Roommate Finder Application

Sanchita Mehetre[1], Jyoti Biradar[2], Neha Malghe[3], Swati Patil[4]

Student, Computer Technology, BVIT, Navi Mumbai, India[1,2,3]

Lecturer, Computer Technology, BVIT, Navi Mumbai, India[4]

Abstract: Accommodation in today's world has been soaring at high rates. In addition, to get a shelter that matches one's preference, budget, interest and proximity is a challenge. This problem becomes even more bigger if the person looking for accommodation is a student. For students, factors like affordability, proximity to the university, similar company etc. matters the most. There are number of websites and mobile apps that provide facilities for finding suitable roommate and vacant apartment, but as of now, there is no such mobile app that helps to find roommate or apartment for a specific university. This application is aimed at trying to solve the major accommodation problem for university students. This application consists of a variety of features like sending messages, searching based on university name and address, potential match based on user's preferences and shortlisting. This Application is developed using Android API for front end and Spring MVC for creating Restful web service and Google Maps API for location based services.

Keywords: Android API, Front End, Roommate, Potential Match

I. INTRODUCTION

In an average university study, it is proved that living off-campus during study at university has been increased by 13%[1]. There are many benefits of living off campus like less expense, privacy, independence, more space and living with more preferable roommate. This application provides seamless process of searching roommate. It has rich features like sending messages, searching based on university name and address, potential match based on user's preferences and shortlisting[2].

For developing eye catching and interactive user interface, Android Material Design is used. The proposed application will provide time efficient mobile and tablet Android App for people who are looking for roommate and apartment. The proposed system will have users having an apartment, but looking for a roommate, preferably from the same university. Users can use this app only after signing up for it. The registration process follows 6 steps. After completing the registration process, user will have login access to app. Once the user is successfully logged in, the app provides access to the user to view and update profile and preferences[9]. Potential match will provide preferred matches based on user's preferences and interests. A user looking for roommate can search it using the university name. A user looking for an apartment can use the address as a keyword to search. The app includes feature to shortlist a person who is looking for roommate or who owns an apartment.

This is an android app which facilitates roommate search based on user interests. People generally find it difficult to find a roommate who is compatible and like-minded to oneself[4]. This app helps students/professionals in building their profiles and then searching roommates based on various filters. It also allows you to see the profile of different users based on your search criteria.

II. PROBLEM STATEMENT

- This project is to create a roommate finder application so that student can find roommate as per convenient.
- To develop application by which student can find roommate easily.
- Due to some economic reasons many students or people must live with roommates. Often roommate issues arise from disputes over cleanliness in common areas.

III. PROPOSED METHODOLOGY

1] User Options: This app provides following features to the user:

- Once the user logs in the app, the type of the user is determined. The current user can be either looking for an apartment or a roommate.
- User can register for app and fill out preferences and information.
- User can view profile and preferences.

• User has access to update information through edit profile.
• User looking for roommate can search by selecting university name.
• User can view potential match with percentage based on their preferences, interests and university.
• User can shortlist other users.
• Send email to potential users.

2] Login: After opening the app, login page will be displayed. By entering valid username and password, users will get access to respective app features according to their role. By entering wrong username or password, users will get error message.

3] Registration: After opening the app, user can sign up for app. For that, user has to provide purpose of registration. After that second step would be to enter basic information like name, contact details, date of birth, gender etc. Third step is university related information like university name, year of joining, year of graduation, intended major, an education level. Fourth step for user looking for apartment is to add apartment preferences like budget, sharing preference of room and apartment, type of home they are looking for and ready to move in date. Fourth step for user looking for roommate is to add apartment details like rent, no of roommates, apartment address, apartment website, apartment images and availability date. Fifth step is to add interests and activities. Sixth step is for general preferences like gender preference, eating preference, smoking preference and additional notes.

4] View profile: This page will display all the details that a user entered during registration process. Users can view basic information, university related information, apartment preference for user looking for apartment and apartment details for user looking for roommate, interests and activities and general preferences.

5] Edit profile: After logging in to app, user can view profile page and by clicking on edit button icon user can make changes to existing records.

6] Search for user looking for roommate: After logging in to app and clicking on Search from menu, user will be redirected to search page. By selecting university from list, list of users looking for apartment will be shown. By selecting any one of them, detailed information page will be shown. If user clicks on "Add to Shortlist" icon, that user will be added to shortlisted profiles. If user clicks on "Send Message" icon, one dialog box will be open, after writing message user can send message to other user by clicking "Send" icon.

7] Potential Match for user looking for roommate: After logging in to app and clicking on Potential match from menu, user will get all the preferred matches with percentage will be displayed on page. By selecting any one of them, detailed information page will be shown. If user clicks on "Add to Shortlist" icon, that user will be added to shortlisted profiles. If user clicks on "Send Message" icon, one dialog box will be open, after writing message user can send message to other user by clicking "Send" icon.

IV.   CONCLUSION

This app is extremely useful for finding roommate or vacant apartment around university campus. It is easy to access and its features can help to search preferred matches. This application can be used by wide range of people as it satisfies need for two types of users. Moreover, it provides different type of communication to connect to two users like app-to-app messages, text message to other user's phone, and direct email to other users.

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