

## Project title: Roomie finder(Group Number:18 )

First name	Last name	IIT Email	Online or Remote Students? (Y or N)
Kirthiraj	Bhargavan	Kraj Kumar@hawk.iit.edu	N
Sai venkat sanjay	Manne	Smanne3@hawk.iit.edu	Y
Gayathri	Joginapally	Gjoginapally@hawk.iit.edu	N
Sai raghav	Udayagiri	Sudayagiri@hawk.iit.edu	Y
Narendra	Korada	Nkorada1@hawk.iit.edu	Y

### Important Notes:

- Each group must submit ONLY one copy by a single team member!

#### 1. Introduction

##### ROOMIEFINDER

- Introduce the background of your application and give me the motivations why you want to do that.  
RoomFinder is an application specially designed by keeping students and bachelors as a priority it simplifies the process of finding rooms and flat mates.
- It gives recommendations to individuals looking for accommodation and those seeking compatibles roommates.
- The platform offers options based on locations, budget and personal preferences.
- The main motivation behind creating this platform has come from the tiresome and the amount of time it has taken in finding a perfect flat with a perfect flat mate.

#### 2. Requirement Analysis

Follow the lifecycle of database applications introduced in the class, list the requirements in your project. In this piece of the work, you should also introduce your project setting, such as which Web programming language you are going to use, which relational database you are going to use, which Web server you are going to use, etc.

**ANSWER:****APPLICATION LIFECYCLE:**

Roomie Finder is a friendly app created to make life easier for students and bachelors looking for a place to live. It understands how tough finding the right room and the right people to share it with can be. That's why it offers smart suggestions for rooms and flat mates, tailoring options to your personal likes, your preferred location, and your budget. With Room Finder, you're not just finding a place to stay; you're finding a home that fits your lifestyle. Whether you need a quiet study space or a lively living area to share with like-minded individuals, Room Finder is your go-to solution, streamlining your search and connecting you with the best matches out there.

**APPLICATION ROLES:**

- The project has two main roles: posters and viewers.
- Posters are users who upload information about apartments available for rent.
- Viewers are those looking for apartments, who can browse through listings and shortlist their favorites.
- Users see different things based on whether they log in as a poster or a viewer.

**POSTINGS:**

Each post is uniquely identified by a post\_id, which combines the poster's username, the building number, and the apartment number.

**FILTERS:**

**FILTER CONDITIONS:** This platform allows users to specify their preferences while browsing for an apartment. To locate their ideal match, they can refine their search using criteria like price ranges, preferred locations, or essential apartment characteristics.

**USER INTERFACE:**

- **LOGIN SCREEN:** This is where the users can use their credentials to log in to their account and set up their account based on their preferences.
- **POSTING SCREEN:** It gives a detailed list of users wanting to list their apartment. It includes options for specifying the address, location, contact number and it also gives the list of utilities provided.
- **LISTINGS:** It displays the listing of different apartments. It allows the users to apply filter conditions like price, locations and list of amenities provided.

**WEBPROGRAMMING LANGUAGES:**

- FRONTEND APPLICATIONS: HTML, CSS and JavaScript

**RELATIONAL DATABASE:**

- Oracle 21c or SQL will be used to get structured Data storage.

**WEBSERVER: Tomcat**

### **3. Application Design & Business Logics**

Who are the users

For different types of users, are you planning to build individual platforms or Web system? For example, do you have a client portal and an admin portal?

What are the important components, such as login, logout, place order, and so forth

Which data manipulations (e.g., insert, create, delete, etc) will be used in your project.

#### **ANSWER:**

##### **A) USERS :**

The platform has two user groups, students and bachelors finding accommodation and landlord or tenant's looking for flat mates.

##### **B) PLATFORM TYPE:**

The platform type will be a web system, it will guide the users in finding a suitable room based on their personal preferences.

##### **C) IMPORTANT COMPONENTS USED:**

- 1) Sign-in : New users planning to create their profiles on the platform
- 2) login and logout: For user's trying to logging in or out of the platform
- 3) Room listings: Displaying of rooms available

##### **D) DATABASE OPERATIONS USED:**

The different database operations that will be used are create ,read, update and delete.

### **4. DB Design & DB operations**

Introduce your plan for DB design, and what kinds of DB operations you will implement to fulfill the requirements in your application. Just a plan, you do not need to give me ERD at this moment.

#### **IMPLEMENTATION OF DATABASE OPERATION**

1) Initial database will contain the following tables

- A) Users
- B) Room listing
- C) Preferences
- D) Messages

2)The platform will be implemented using the create, read, update and delete

- **CREATE:** Allows the addition of new data into the database, it allows new users to create profiles.
- **READ:** It is used to get the information and display the data from the database, allowing users to search rooms and flat mates.
- **UPDATE:** It allows the modification of the existing database. It allows a user to change their profile information, update room listings and their prices.
- **DELETE:** It is used to remove existing data from the database. It allows the users to delete their accounts and allows the removal of irrelevant data.
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### **CONCLUSION:**

A platform that can simplify and make the process of finding suitable accommodations and flat mates. The main aim is to provide a user-friendly and a secure platform for everyone. The create, read, update and delete operations are used to create a proper interaction with the database.