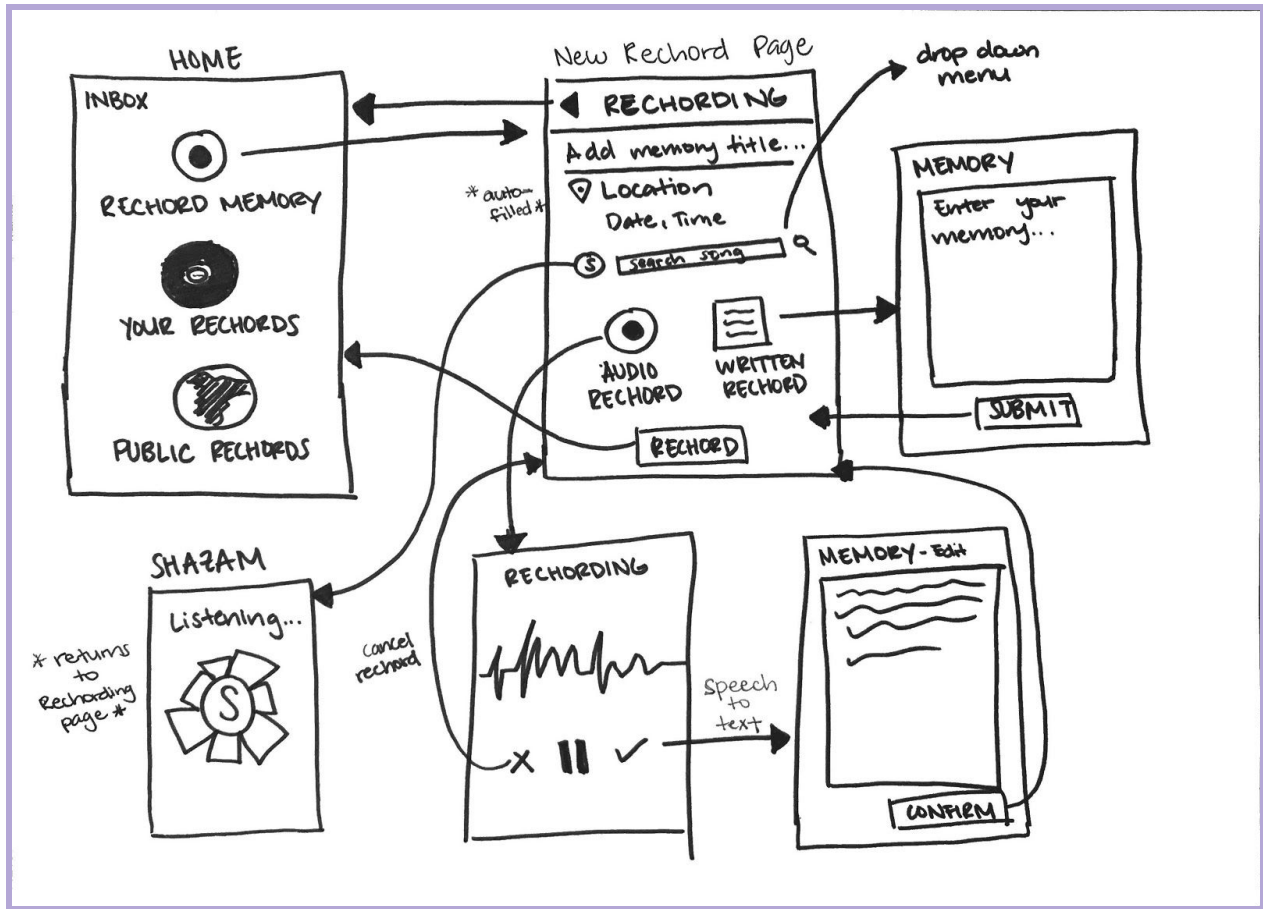


Figure 8: Task 1 - Create a new record with a song and memory

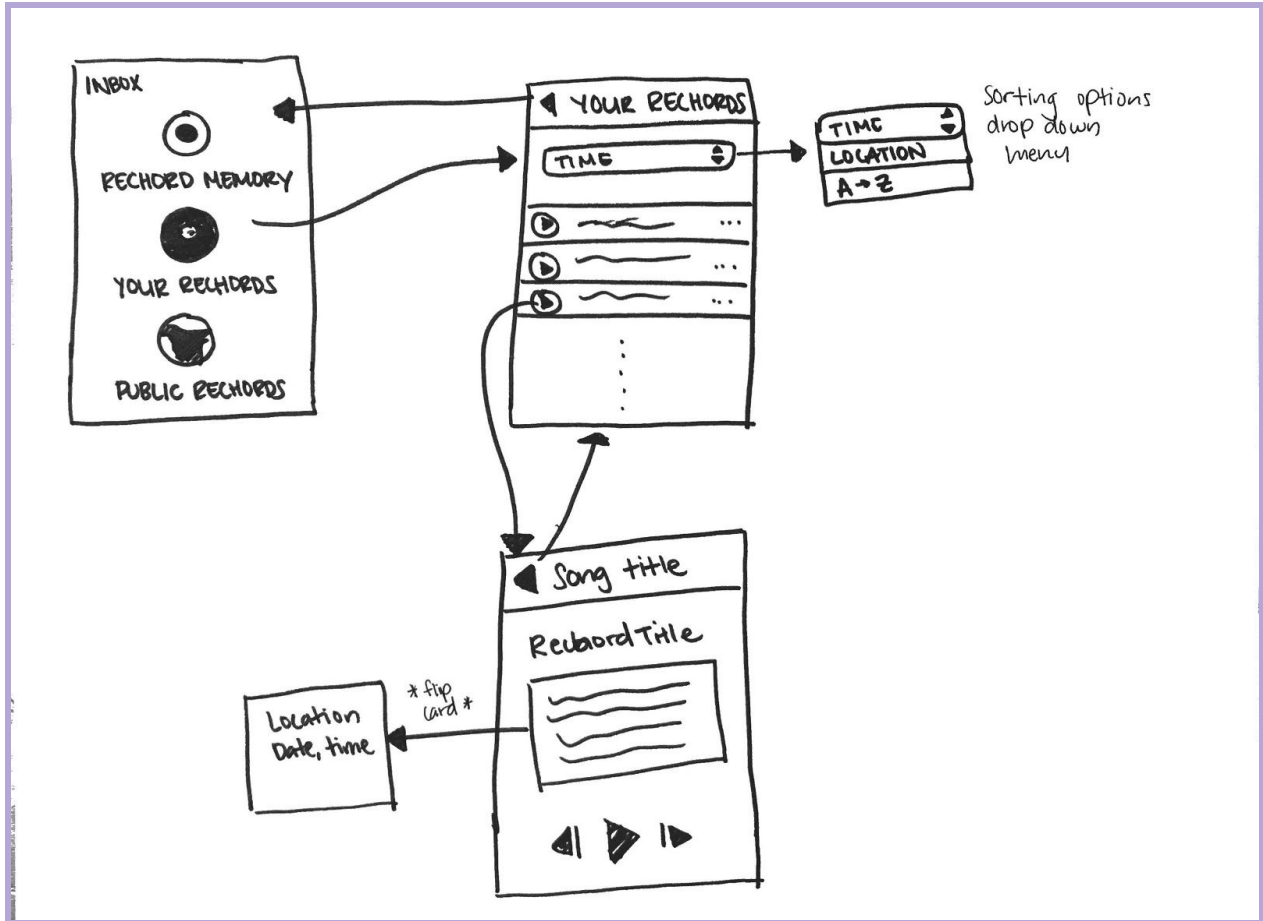


Figure 9: Task 2 - View a record

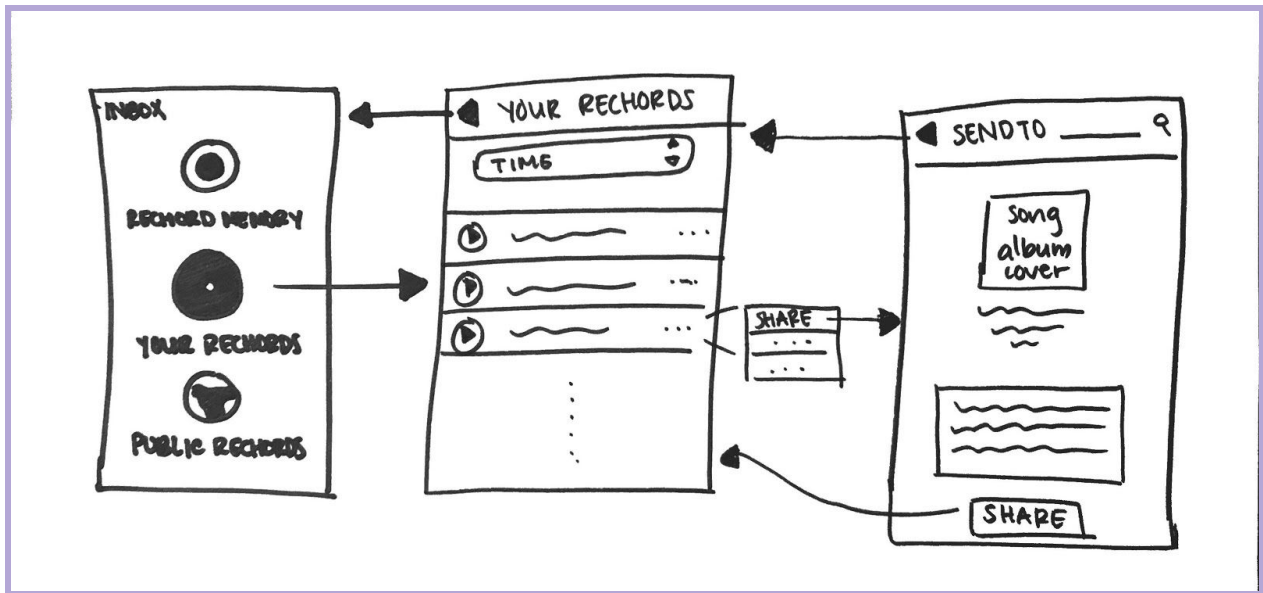


Figure 10: Task 3 - Share a record with a friend

Disclaimer: We add another task (share a record with the public) to our low-fi prototype later on.

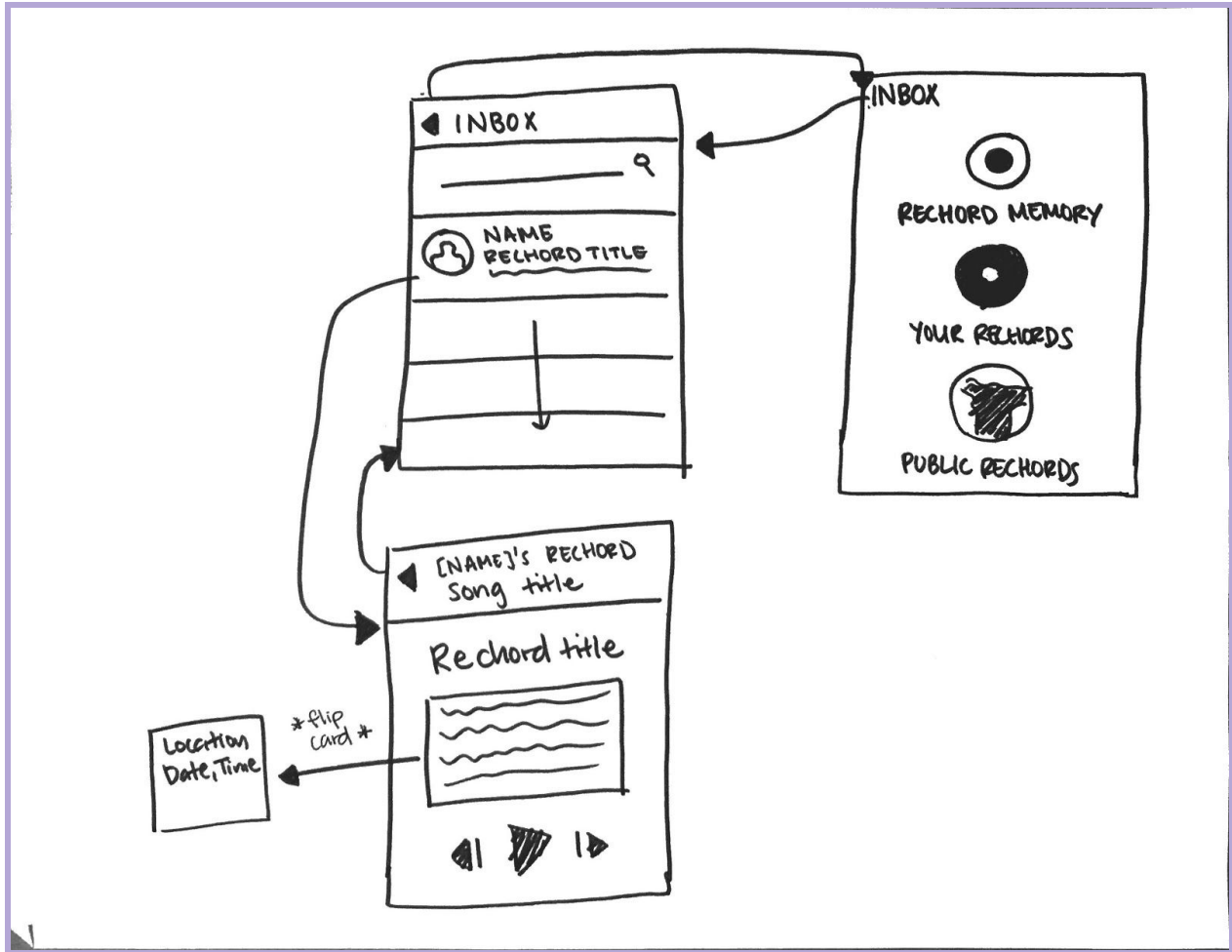


Figure 11: Task 4 - View a record shared by a friend

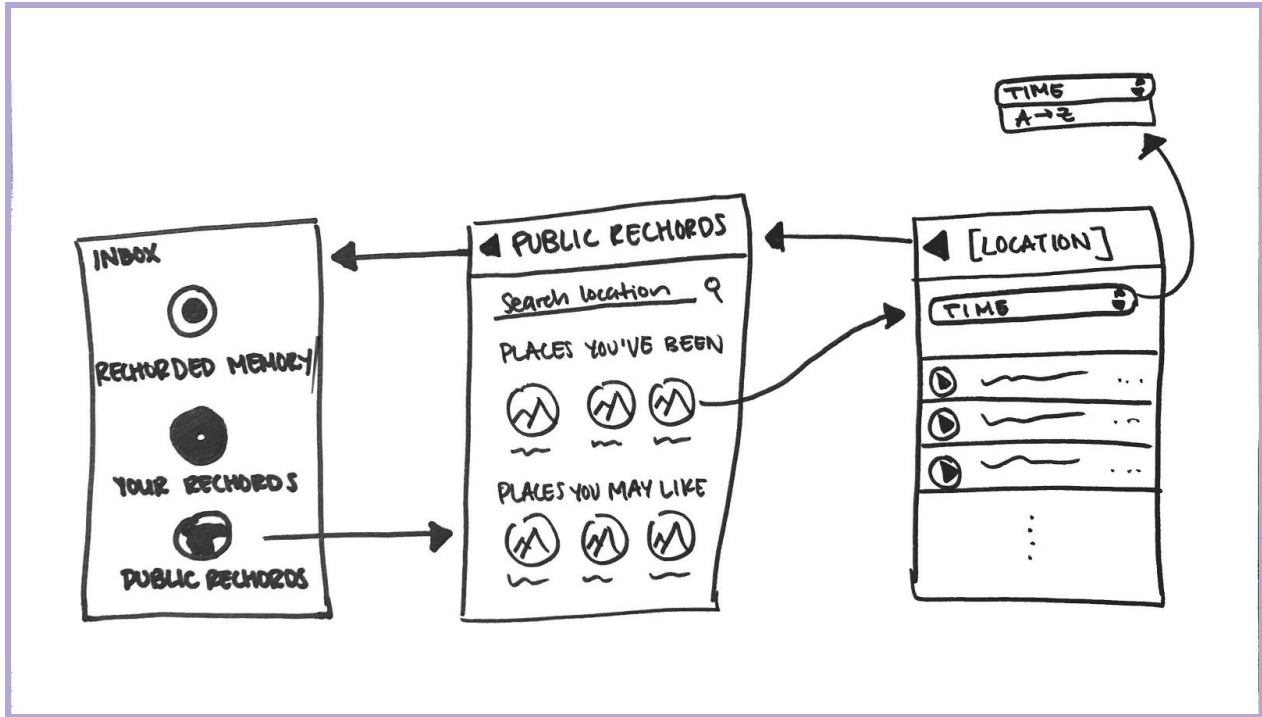


Figure 12: Task 5 - View public records at a specific location

Interface Element	Functionality
Home page	Provide navigation to <i>new record</i> , <i>your records</i> , <i>public records</i> , and <i>inbox</i> pages
New record page	Allow users to (1) save a song through either search or Shazam (2) add a memory title/text (3) use text-to-speech to record memory text (4) auto-records location and time
Your records page	Store records created by the users, sorting them by time, location, and alphabetically Share specific records to friends or the public
Public records page	Browse through records shared by others at specific locations
Inbox page	View records shared by friends

Low-fi Prototype

Description

We designed our prototype as mock mobile app screens drawn on index cards, using sticky notes as text boxes and pop up menus. To note, we used the term “rechord” to mean the combination of a song and written memory record.

Screens

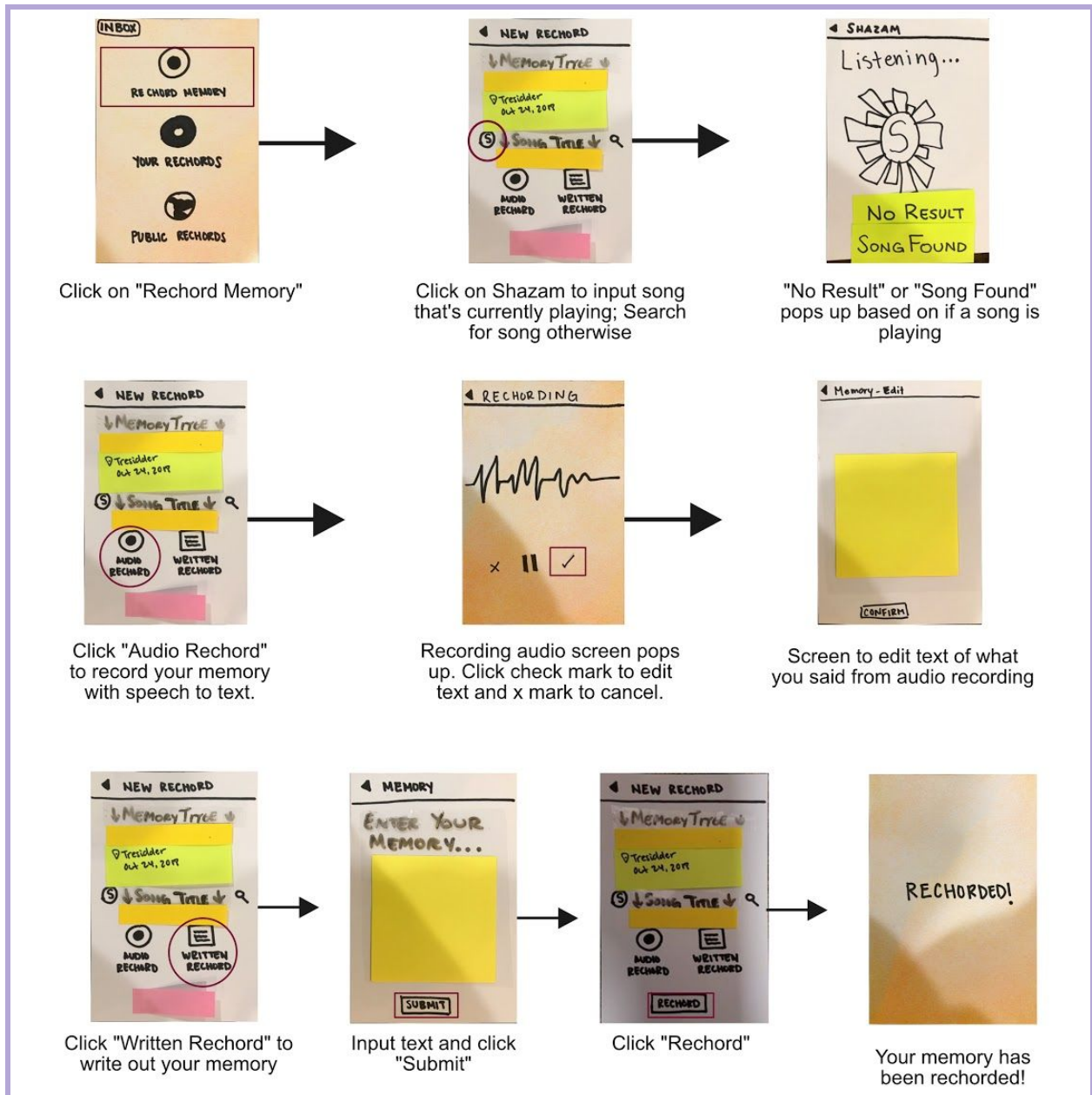


Figure 13: Create and save a rechord

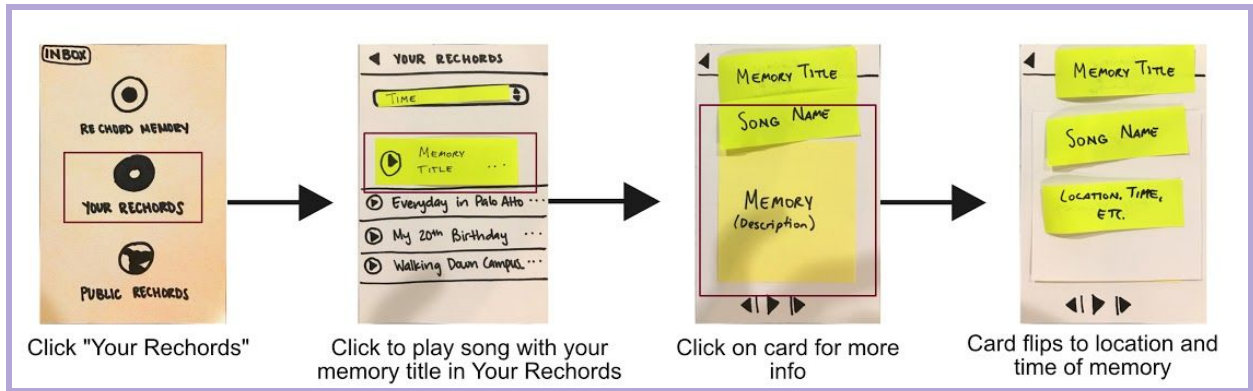


Figure 14: View recently created rechord

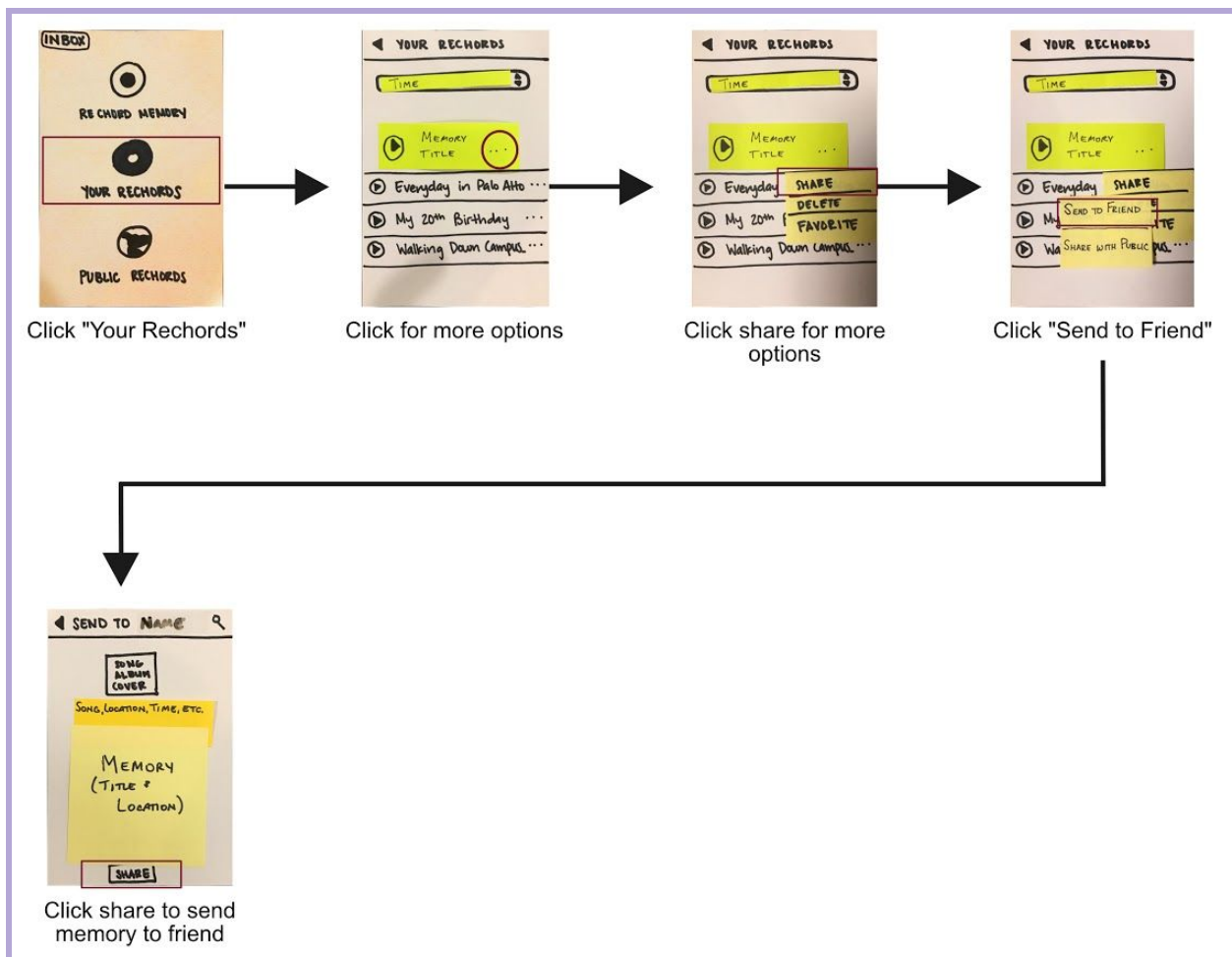


Figure 15: Share a rechord with a friend

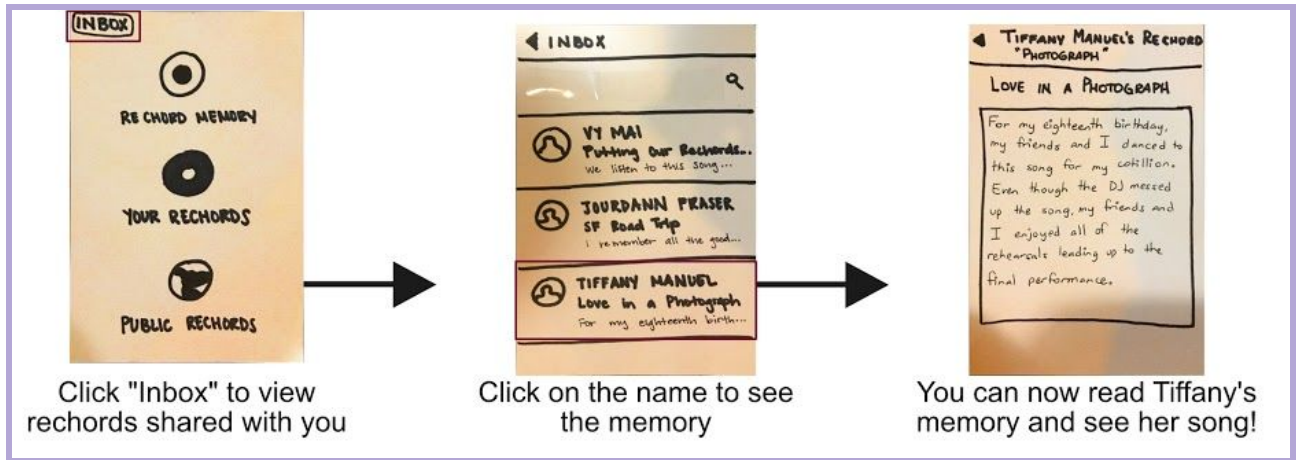


Figure 16: View records shared with you

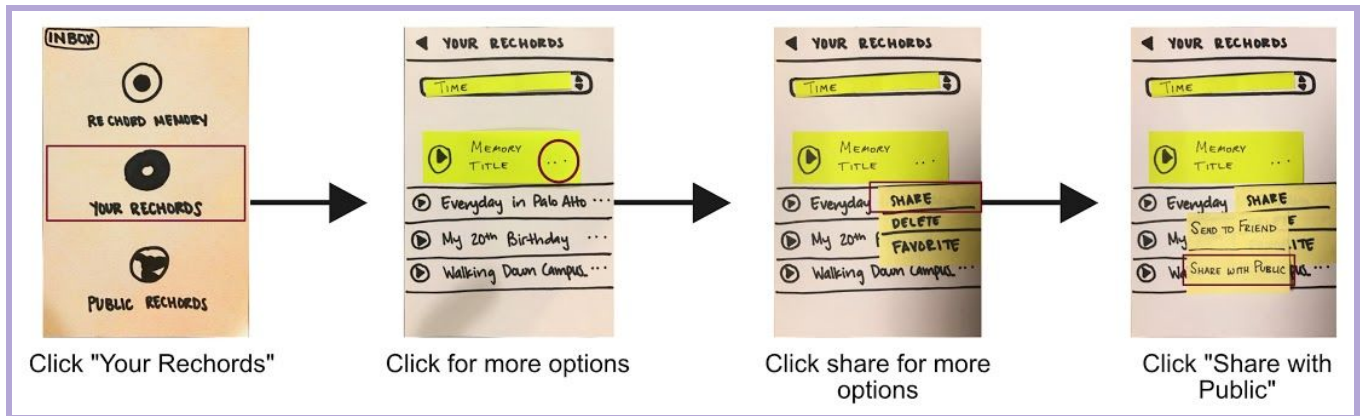


Figure 17: Share a record with the public

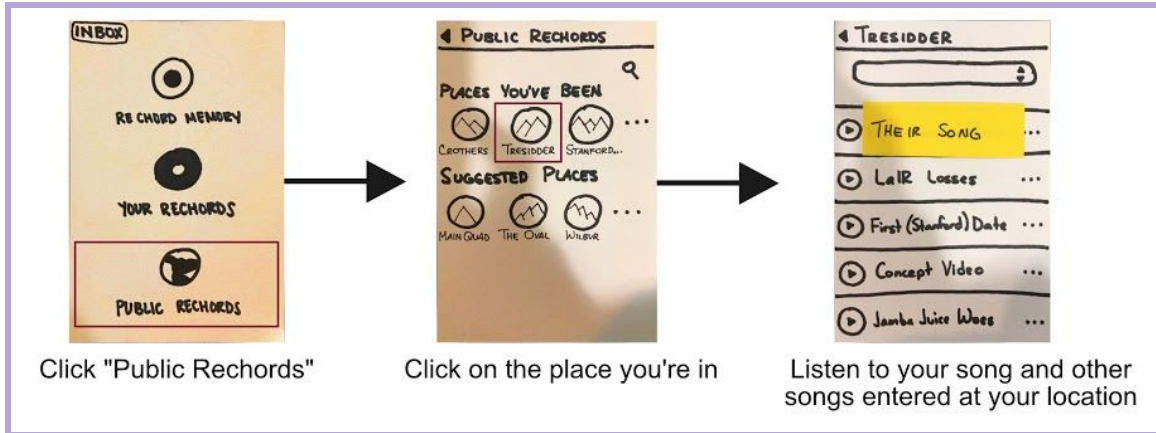


Figure 18: View public rechords from your current location

Method

Participants + Environment

We wanted to find participants, who personally valued music, perhaps making music themselves. Through Nextdoor, we found participant 1 who regularly makes music while participant 2 has studied classical music for 11 years. We needed space to film and test our prototype, so we held two testings at Crothers dorm. For our last participant, we wanted to find someone who simply likes listening to music. At Tresidder, we found participant 3 listening to music with headphones in.

Tasks

To note, when we say “rechord”, we mean the combination of a song and memory together.

1. Create and save a rechord
2. View a rechord you created
3. Share a rechord with a friend
4. Share a rechord with the public
5. View rechords friends have shared with you
6. View rechords shared by the public at a location

Procedure

We first explained the general idea of the prototype and how to test it. Then, we asked them to complete each task, noting their behavior using the test measures we define below. When they finished the tasks, we gave them a brief evaluation form. Lastly, we asked questions on features they liked/disliked, suggestions for improvement, and how they would describe the app to others.

Test Measures

- **Successes** - Tasks that the participants were able to complete
- **Errors** - Tasks that the participants failed to complete/gave up

- **Timing** - How long each task took to complete
- **Questionnaire**
 - How easy the user ranked each task
 - How users ranked the prototype overall on the following categories: Aesthetics, Readability, Consistency, Navigation, Explorability, Learnability

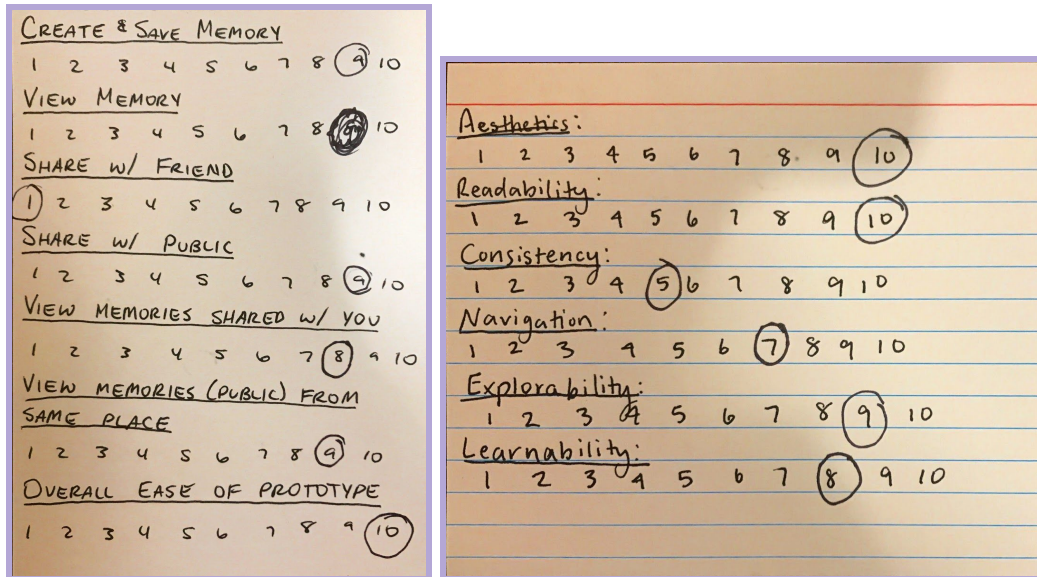


Figure 19: Task and General Questionnaire

Team Member Roles

Greeter/Facilitator: Vy

Computer: Jourdann*

Notetaker: Tiffany*

* Jourdann and Tiffany switched roles for the last test.

Results

Positives

- Each participant eventually got each task except for two
- Liked the app concept
- Liked exploring the app – Participant 3

Negatives

- Took too long to save a rechord
- Thought they were creating a song – Participant 3
- Confused with rechord terminology (noun vs verb)
- Confused “Public Rechords” with sharing songs
- Confused sending a memory to sending a message to a friend
- Couldn’t recognize inbox as clickable
- Frustrated with inconsistent prototype

Suggestions

- Use “submit” and “confirm” buttons instead of “rechord”
- Rechord button cannot be clicked until memory is written
- Have “Friend’s Rechords” instead of “Public Rechords”
- Change the order of saving a memory: song, location, memory
- A tutorial/avatar to teach users how to use app
- Combine process of sharing and receiving rechords (no inbox)

How would you describe our app to a friend?

- Preserve moments you would like to save – Participant 1
- Simple, approachable, worth downloading – Participant 2
- A great way to share experiences – Participant 3

Task Execution Timing

	P1	P2	P3
Create and save a rechord	2:30	5:00	5:07
View a rechord you created	1:40	0:30	3:00
Share a rechord with a friend	1:40	2:55 (Incomplete)	2:10 (Incomplete)
Share a rechord with the public	0:20	2:30 (Incomplete)	1:09
View rechords friends have shared with you	2:30 (Incomplete)	0:45	1:34
View rechords shared by the public at a location	0:10	0:20	1:05

Discussion

Even though the testers like the idea of the app, they became frustrated with the UI and process of “rechording” a memory. Participants seemed less excited about the potential functionality of our app and more focused on simply completing the task. Only one participant wanted to explore the app more in depth.

Most concerning, all participants failed to record the actual memory. They saved the song but failed to input meaningful text as the memory. One participant thought they were creating a song. We realized we got the order of saving a rechord wrong. A meaningful memory does not

necessarily lend itself to a meaningful song. But, a meaningful song will always lend itself to a meaningful memory. To fix this, we want to ask for a song before a memory. We also want to explore ways to better integrate Shazam and emphasizing location importance in saving a memory.

Luckily, we ranked fairly high on aesthetics and navigation, so we plan on keeping the general visual design of the app. However, we still need to work on the consistency, explorability, and learnability. Some small goals are to:

- connect the process of sharing and receiving of rechords
- reduce the amount of clicks for each task
- standardize “rechord” terminology
- simulate saving a memory in a meaningful location
- simulate saving a memory in real-time with song playing in background

While we got worthwhile feedback from our participants, we realized they tended to be older. We want to target younger people, who listen to music with mobile apps more frequently in the future.

Word Count: 1,456

Appendix

Questionnaire Results

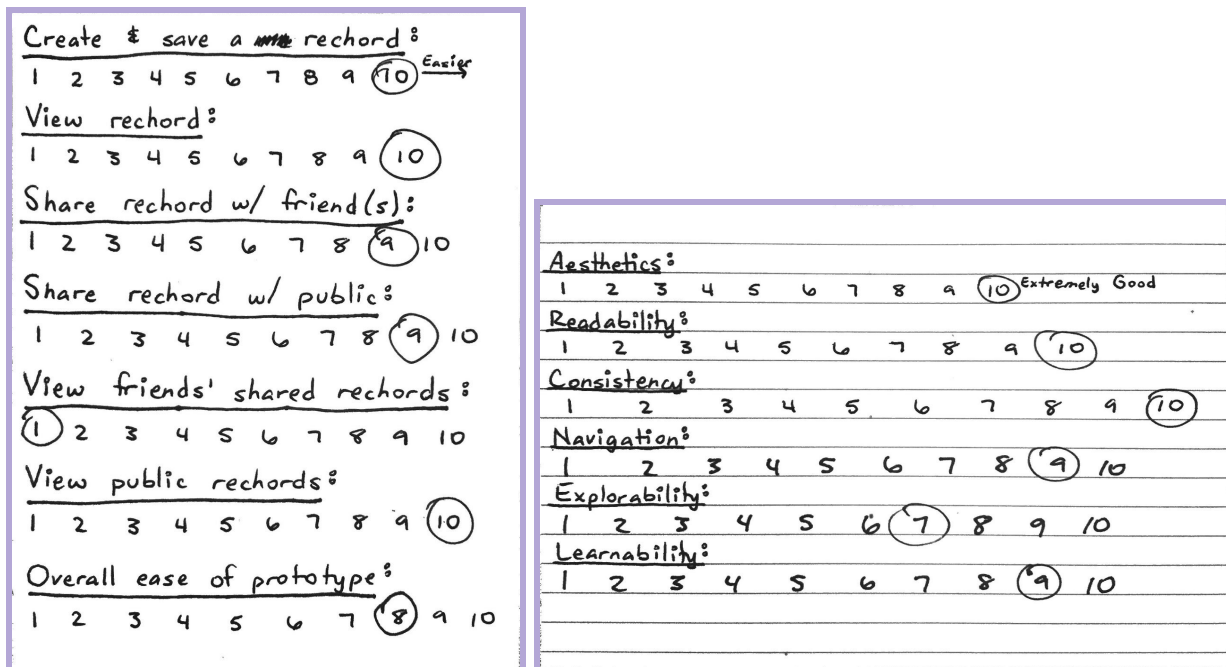


Figure 20: Questionnaire – Participant 1

Create and save a record:
 1 2 3 4 5 6 7 8 9 **10** → Easier

View Record:
 1 2 3 4 5 6 7 8 **9** 10

Share record w/ friend(s):
 1 2 3 4 **5** 6 7 8 9 10

Share record w/ public:
 1 2 3 4 5 **6** 7 8 9 10

View friends' shared records:
 1 2 3 4 5 6 7 **8** 9 10

View public records:
 1 2 3 4 5 6 **7** 8 9 10

Overall ease of prototype:
 1 2 3 4 5 6 **7** 8 9 10

Aesthetics:
 1 2 3 4 5 6 7 8 **9** 10 Extremely Good

Readability:
 1 2 3 4 5 6 **7** 8 9 10

Consistency:
 1 2 3 4 5 6 **7** 8 9 10

Navigation:
 1 2 3 4 5 6 7 **8** 9 10

Explorability:
 1 2 3 4 5 **6** 7 8 9 10

Learnability:
 1 2 3 **4** 5 6 7 8 9 10

Figure 21: Questionnaire – Participant 2

CREATE & SAVE MEMORY
 1 2 3 4 5 6 7 8 **9** 10

VIEW MEMORY
 1 2 3 4 5 6 7 8 **9** 10

SHARE W/ FRIEND
1 2 3 4 5 6 7 8 9 10

SHARE W/ PUBLIC
 1 2 3 4 5 6 7 8 **9** 10

VIEW MEMORIES SHARED W/ YOU
 1 2 3 4 5 6 7 **8** 9 10

VIEW MEMORIES (PUBLIC) FROM SAME PLACE
 1 2 3 4 5 6 7 8 **9** 10

OVERALL EASE OF PROTOTYPE
 1 2 3 4 5 6 7 8 9 **10**

Aesthetics:
 1 2 3 4 5 6 7 8 9 **10**

Readability:
 1 2 3 4 5 6 7 8 9 **10**

Consistency:
 1 2 3 4 **5** 6 7 8 9 10

Navigation:
 1 2 3 4 5 6 **7** 8 9 10

Explorability:
 1 2 3 4 5 6 7 8 **9** 10

Learnability:
 1 2 3 4 5 6 7 **8** 9 10

Figure 22: Questionnaire – Participant 3