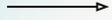


team **NOTED**



**Noted**

where story meets soundtrack



01

**intro**

# the team



**Alyssa**

product design



**Kabir**

computer science



**Caleb**

music



**Jasmine**

psychology

**Noted**

where story meets soundtrack

## problem

Even diligent photo takers and journalers do not always look back on what they have generated, **missing out on the opportunities for reflection and introspection**

## solution

Noted is a digital platform that **prompts reflection** through the **pairing of photo and song** which can be **shared** with friends and **stored** in a personal timeline

→ target audience

Individuals who enjoy looking at **photos** and listening to **music** that desire an organized way to **chronicle and reflect** on past experiences

# table of contents

**01** intro

**02** sketching

**03** selected interface

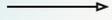
**04** low-fi prototype  
construction

**05** low-fi prototype

**06** testing methodology

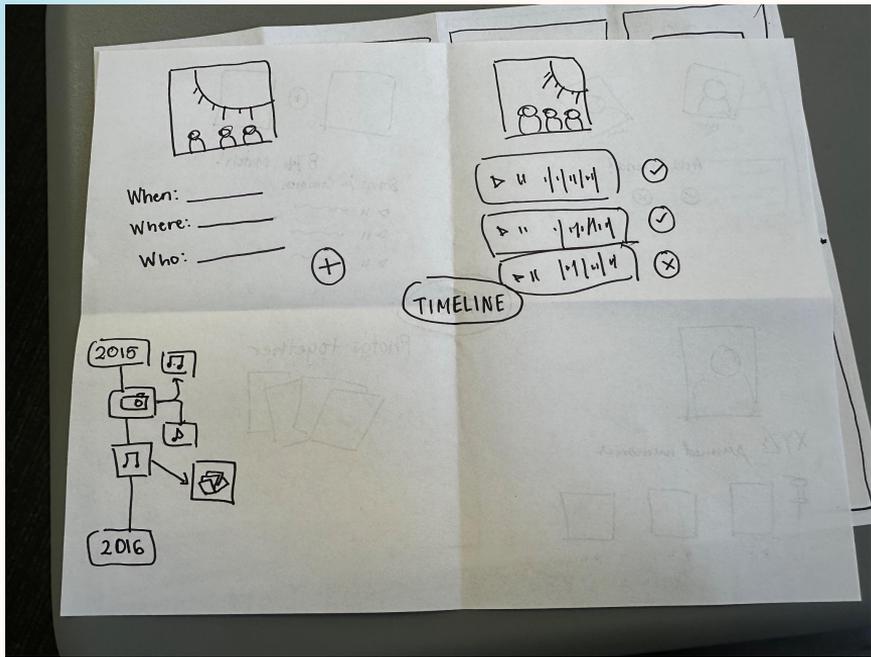
**07** testing results

**08** discussion

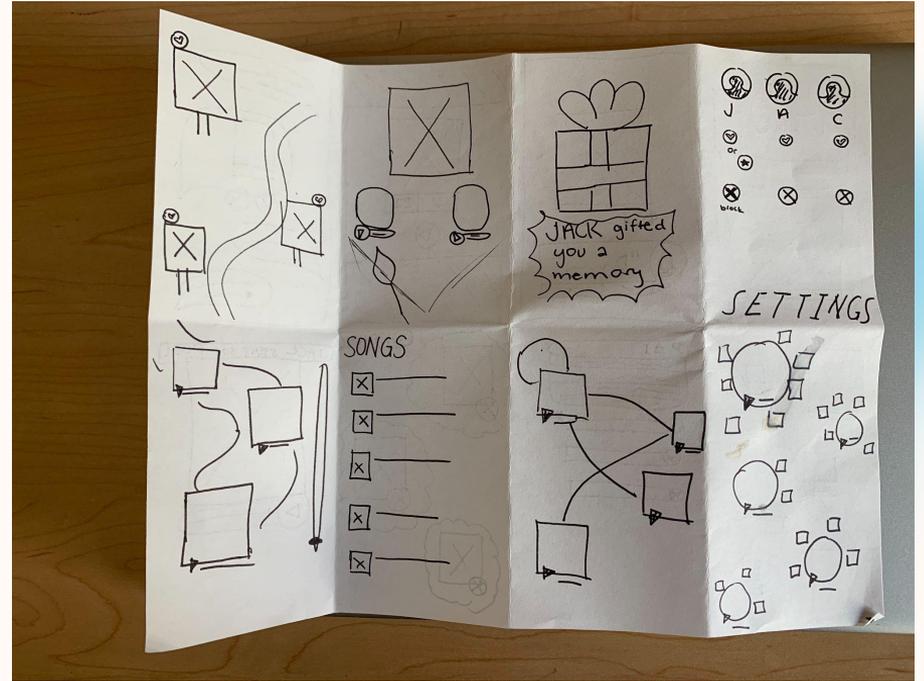


02

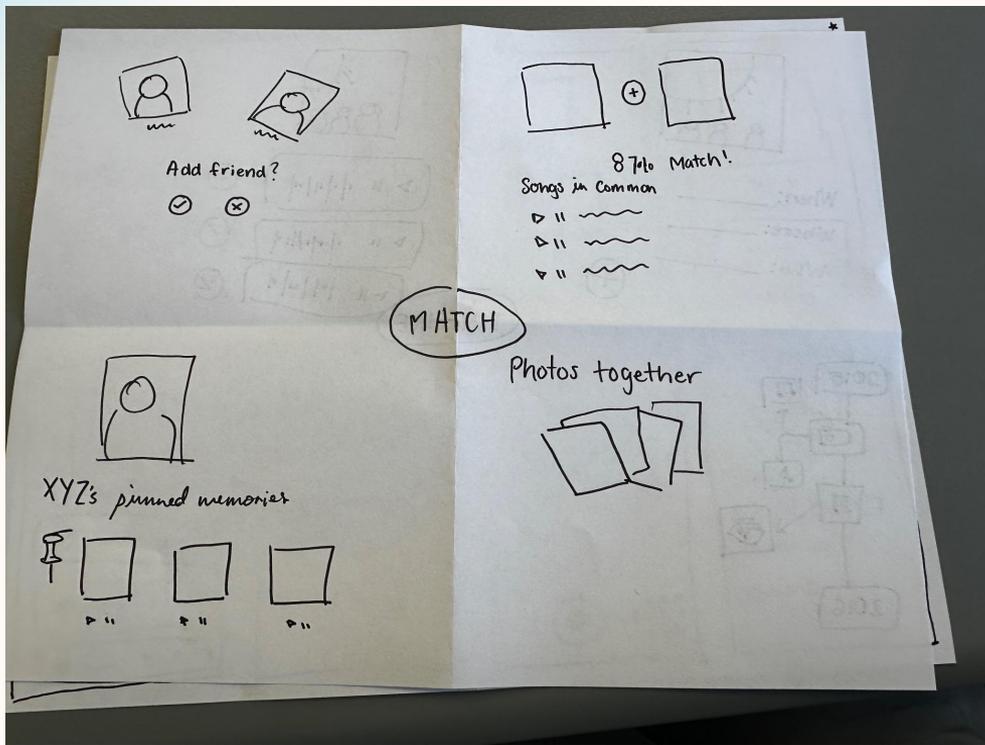
**sketching**



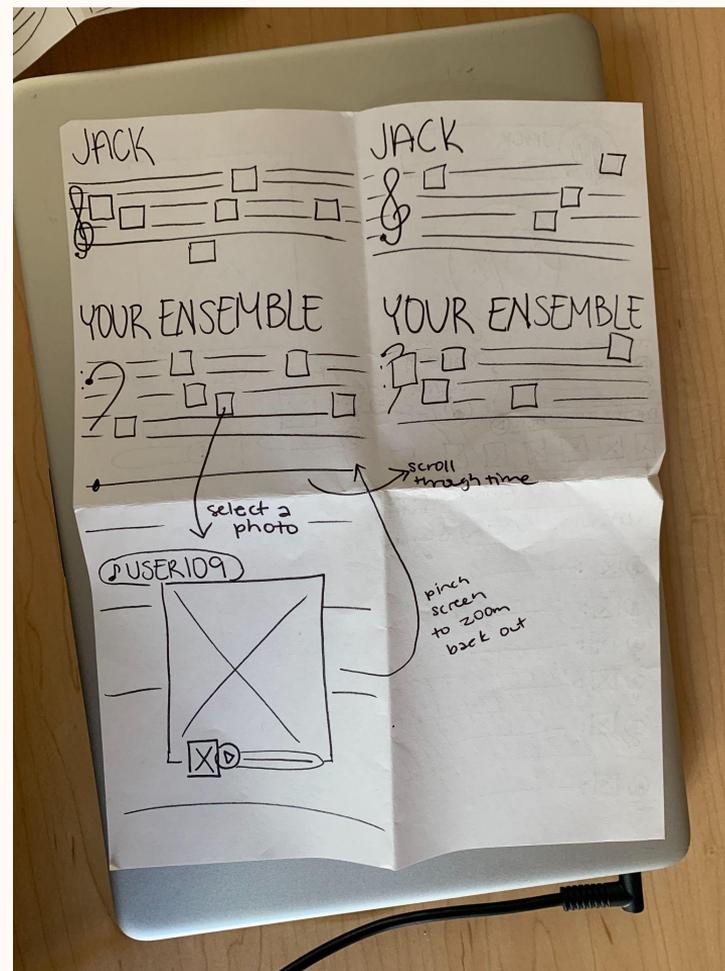
Photo/Song Pairing Interface



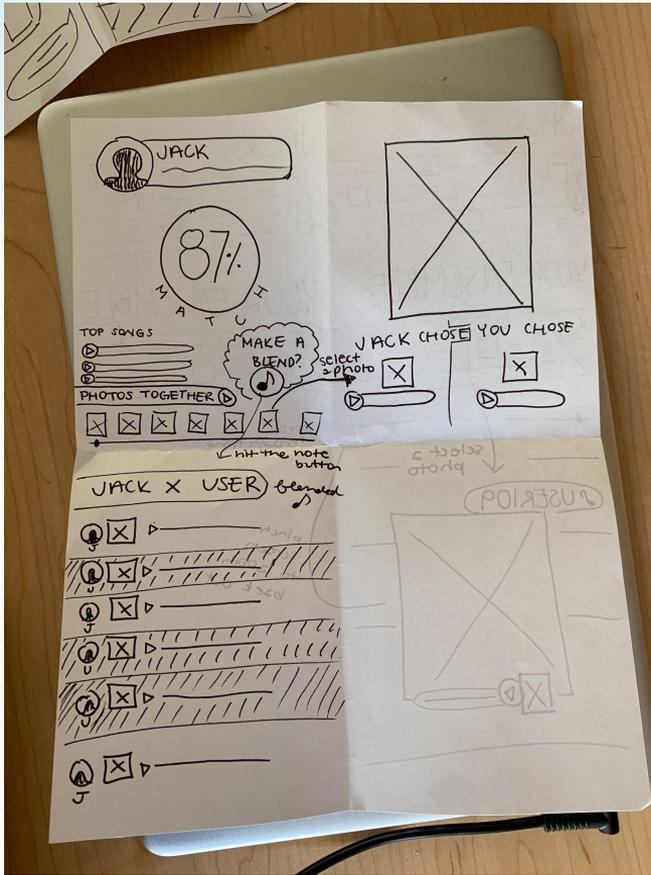
Display of "Hits" (Photo/Song Pairings)



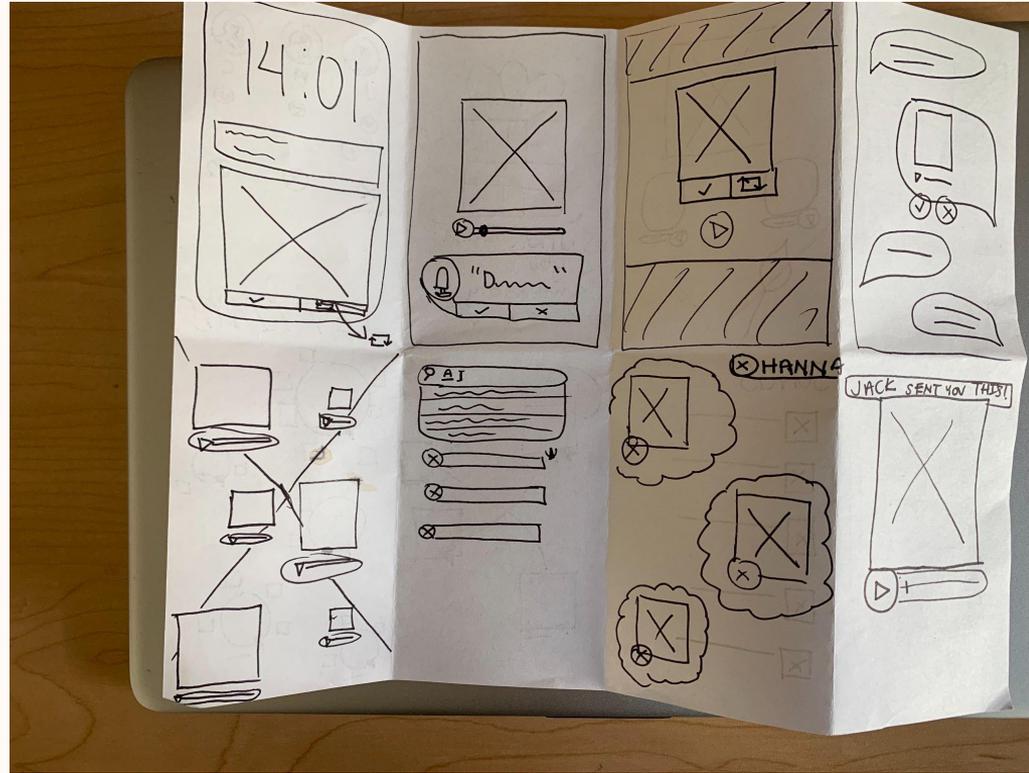
Profile Ideas



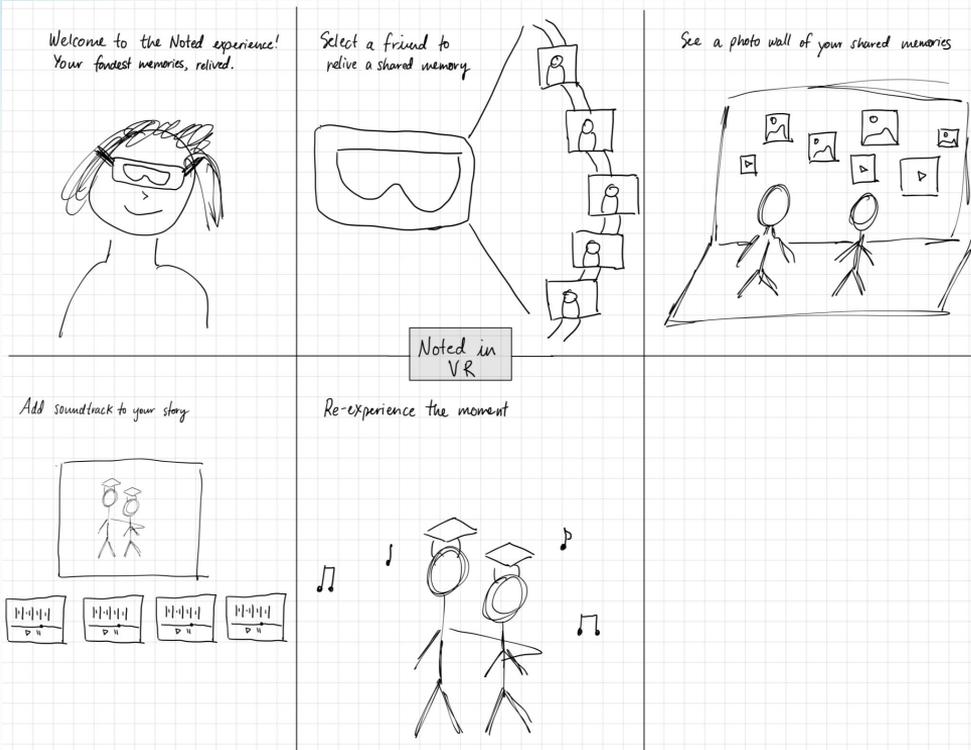
Timeline idea - Musical Staff



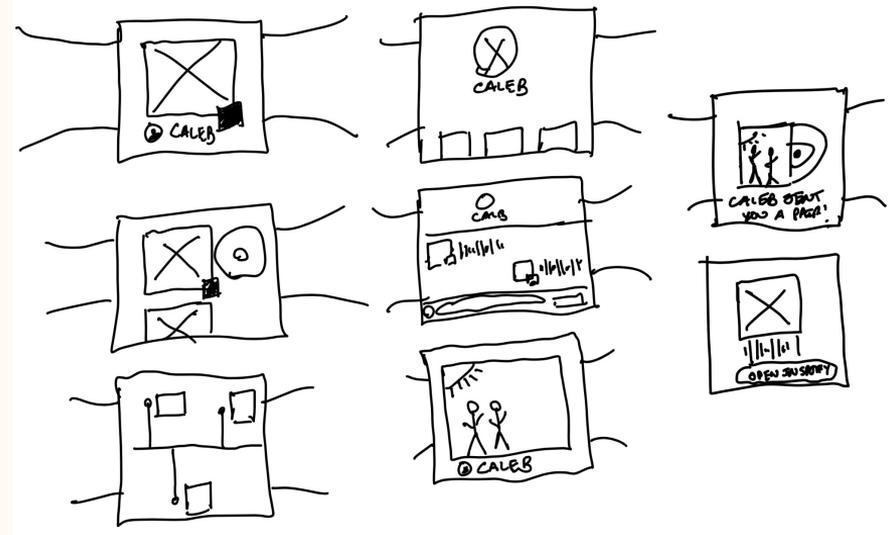
Profile Ideas



Miscellaneous Ideas (crazy 8)



VR Realization



Apple Watch Realization



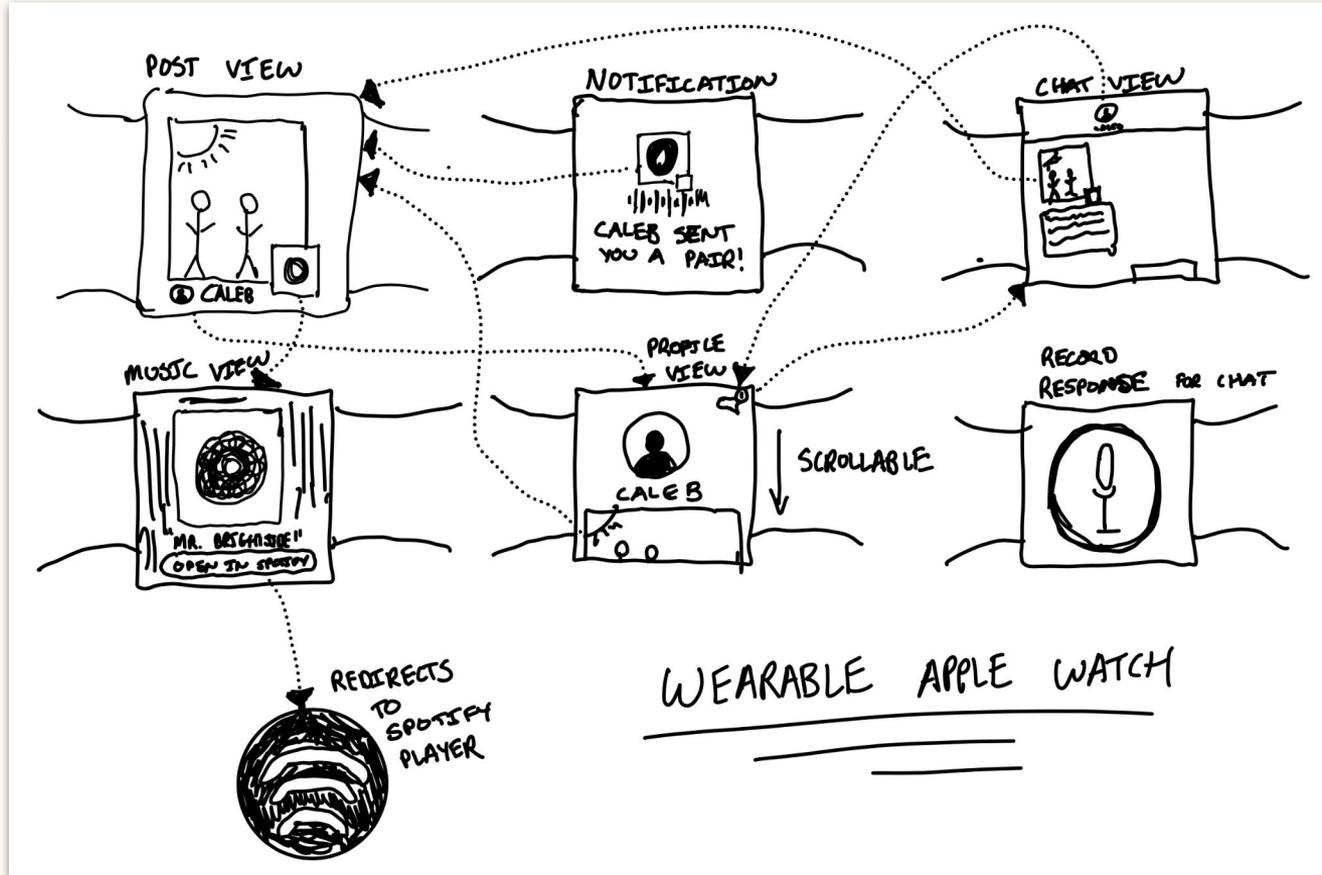
03

**selected interface**



# Option 1: Apple Watch

# APPLE WATCH



# APPLE WATCH

## PROS *(abridged)*

- Watch is almost **always easily viewable**
- **Tracks health data**
- **Discreet usage** (people can use without being noticed)
- **Simplified UI** – smaller screen size, only show important info

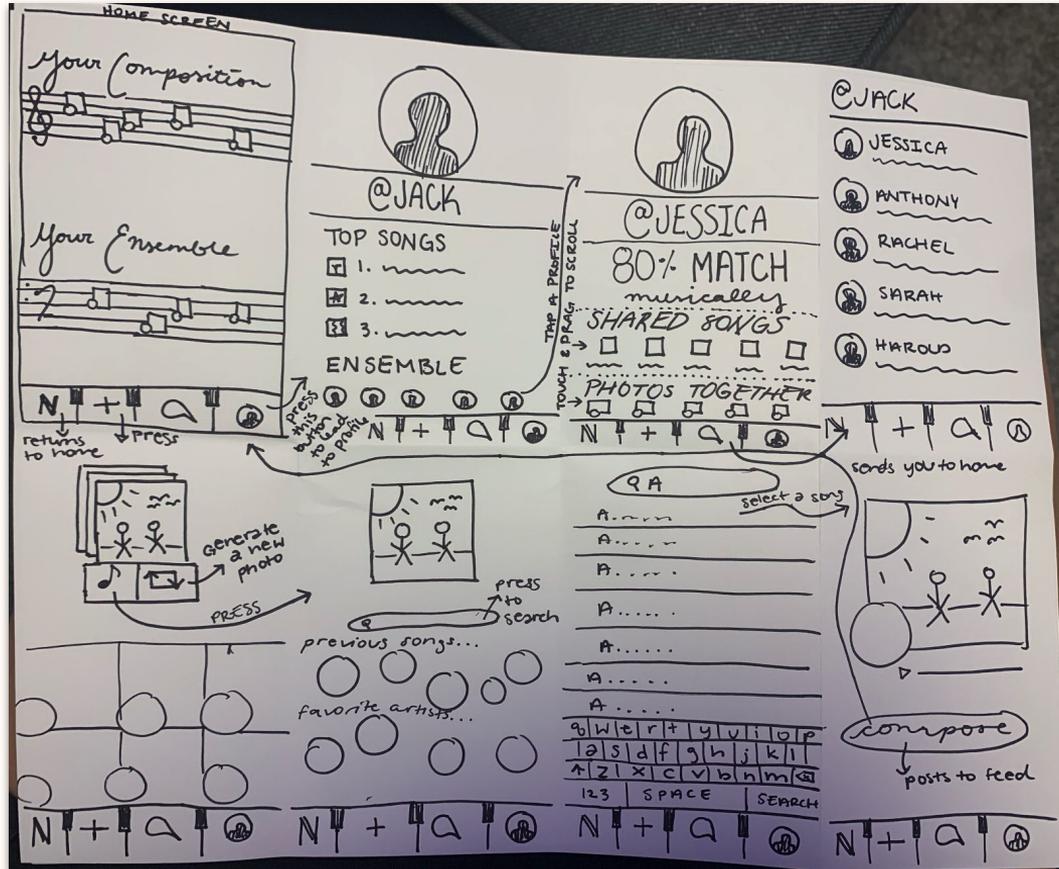
## CONS *(abridged)*

- Small screen leads to **potential clutter**
- **Hard to type** and voice dictation not always accurate
- **Don't always have access to photos**
- **Not as many people own apple watches** compared to phone's, tablets, and other mediums

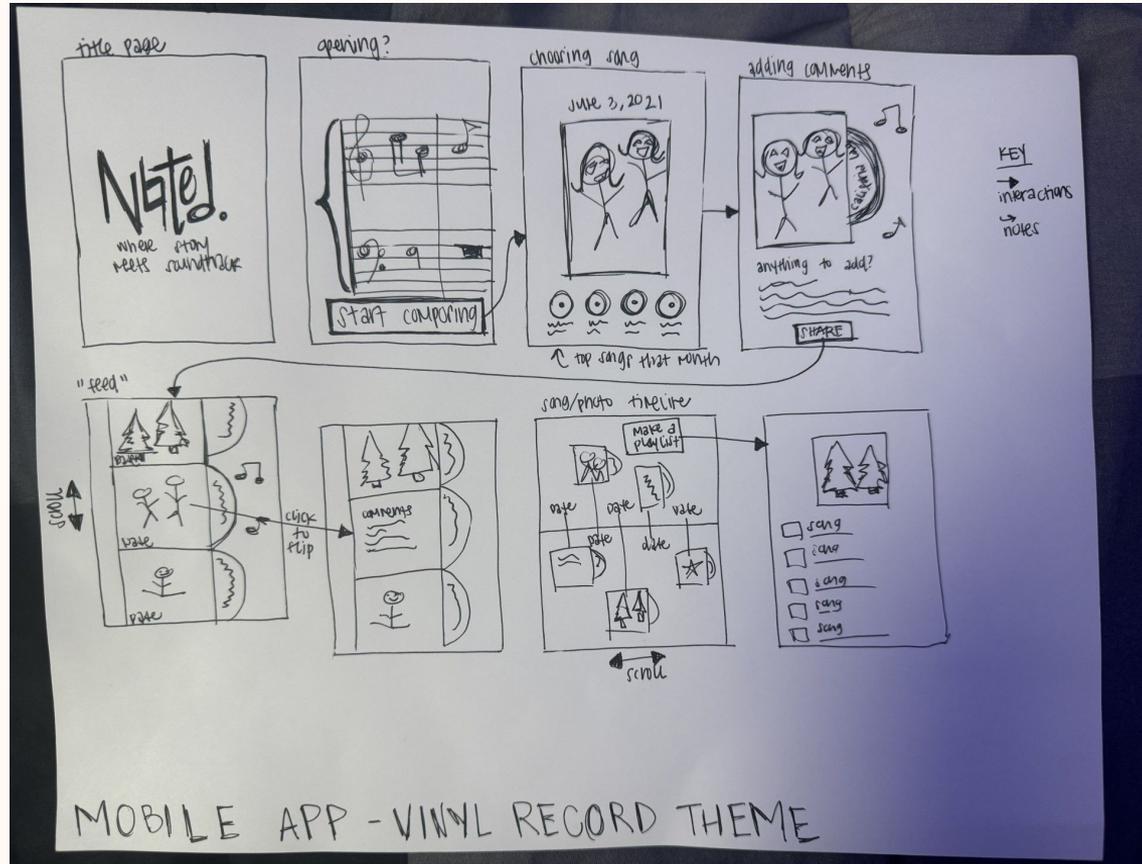


# Option 2: Mobile App

# MOBILE APP



# MOBILE APP





# MOBILE APP

## PROS *(abridged)*

- **Easy to integrate photo libraries** as most people use phone to store photos
- Phone is **primary music listening device** for most people
- Frequent use of phone can allow for **consistent habit building**

## CONS *(abridged)*

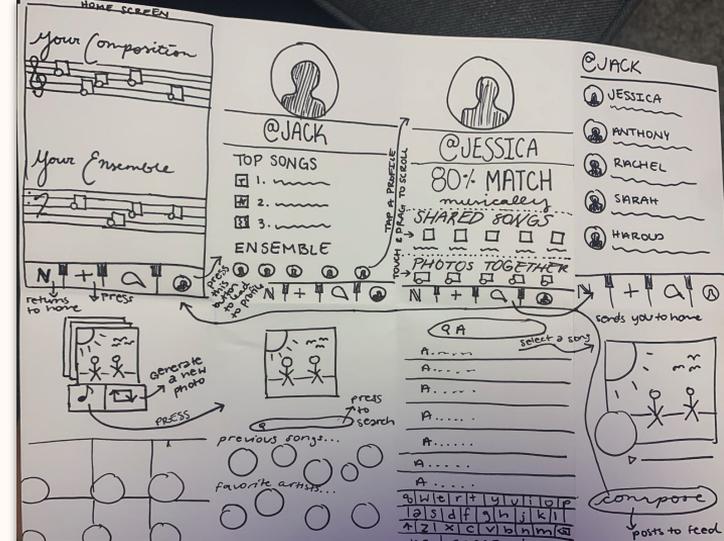
- People may not want to **type long descriptions** on their phone
- Larger screen than watch means **more design decisions**
- Must **compete for user's attention** with many other existing mobile apps

*Our selection...*

# Mobile App!

Because...

1. Mobile devices are **more ubiquitous** than Apple watches
2. **Primary device** for **music consumption** and **photo storage**
3. **Typing** and **engaging with applications** on mobile device is much easier because of **larger interface**



# Mobile App Cont.

Further considerations...

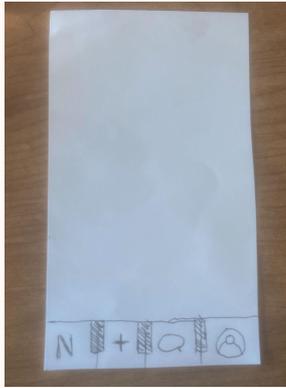
1. **1.46 billion** worldwide iPhone owners versus **100 million** apple watch owners
2. Mobile phone users tend to spend more **continuous time** on apps compared to Apple Watch users who engage in **shorter, more sporadic** interactions
3. Must combat **mental health implications** seen in other social media apps. Requires **responsible design**.
4. **Higher screen real estate** lends itself to better experience interfacing with multiple photos + songs
5. Having a camera enables you to **capture moments live**



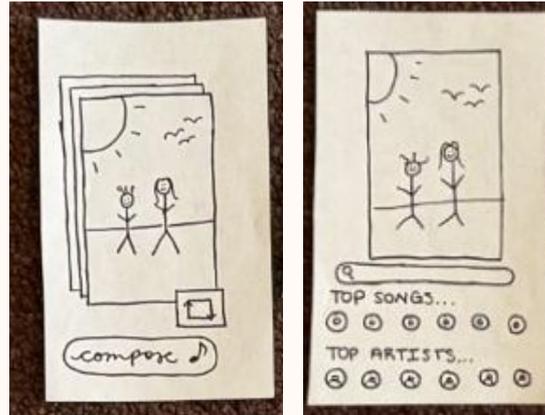
04

**low-fi construction**

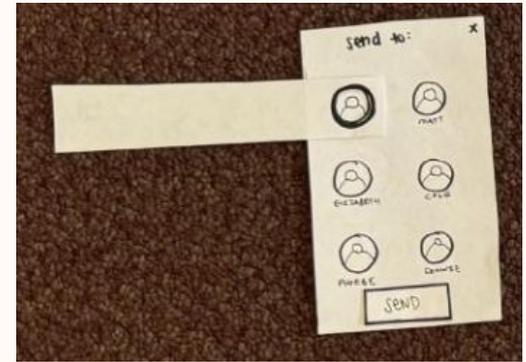
# Basic Prototype Layout



Phone background



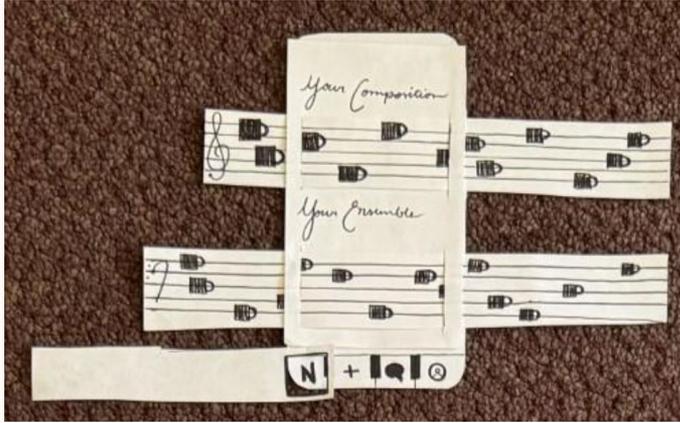
Example screens



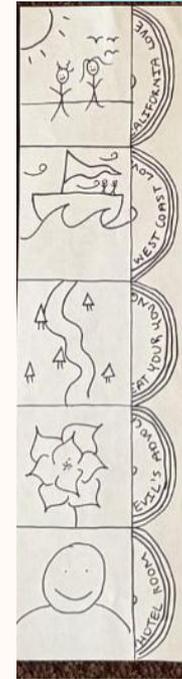
Marker overlays

Prototype was built using a paper phone background with navigation bar, and paper cutouts of screen and focused button markers

# Scrollable Screens



home screen



personal feed

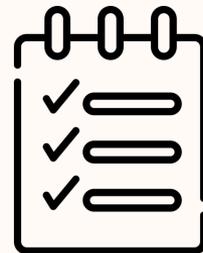
The home screen had two scrollable feeds, the user's personal feed and a feed of the user's friends' content. The feed screen after the user posts is also scrollable



05

**low-fi prototype**

# 3 tasks



## simple

pair songs to  
photos

## moderate

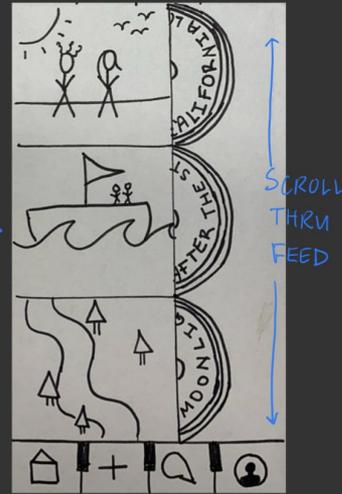
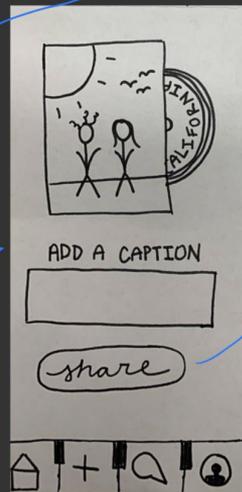
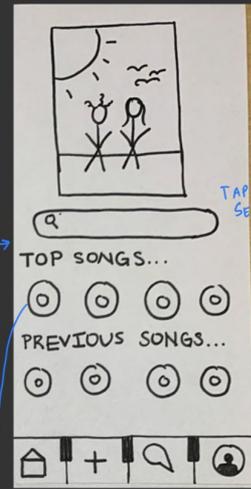
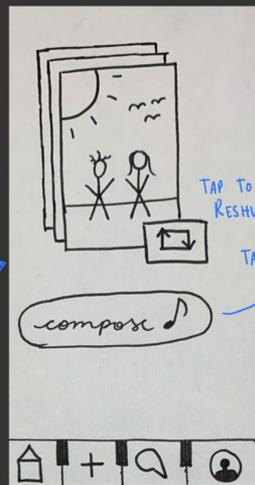
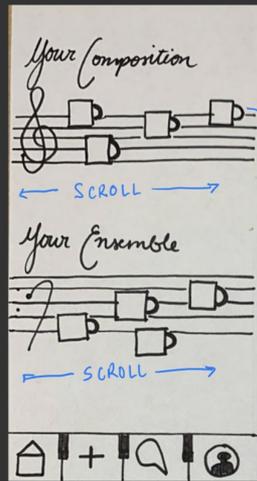
share photo/song  
pairings with  
others

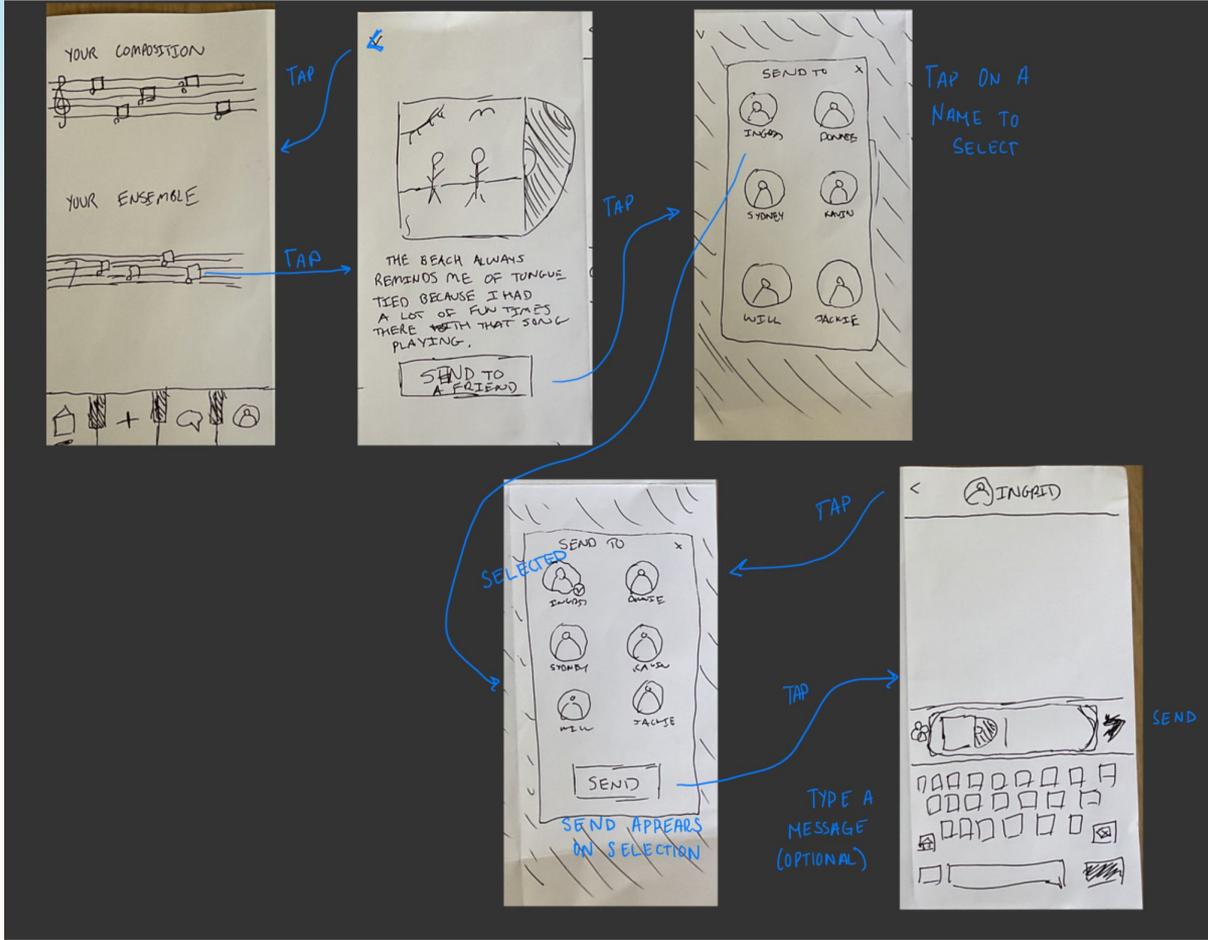
## complex

curate people who  
can appear in your  
randomly  
generated photos

# simple

share photo/song pairings with others



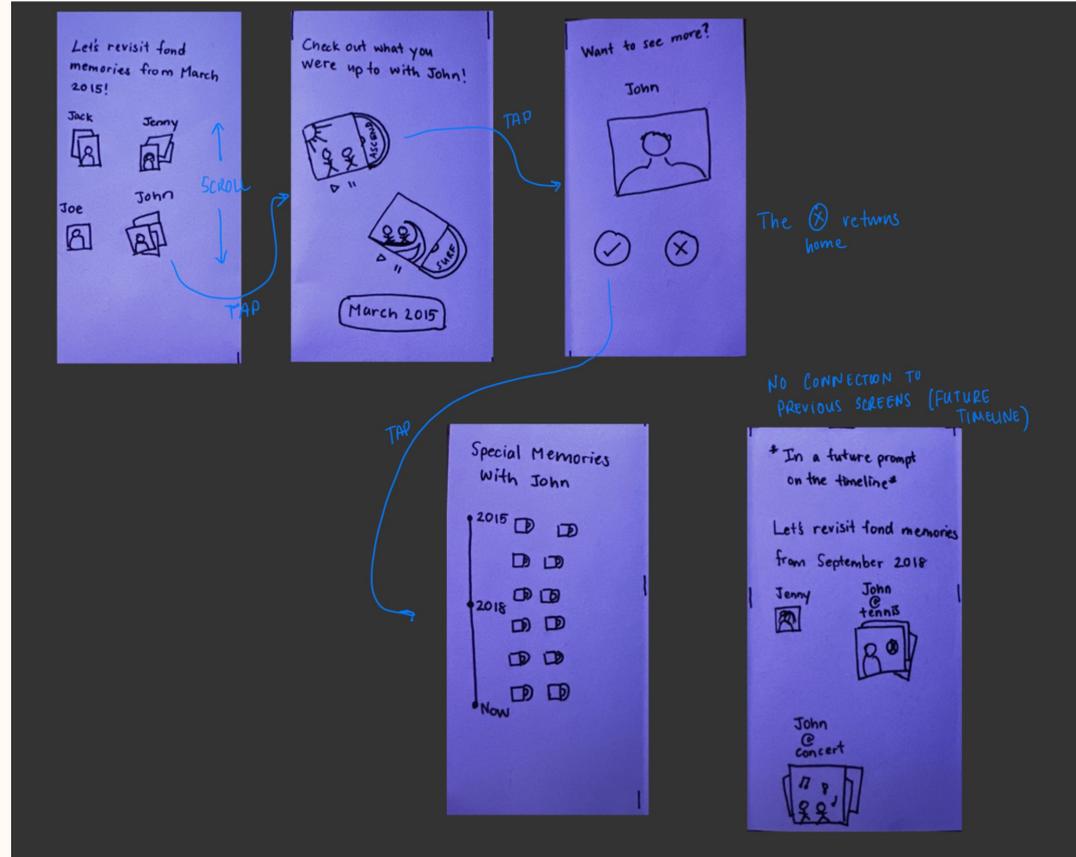


# moderate

share photo/song pairings with others

# complex

curate people who can appear in your randomly generated photos





06

# testing methodology



# Recruitment Criteria

1. People who enjoy **listening to music**
2. People who **take a lot of photos** on their phone



# Finding Participants

1. Found crowd members from Caleb's **music performance** at CoHo (assumed they enjoyed music)
2. Approached individuals at Tressider **on their phones** with headphones (assumed they listened to music and use their phone)



# Participant Demographics

1. Gender: 2 males, 3 females
2. Age range: 18 to 26 years old
3. Occupation: 1 high school student, 1 Stanford student, 3 young adult working professionals
4. All participants primarily use their phone to take photos
5. All participants listen to music on their phones
  - a. 4 participants were Spotify users
  - b. 1 participant was an Apple Music user

# Environment & Apparatus

**We conducted all 5 prototype tests in person**

2 tests were conducted at CoHo



*Inside of CoHo*

3 tests were conducted at Tresidder



*Outside of Tresidder*

**We used a paper cutout of a phone and used additional paper cutouts for each of the screens (including longer screens for scrollable content) and buttons**

# Team roles



**Alyssa**

computer



**Kabir**

greeter



**Caleb**

facilitator / computer



**Jasmine**

videographer / facilitator

# Description of Process

1. Sign consent form
2. Participants are asked to **talk through their process** and be clear about what they are intending to do at each step.
3. Present paper prototype starting on the home screen and prompt them to **complete each task one by one**
4. **AFTER: Reflect on functionality of app** by asking them questions:
  - a. Which part of the app was most confusing to you?
  - b. Did you have a favorite function of the app?
  - c. Do you see yourself using this app regularly? Why or why not?
  - d. Any other questions or critical feedback?



*Paper prototype testing with Gerald*



# **Usability Goals & Key Measurements**

# usability goal #1

Efficient

User is able to complete tasks quickly

*Measure: time it takes to complete tasks*

# usability goal #2

Robust

User is able to complete tasks with minimal errors

*Measure: number of errors per task*

\*error: taking an action that makes negative progress towards completion of task



07

**testing results**

# Participants



**Isabella J.**

25 years old  
Career dev program @  
Stanford  
Nashville, TN



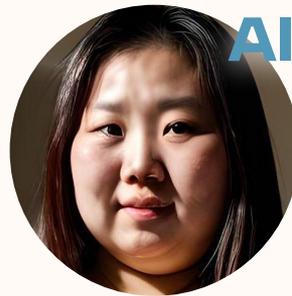
**Emma N.**

21 years old  
Junior @  
Stanford  
Austin, TX



**Justin C.**

18 years old  
Emma's friend  
from home  
Austin, TX



**Monica C.**

28 years old  
SWE @ FAANG  
SF, CA



**Gerald K.**

17 years old  
HS senior visiting  
older brother  
Los Gatos, CA

Compensation: All participants were offered a free drink from Starbucks/CoHo but declined

# All participants (+):

- Correctly associated the “plus” icon with creating a photo/song pairing
- Correctly associated the “message” icon with sending a pairing to a friend
- Understood that the staff in home screen was horizontally scrollable

# All participants (-):

- Were confused when they reached nested screens with no button to go back to their previous screen
- Didn't try clicking on the photo-song pairing icons in home screen timelines → not much exploration on the homepage
- General confusion about the purpose of the app

# Task Breakdown

- Task 1 – completed robustly and efficiently by all users
- Task 2 – completed somewhat robustly and efficiently by most users. Most users had a couple of errors.
- **Task 3 – most users made many errors. It seemed like most people were randomly tapping on buttons to find the right screen.**



## takeaways from Isabella's test

**Held an inaccurate understanding** of the main purpose **of the app** until we explained after the prototype testing → thought it was just a music sharing app

**Spent considerable time exploring the app** at first rather than solely focusing on the tasks

**Navigated by pressing each of the buttons** at the bottom of the screen first and went through all the flows

Despite time spent exploring the app, she **expressed that she had trouble remembering where everything is** on the app → indicates a learning curve for using the app



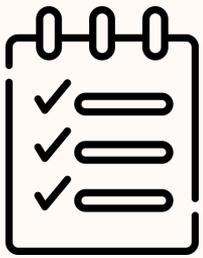
## takeaways from Justin's test

**Found the profile button to be less intuitive** than the other button; Justin had understood that it was a profile button but he was unsure what it would lead to

**navigated the interface with ease** → bottom buttons made sense to him and was his primary mode of navigation

**Completed the tasks quickly and with ease**, taking just a moment to decide how to start

**Expressed some confusion with the complex task** (likely due to the wording of the instructions) **but used process of elimination** for which buttons he'd already tried to figure it out



# Usability Goal #1: Efficient

## simple

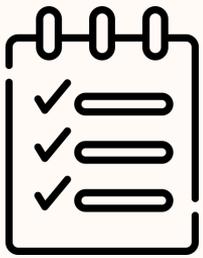
1 min 58 sec  
*on average*

## moderate

1 min 27 sec  
*on average*

## complex

59 secs  
*on average*



## Usability Goal #2: Robust

**simple**

1.6 errors  
*on average*

**moderate**

1.8 errors\*  
*on average*

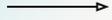
**complex**

0.4 errors  
*on average*



# General Takeaways

1. The purpose of the app may not be entirely apparent from the home screen
  - a. *Gap in clarity partially due to paper prototype vs digital prototype*
2. Users were slow on initial screen of each task and far quicker in all screens that followed
3. The complex task was quicker and less error-prone than simple/moderate tasks
  - a. *Likely due to user gaining familiarity with the app interface*
4. After getting past the initial screen associated with each of the bottom buttons, the experience was fairly seamless for all users
  - a. *Ensuring the bottom buttons are intuitive should be prioritized*



08

**discussion**



# Implications

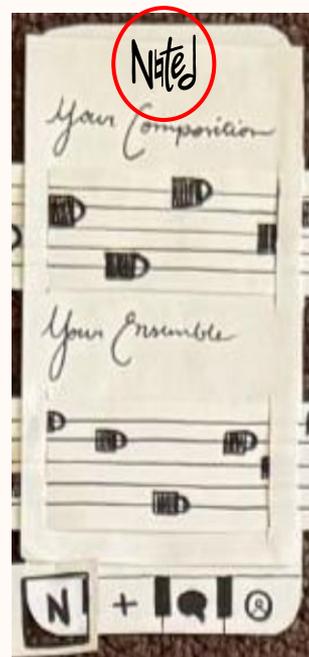
1. The UI/UX of the photo-song pairings will be crucial to get right
2. Reusing similar components to the ones we know and love in existing social media platforms make for a seamless experience
3. Noted has great potential both for discovering new things (in the form of visual and auditory mediums) about friends as well as oneself

# Design Changes

Problem: unclear that the “N” icon was connected to our logo and represented the home button

Add “Noted” logo  
to top of all screens

Add a splash screen with  
logo and value proposition



Home screen with noted Logo (circled) in the header

# Design Changes

Problem: getting “stuck” on screens

Add “back-caret” buttons to screens that don’t have them

Add onboarding tutorial to guide them through various screens and critical tasks

Add close buttons to modals



Example of screen with left-caret back button (circled)

# Design Changes

Problem: Confusion with broader purpose of the app

Add a splash screen with logo and value proposition

Implement an onboarding tutorial that shows a user the expected behavior and use cases of the app

Enhance the design of the music and record to make it more clear that it is a photo and song paired together



Draft of splash screen

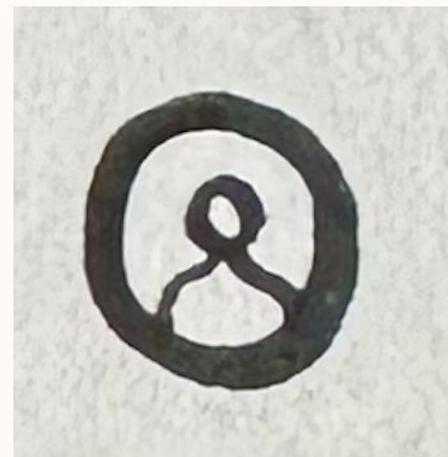
# Design Changes

Problem: Lack of clarity for the purpose of the profile icon

Experiment with different icons to make the profile icon more intuitive

Consider breaking up the functionality encapsulated in the profile screen into multiple icons

Remove the profile icon from the bottom row and move it to a corner of the homescreen



*Profile icon*

# Outstanding Questions

How would a user familiar with the app interact?

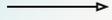
*All our users were completely new to the app interface, leading some to spend more time exploring rather than strictly completing the tasks*

How would a user interact with the generated photos when shown their personal photos?

*Our users interacted with an interface of stock photos, so we weren't able to explore reactions to seeing their own photos generated*

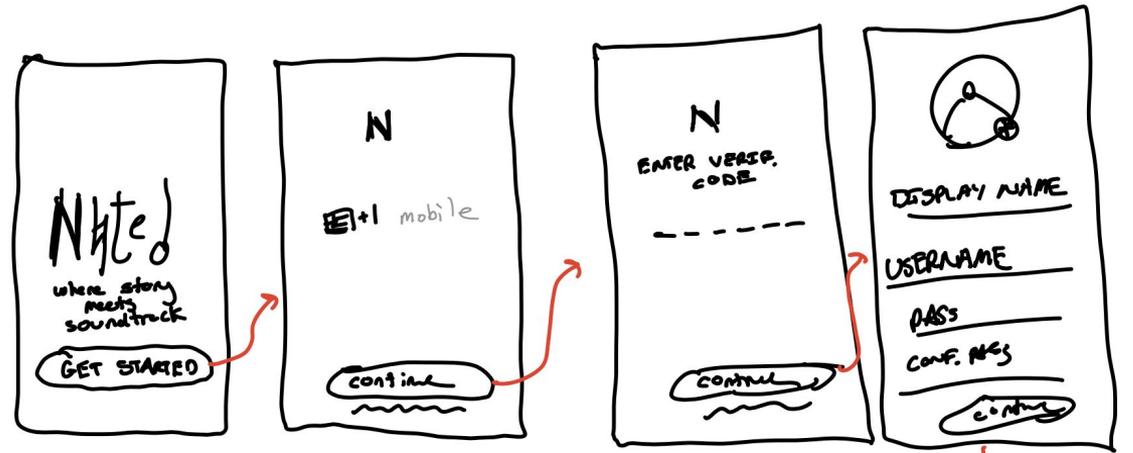
How would a user prioritize the social interactions versus personal reflection?

*Our users were given set tasks to complete, so we weren't able to see how a user would prioritize looking at their own photo-song pairings versus interacting with others on the app*

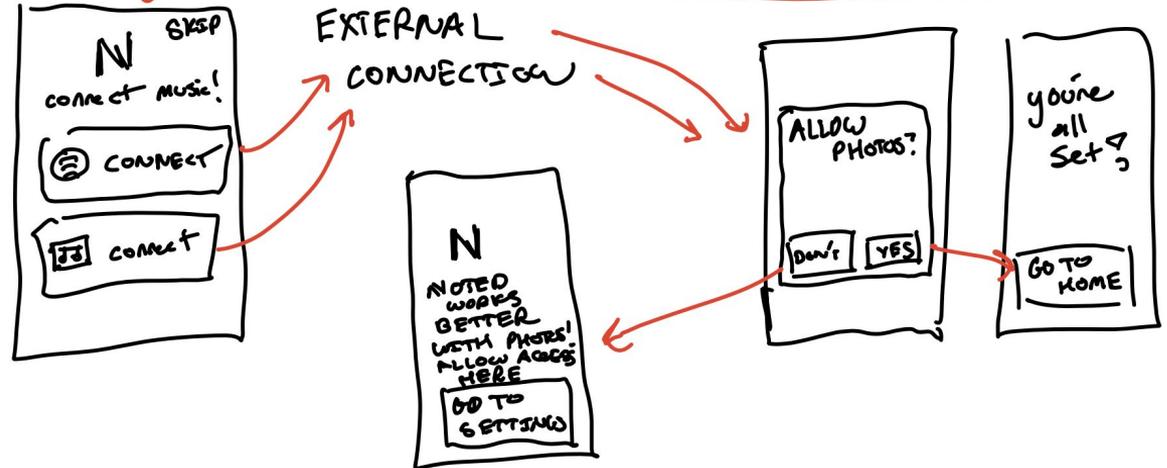


09

**appendix**



## Account Creation



These are all "click" actions

# → FULL LIST OF MOBILE APP PRO/CONS

## PROS

- **Easy to integrate photo libraries** as most people use phone to store photos. Most phones have **a lot of storage** for photos
- Phone is **primary music listening device** for most people
- Frequent use of phone can allow for **consistent habit building**
- Versatile device functions such as **camera** and **location** to create more comprehensive UX
- Easier keyboard input (than apple watch)
- Better processing power (than apple watch)

## CONS

- **Distracting** notifications
- People may not want to **type long descriptions** on their phone
- Larger screen than watch means **more design decisions**
- Must **compete for user's attention** with many other existing mobile apps
- Less portable (than apple watch)
- Concerns about **addiction** is causing some to greatly decrease phone usage
- Photos are sensitive data in nature and **privacy and security concerns** become a paramount focus in the face of malware

# FULL LIST OF APPLE WATCH PRO/CONS



## PROS

- Watch is almost **always easily viewable**
- **Tracks health data**
- **Discreet usage** (people can journal and reflect without being noticed if it is sensitive/personal information)
- **Simplified UI** - smaller screen size, only show important info
- Constant accessibility allows you to **easily jot down thoughts/ideas on the go**
- **Fitness integration** - pair music with workout/health data (ex: hike in hawaii)
- **Enhanced music recommendations** - recommend songs based on current location and environment noise detection

## CONS

- Small screen leads to **potential clutter**
- **Hard to type** and voice dictation not always accurate
- **Don't always have access to photos**
- **Not as many people own apple watches** compared to phone's, tablets, and other mediums
- **Limited storage** for photos and songs
- **Music playing functionality is limited**
- **Limited browsing capabilities** - small square screen size cannot fully represent some photos.
- **Difficult to edit photos before sharing** (crop, brightness, filters).

# Script for Usability Test Participants

Please say out loud your thought process so we can follow along with how you are making decisions. We are absolutely not testing YOU, we are testing the process! So don't worry about clicking anything "wrong" because there is not wrong answer.

Also feel free to share any suggestions or concerns with us!

We'll give you some tasks to perform. We won't guide you in any way but feel free to click around to test your assumptions!

1. Create a new photo / song pair
2. Share a photo/song pairing with Grace
3. Curate your feed so that you see more of John

AFTER:

Was anything particularly confusing and why?

Do you have a favorite feature?

Would you use this regularly? Why or why not?

# Scale for Critical Incidents Log

0 – User progressed without hesitation

1 – User hesitated or had to think about the next step

2 – User made an error when progressing to the next step

**3 – User had to ask for help to progress**

**4 – User was unable to progress**

# Critical Incidents Log - Monica C.

Incident	Incident Log
Used the “plus” button to create a photo-song pairing	0
Hesitated before pressing compose to progress to the next screen	1
Opted to hit the search button to choose a song	0
Had to talk through the share screen to figure out how to share	1
Used the “message” button for the moderate task	0
Hit the “message” button for the complex task instead of the “profile” button	2
Unsure how to navigate backwards to get to the feed again	3

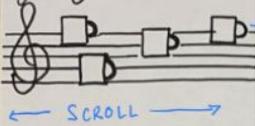
# Critical Incidents Log - Isabella J.

Incident	Incident Log
Didn't understand that the "N" icon mapped to the home page	3
Incorrectly switched out of the "compose screen" during the task of pairing song to photo	3
Initially pressed the plus button to create a photo/song pairing	0
Initially pressed the profile icon to complete task "see more of John"	1
Scrolled through the horizontal timelines in home page	1
Confused by wording of task: "see more of John"	3
Didn't understand that the "posts" were photos with records sticking out of them (photo/song pairings)	2

# Critical Incidents Log - Justin C.

Incident	Incident Log
Associated creation with “plus” button	0
Identified that the vertical feed of pairings was scrollable, featured pairings from other users, and recognized his post at the top of feed	0
Associated “chat” button with sharing a photo/song pairing	1
Correctly pressed the “pairings library” button in DM screen in order to access user’s photo/song pairings	1
Had to think a bit to adjust settings for John	2
Generally about what the “staffs” were for in the home page	3
Confused which screen the “profile” icon mapped to	2

# Critical Incidents Log - Emma N.

Incident	Incident Log	
Identifying photo/song pairings "These are cute little mugs"	3	
Lack of horizontal scrolling on home page	1	
Adding music to selected photo was intuitive "This is just like instagram stories"	0	
Used create post feature last in test despite this being core feature	1	

# Critical Incidents Log - Gerald K.

Incident	Incident Log
Hesitation with clicking “plus” icon to create photo/song pairing	1
Interacted with the regenerate photo button, asking us to verify his understanding of what it was	1
Unsure of what he was seeing when he arrived on his personal feed screen	3

# Potential Design Changes Overview

1. Add “Noted” logo to the top of all screens
  - a. *We added the logo to the paper prototype after the interview with Isabella and found users understood that the “N” button represented home much easier*
2. Add a splash screen when users open the app with our logo and value proposition
  - a. *Allows users to connect the “N” button to the logo much easier as well as provides context for the purpose of the app*
3. Add back buttons to allow users to step backwards in the flow without having to start all over
4. Experiment with different icons to make the profile icon more intuitive