School Of Computing
Semester 1 AY2020/2021

CS3240 - Interaction Design

Design Exercise & Critique Milestone 2

5. Finding the ideal room/house mate

Done By

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1. Introduction

1.1 Background

A few trends of note: 54% of the world's population live in urban communities, the average marriage age for men is 29 (up from 26 two decades ago) and for women is 27 (up from 23 in the same time period). Given these trends, city dwellers tend to spend a lot of their twenties living with room/house mates. Finding and keeping a good room(house) mate, however, gets harder as more people swarm into cities.

1.2 Expectations & Requirements

Design a mobile product experience that appeals to millennials that makes it safe to find the ideal room (house) mate in Singapore. Design the experience from the perspective of the person who has a place to live but is looking for a room (house) mate as well as the one who is looking for a place to live. Once the idea room (house) mate is found, what else can this product do to make the room (house) mate experience better?

We are looking for you to identify pain points in the "finding/keeping a good room (house) mate" journey and to find ways to solve those pain points.

Constraint: Stick to existing mobile capabilities of iOS and Android.

1.3 Target User Group

As mentioned in section 1.1 and 1.2, the target user group will be those city dwellers who are mostly in their twenties and are actively looking for a room(house) mate to stay with or a place to live.

1.4 Further Analysis of The Target User Group

According to an article from "Money Smart" by Joanne Poh on 12 March 2020 [1], she mentioned that the vast majority of Singaporeans tends not to rent homes, preferring to (or rather, having no choice but to) live with their parents until they're ready to purchase a home.

As a result, the rental market tends to almost exclusively serve foreigners although this is changing slightly with the younger generations of Singaporeans being more keen to move out on their own.

1.5 User Stories / User Journey (Before Design)

Below are some of the user stories that I came out to help enforce myself to think from the perspective of the user. I believe that by doing so, I can understand the user needs better so that I can set up my design in the right direction.

a. As a foreign student who came to Singapore for further studies, I would like to find an area where it is close to my school and a roommate who are also a student, so that we can help each other in our studies and hang out together when we feel there is a need to relieve our stress.

b. As a female job seeker from Malaysia who came to Singapore for better job opportunities and salaries, I have fewer friend to depend on whenever I am in need. Especially when I was looking for a new place to rent, I always spend a lot of time to search for a good place as most of the landlord in Singapore do not want to rent their room to me due to my job nature.

c. As a fresh graduates from another countries, I came to Singapore for better job opportunities and rented a room near the CBD area, however as time goes by, I felt great pressure on my personal financial plan, hence I would like to seek for a roommate whom I can share the rented fee with.

d. As a foreign student who were always staying in the school hostel, but got rejected recently for subsequent stay-in hostel permission due to insufficient CCA points, I would like to look for a rented room as soon as possible before the move-out deadline provided by the hostel admin. However, I might seem to be rather urgent but still I prefer a trustworthy and reliable rented room platform.

e. As a breadwinner of my family of four, I have to work in the days and take on part time work during the night hour. It is really exhausted, and I also have lesser time to spend with my family. As a result, I would like to rent out one of my house's room to someone who I think is safe as I have 2 kids in my family and their safety need to be assured.

By taking one of the user stories mentioned above, I have come out with the following user journey map to better understand user's pain points and their expectation from the application that they used in searching for rented room or looking for a good room(house) mate.

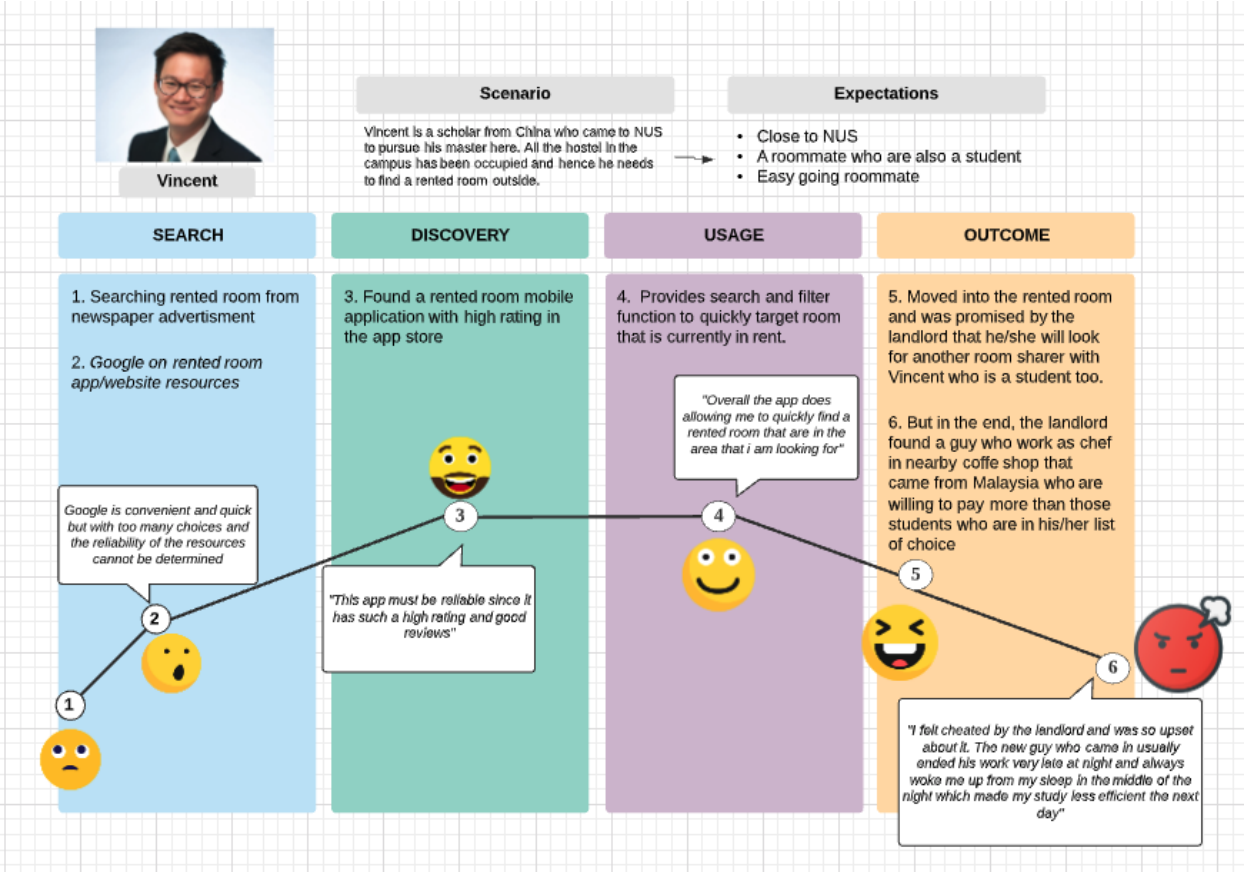

Figure 1: User Journey Map (Before Design)

In this scenario, the pain point to be addressed is that user are not protected from promises given by another party. There should be a recorded evidence stored in the backend server where all the interaction between both parties that can be retrieved for possible future disputes.

1.6 User Needs/Requirements of the Software System

From the user stories and user journey mentioned above and also consider the expectations and requirements in section 1.2, the user needs/requirements for the software system can be summarised as follows:

a. Ability to match the interest/age group/preferences of both the room(house) mate finder and room finder
b. Able to expand and maintain the social circle of the user
c. Ability to negotiate with flexibility in the price range
d. Ability to provide a trustworthy and reliable platform where safety can be assured

As a result, the following generation of ideas on the software system will be revolved around these user needs/requirements.

2. Ideas Generation

In general, the whole process will be divided into three main stages.

1. Matching stage
2. Interaction stage
3. Decision stage

Hence, I will generate my ideas based on each stages and evaluate those ideas before come to a decision.

2.1 Matching Stage

First of all in the matching stage, in order to address the ability to match the interests/habits/age group/preferences of both the room(house) mate finder and room finder, it is necessary to find way to retrieve those personal information from the user. Some of the common way to retrieve information from user are:

- During registration, user information such as ages and occupation etc will be recorded into the system and being queried when needed.

- Request user to fill up questionnaire that targeting their interests, habits and preferences etc.

After user data have been collected, this data will be input into the matching algorithm in the software system to match across all the user on the platform. Once the matching is done by the system, the user pool will be filtered according to the result of the matches. This means that user will only be able to see and interact with those people who would likely be compatible with them. Below are some of the ideas for this part:

A. By using a 2D arcade mobile game style, user will be controlling an arcade avatar where he/she will be teleported to a town after the matching is done by the system (this town acted as a gathering place for people who share a high percentage of compatibility in common interests/habits/age group/preferences).

   Room(house) mate finder will be able to set up a booth in the town with all relevant information such as his/her expectation of the room(house) mate, location of the room(house) and the price per month etc. The room(house) finder will then be going around the town and visit those booths that they find interesting. Once they visited the booth, they proceed into interaction stage.

   Below shows some picture from other games that could illustrate the mentioned idea with modification.

Figure 2: A screenshot from MapleStory Free Market

B. By mixing and introducing the working principle behind dating application such as Tinder into the design idea, where the user pool who are matched together by the system will be further matches by swiping.

Before a swipe happened, the user will be able to look at the rent room information and other information regarding the other user. If he/she is satisfied with everything that the other user has, he can choose to swipe right which indicates satisfied and a match will be finalised only if the other party also have swiped right that showing the same interest.

Once the match is finalised, they will be moved on to the Interaction stage.

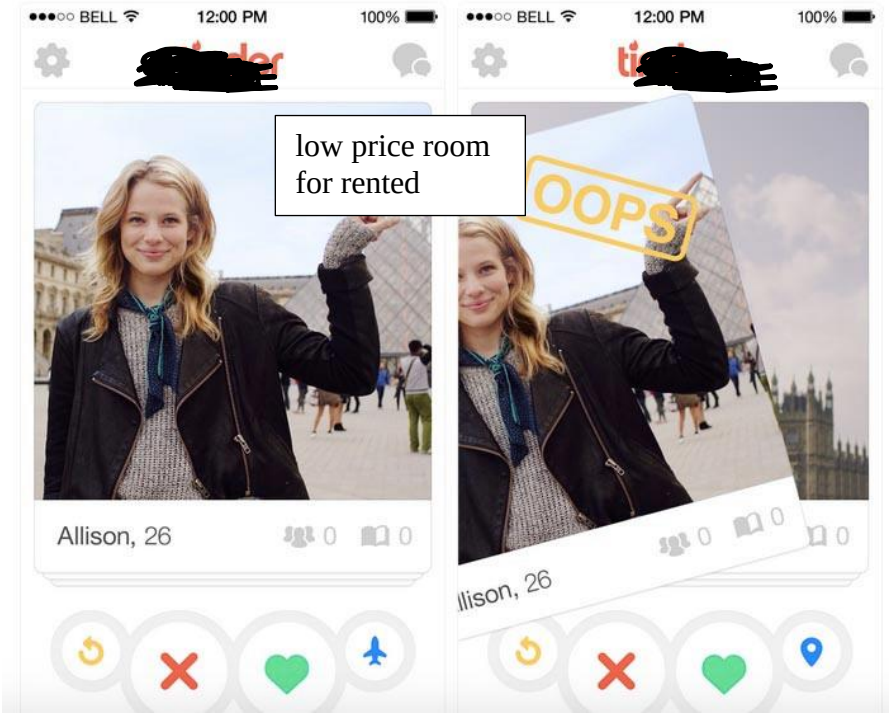

Figure 3: An interface from Tinder App that used to illustrate my idea behind

2.2 Interaction Stage

This is a stage where users will interact with one another to get to know more about each other before they moved on to the next stage where they have to make the final decision.

In this stage, the interaction is usually involved online through private chatroom(with in-room phone call) where the user will communicate on their interests and preferences and also negotiate on the renting costs.

All the in room chat and phone call will be recorded into the system server to be used when it is needed as a proof for any possible disputes. Once the communication is done, both party will need to press a button to agree on moving to the next stage.

2.3 Decision Stage

In this stage, user will need to decide whether the opposite party is a suitable room(house) mate and to agree on the term and condition provided by both parties and the platform itself.

If one of the users decided to reject the other user, he/she need to provide reason for the action and then this reason will be received by the other user and he/she will decide whether to continue negotiate with the rejected party.

If he/she refused to continue the negotiation, then the matches between this two party will be removed and will be moved over to "Dust Bin", where all the unsuccess matches existed.

This Dust bin also plays an important role in which that it is able to act as a secondary input to the matching algorithm to better matches users together according to those failed matches. Moreover, in case that the user regret about his/her decision, he/she can go back to the dust bin and retrieve the contact back.

In addition, the contract agreement will be recorded using blockchain technology to ensure that the agreements cannot be modified easily and irreversible in nature.

3. Idea Evaluation + Further Explanation

After much consideration, I decided to go with idea "A", which is the 2D arcade mobile game style. Below are some of the reasons:

3.1 Interactivity

Due to the nature of the 2D social mobile game style idea, it involves user to control the in-game avatar to move around to visit booths and other activities such as interaction with other user by in-game chatting etc.

3.2 Expanding of social circle

This is an important key factor in my decision to choose idea "A" instead of idea" B".

First of all, idea "A" consists of a friend system. This friend system allows user to add another user into their respective friend list. In addition, there will be social game to help promote and expand the social circle for the user of the application. All of these is to ensure that the user will not be helpless when they are in need for a place to stay or looking for someone to share the room. By doing so, user will have a high chance to quickly find a suitable candidate in room renting or a room(house) mate.

Although idea "B" can also implement the same friend system, but the kind of interaction that promote and expand the user's social circle are very limit since the only interaction form is by online chatting.

In addition to the limitation of the interaction, the kind of communication between users in idea "B" will most likely be in "Buyer and seller" tone, since it is very hard to build up friendship in idea "B".

4. User Journey (After Design)

This user journey map is done with the design idea that have been chosen. The user experience is recorded as shown. The focus here is to see how the user interact with the new design idea of the application during his process of using the application.

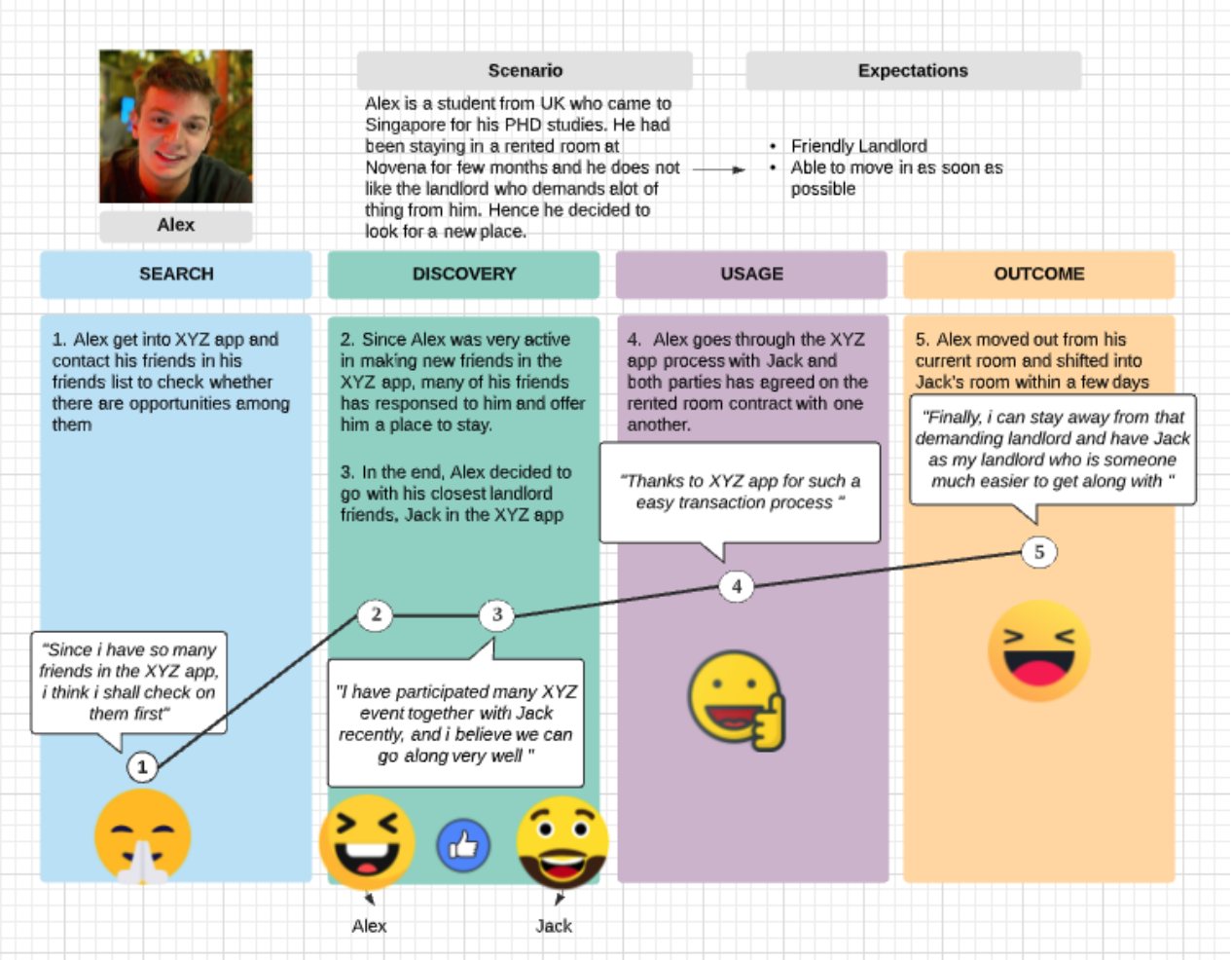

Figure 4: User Journey Map (After Design)

As seen from Figure 4, the new design idea has help Alex to find a suitable landlord in no time which indicated the efficiency of the application in fulfilling its main purpose.

As a result, the new design idea has helped user of the application to maintain his/her social circle even after he/she has found a room(house) mate to act as a future proof protection to the user just in case.

5. Sketches of Application

Please refer to the pdf file named "Wireframe with note" for an evolution of sketches to a usable wireframe flows for better understanding of the overall features and ideas behind the design.

Home screen

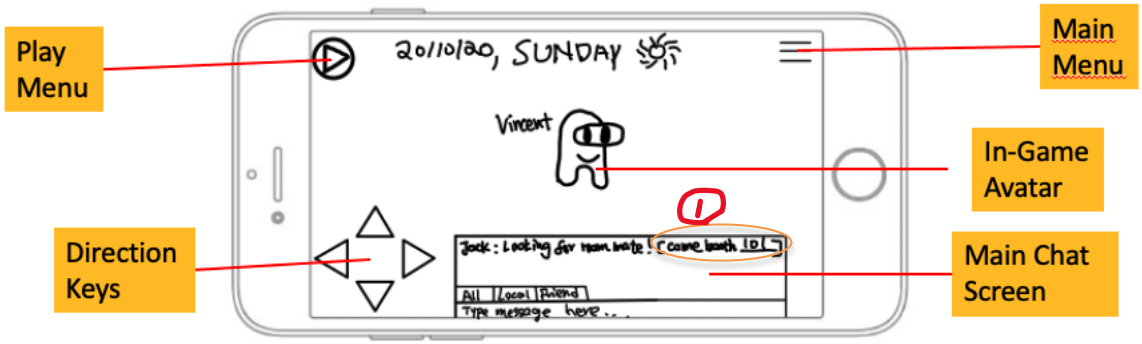

Figure 5: Home Screen

Main Chat Screen

- User is able to filter the messages that they would like to see by selecting "All" or "Local" or "Friend"
- When there is an advertising messages that broadcasted to the "All" chat screen, the link can be clicked, and the user will transport to the advertising booth instantly.

When user clicked the advertising message link at Figure 5 (1), he/she teleported to the link's booth directly

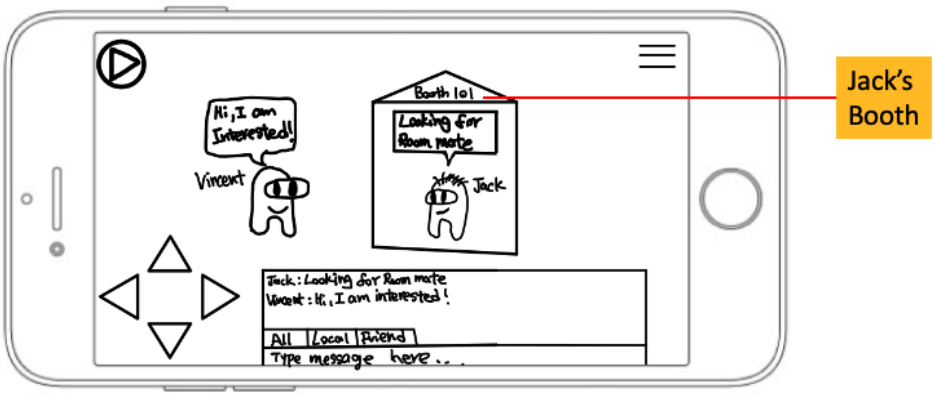

Figure 6: Vincent teleported to Jack's Booth

Main Menu

Once the main menu button is press,

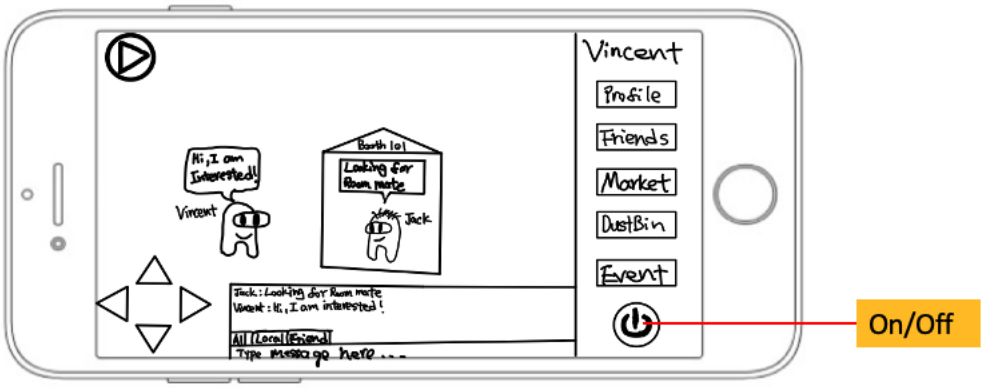

Figure 7: Expanding the Main Menu

Profile

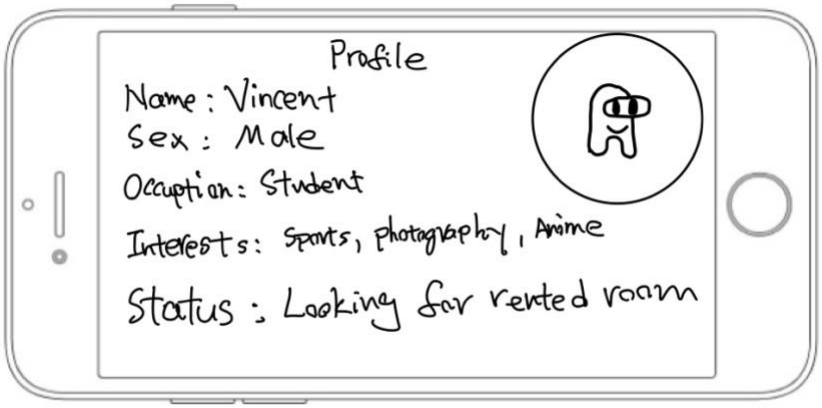

Figure 8: Profile Page

Friend

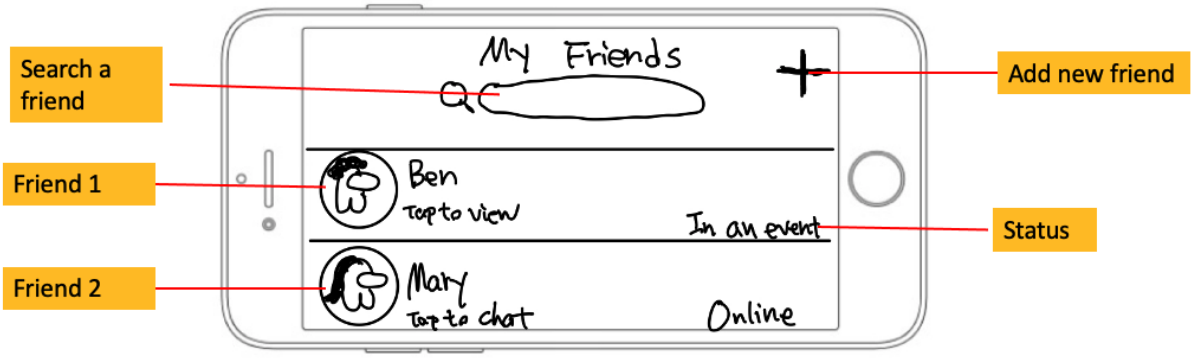

Figure 9: Friend Page

Market

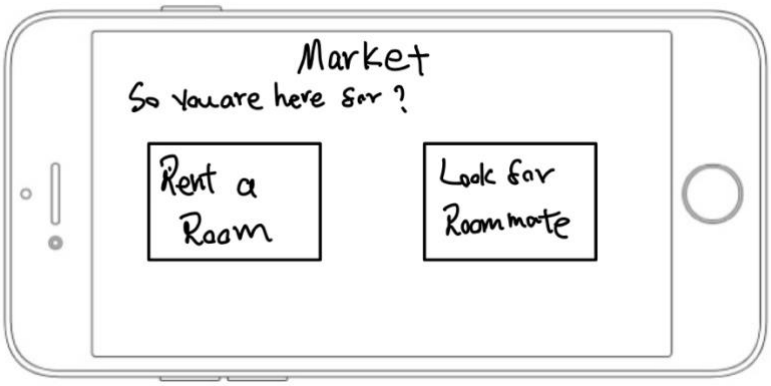

Figure 10: Market Page

Dust Bin

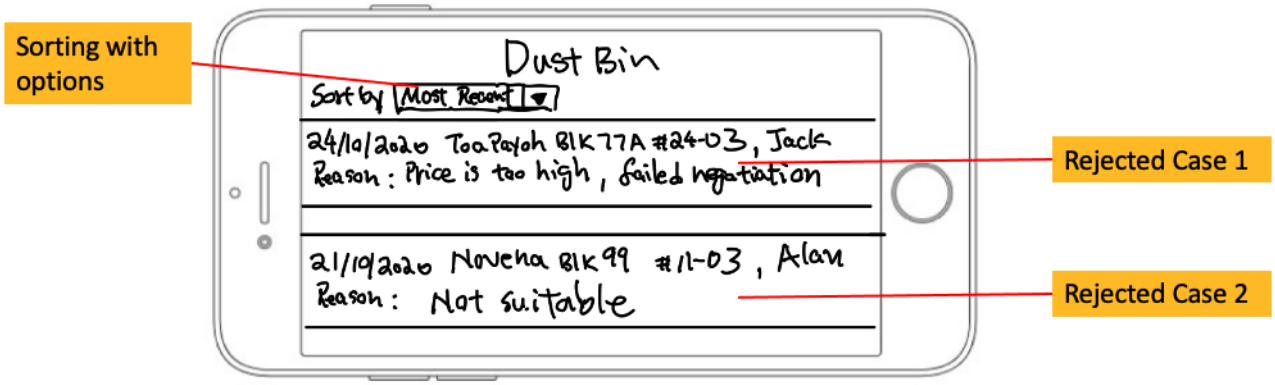

Figure 11: Dust Bin Page

Play Menu

As Play Menu button is pressed,

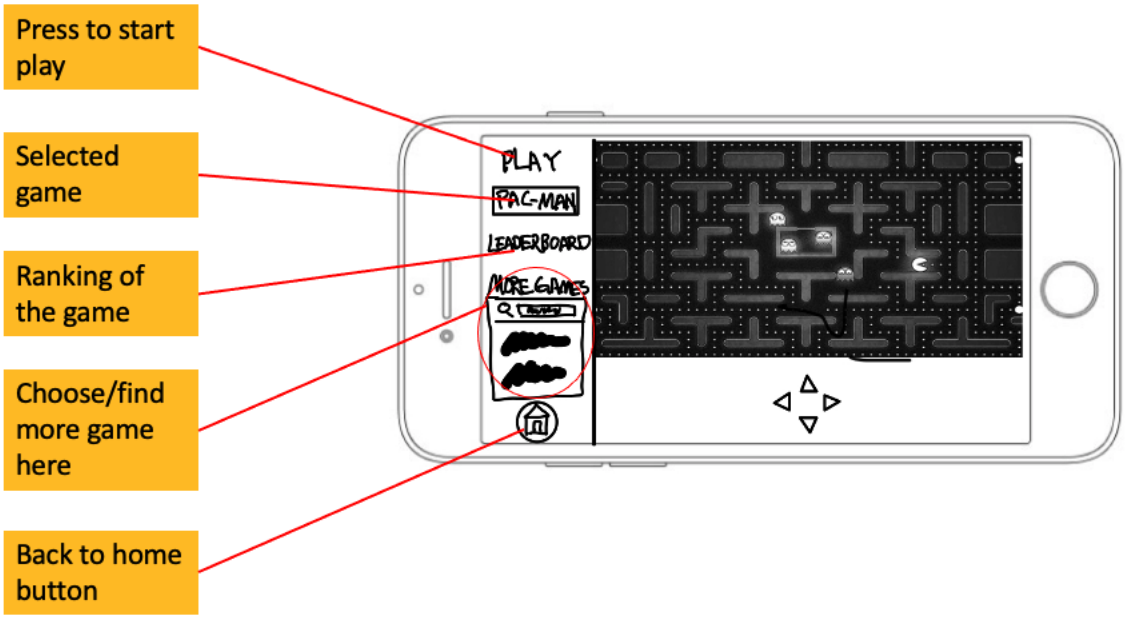

Figure12: Expanding the play menu

References:

[1] MoneySmart.Sg - Tips, tricks and uncommon wisdom to help you get more out of your money. 2020. *Rent In Singapore 2020 — Cost Guide To Renting A Room Or Home*. [online] Available at: https://blog.moneysmart.sg/property/rent-singapore-cost-guide/ [Accessed 29 October 2020].