ApartMate

Team 3 - Project Backlog

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Problem Statement:

People who live in an apartment together often have many different things that they want to keep track of and services they want to use. The aim of ApartMate is to provide an application that offers as many of these services as possible in one package that is shared between all roommates. It also will serve as a location to also find roommates to fill out an apartment.

Background Information:

Audience

Living with another person can be a hard experience. Even a person you know for one year might seem like a completely different person when you room with him/her. It is sad that there are not any existing apps that will assist with both looking for a roommate and making life easier to live with roommates. Our target audience is both people looking for potential roommates and people who already have roommates.

Similar Platforms

One similar app on the market is Roof. It provides many similar functions such as a bill splitter, chat room, reminders, and chore tracking. There are many applications for finding a roommate such as Renthoop, Roommate Filter, Whoomies, Homies, etc. However, they either just have a roommate finder function or the most they do is set up a contract.

Limitations

Many reviews from Roof complain that the user application has bugs on the android side. We intend to differ by not having such crippling bugs, and adding additional features. The main difference between our app and the apps listed is that we are combining the features into one location for convenience.

Functional Requirements:

1. As a user, I would like to register for an ApartMate account, so that I can use the app.
2. As a user, I would like to send/receive messages to potential roommates,so that I can find a roommate.
3. As a user, I would like to send/receive group messages to roommates, so that I can communicate with my roommates.
4. As a user, I would like to surf for potential roommates, so that I can find one that matches me.
5. As a user, I would like to add items to the grocery list, so that I can remember at the store.

6. As a user, I would like to make my schedule, so that my roommates can see it.
7. As a user, I would like to view my roommate's schedules, so that I can plan things accordingly.
8. As a user, I would like to set up chores around schedules, so that I can share chores evenly.
9. As a user I would like to have a chore list on the home page, so that I can see them quickly.
10. As a user, I would like to filter the chore list in different ways, so that I can view my chores.
11. As a user, I would like to add receipts to a list, so that we can split the bill.
12. As a user, I would like to opt in/out of certain things on the receipt, so that I don't pay for things that aren't mine.
13. As a user, I would like to see the total I am required to pay for the month, so that I can pay my share..
14. As a user, i would like to set up time-based reminders to buy grocery for the apartment, so that things can be on a schedule.
15. As a user, i would like to set up location-based reminders to buy grocery for the apartment, so that I can remember to buy things when I can near where I can buy them.
16. As a user I would like to be able to rate my roommates, so that others know how they are as a roommate.
17. As a user, I would like to see the ratings of my potential roommates, so that I can choose a good one.
18. As a user, I would like to know my roommate's interests, so that I can know what they enjoy doing.
19. As a user, I would like to know my potential roommate's interests, so that I can try to match with them.
20. As a user, I would like to know what possessions of my roommate can be shared, so that I can use them.
21. As a user, I would like to share files or information in a quick and efficient manner, so that I can send them to everyone at once.
22. As a user, I would like to know birthdays of my roommates, so that I can celebrate with them.
23. As a user, I would like to know when my lease is about to end, so that I can sign another one.
24. As a user, I would like to know when I should start searching for a new roommate, so that I do not forget.
25. As a user, I would like to have emergency contact information of my roommates, so that I know who to call in an emergency.
26. As a user, I would like to be able to inform my roommates of my location with one click in case of an emergency, so that they can get help.
27. As a user, I would like to be able to have a roommate consensus system, so that I have a way to resolve conflict.
28. As a user, I would like to have a "Do Not" section, so that I can set boundaries with my possessions and respect my roommates' possessions.

29. As a user, I would like to have an electronic chore wheel, so that chores can be randomly assigned for fun.
30. As a user, I would like to know whether my roommates smoke or drink, so that I can choose my roommates accordingly.
31. As a user, I would like to have a free app that is applicable for both roommates and potential roommates, so that I know where to look.
32. As a user, I would like to know normally how late my roommate comes home everyday, so that I can plan around it.
33. As a user, I would like to upload profile picture, so that I can attract possible roommates
34. As a user, I would want to filter potential roommates,so that my roommate search is easier.
35. As a user, I would like to edit my profile, so that I can reflect recent changes.
36. As a user, I would like to download files shared by my roommates with me.
37. As a user, I would want to set themes for my account, so that I can reflect my world view.
38. As an apartment lessor, I want to be able to post an apartment I own for lease, in order to tell potential lessees about my apartment. (if time allows)
39. As a user, I would like to link my social media account so that I seem more attractive to potential roommates. (if time allows)
40. As a user, I would like to share youtube links with all my roommates, so that they can view the video in the chat window. (if time allows)
41. As a user, I would like to see if others are typing in the group chat, so that I know they are responding. (if time allows)

Non-functional Requirements:

Architecture and Performance

The application will have a separate front-end and back-end, where the front-end will mainly be the UI components and direct user interactions which will be relayed to the back-end to actually perform those operations and apply the actual logic. The back-end will also be querying a database and will potentially make REST (Representational State Transfer) API calls to other services that we might use, for example Google's OAuth protocol for signing in among others. The distinction between the front-end and the back-end would enable us to separate functionalities and have two modular components in our application thus making maintenance and updates easier. We plan to use NativeScript to program the application (both front-end and back-end), which is an open source framework for building native mobile apps with Angular.js, Vue.js, TypeScript or JavaScript . NativeScript allows us to write and deploy mobile apps for iOS and Android with a single codebase that allows us to use Angular or Vue to share existing web-based code. For our analytics and our database needs we will be using Firebase.

Usability

The user should be able to navigate and understand the interface without issue. With the amount of features we are planning, it is vital that no information gets in the way of other information. The application should also have as few bugs as possible, especially since the main complaint about Roof is that is has so many bugs.

Response Time

The API calls that application makes are very quick and other computations within the app would not take a lot of time, so we estimate that the response time for the application should be around 500 ms.

Security

Firebase allows the application to store all user data like their names, addresses, contact details, and profile information in an encrypted format in the database.

Hosting/Deployment

The front end and back ends are disjoint, they can be deployed separately. Later, we can deploy the back end to a hosting service such as DigitalOcean.