***Functional Requirements:***

1. The system shall allow the user to login with a username and password.
2. The system shall be able to connect two users accounts who are already roommates, but still looking to find additional roommates.
3. The system shall only suggest a specific user profile to another user once every month.
4. The system shall match two users who have swiped up on each other's profiles.
5. The system shall allow the user to chat with other users with whom they have matched.
6. The system shall create suggestions for potential roommates to other users.
7. The system shall allow one user to block another user from seeing their profile.
8. The system shall allow users to pick a location for their profile.
9. The system shall calculate a measure of profile compatibility between two users.
10. The system shall use location information to determine if two users are within their desired location range.
11. The system shall only suggest potential matches to another user if they are within their desired location.
12. The system shall differentiate between on-campus roommates and off-campus roommates.
13. The system shall suggest a user without a living space to a user with a living space available for rent.
14. The system shall allow users to select a desired move-in time for their profile.
15. The system shall display a maximum of 5 pictures on a profile.
16. The system shall not match users with a living space with other users with a living space.
17. The system shall allow users to swipe up on a profile if they want to be matched with that specific user.
18. The system shall display a biography about the user on their profile.
19. The system shall verify that the user is of 18 years of age.
20. The system shall give the user an option to turn off/on their location sharing with the app.
21. The system shall suggest a user without a living space to a user with a living space available for rent.
22. The system shall only collect personal information from a user if they have explicit content.
23. The system shall allow new users to register with the app.
24. The system shall allow users to display a rent budget on their profile.
25. The system shall allow either user, once they have matched, to message first.
26. The system shall allow users to share their devices location to set the location on their profile.
27. The system shall allow a user to share another user's profile through text message.
28. The system shall ask for explicit permission before accessing the users device location.

***Non-Functional Requirements:***

1. The system shall comply with location collecting data laws and regulations in the US.
2. The RoomUp app shall be usable on Android.
3. The RoomUp app shall take up less than 1 gigabyte of storage of the device on which it is stored
4. The RoomUp app shall load each page in less than 5 seconds, 95% of the time.
5. The RoomUp app shall enable users to use all features after 15 minutes of training.
6. The average number of errors that trained users of RoomUp make shall be less than 5 errors per 12 hours of app use
7. The RoomUp app shall fail in response to a user action less than 2 % of the time.
8. The RoomUp app shall not corrupt user data when it fails, 95% of the time that it fails.
9. The RoomUp app shall restart after failure in 45 seconds, 90% of the time.
10. The RoomUp app shall be available for access 98% of the time.
11. The RoomUp app shall be able to handle 20,000 users at one time, 90% of the time.
12. The RoomUp app shall block hacking attempts 95% of the time.
13. The RoomUp app shall store data for a time period not exceeding five years.

**User Interface Specification:**

Welcome Screen

This screen is the very first screen that the user sees upon opening the app. It displays the RoomUP logo, a house fused with an upwards pointing arrow. This screen will be displayed for two seconds, and then takes the user to the “feed” screen. During these two seconds there is no interaction for the user to take part in.

Feed

The primary screen of RoomUP is the “feed”, where users will be presented with other users profiles and decide whether or not they want to learn more about a potential roommate. The majority of this screen is taken up by the image of the current prospective roommate and their profile information, which will guide users in their decision of whether to accept or reject the user. If they are interested in matching with the user, they will swipe up, and if they are not, they will swipe down.

Profile

One of the first screen’s the user will see is their “profile”. This page contains all their personal information, such as their name, and preferences(no pets, smoking-friendly, works night-shift, etc.) that are used by the algorithm to suggest similar users. Although the user will set all of this information during account set-up, they can always return and update this information.

Chat

Once two users swipe up and match with each other, they will be able to send messages to each other on the “chat” feature. The chat screen lists all the people with whom the user has matched and allows users to select one to chat with. The individual chats are where two users can begin to communicate with each other in an effort to determine compatibility.

Taskbar

At the bottom of every screen, except the Welcome Screen, will be a taskbar with three buttons. The leftmost button, a silhouette of a person, will take the user to the profile screen. The middle button, the logo of the RoomUP app, will take the user to the feed screen. The rightmost button, a chat button, will take the user to a screen which lists all the other users they have matched with and can therefore chat with.

**Updated UI:**

Rather than having just our original mockup we have started to implement our user interface in Android studio. It looks like this.

