

PRESENTED

BY

Julia Luyten

LOCKIN

LOW-FI

PROTOTYPING &

PILOT TESTING

PREPARED

FOR

CS147

Assignment 5

Studio

Presentation

# MEET LOCKIN



Jessica Cao

'26  
Las Vegas, NV



Ethan Chang

'26  
San Diego, CA



Julia Luyten

'25  
Denver, CO



Ingrid Nordberg

'25  
Walnut Creek, CA

# VALUE PROPOSITION:

*Win money by reducing your screen time with your friends*

# The Problem

How can we foster a mindful and controlled relationship with technology in the digital age?

# Our Solution

An app that combines social and monetary incentives to limit screen time through competing and staking with other people.

# CONTENTS



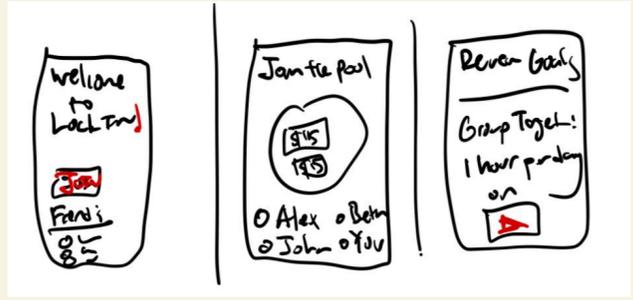
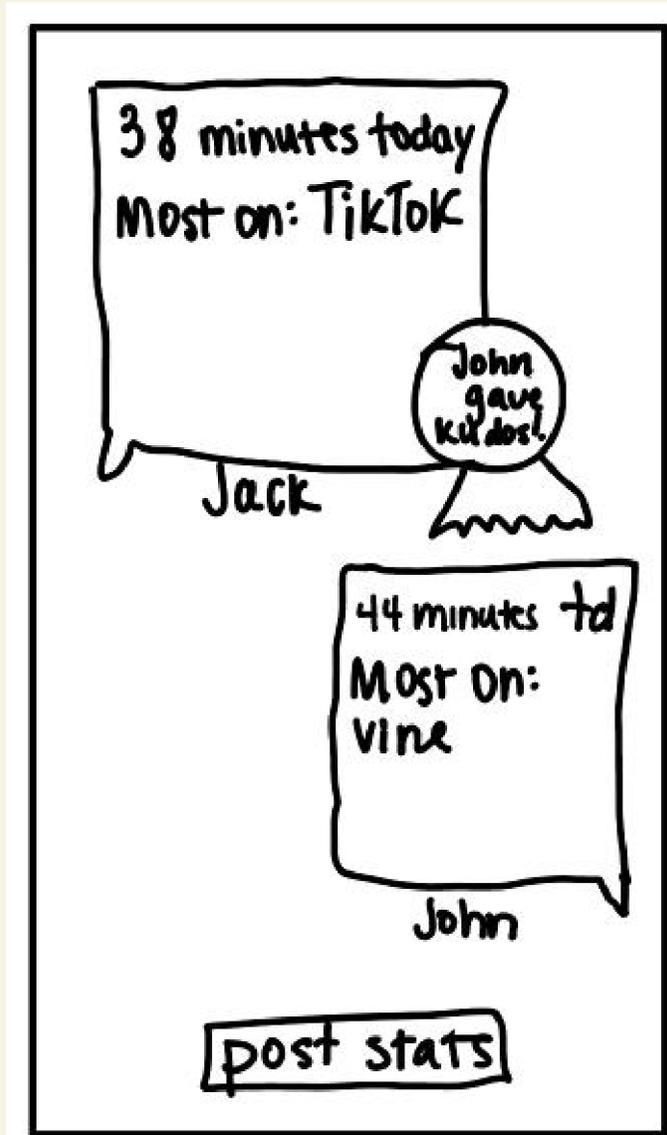
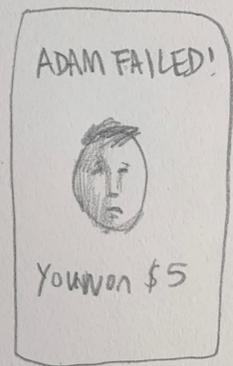
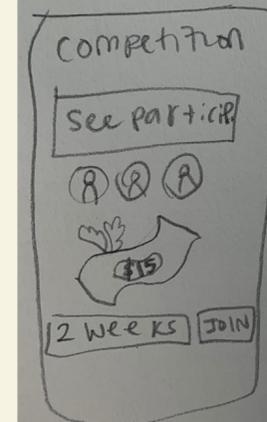
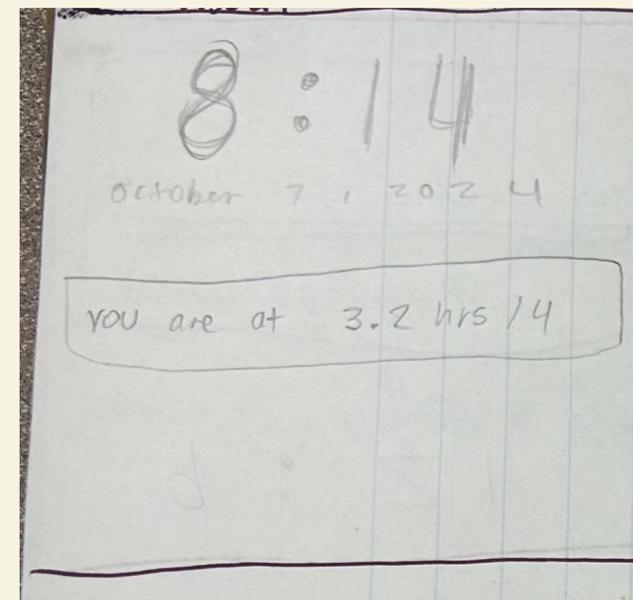
1. Concept Sketches
2. Interface & Rationale
3. Low-fi Prototype
4. Testing Methodology
5. Testing Insights
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01

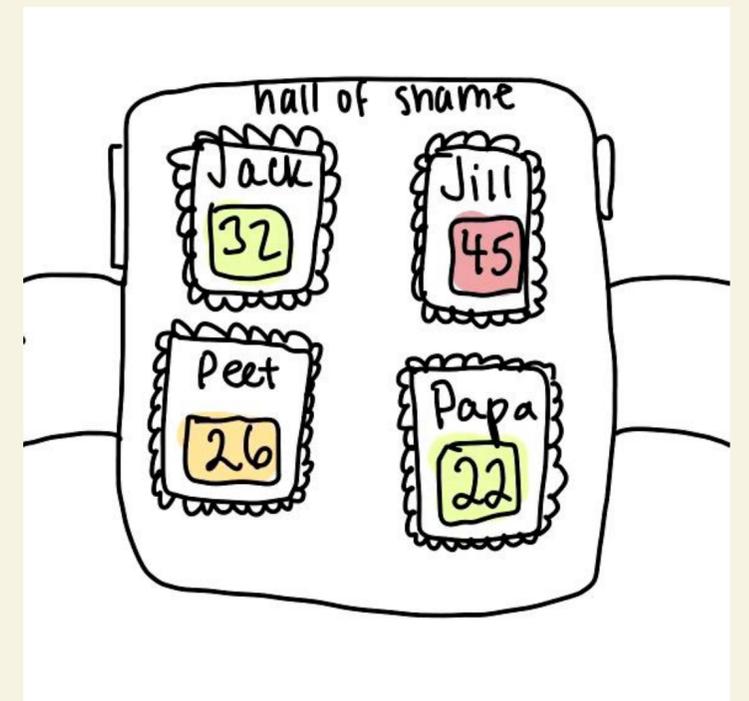
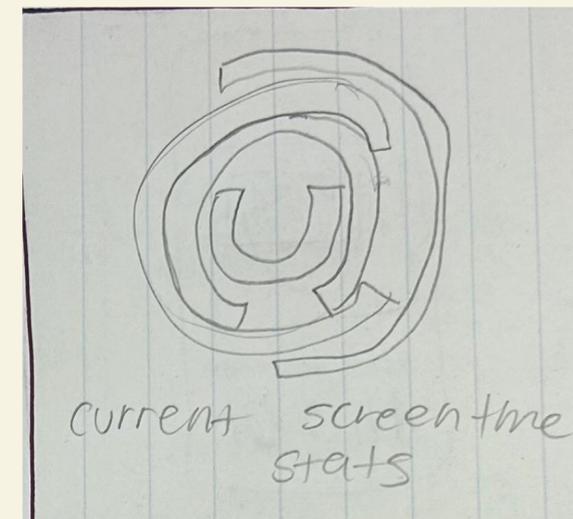
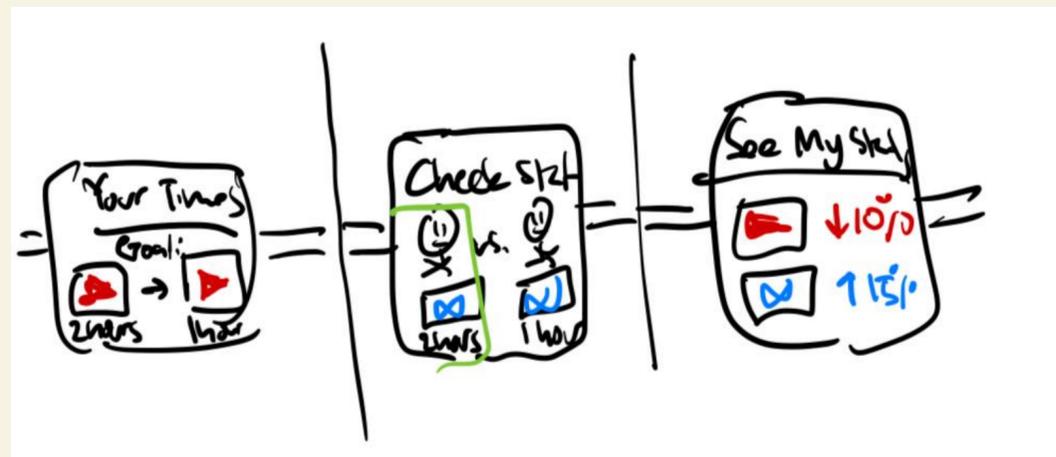
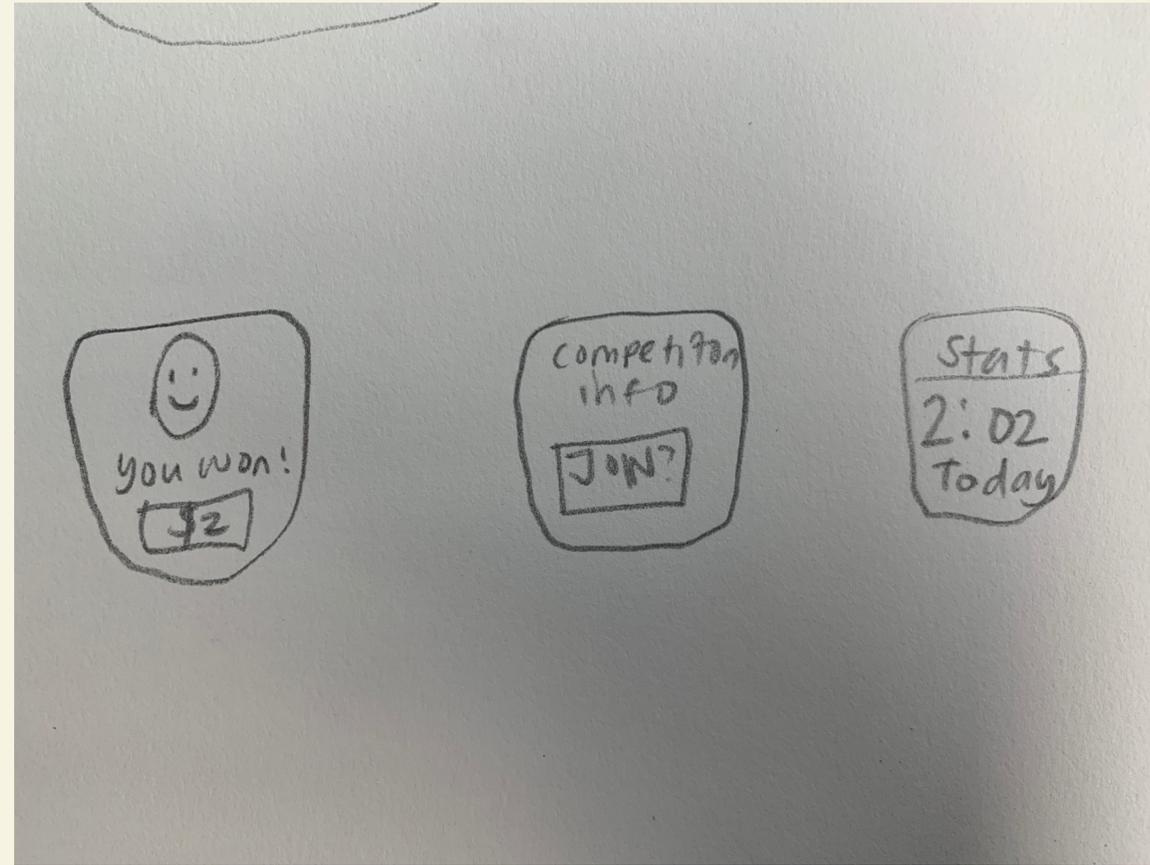
# Concept Sketches

5 Modalities Explored

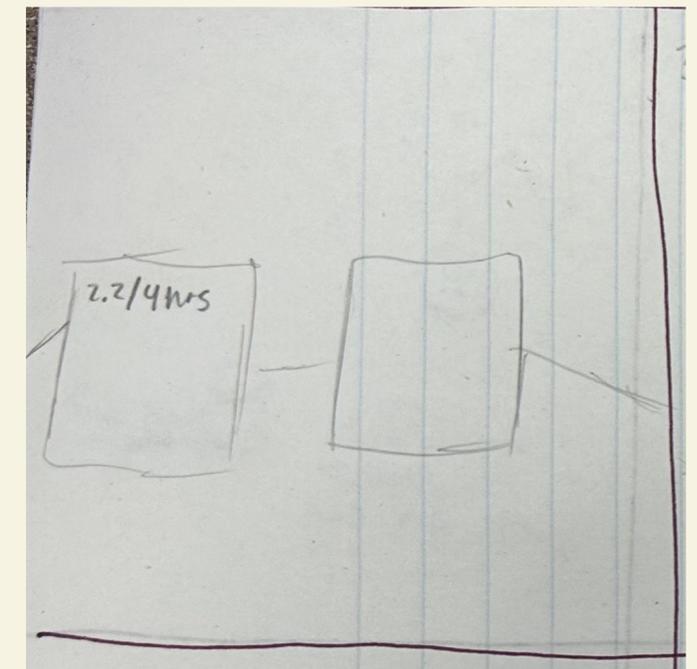
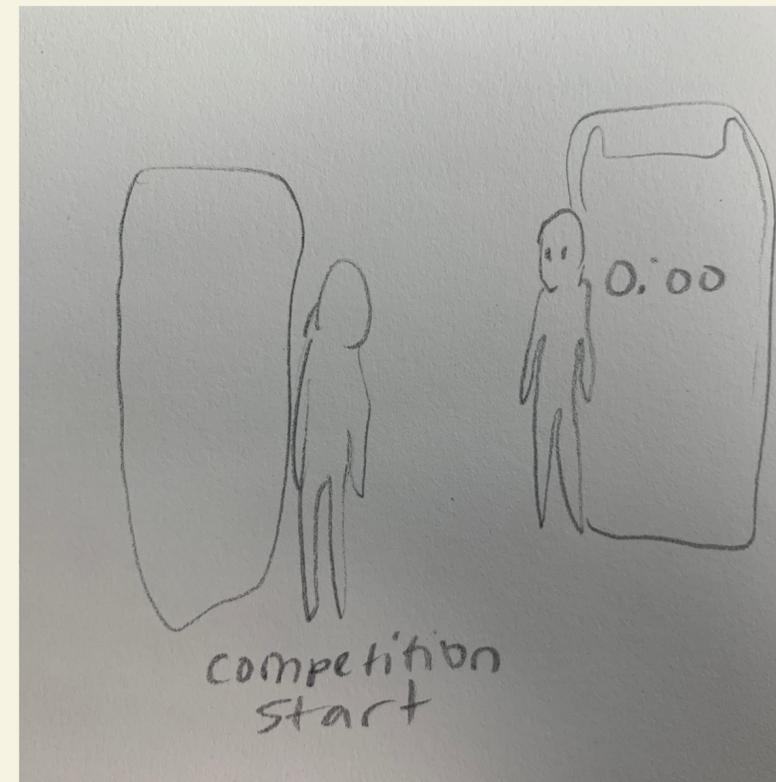
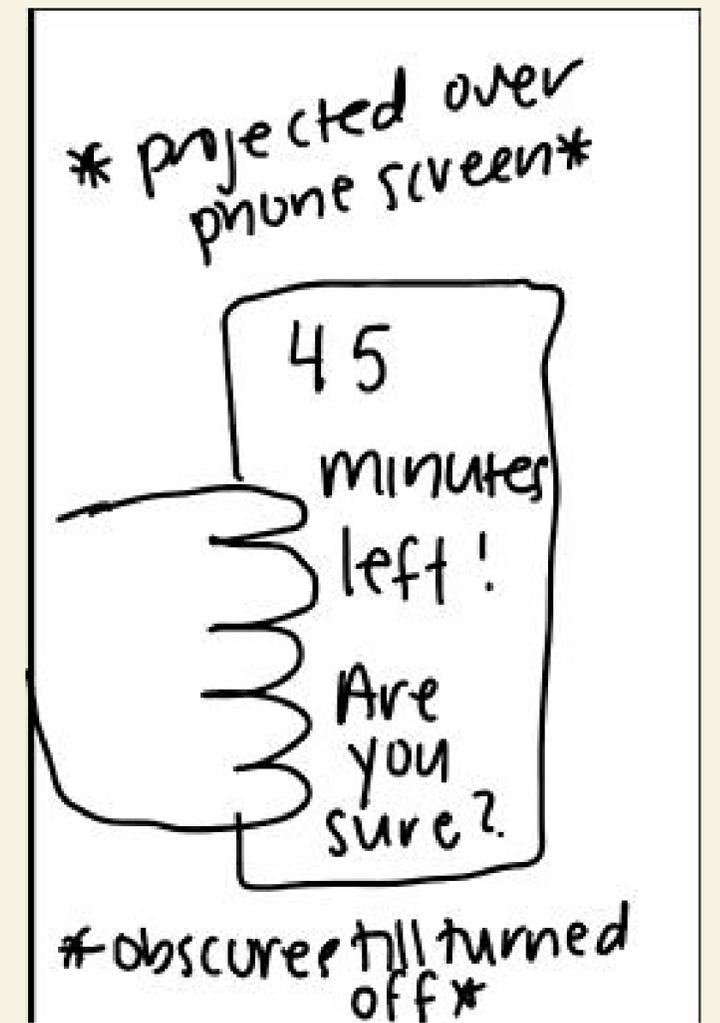
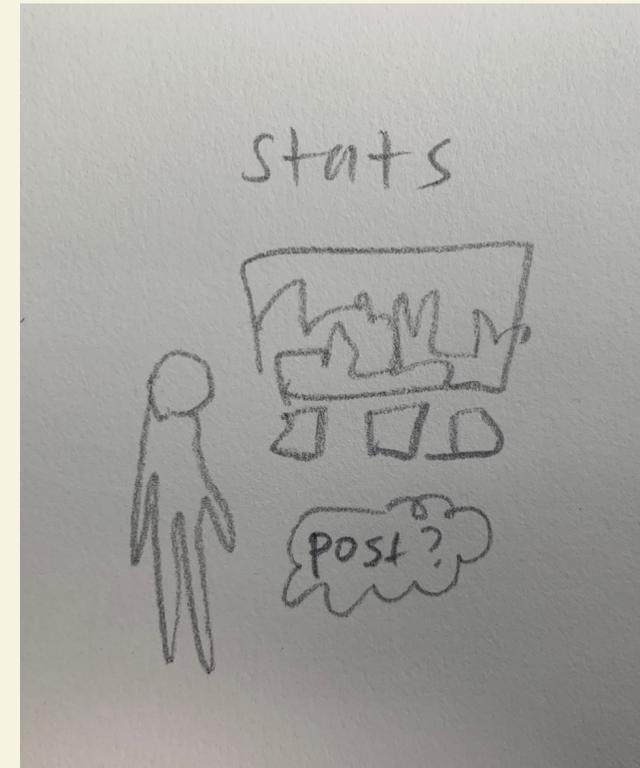
# 1: Mobile App



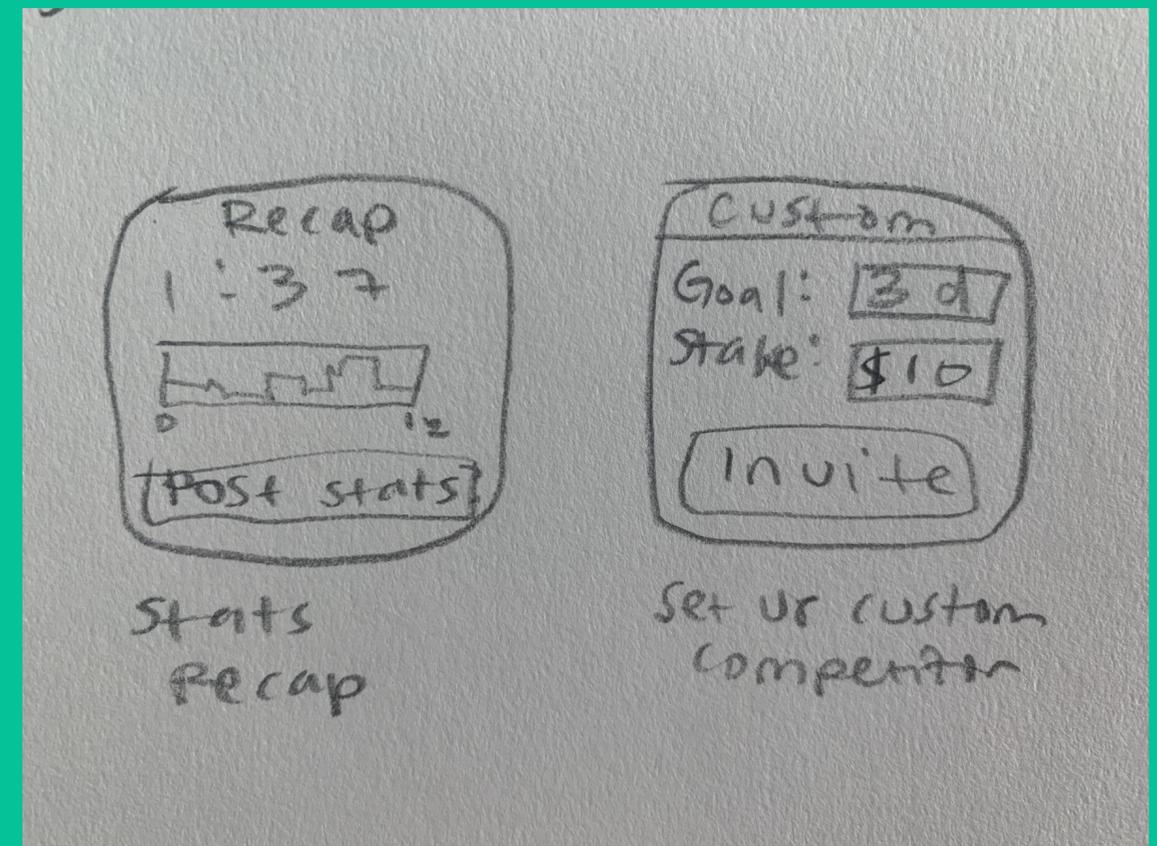
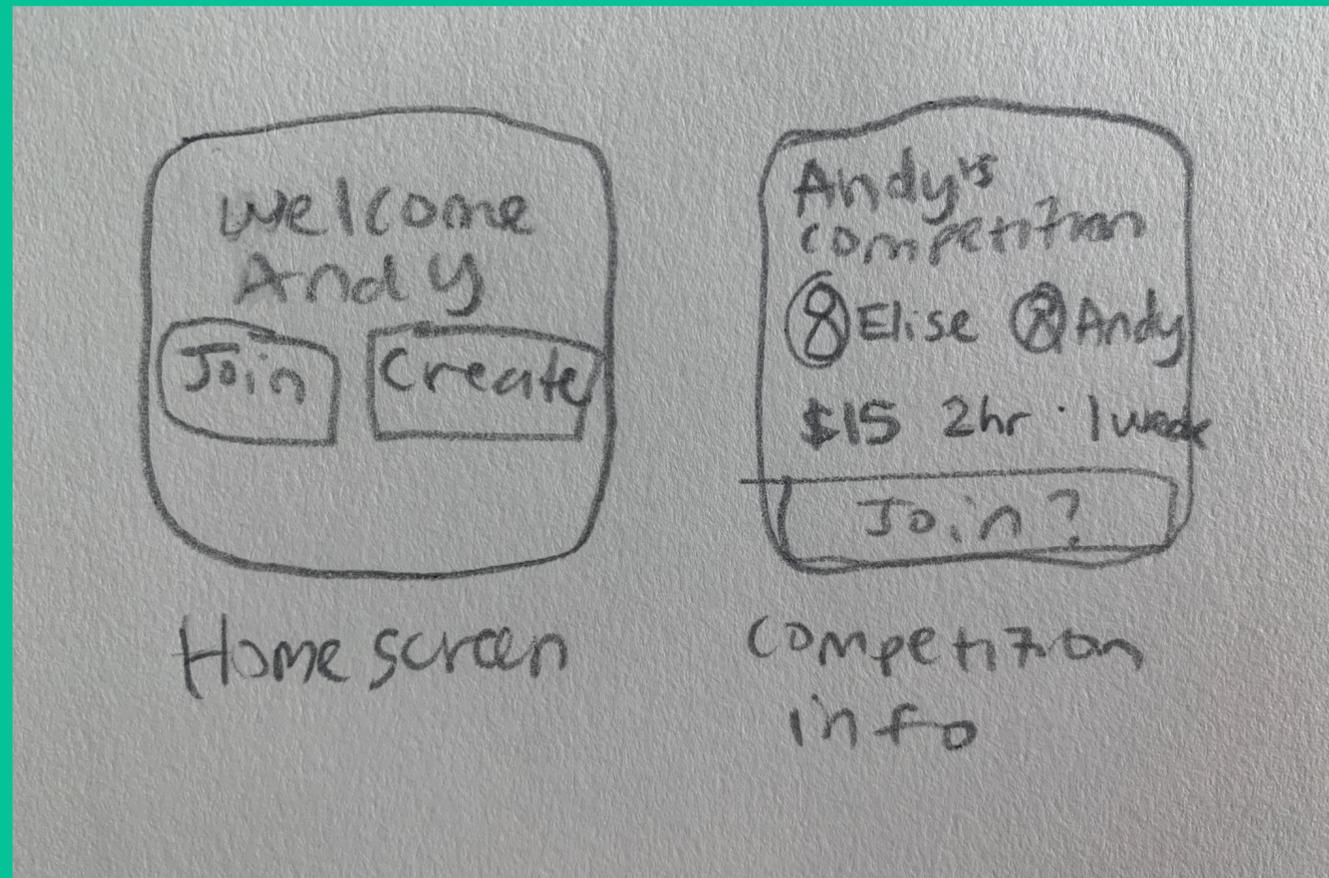
# 2: Apple Watch



# 3: VR/AR



# Smart Watch



# Smart Watch

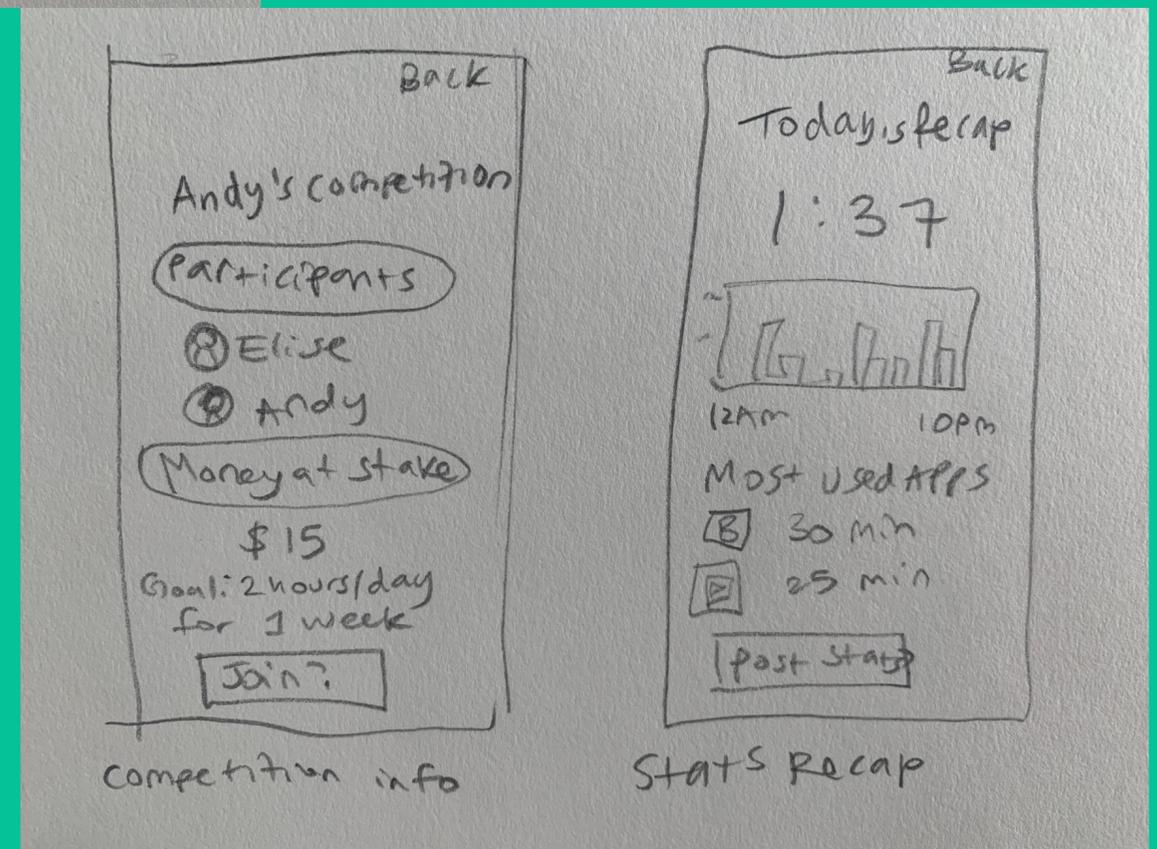
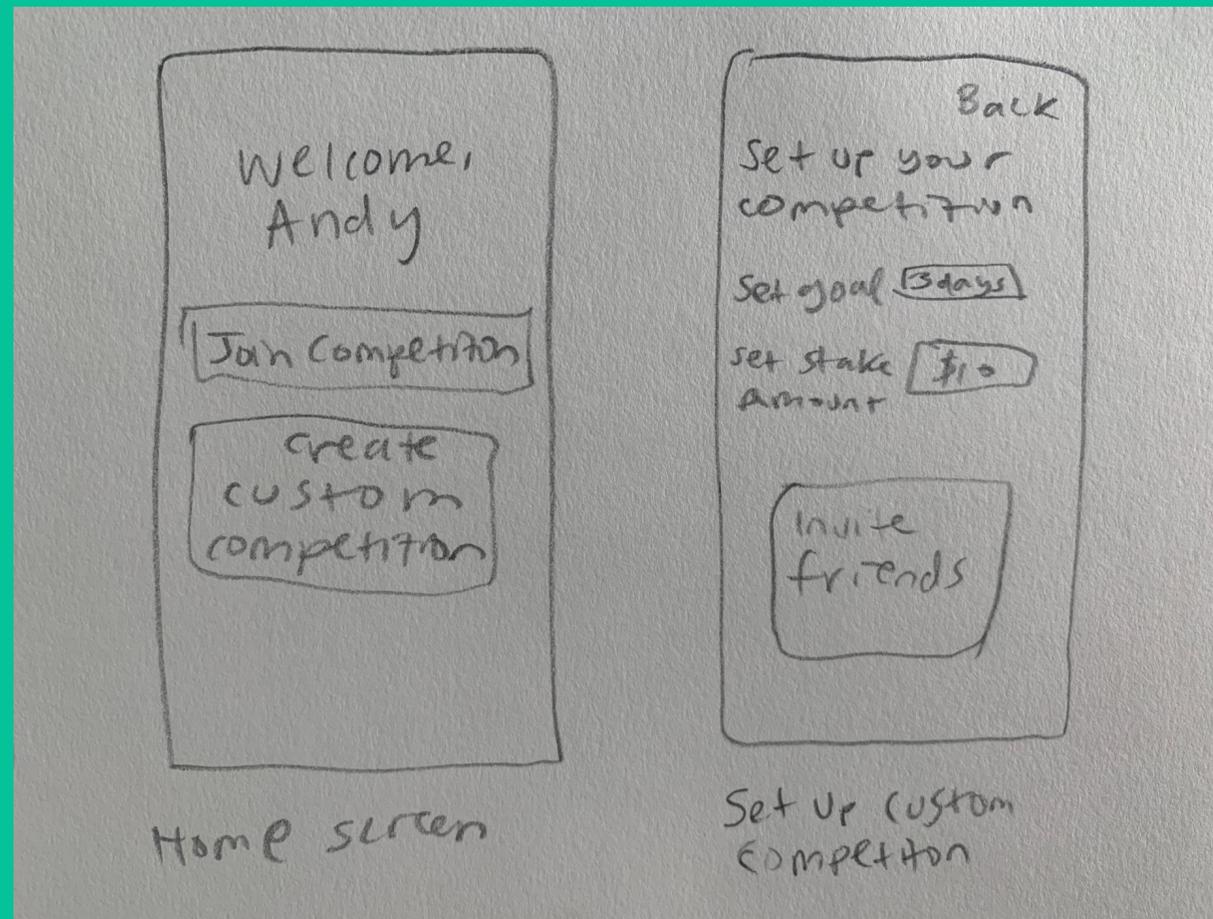
## PROS:

- Does not increase cell phone use
- Reminders are immediate and effective -- you can't ignore something on your wrist
- The designs (particularly the hall of shame interface) which we focused in on emphasized the social pressure aspect -- one of our novel elements

## CONS:

- The screen is small, not allowing for much nuance and detail in interface design
- Accessibility concern -- not everyone has an apple watch
- Messaging between users difficult/impossible
- Shame as motivation might turn people away from the app-- negative reinforcement is not always most effective or enjoyable

# Mobile App



# Mobile App

## PROS:

- (Almost) **everyone** has a phone
- More easily integrated with **contacts/friends**
- **Larger interface** allows for more detail
- People use their phones more than any other device -- addressing the problem at its source

## CONS:

- Screen time on the app increases the very thing we are trying to prevent
- The staking element on a device so frequently used and checked could lead to “**over-enthusiasm**” with **gambling**

We chose a  
Mobile App.

Why? ?----->

# Larger Interface

More room to create useful features  
vs smart watch

90%

Of Americans own a smart  
phone....

# Attack @ Source

Something on your phone  
telling you to use your phone  
less = most effective

# Live Updates

People stay more up-to-date  
with phone notifications

only 21%

Of Americans have  
a smart watch

# Building our Low-fi Prototype

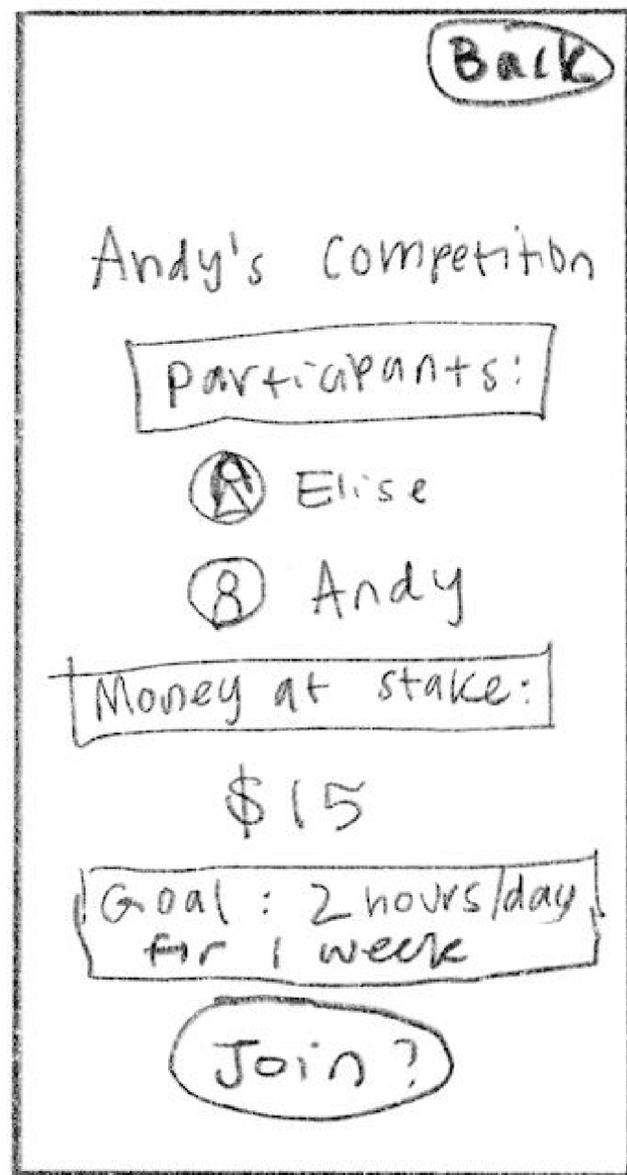
# Insights and Considerations In Prototyping Process

How can we group tasks together?

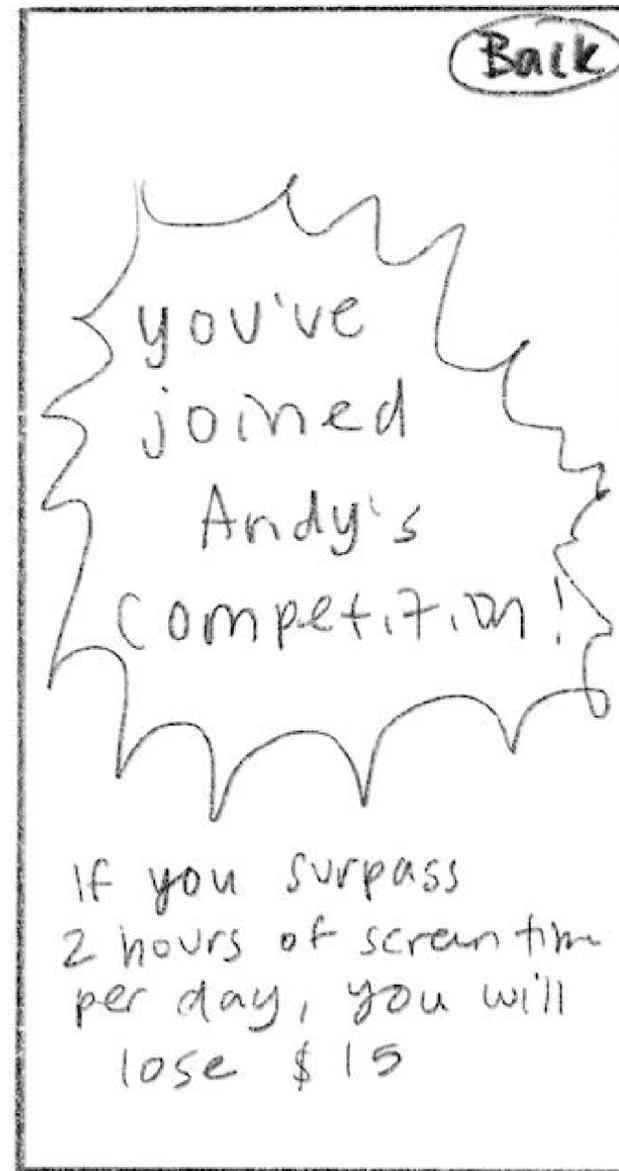
Which task naturally leads to another task?

Do any flows need to be added or fleshed out?  
(sign-up flow)

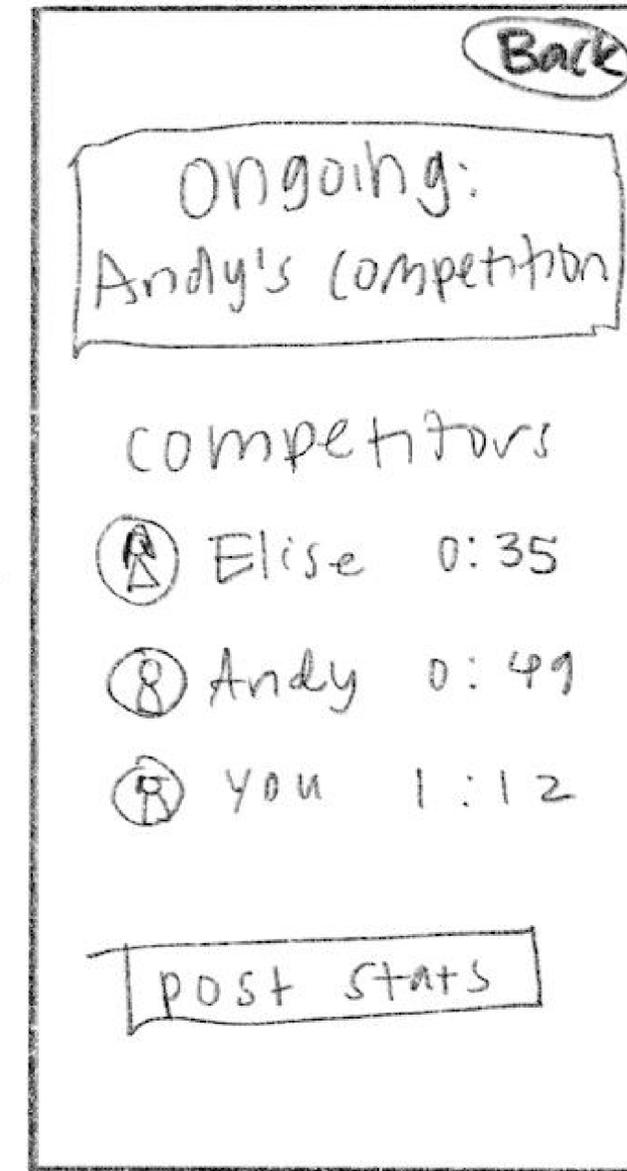
# Simple Task flow: Join a Pre-set Competition



Competition info screen

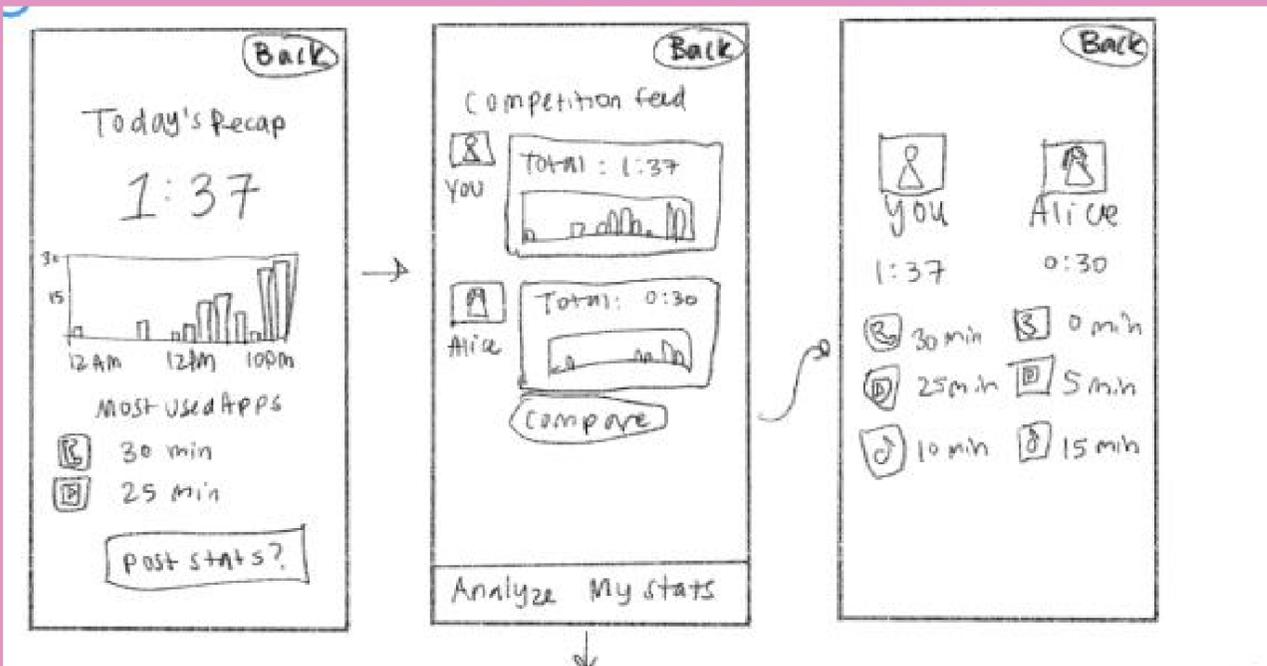


After you press "Join"



Ongoing competition info screen (see other competitors)

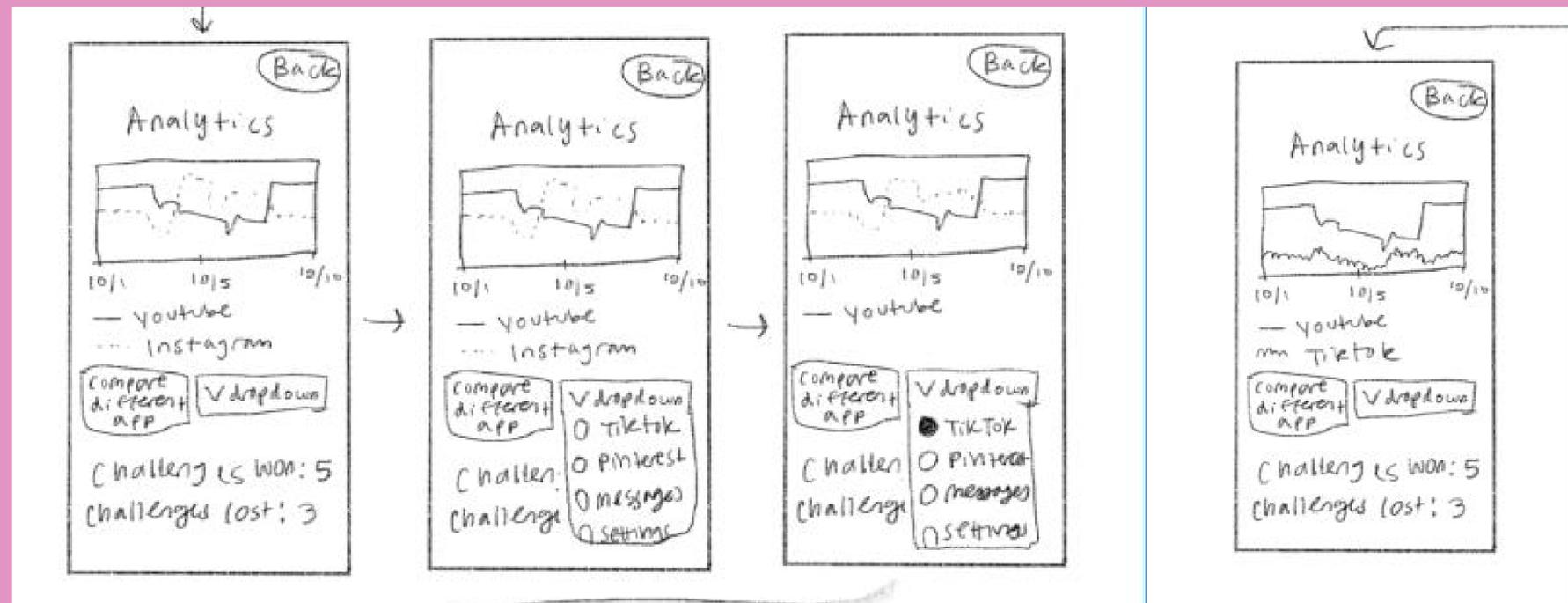
# Moderate Task flow: Post your daily stats to the competition feed and compare analytics with friends



Main recap page (option to post stats)

Now you've posted your stats, and can see competitors' posts

You pressed on Alice's profile and compare your stats with hers



What you see after pressing "analyze my stats"

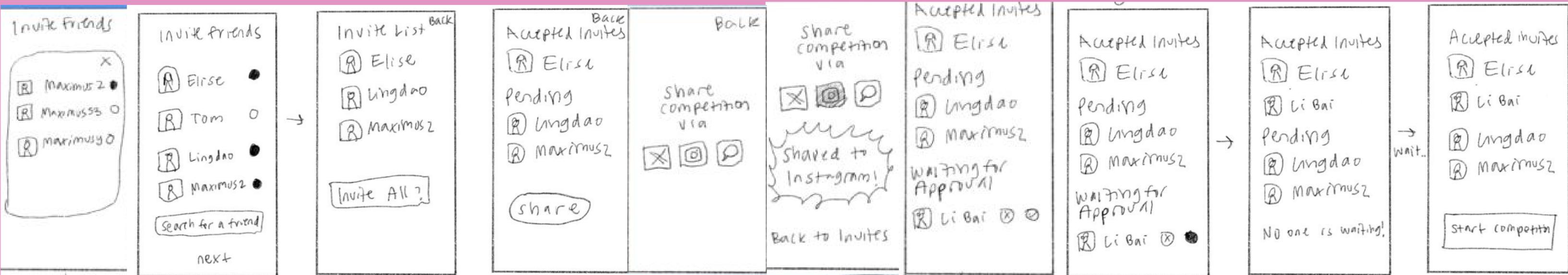
Dropdown interaction

New app to compare with chosen post-dropdown

# Complex Flow: Make custom competition; controlling goals, stakes, members, and sharing invitations



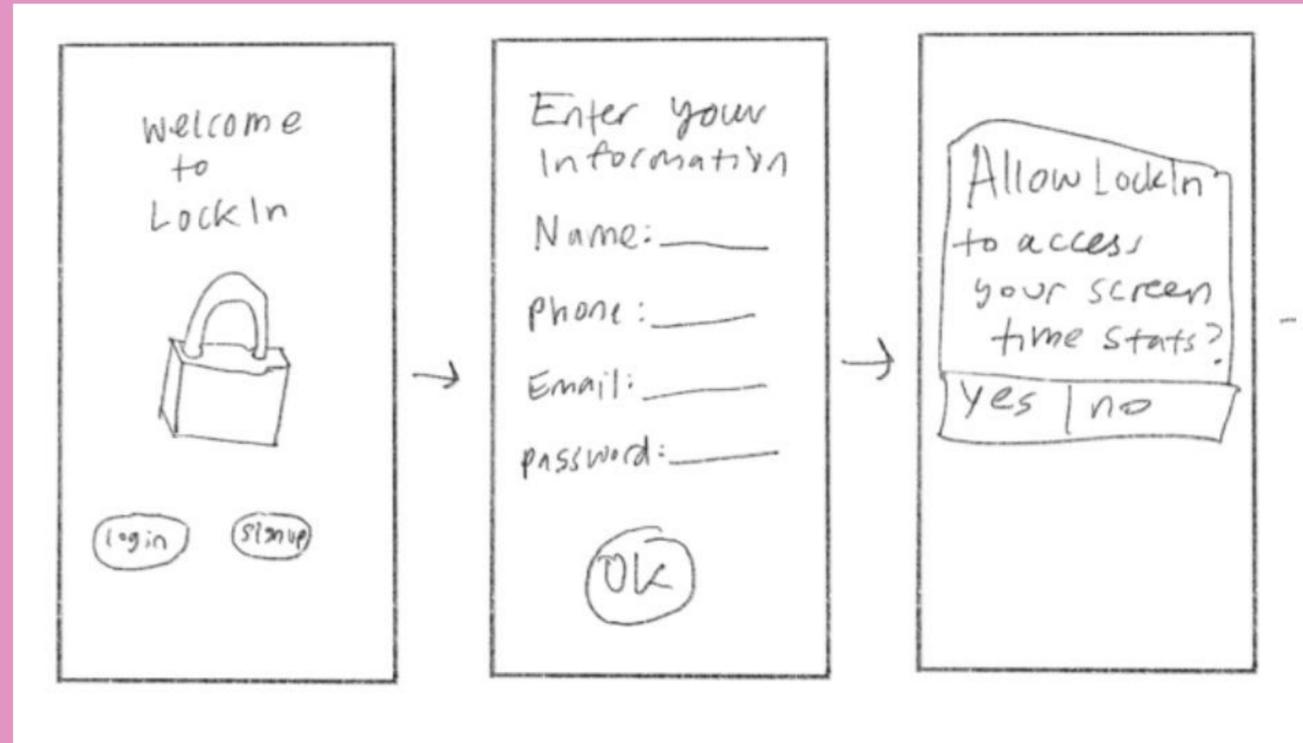
Home screen      Creating custom competition      Dropdown interactions      After setting up, you can invite friends      Choosing invitees      Searching for Maximus's username



Selection      Final selections      Invite All option      Share competition so that people can request to join      Join request      Start Competition button appears

Final Prototype: Combined three task flows, added a sign-up flow.

For new users:



Otherwise, users go from



to one of the two moderate and complex task flows.

03

# Testing our Prototype

Methodology, findings and next steps

# TESTING ROLES



Facilitator

'26  
Las Vegas, NV



Computer

'26  
San Diego, CA



Note-Taker

'25  
Denver, CO



Note-Taker 2/

Timer

'25  
Walnut Creek, CA

# Testing Methodology

## Participants

Four participants, in their twenties (ish), our target demographics

Recruited partly in Town and Country shopping center, partly on campus

Compensated with profuse thank you's

## Environment

Conducted on site

## Procedure

Paper printed  
Prototype

Screen toggle  
manually  
changed by  
computer role

# Our Participants



**Lindsay, 30 y/o**

Sorority chapter advisor in the area



**Makayla, 20 y/o**

Stanford Junior



**Jonathan, 24 y/o**

Software Engineer



**Jessie, 27 y/o**

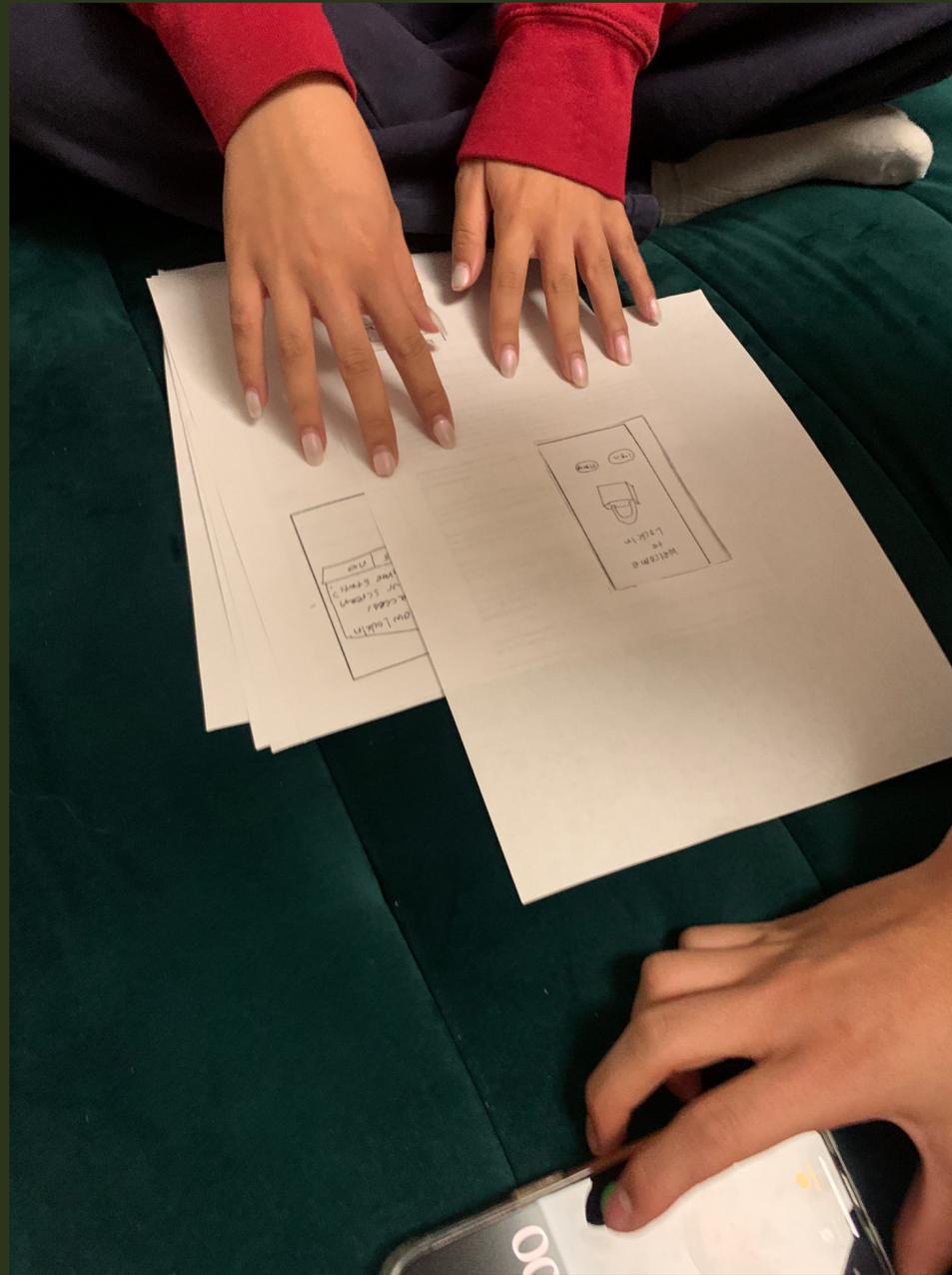
Human Resources specialist  
in Menlo Park

## Our Methods:

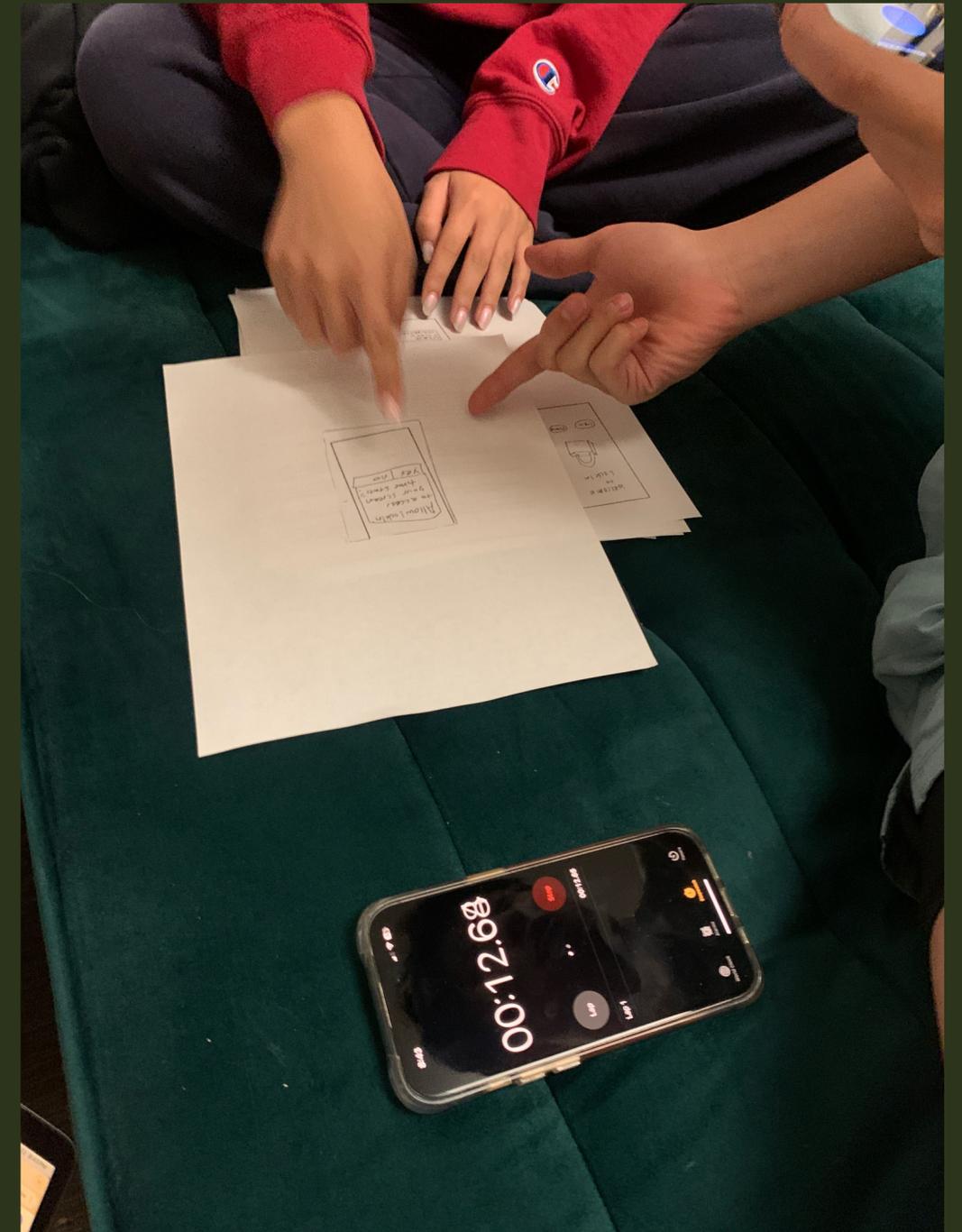
Paper prototype, slider cutout to toggle between pages

Told users about our solution. Asked them to verbalize their process

Asked to speak aloud about confusion + overall impressions



Photos of Ethan serving as the "computer" role in testing our prototype on Makayla



# Key Metrics

Total time used to step through

Quantitative metric:

Facilitator timed how long different task flows took.

Confusions

Notetaker looked for signs of confusion, and subjects were also asked to name confusion aloud.

# of Misclicks

Quantitative metric:

Notetaker recorded any misclicks.

Decisions made

When they could make a choice, which did they gravitate towards? Making/joining a competition?  
Sharing on what apps?

Features they enjoyed

Qualitative metric: all subjects were asked to identify enjoyable aspects after.

How likely are you to use this app?

Qualitative metric: all subjects were asked to identify enjoyable aspects after.

# Our findings

# Total Mis-clicks	Timing	Decision Making	Confusions:	Qualitative Reviews
Task 1: No mis-clicks	Task 1: Between 19-21 seconds	People repeatedly chose to make a competition over joining one-- despite making being a more complex task.	Common confusions stemmed from:	Users would use the app again
Task 2: 3 mis-clicks -- all from interpreting button names incorrectly	Task 2: Between 1:15-1:40 minutes		Interpreting graphs	Enthusiasm seemed to correlate with level of understanding of the app as a social space
Task 3: No mis-clicks	Task 3: Between 1:13-2:00 minutes		Comparing statistics	
			Ease of navigation, less back and next buttons, but a taskbar would be helpful	

# Bottom Line:

Implications of our findings:

Note: we made small modifications as we tested (adding next and back buttons) for our final two participants.

We achieved usability goals well overall-- between 0 and 2 severity rating of issues

1

Increased spacing between key buttons for less confusion

2

Need to emphasize social sharing on home page

3

Need more descriptive labeling of stats analytics, particularly graphs

4

Introduction of a dynamic task bar to allow for faster page switching

# Short Fall:

1

Something we failed to test was the process of linking in-app payments & bank accounts

\*Testing would require a Plaid-like infrastructure setup which we plan to handle with a digital prototype

*Future Tests: Will users be less inclined to use the app, if they have spend 15-30 sec linking a bank account?*

THANK YOU!

# APPENDIX:



# Interview Script

## **Roles:**

Computer

Facilitator

Note Taker(s)

## **Script**

Thank you for agreeing to participate in this interview! You will be experiencing a low fidelity prototype for our mobile app, LockIn. Here is some background about our app. LockIn is designed to help you lower your screen time by making it possible for you to enter into screen time competitions with your friends. To make it more tempting to reduce your screen time, we've designed a staking functionality where you and the other people in the competition can stake a certain amount of money. You will lose the money you staked if you exceed your screen time goal, and the people who do not exceed their screen time goals throughout the whole competition will split the winnings between themselves. We will be timing you throughout the competition, so that we have a fuller picture of how you interact with our prototype.

Now, you will complete the first task: joining a pre-set competition

Now, you will complete the second task: posting your daily stats to the competition feed & compare with friends

Now, you will complete the third task: setting up your own custom competition, setting goals, stakes and curating list of members

Can you tell us about features you particularly enjoyed?

How likely are you to use this app?

Thank you so much for participating in this interview! Your feedback is very valuable to us. We really appreciate your time.

# Full Pro-Con List

## 1) Apple watch

### a) Pros:

- i) Emphasizes social pressure aspect– one of our novel elements
- ii) Interactive + provides a summary of people 's weekly progress
- iii) Make people feel the full heft of the shame so they feel more motivated to win next time

### b) Cons:

- i) Making people feel bad and compared to their friends
- ii) Negative reinforcement not usually the most effective
- iii) Apple Watch screen is really small, limited functionality
- iv) Not everyone has an Apple Watch (it's an accessibility concern)

## 2) iPhone

### a) Pros:

- i) Live updates of what your competitors are up to
- ii) Emphasizes the staking aspect– keeps people attached to the monetary goals
- iii) Allows quick way to click on each person's face to get details about their performances'
- iv) Allows for easy visuals of people's risk factors in the game
- v) Everyone has a phone

### b) Cons:

- i) Might make people want to use their phone more throughout the game
- ii) Gambling problems??

Testing Critical  
Incidents Log Link:

[https://  
docs.google.com/  
document/  
d/1rLxmu9KfPsXoeqJ  
GQp4WAjXwDWNxg  
XaKV4rywkMUUq0/  
edit?usp=sharing](https://docs.google.com/document/d/1rLxmu9KfPsXoeqJGQp4WAjXwDWNxgXaKV4rywkMUUq0/edit?usp=sharing)

Link to concept sketches [https://docs.google.com/document/d/1SFOag6GZI-GmASsnapkQ1YZNjF\\_AGrangGxtLxUtKpE/edit?usp=sharing](https://docs.google.com/document/d/1SFOag6GZI-GmASsnapkQ1YZNjF_AGrangGxtLxUtKpE/edit?usp=sharing)