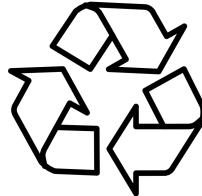


Track-My-Waste

Interaction Analysis and Design



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CPSC 6140: Human-Computer Interaction

Document 3

1 April 2020

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Document Purpose

The purpose of this document is to document the process of fleshing out a design for the Track-My-Waste app. We created storyboards, GTNs(Generalized Transition Networks), and wireframes to aid in the process of moving from user research and design conceptualization to planning out and wireframing a full application, and they are all included in the document. The hope for the document is that a team of developers could pick it up, get an idea of what we're making and how it's going to be used, then implement it.

Executive Summary

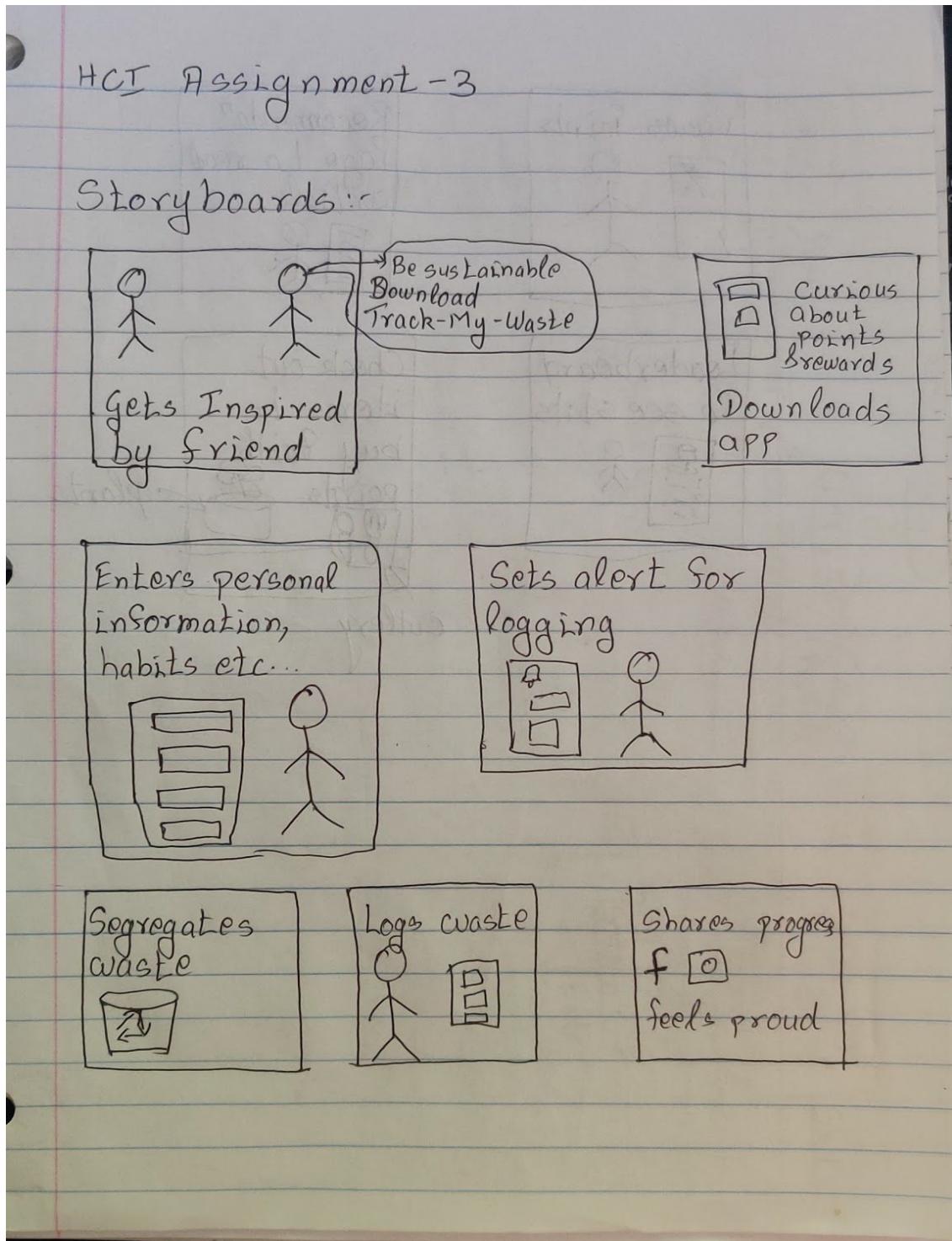
The results of the storyboards, GTNs, and wireframing are a full picture of how our app is used to fulfill various goals related to sustainability and an early design structure.

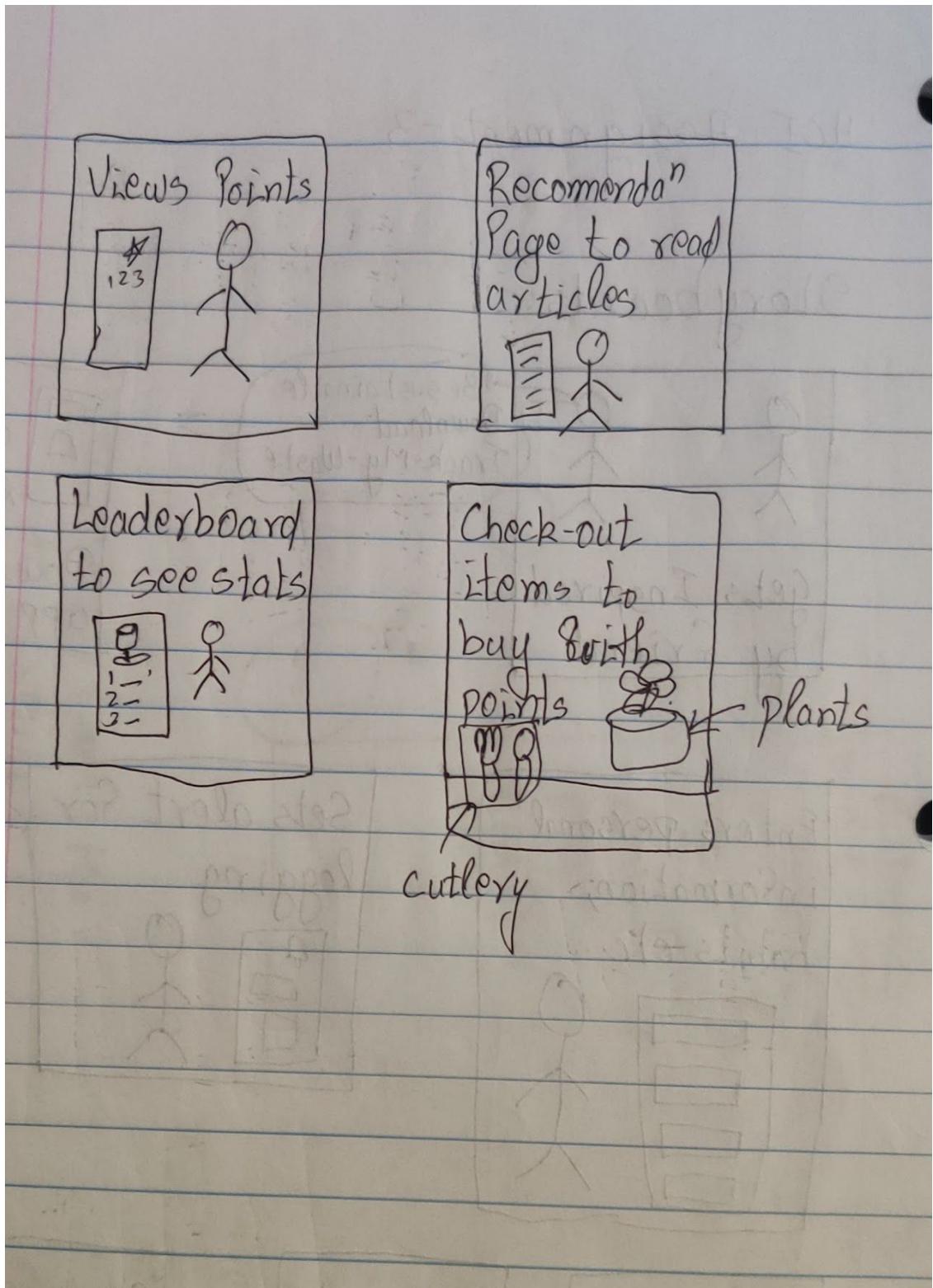
The storyboards were taken from the scenarios in the Contextual Design Results document. We broke them down into individual steps and drew them out as a storyboard, showing the emotions and motivations behind our target users as they use the app in their day-to-day life. The GTNs were inspired heavily by the product concepts from the Contextual Design Results document. We looked at how each of our target users would use the product concepts we came up with and started to flesh it out into a network of pages and relationships between them. The GTN is an extremely high-level view of the design structure of the app, and it informed our wireframe heavily. The wireframe is the result of taking our GTN and turning it into actual screens. The content of the wireframes is what we believe the user would need to fulfill their goals within the structure of the GTN we created.

We also have a reflection on the process, where we discuss some problems we had and the overall flow of moving from design concepts and user data to an application layout.

Storyboards

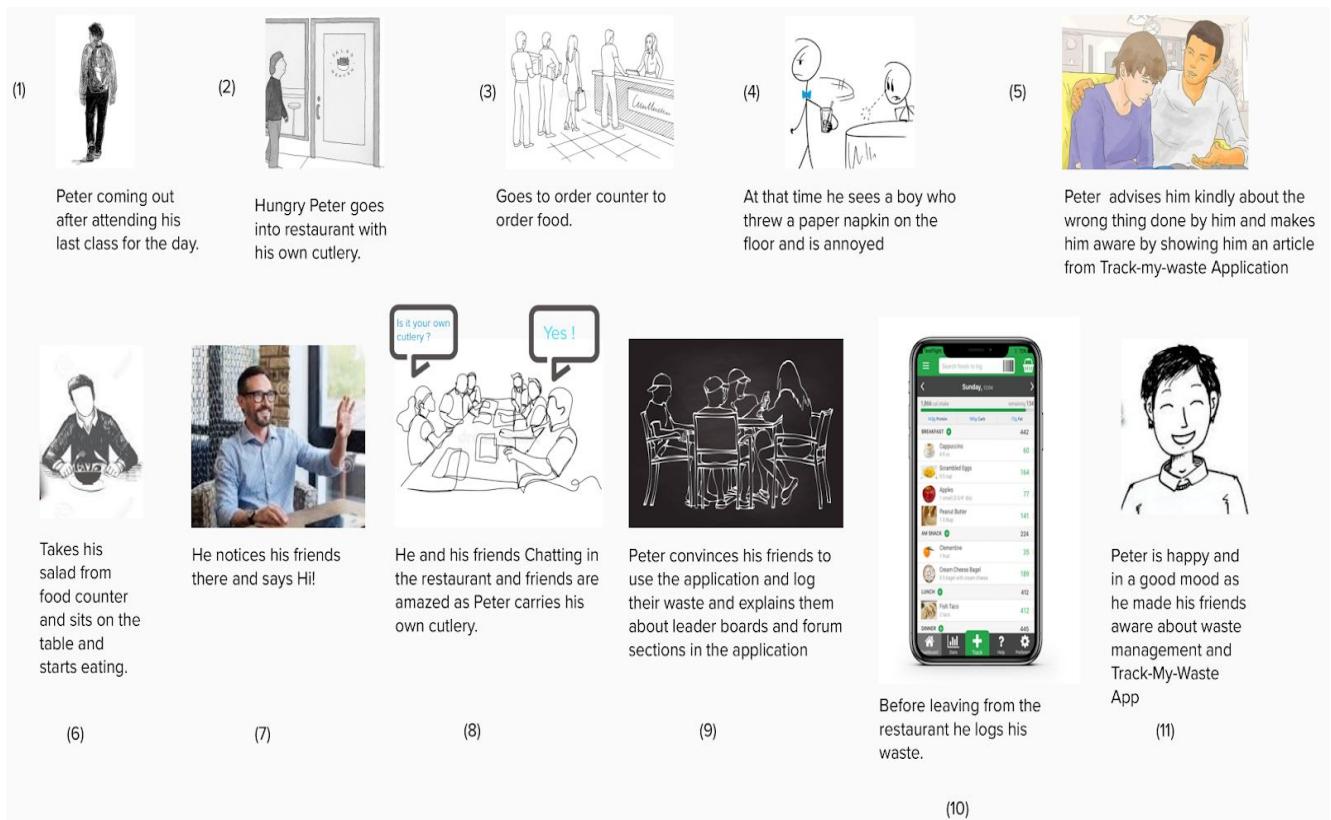
Storyboard 1 [Dhananjay]





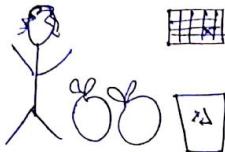
Storyboard 2 [Chaitanya]

A person in a Restaurant Storyboard



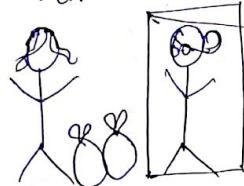
+Storyboard 3 [Karishma] - Community Waste Bin

Storyboard : Community Waste Bin



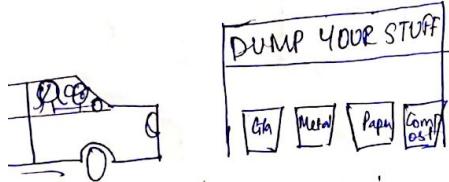
1. Cleaned house and segregated waste as per weekly schedule.

Mood: ~~CAREFUL~~ OPTIMISTIC



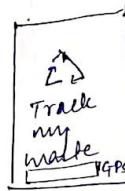
- 2) PICK up neighbour and help her with the trash.

Mood: OPTIMISTIC



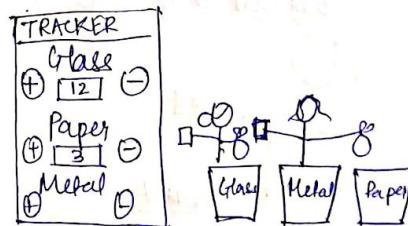
- 3) Check App Recommendation System for nearby community waste ground

Mood: ~~CAREFUL~~ ANXIOUS



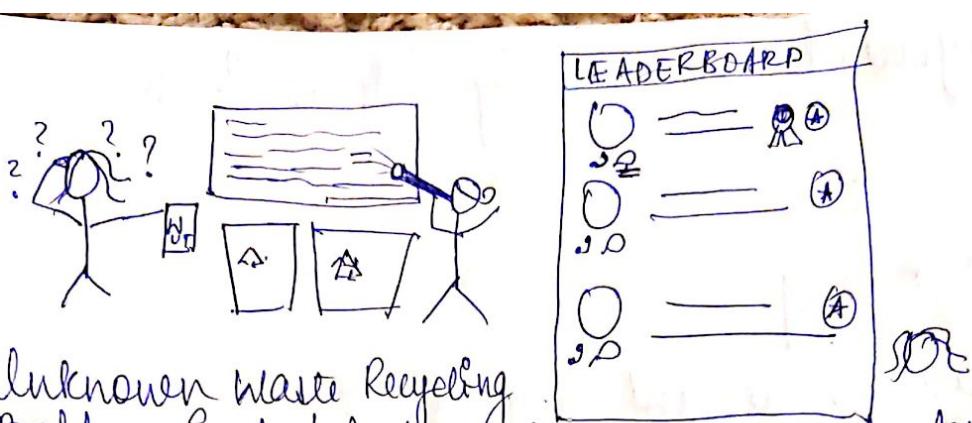
- 3) Check App Recommendation System for nearby community waste ground

Mood: CALM

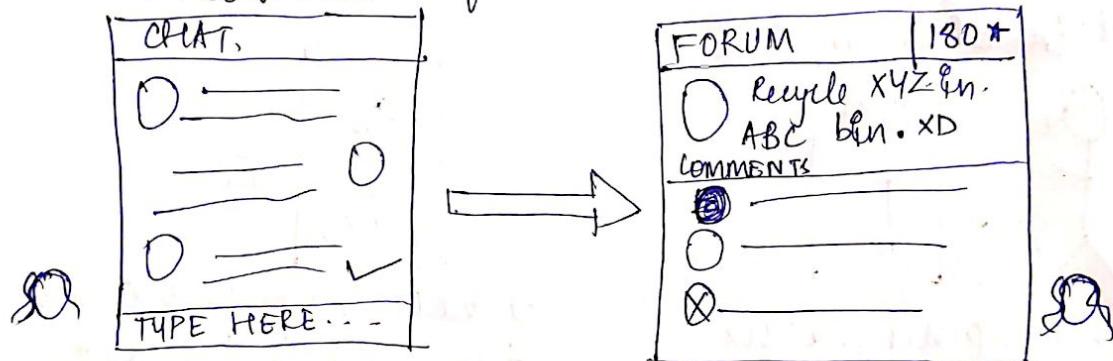


- 5) Tracks waste while dumping and helps neighbour too.

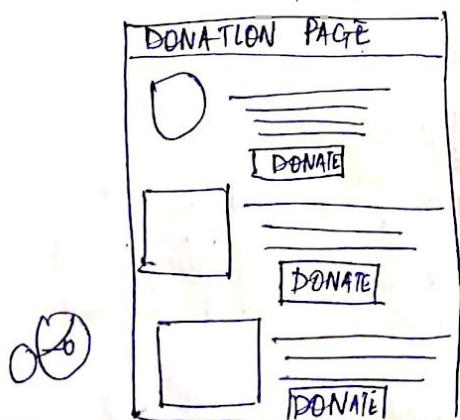
Mood: CAREFUL



6. Unknown Waste Recycling
Problem: Seek help from top swatters on leaderboard
MOOD: CONFUSED

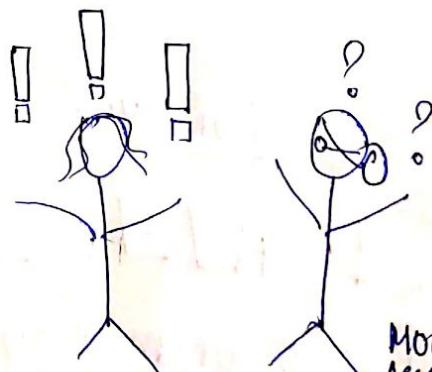


7. Receives an answer ~~and dumps waste~~
MOOD: HAPPY



9. Donates using the donation page ~~of~~
MOOD: GUILTY

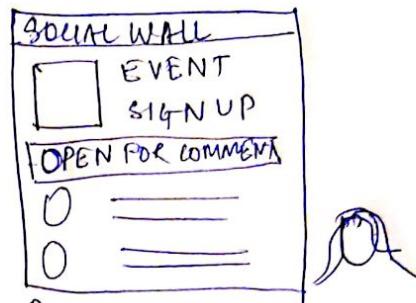
8. Updates the and gains points
MOOD: JOYFUL



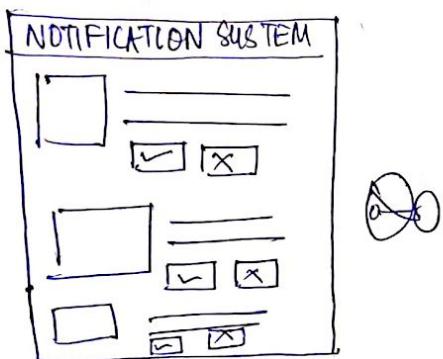
10. Shares an idea to create an event about recycling waste.
MOOD: ACCOMPLISHED



11. Create event for the idea -
MOOD: YAY

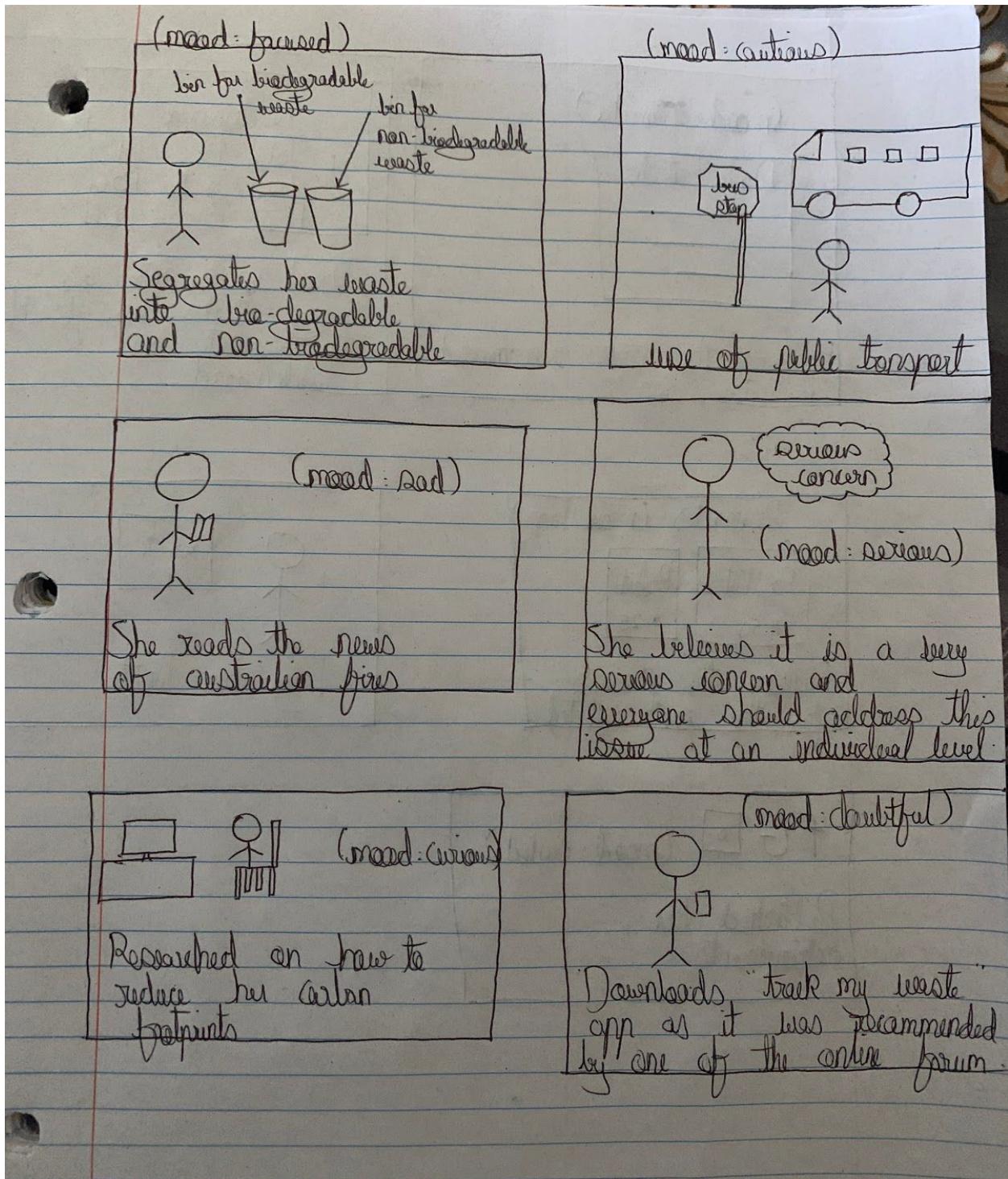


12. Post on wall
MOOD: ANXIOUS



12. Event attendees get notifications related to the event
MOOD: EXCITEMENT

Storyboard 4 [Parth]



(mood: optimistic)

Daily tasks

Followed the tasks recommended by the app

Leaderboard

1. John Doe 193
2. Sam Smith 156
3. Parth Panthal 121

Tried to complete as many tasks as possible to compete in Leaderboard

Rewards (mood: happy)

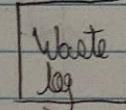
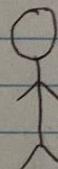
Product 1

* 50

Product 2

* 25

Redeem the products for the points collected



Logs her waste

f G (mood: excited)

Published her achievements

Storyboard 5 [Jeff]

Community Event Storyboard [Jeff]

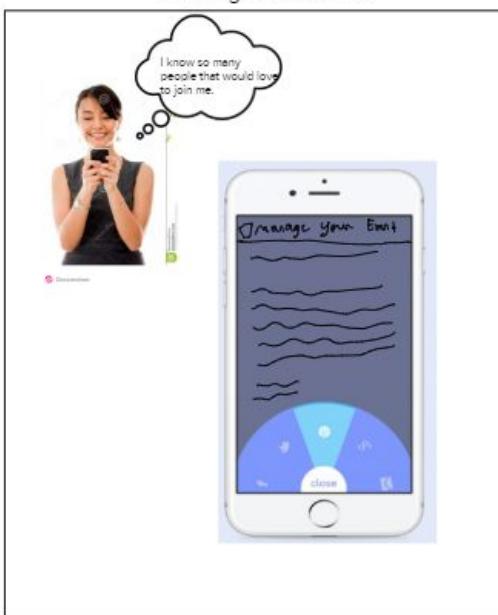
[zoomable version](#)

Before the Event

<p>Getting Inspired to start an event</p>	<p>Checking already-existing events</p>
<p>Creating an event</p>	



Sharing with friends



Waiting for event day



Event Day

Prepping for the event

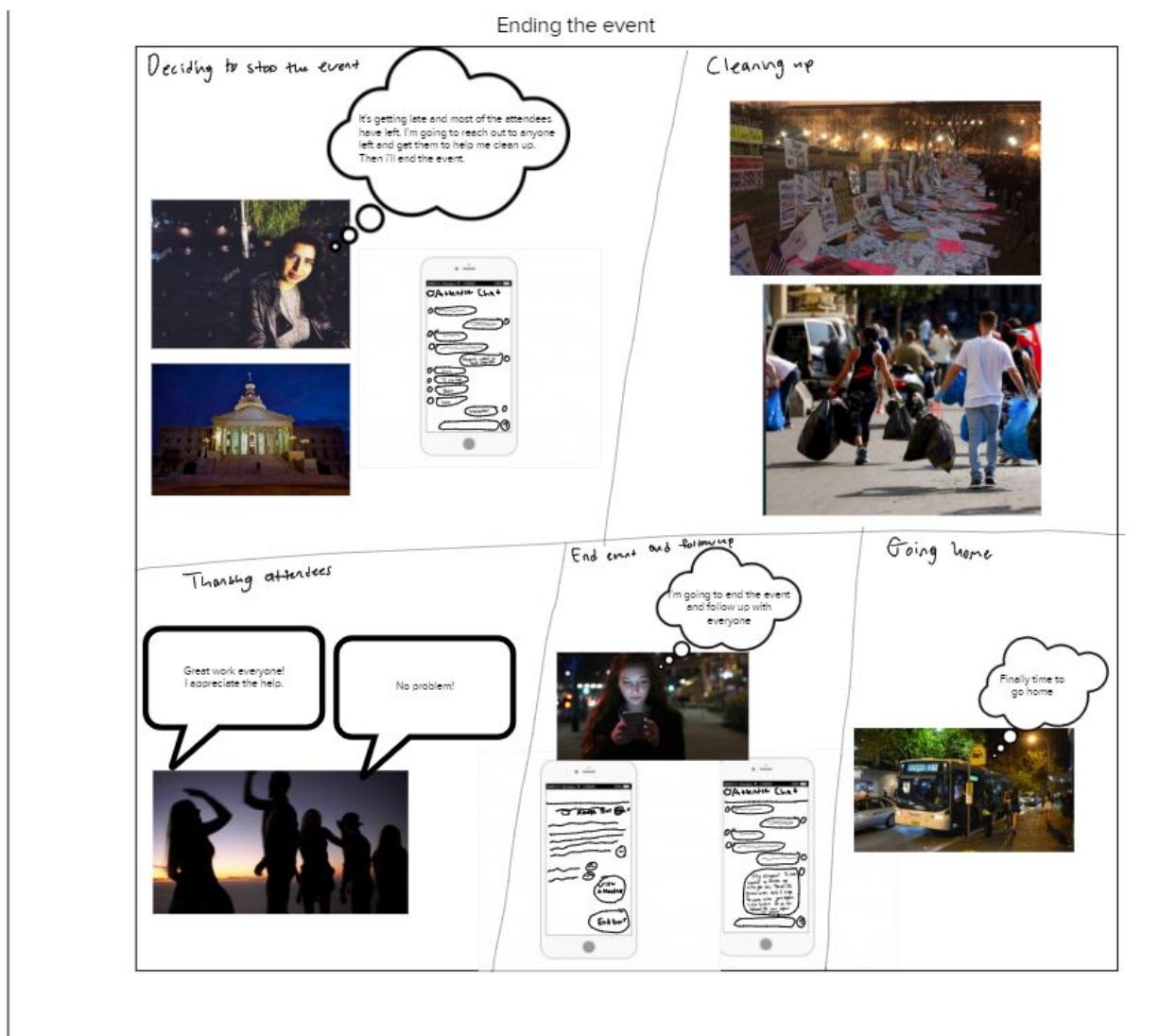
Establishing a meeting spot at the event

Running the event

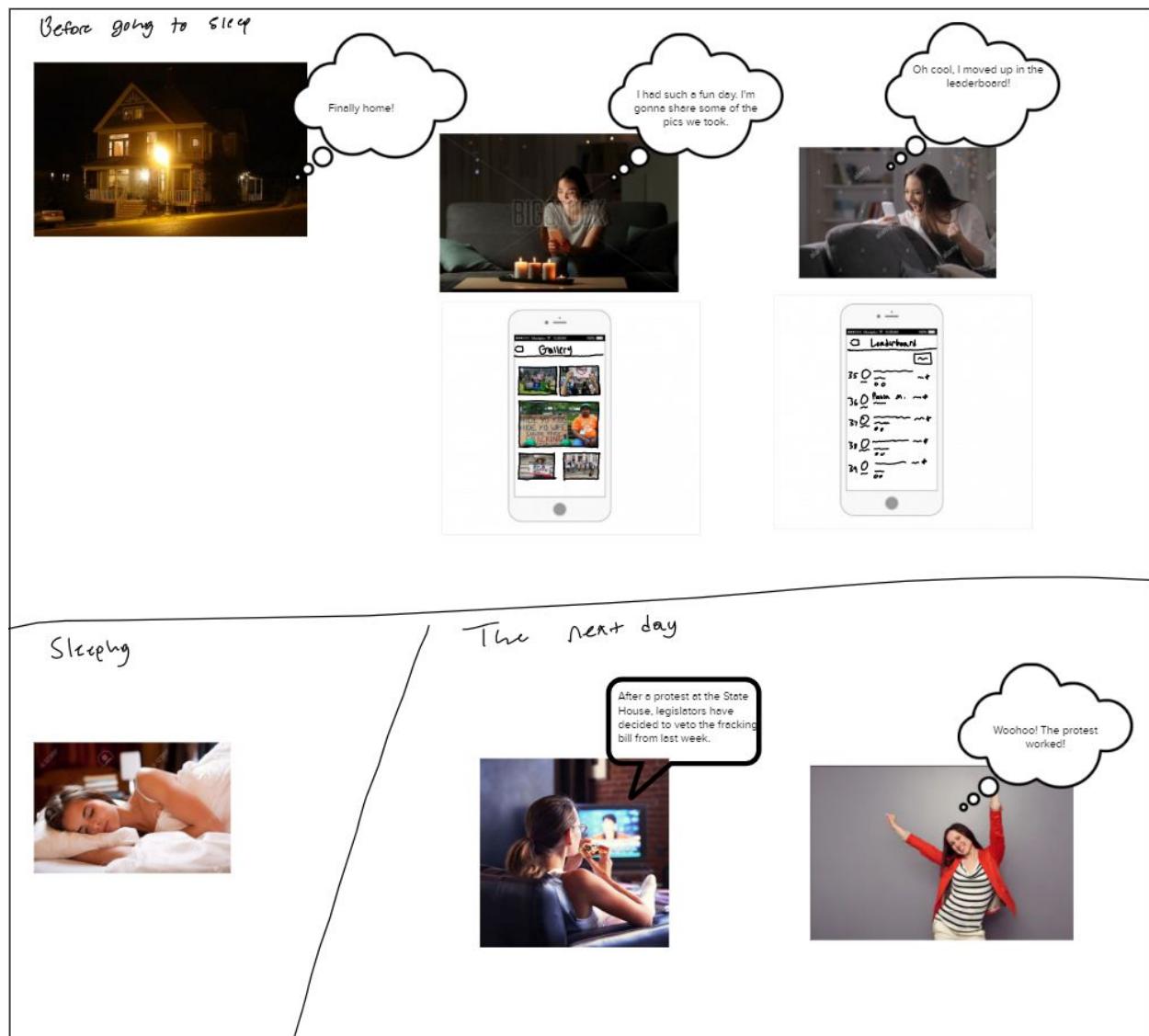
Until event is over

Attendee Checks In

Attendee Checks Out



After the Event



Generalized Transition Networks

[Clear Image of the GTN](#)

Reflection

The first aspect of our design logic was an easy-to-navigate page hierarchy. We didn't want pages to be buried deep in the app where a user might never find them. We also wanted to make sure that important pages were prominent. So we made sure there was a persistent navigation bar with all of the most important pages and tried to flatten the hierarchy of pages so that access to pages outside of those on the navigation bar is easy.

The second aspect of our design logic was a simplistic interface. We understand that it's easy to get overwhelmed with information, and we didn't want that to be a barrier to people becoming more sustainable. Therefore, we tried to make an interface that is fairly simple.

The third aspect of our design logic was to be hassle-free. We tried to go with a layout that was easy to learn and understand what's going on. We also tried to design the app to make the difficult parts simple when it comes to being sustainable. We implemented this logic through simple pages and sequences.

We came across various difficulties in the design process. The first of which was the fact that the group can't meet as a whole because one of the members is away from Clemson now. Working remotely hindered our ability to coordinate and collaborate as a team. This especially came in to play when

Learning wireframing tools was also a point of difficulty. At the time of starting the project, our group had limited experience with wireframing tools. Though the lectures in class about how to use the various tools were helpful, there were still some aspects that we weren't comfortable with until we really got our hands dirty with the tools.

Another point of difficulty was trying to keep our GTNs organized. As more nodes are added to the GTN, it quickly becomes messy. So, drawing then redrawing the GTNs was a normal and frustrating occurrence.

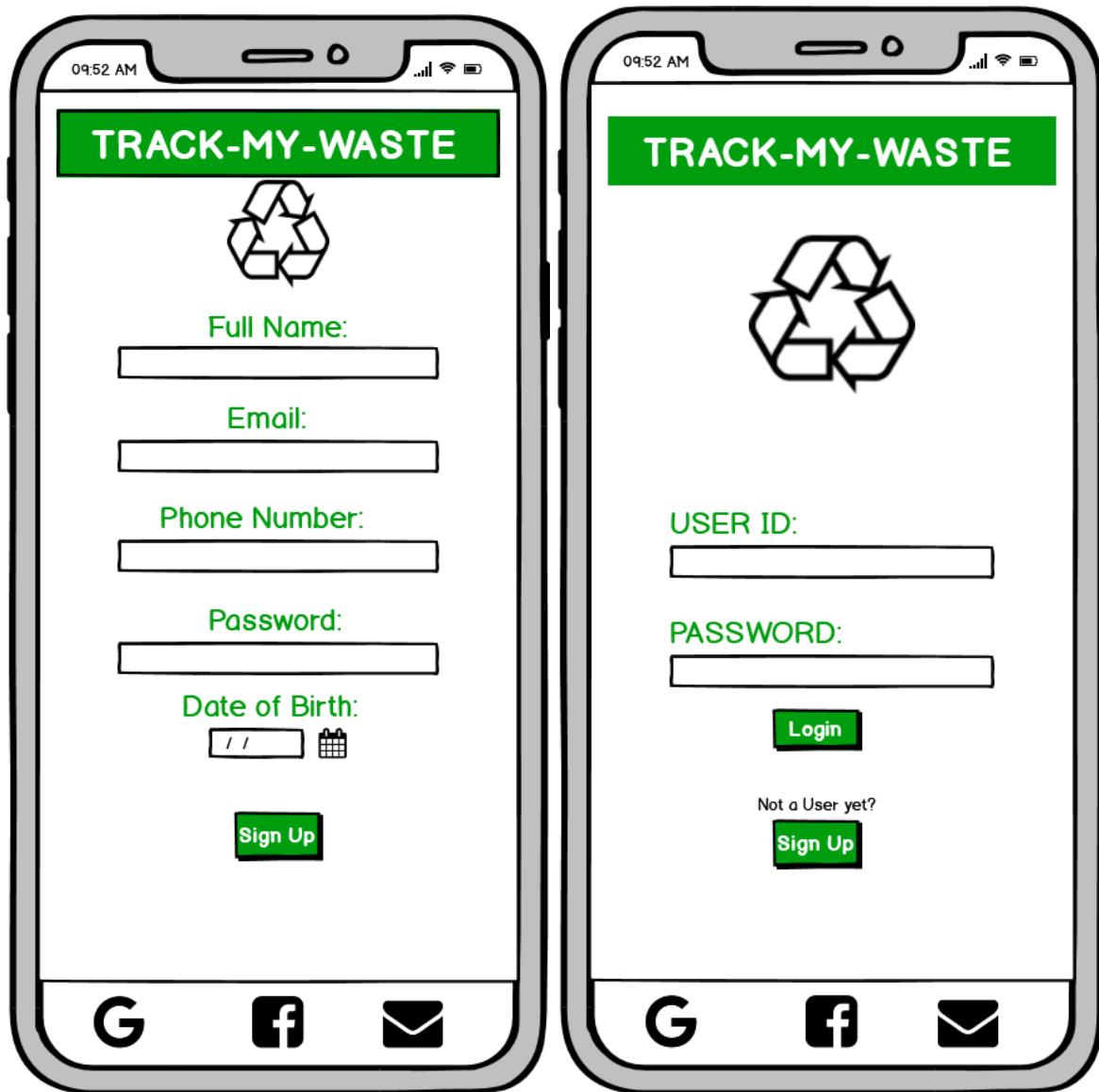
As for translating research into design, it was pretty easy. The amount of time spent studying our user base, thinking about a suitable design, and thinking about how users would interact with our app made for a rather easy transition from research to design--that is, not too much thinking was needed after doing the previous two

assignments. The largest hurdle was simply transferring our design from ideas to paper and learning the design tools.

Appendix

Wireframe 1 [Dhananjay]

Set 1 : Login and Create New User



Set 2 : Create User Profile for Recommendation

Questions for creating a profile to get recommendations on

The user can skip filling the Profile. The user will be directed to the Log My Waste screen

09:52 AM

09:52 AM

Create User Profile

Question 1

Question 2

Question 3

Question 4

Question 5

Question 6

Question 7

SKIP

Next

Create User Profile

Question 8

Question 9

Question 10

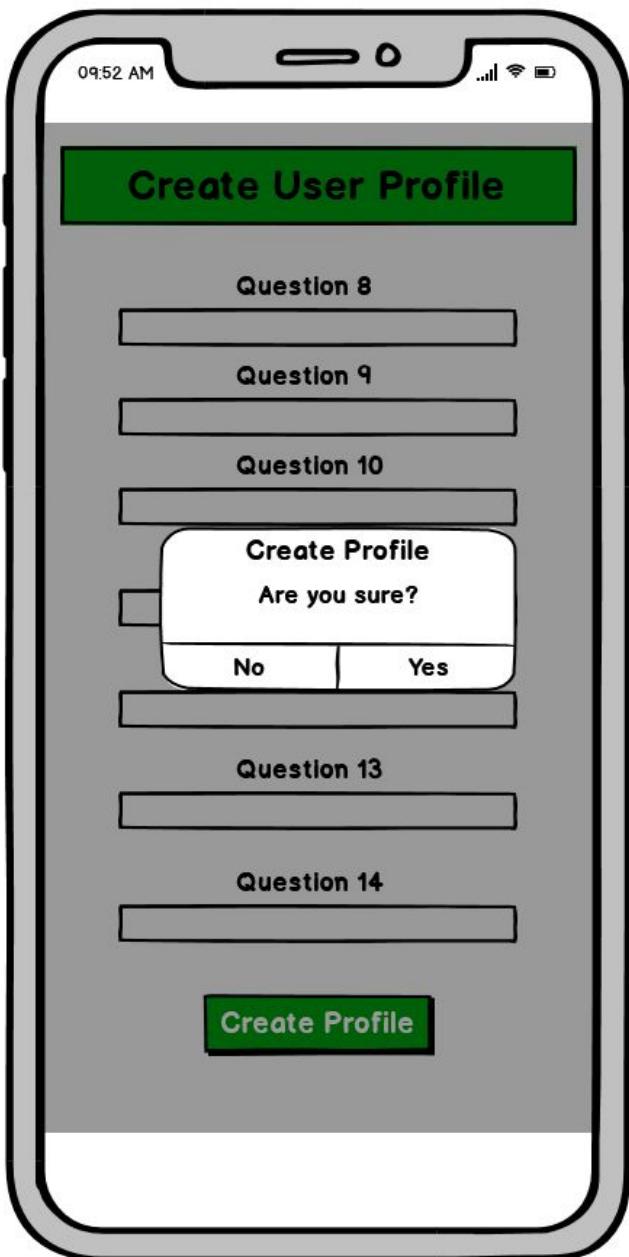
Question 11

Question 12

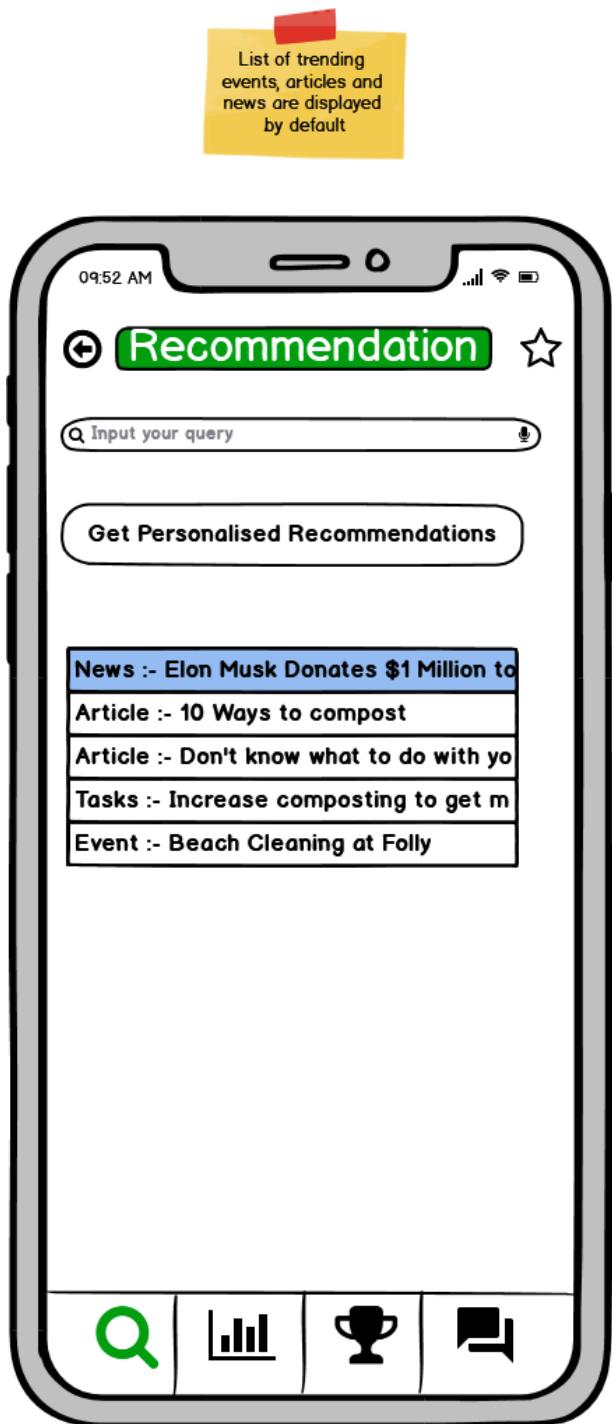
Question 13

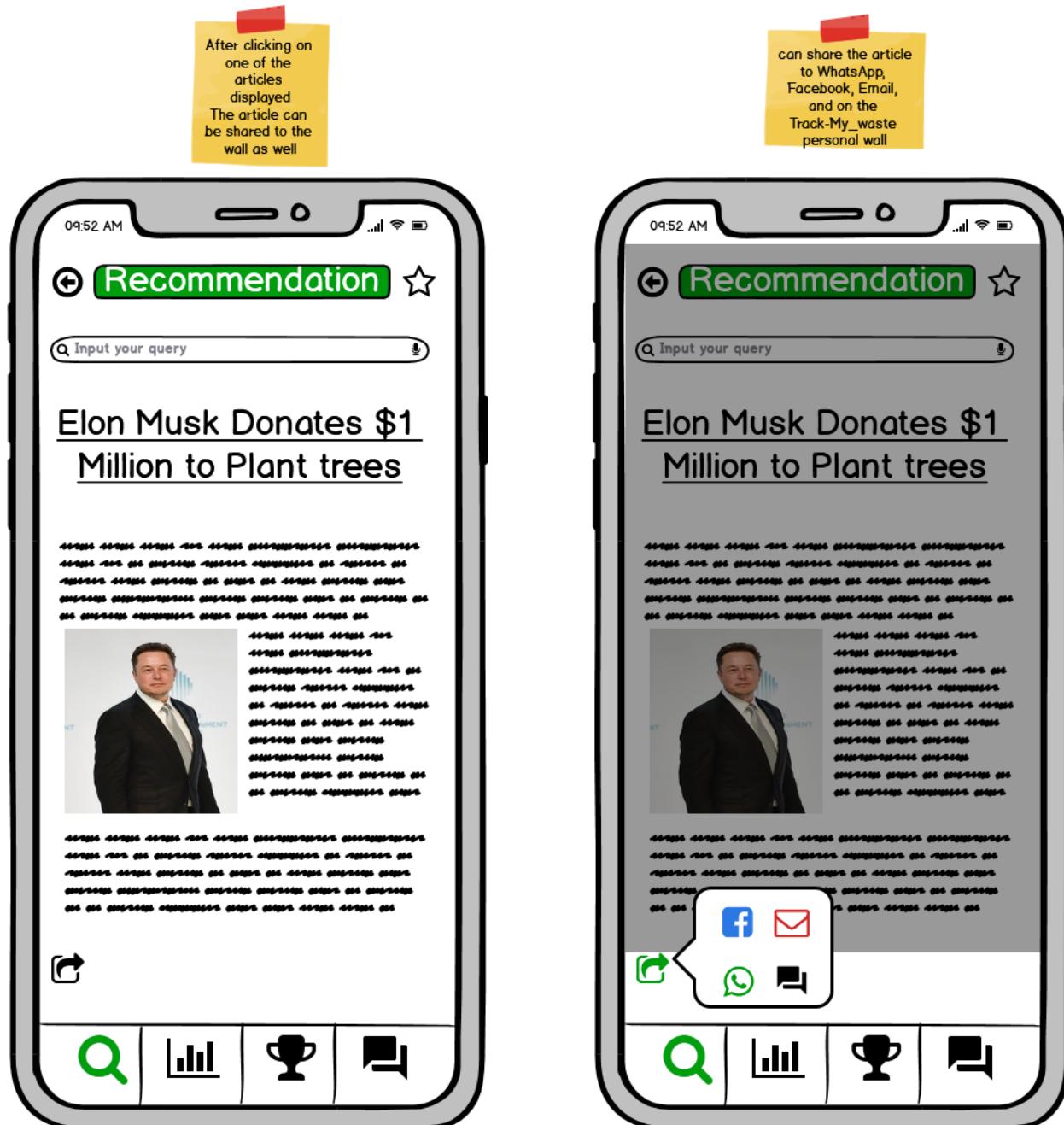
Question 14

Create Profile



Set 3 : Recommendation Page





Set 4: Personalised Recommendation

The image shows two side-by-side screenshots of a mobile application's 'Recommendation' screen. Both screens have a header bar with a search bar containing 'Input your search query'. Below the search bar, there is a list of recommendations.

Left Screen (User Profile Created):

- **Activity :** Take up more Composting to get more points
- **Activity :** Use the nearby recycling bin
- **Activity :** Log more waste. Click here to set an alert
- **Activity :** Buy reusable cutler Click here.
- **Event :** Volunteer at the Beach Clean event
- **Article :** How to compost?
- **Article:** How to reduce the use of plastic

Right Screen (User Profile Skipped):

The list is identical to the left screen, but includes a sidebar titled 'AN ULTIMATE GUIDE TO BACKYARD COMPOSTING' with the following steps:

- Combine Green and Brown
- Water your pile
- Stir Up Your Pile
- Feed the garden

Bottom Navigation Bar:

- Search icon
- Statistics icon
- Achievement icon
- Feedback icon

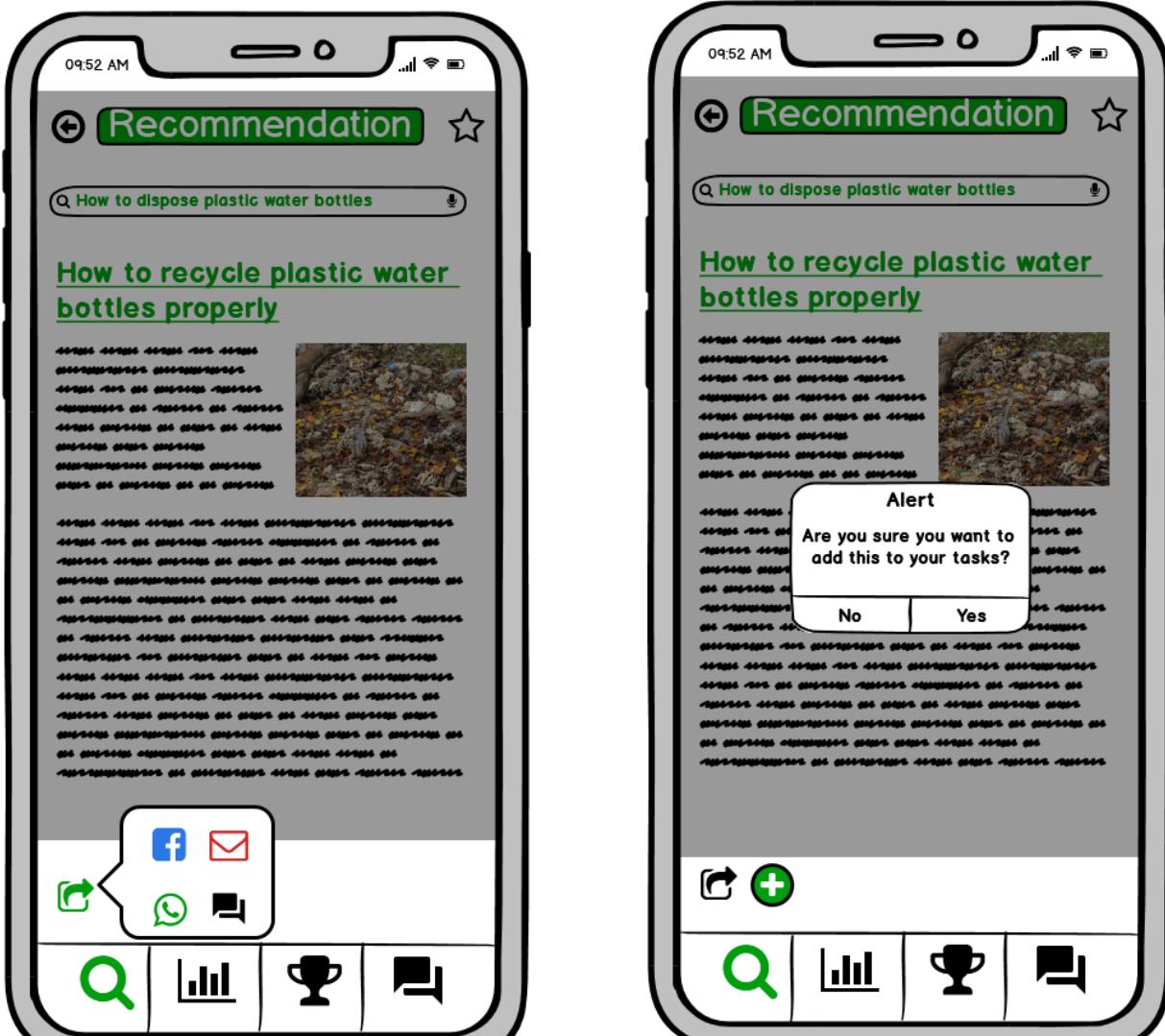
Annotations:

- Top Left:** List of things that can be done to improve score Showing the current stats
- Top Middle:** The suggestions are based on the User Profile created during account creation If the user Skipped the profile creation, the user will be directed to the profile creation page.
- Top Right:** Will show the activity details and can share and add the activity to their daily tasks



Set 5 : Recommendation Search





Wireframe 2 [Chaitanya]

Set 1: Waste logging



Set 2: User Profile Page



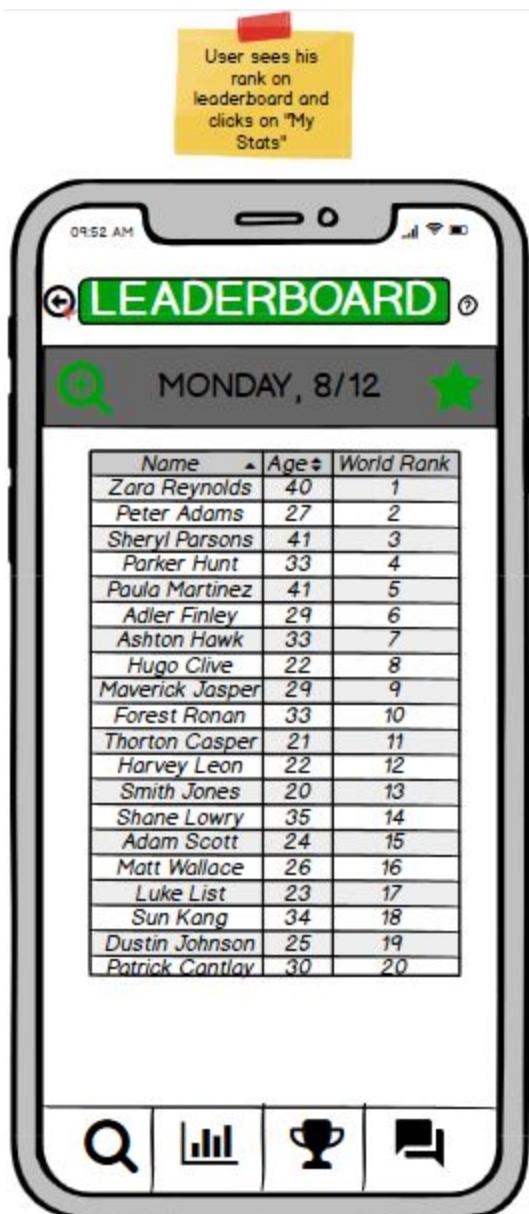
Set 3: User's Achievements



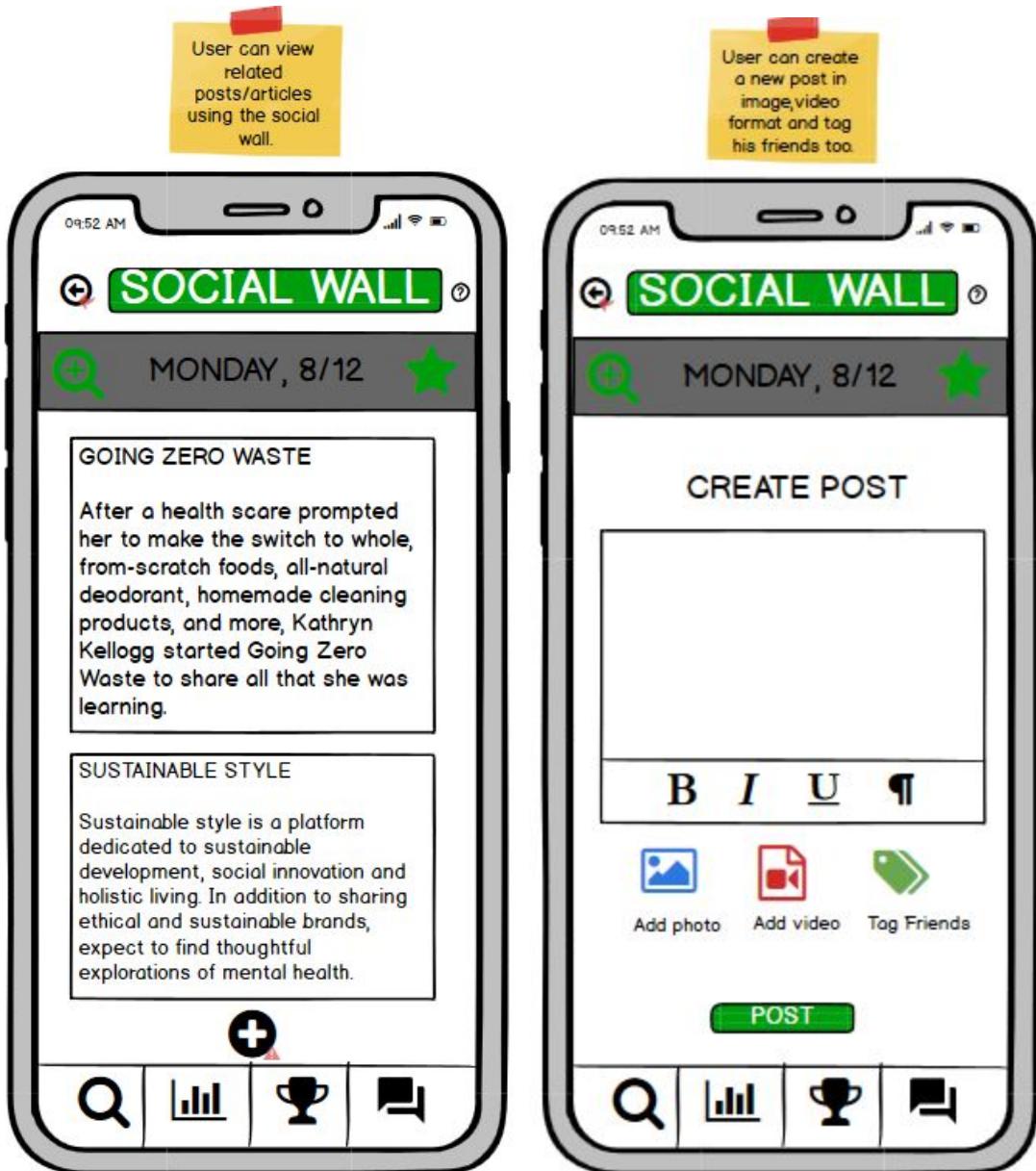
Set 4: Waste Statistics



Set 5: Leaderboard Page

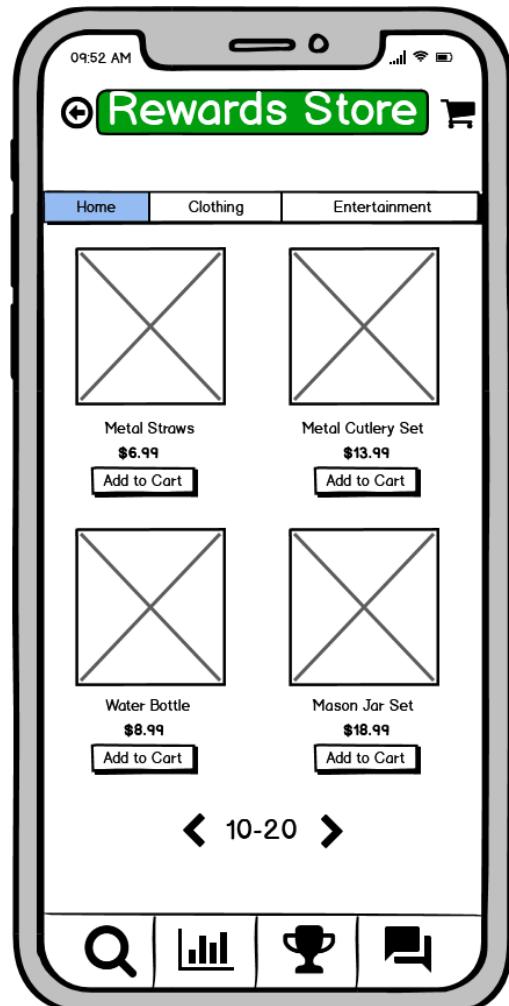


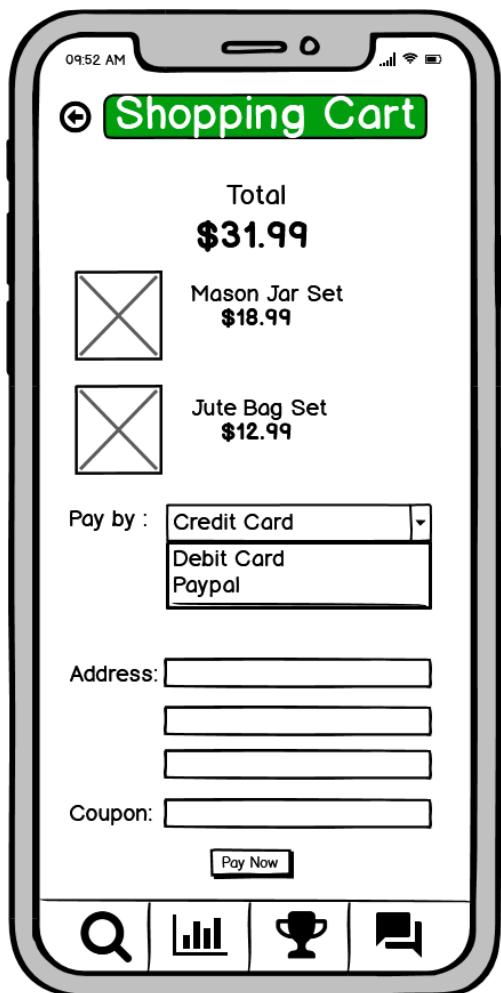
Set 6: Social Wall

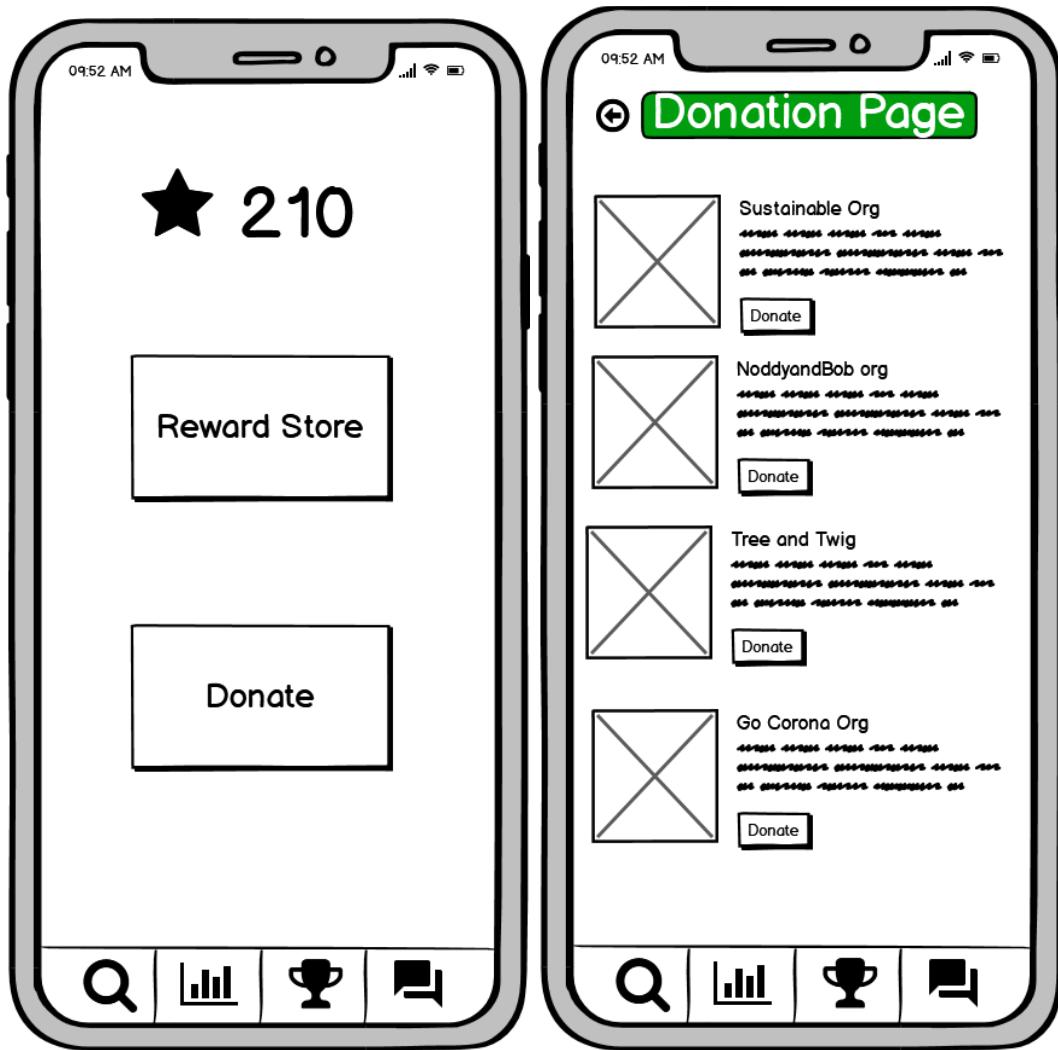


Wireframe 3 [Karishma]

Set 1: Reward Store





Set 2:Donation Page

Set 3: Leaderboard

The leaderboard depicts the scores of the users. It also has chat feature which allows the users to contact the featured users to ask them their queries, invite them to events etc.

Leaderboard

User	Score	Actions
Zara Reynolds	210	💬 🙌
007	196	💬 🙌
Rick and Morty	187	💬 🙌
Oompa Lompa	170	💬 🙌

< 10-20 >

My Stats

Recycle Chart : Daily

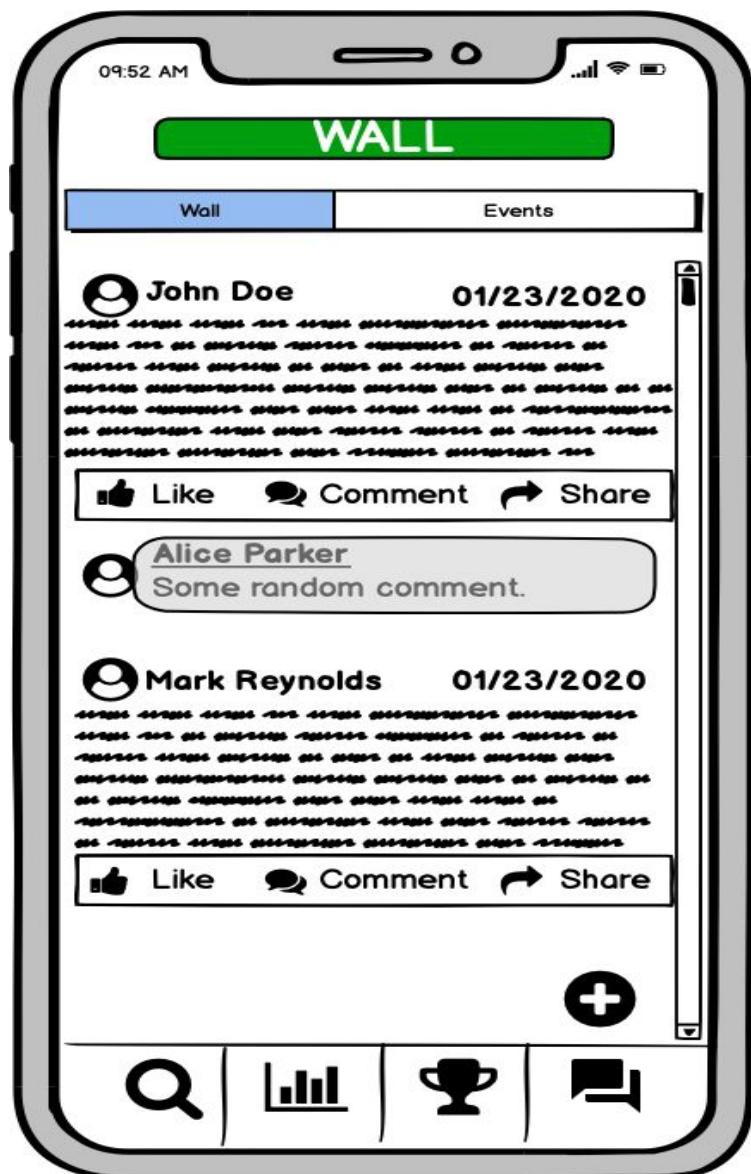
Recycle Stats : Weekly

Share icon

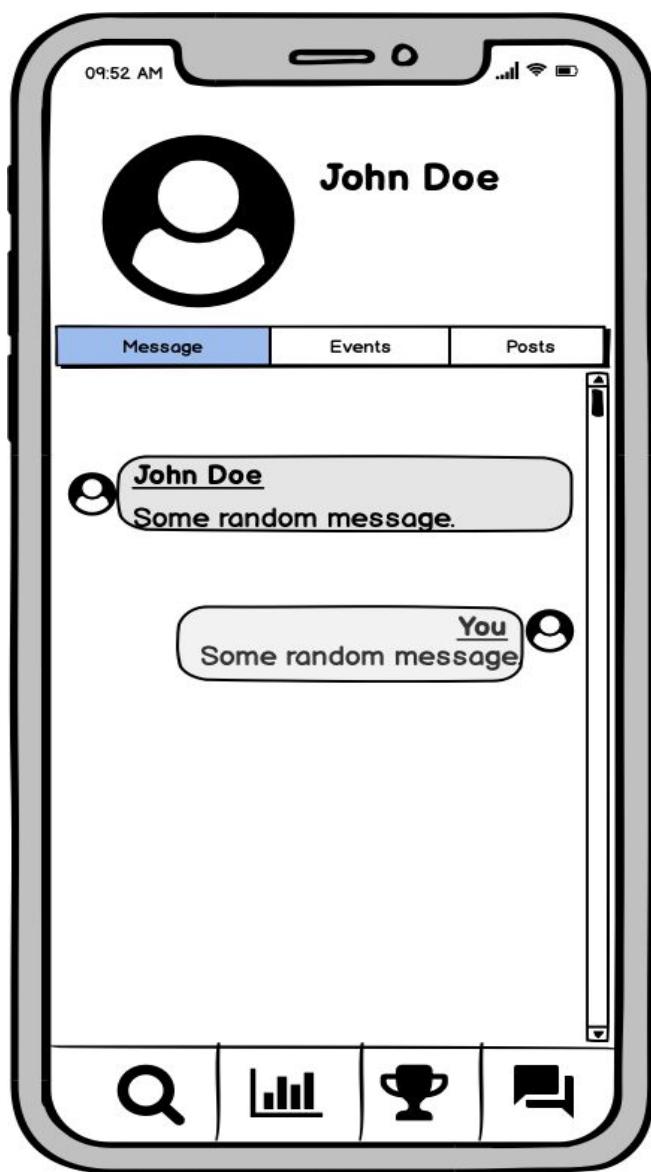
Search, Bar chart, Trophy, Chat icons

Wireframe 4 [Parth]

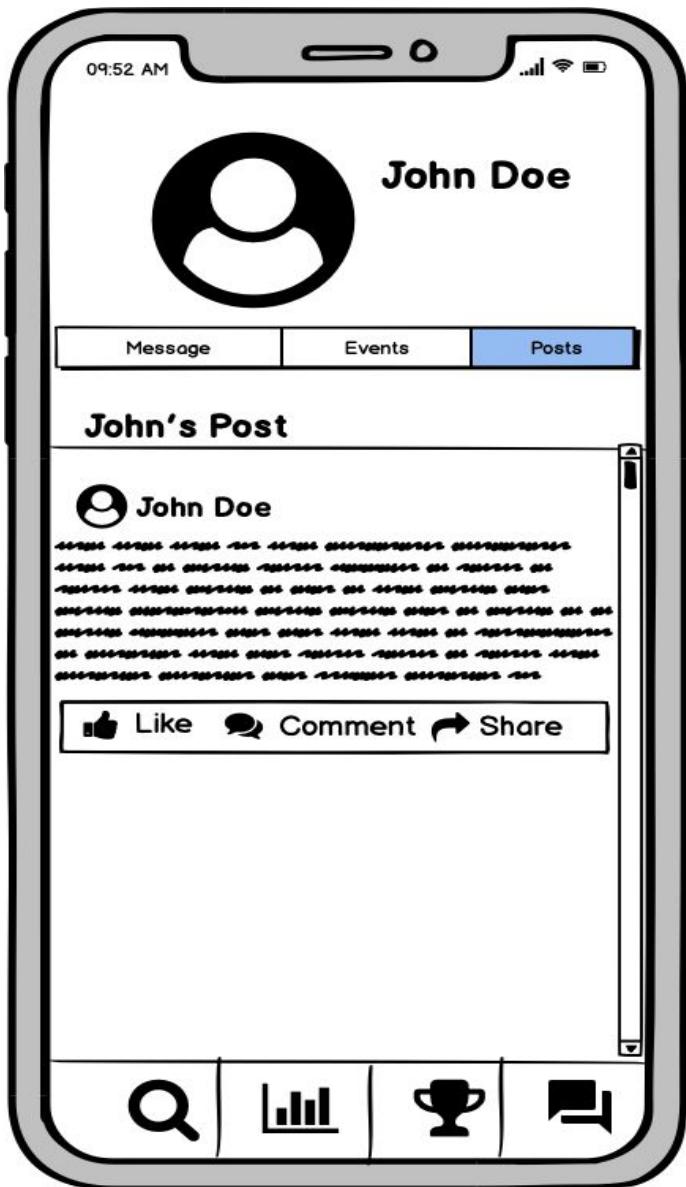
Set 1: Wall

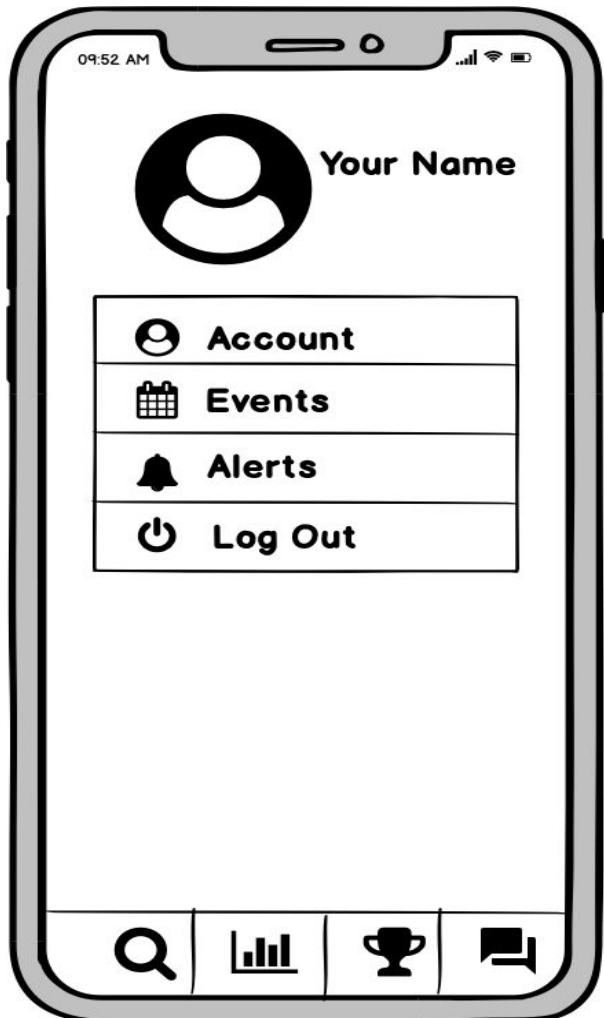


Set 2: Create a new post

Set 3: Other user's profile (Messaging)

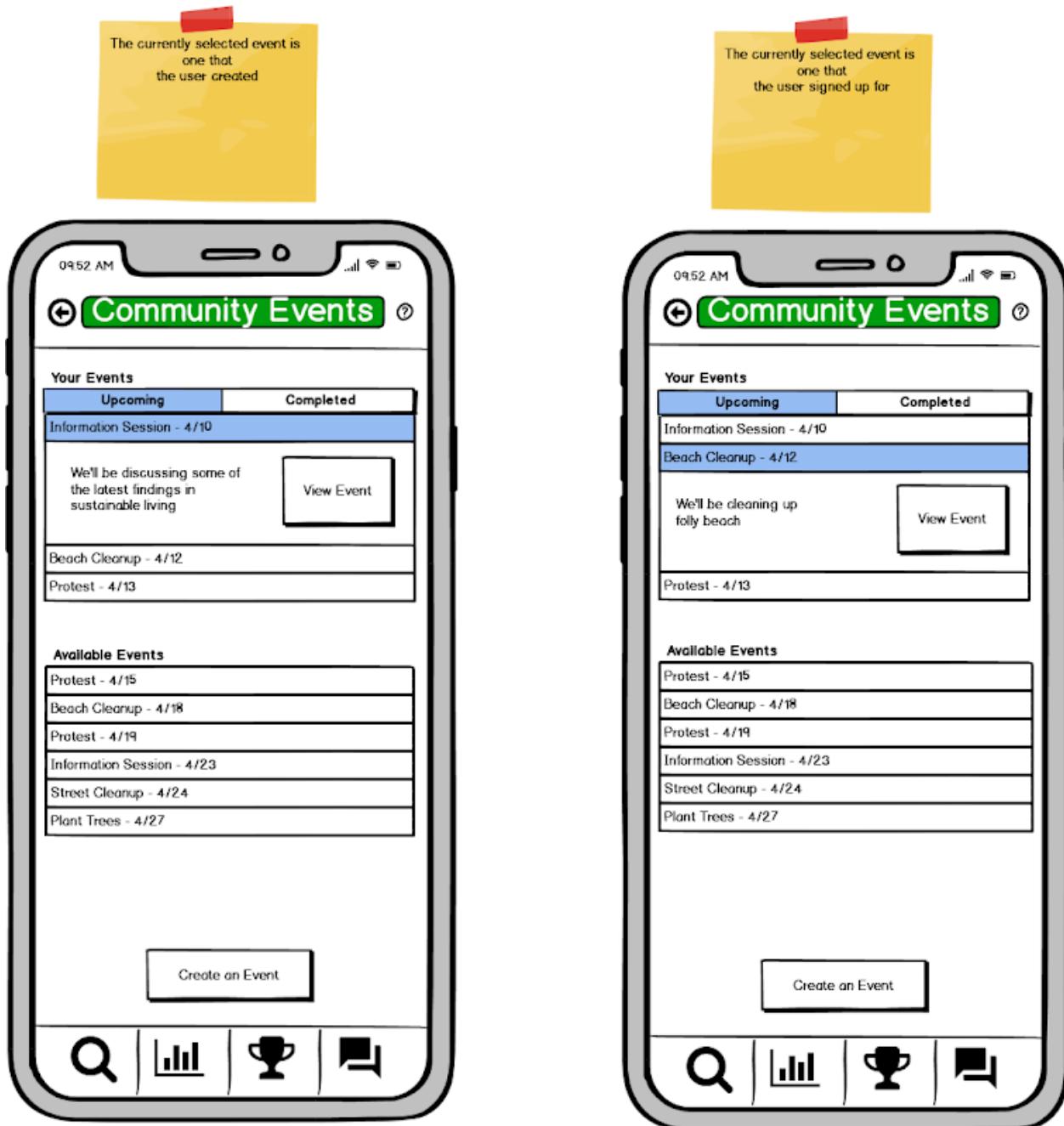
Set 3: Other user's profile (Events)

Set 3: Other user's profile (Posts)

Set 4: My profile (Posts)

Wireframe 5 [Jeff]

Set 1: Community Events Home Page



The currently selected event is one that the user has already completed

The currently selected event is an event that the user hasn't signed up for

Community Events

Your Events

Upcoming	Completed
Information Session - 4/05	
Protest - 3/24	
We'll be protesting against off-shore drilling	
View Event	
Street Cleanup - 3/19	

Available Events

Protest - 4/15
Beach Cleanup - 4/18
Protest - 4/19
Information Session - 4/23
Street Cleanup - 4/24
Plant Trees - 4/27

[Create an Event](#)

Community Events

Your Events

Upcoming	Completed
Information Session - 4/10	
Beach Cleanup - 4/12	
Protest - 4/13	

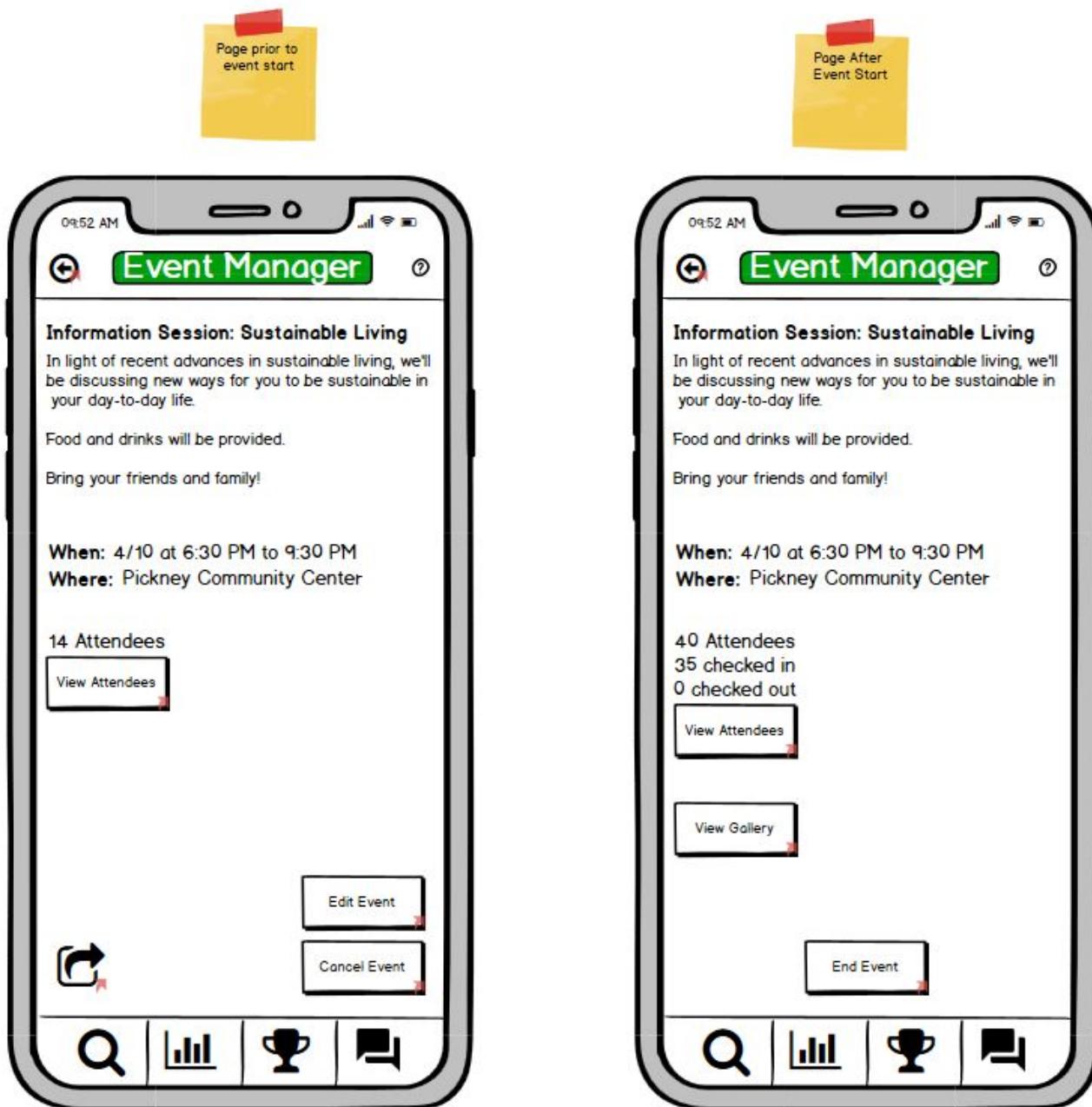
Available Events

Protest - 4/15	
Beach Cleanup - 4/18	
Protest - 4/19	
We'll be protesting against deforestation of our woodlands	
View Event	
Information Session - 4/23	
Street Cleanup - 4/24	
Plant Trees - 4/27	

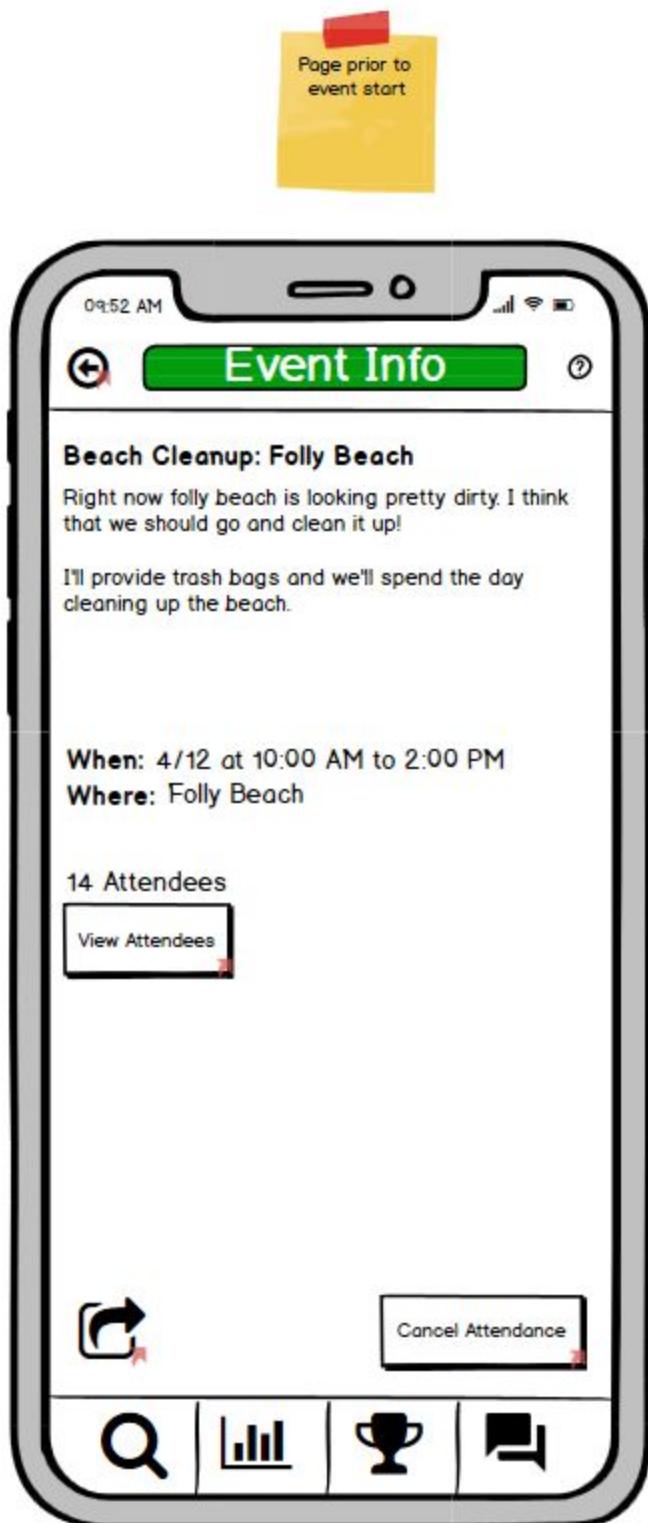
[Create an Event](#)

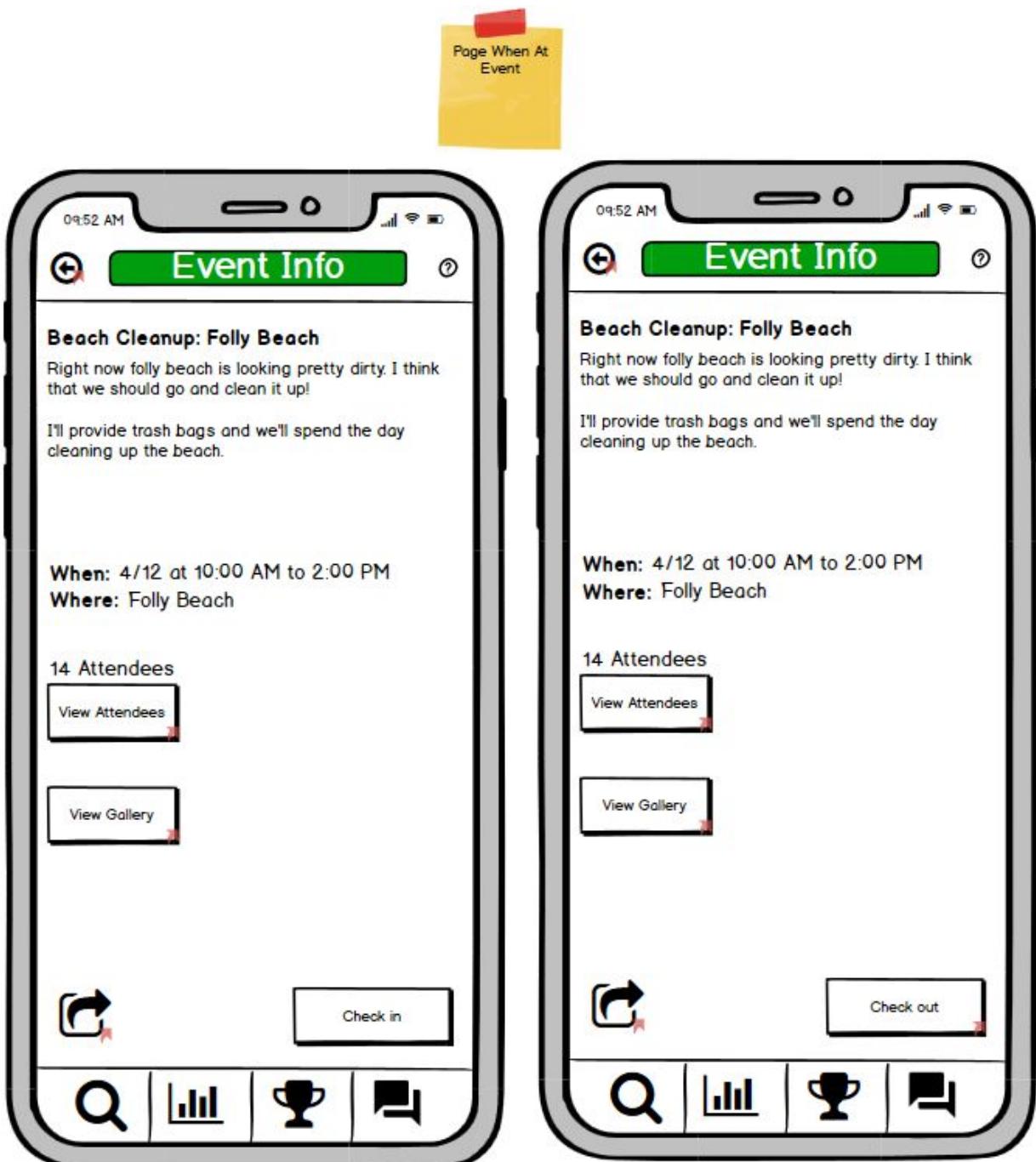
Set 2: Event info pages

For events that the user has created...

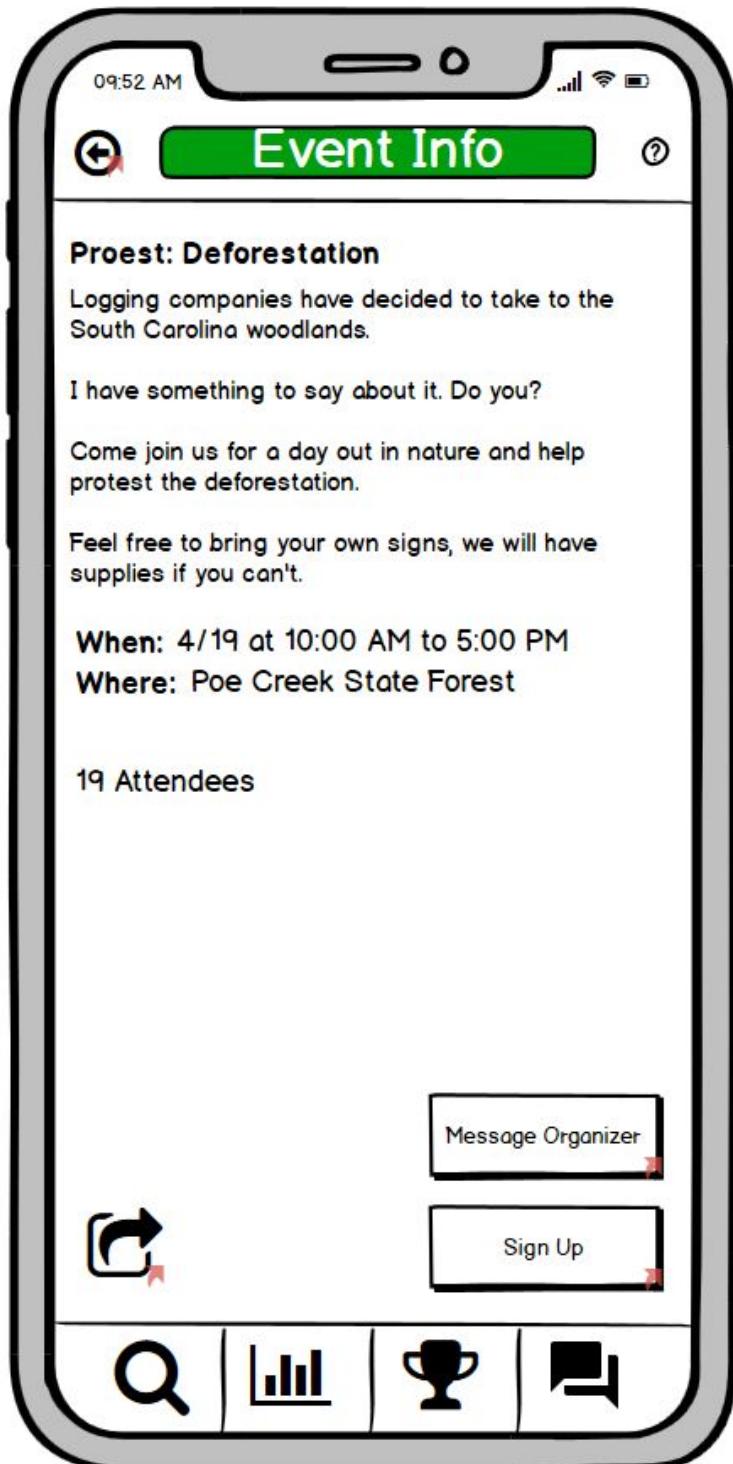


For events that the user has signed up for





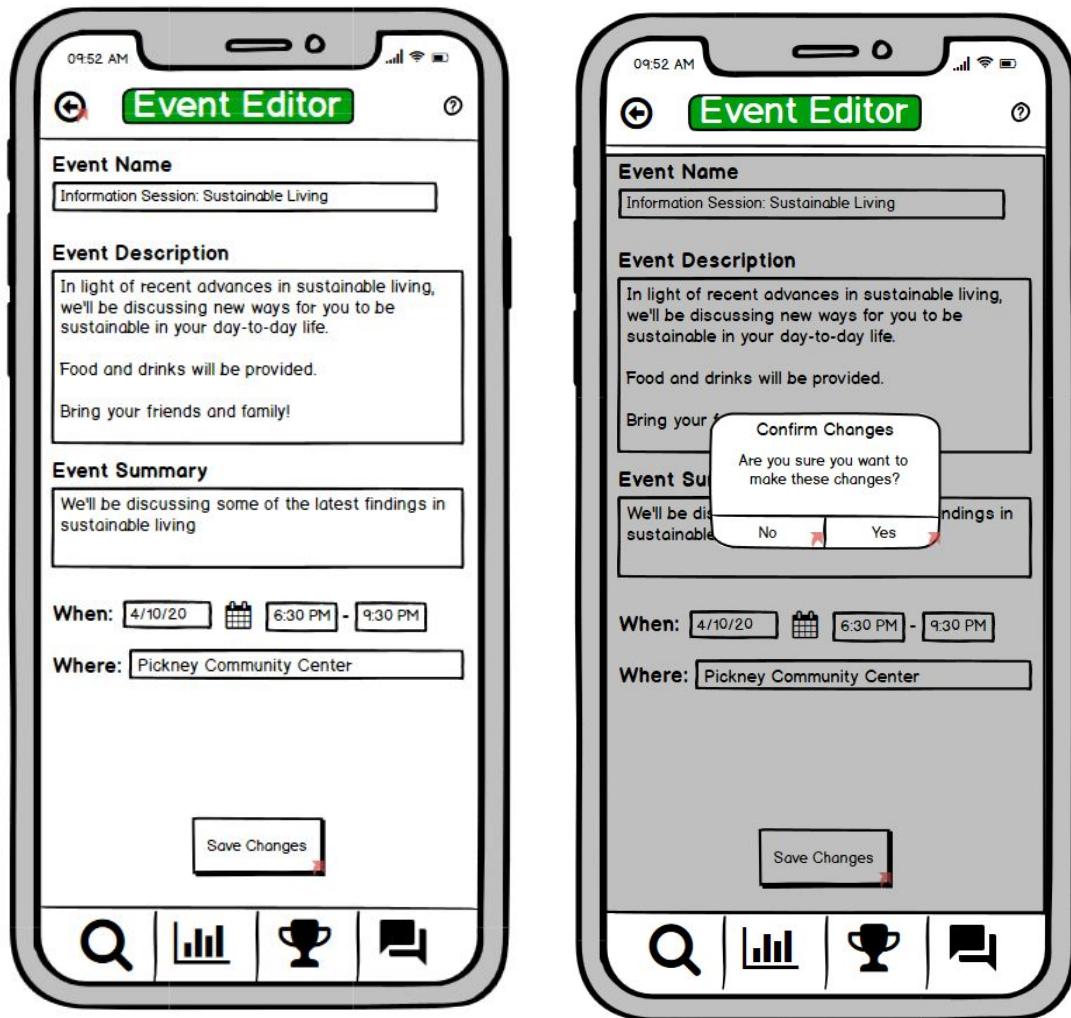
For events that the user is not signed up for

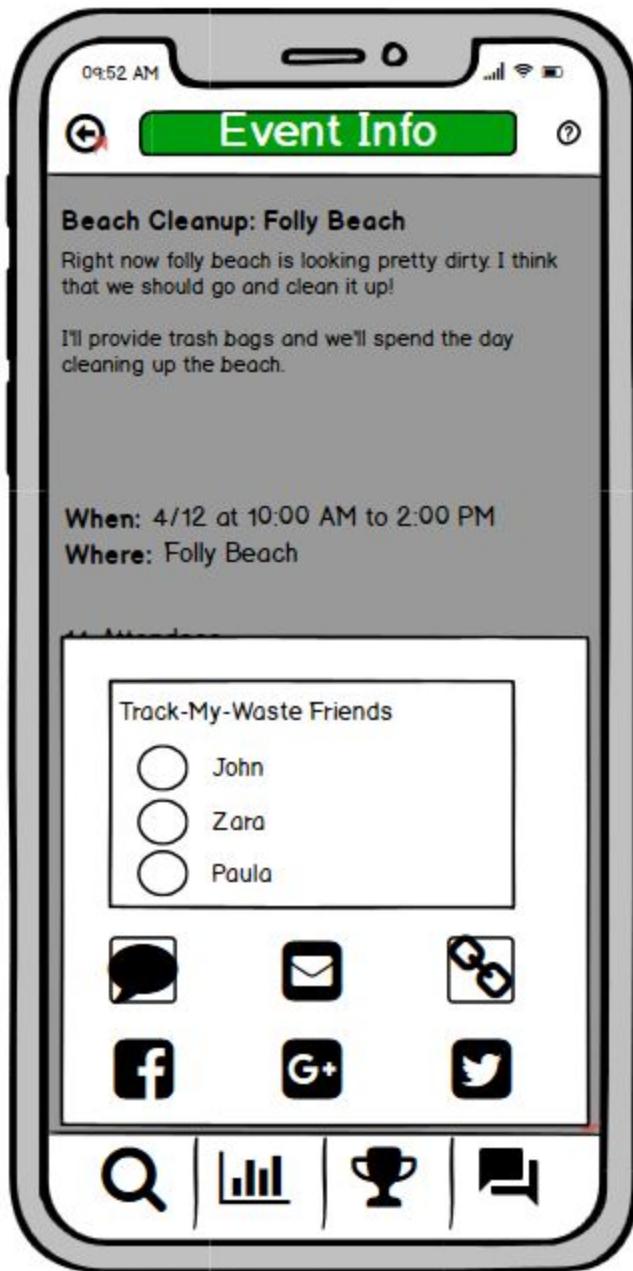


For Events that the user has already completed

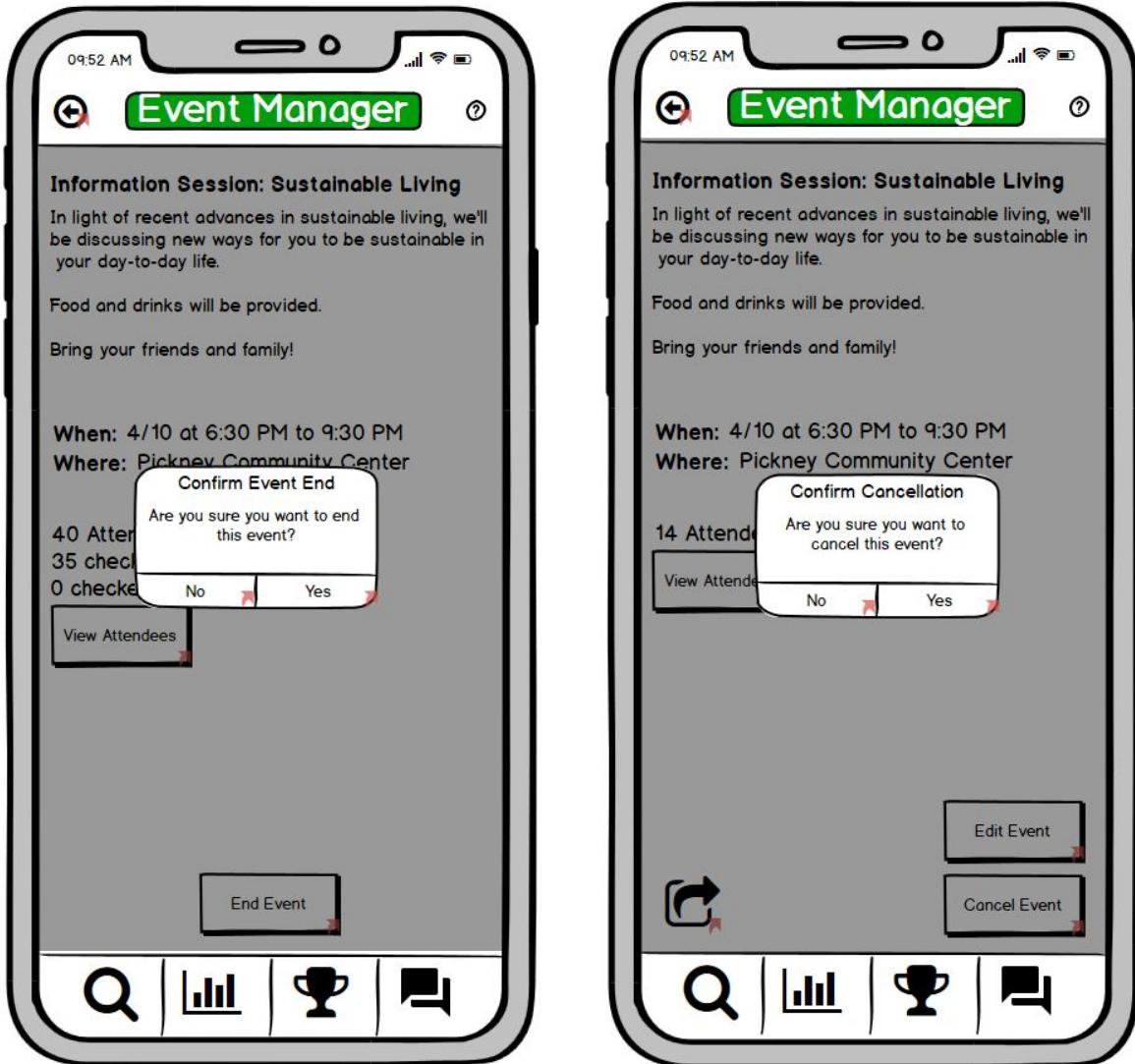


Set 3: Event Editor Page and saving

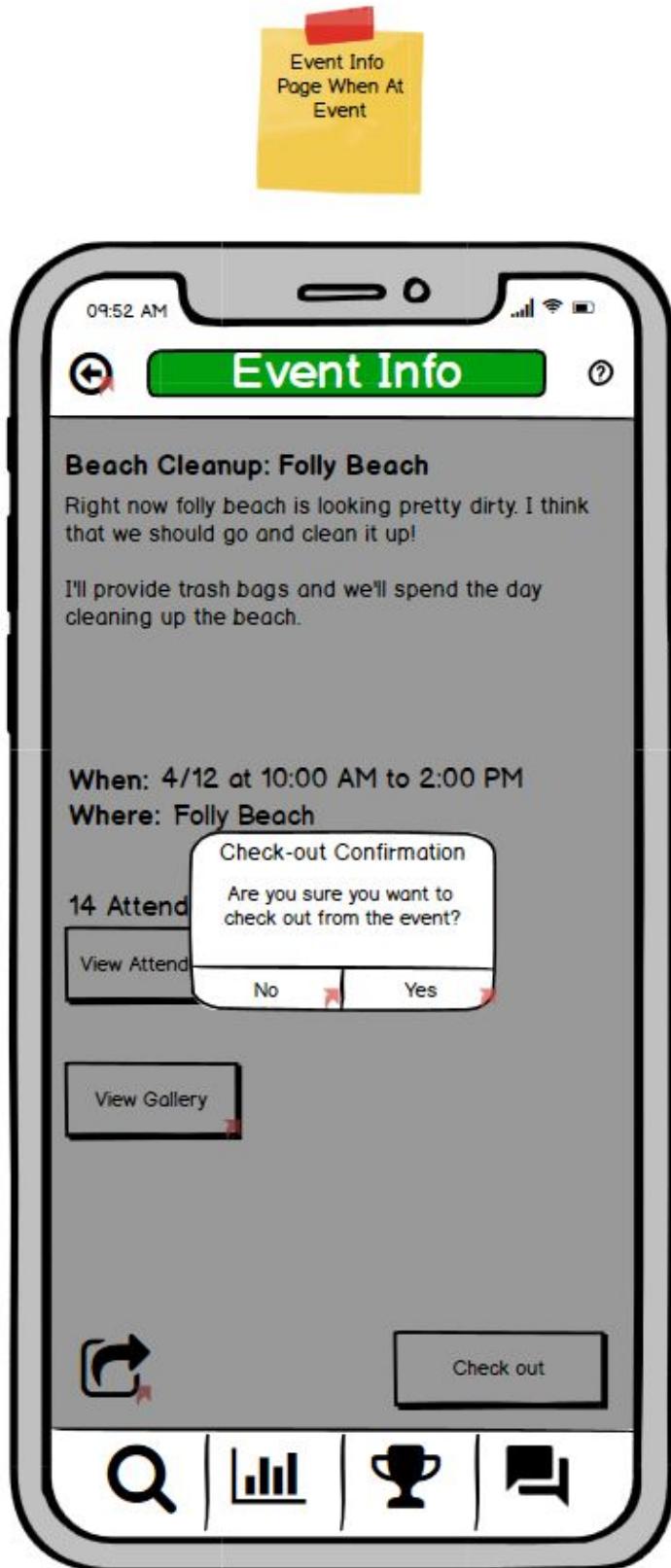


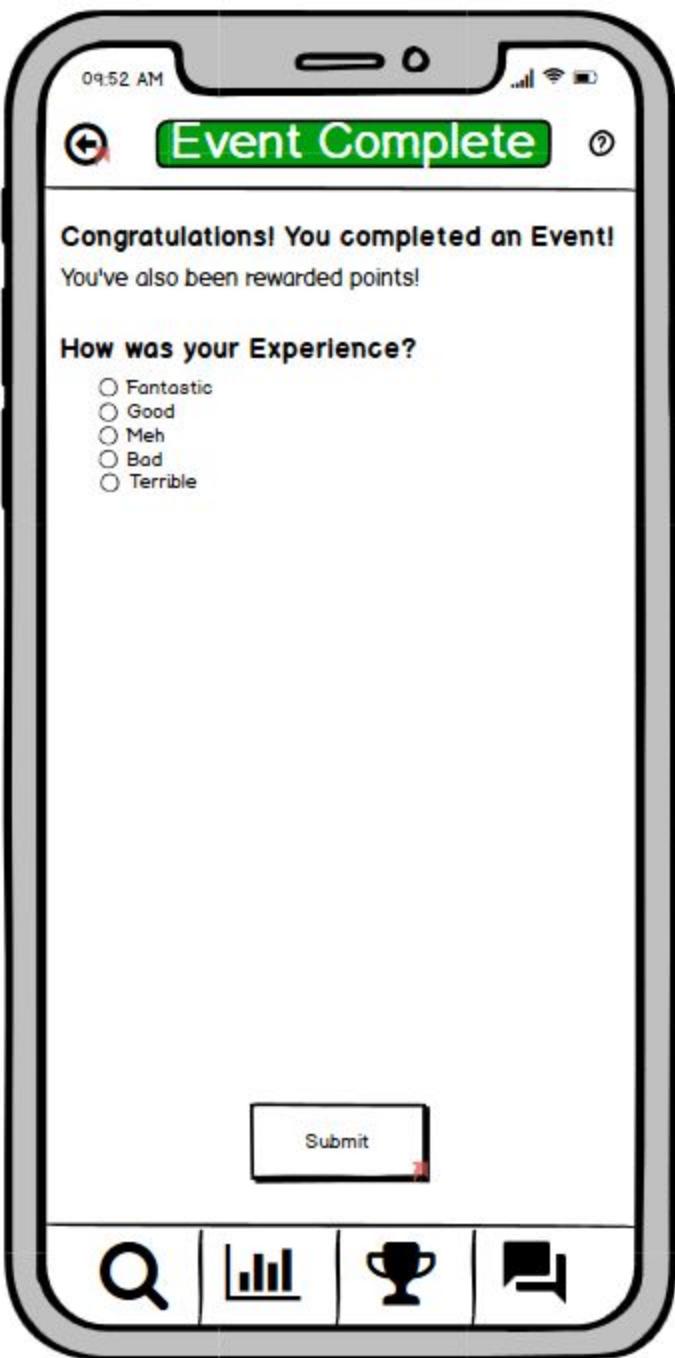
Set 4: Event sharing menu

Set 5: Ending/Cancelling an event the user created

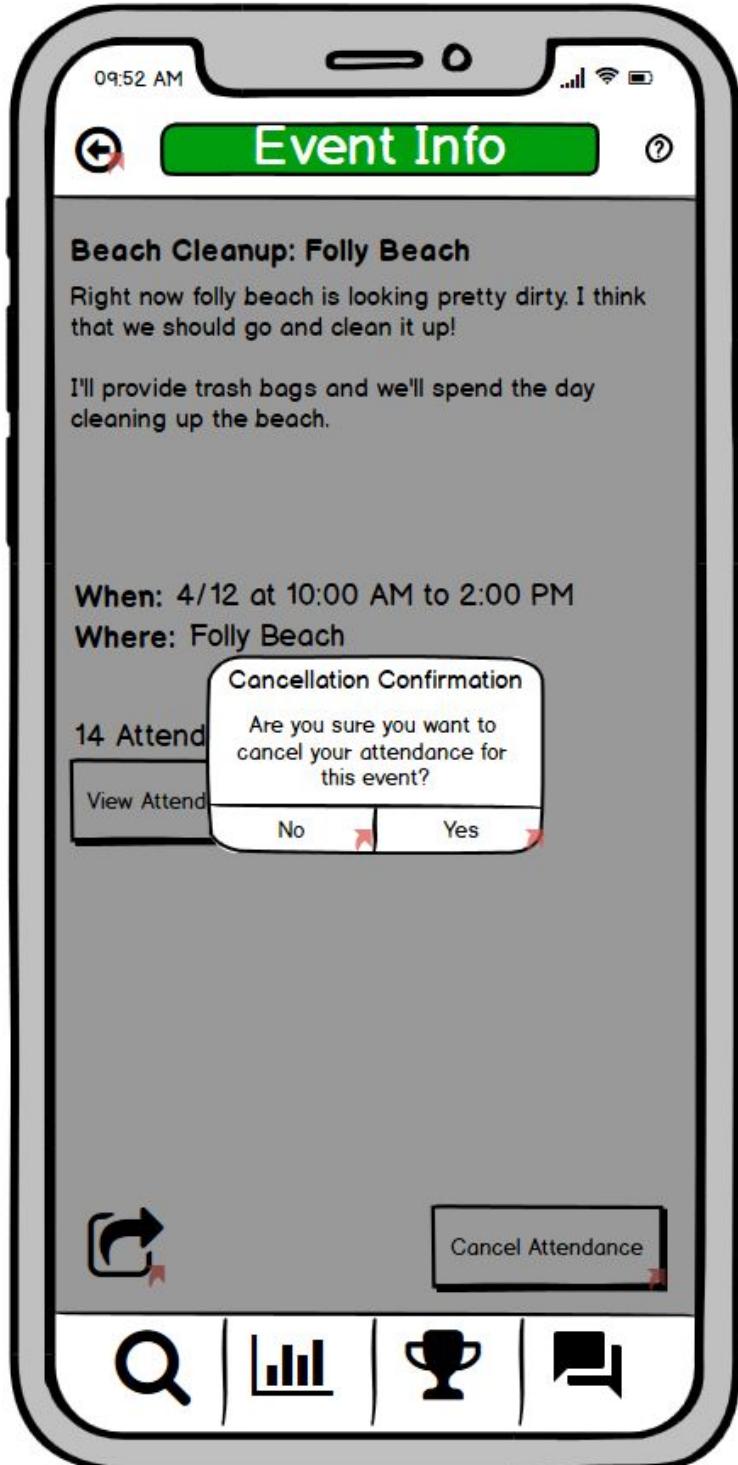


Set 6: Checking out of an event



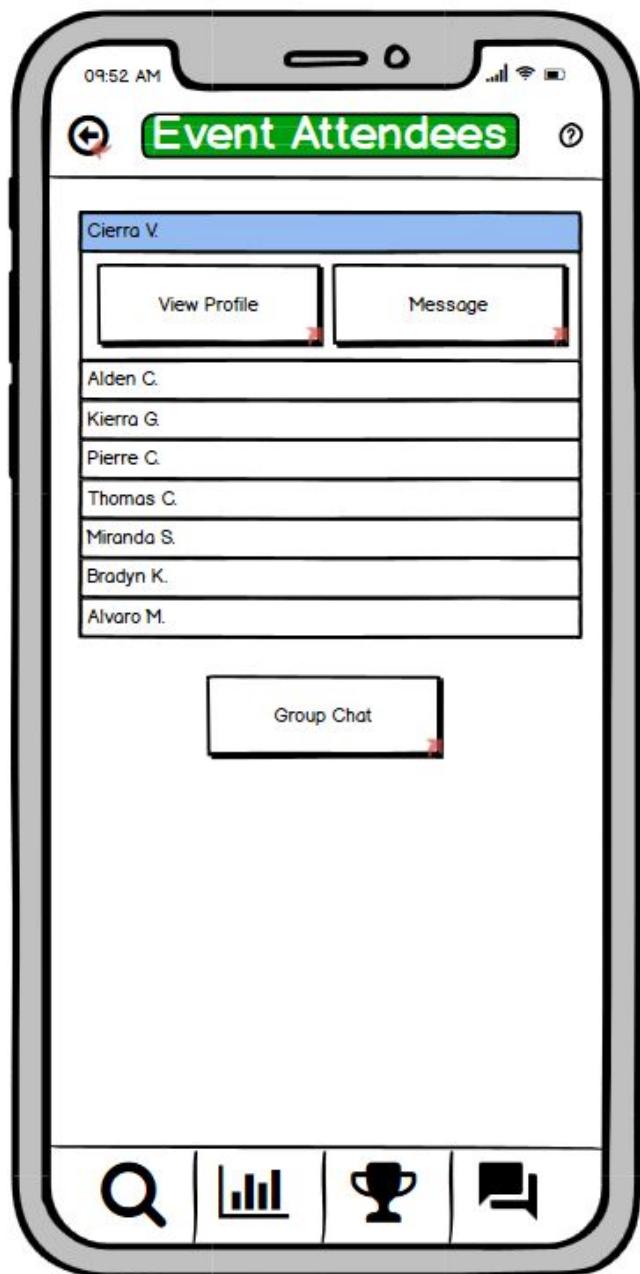
Set 7: Event completion survey

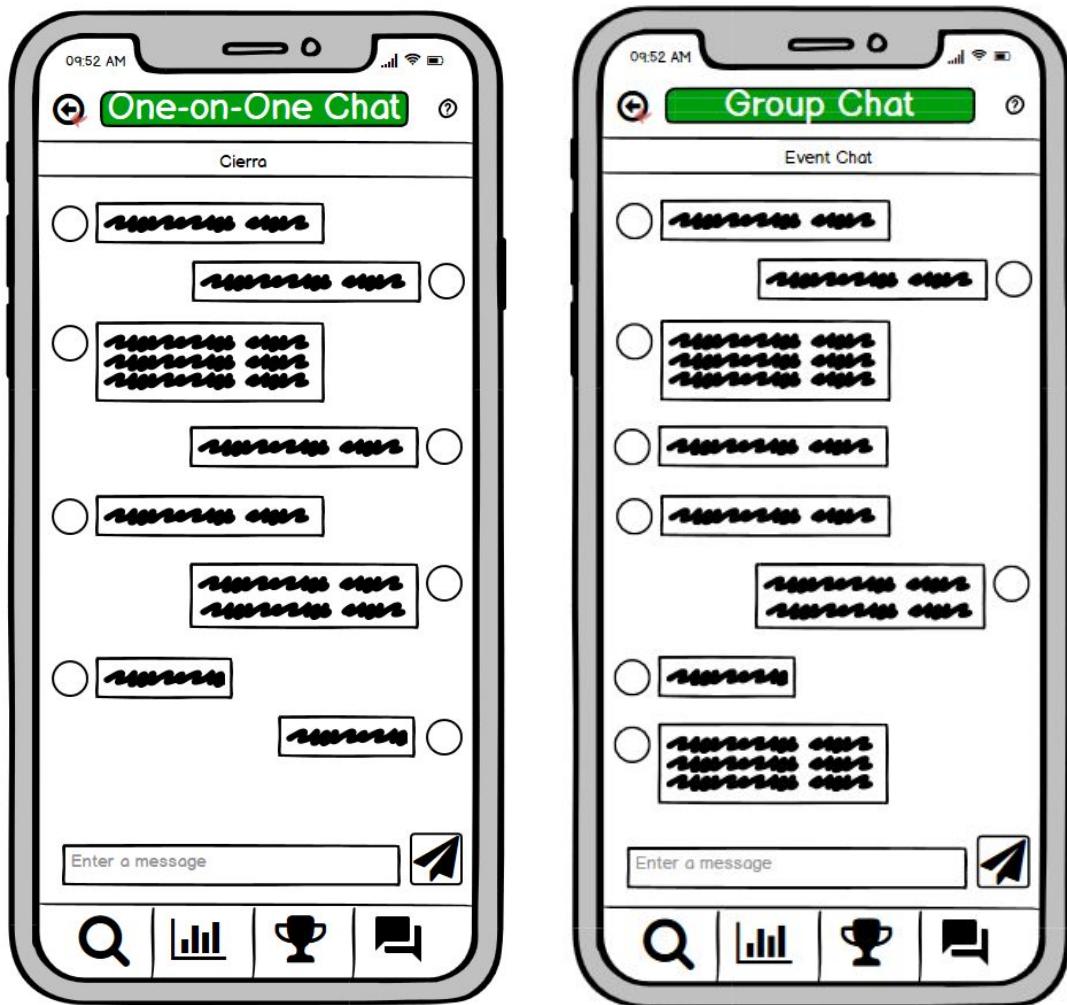
Set 8: Cancelling Attendance



Set 9: Event Creation Form



Set 10: Event Attendee Viewer

Set 11: Attendee chats

Set 12: Other User's Profile



Set 13: Event Gallery