

RoomRadar App

1. Introduction

1.1. Purpose

1.2. Scope

1.3 Overview

2. Overall Description

2.1. Project Objective

2.2. Target Users

3. Specific Requirements

3.1. Functional Requirements

3.2. Non-functional Requirements

3.3 Conscious Requirement

3.4 Un-conscious Requirement

Software Specification Requirement

1. Introduction

In the realm of college life, finding suitable off-campus accommodations can often pose a significant challenge for students. To address this common issue, we present our innovative RoomRadar app. Designed with simplicity and efficiency in mind, this app serves as a centralized platform where college students can seamlessly discover, evaluate, and secure off-campus accommodations, ensuring a hassle-free housing search experience.

1.1 Purpose

The purpose of the RoomRadar app is to streamline the process of finding paying guest (PG) accommodations for college students, thereby alleviating the stress and uncertainty associated with off-campus housing searches. By providing transparent information, advanced search functionalities, and seamless communication channels, the app aims to empower students to make informed decisions and connect with suitable accommodations tailored to their preferences and needs. Ultimately, the app enhances the overall college experience by facilitating convenient, efficient, and transparent housing solutions for students.

1.2 Scope

The scope of the RoomRadar app encompasses a range of features and functionalities aimed at simplifying the off-campus housing search process for college students:

- User Registration and Authentication
- Search and Filter Options for Accommodations
- Detailed Room Listings with Photos and Descriptions
- Communication Channels between Students and PG Owners

- Real-time Availability Updates and Booking Facilities
- Review and Rating System for Accommodations
- Customization Options for User Profiles
- Accessibility and User-Friendly Interface
- Security Measures to Protect User Data and Transactions

1.3 Overview

RoomRadar app streamlines off-campus housing search for college students. Features include a comprehensive list of PG rooms with photos, descriptions, and contact info. Advanced search options refine choices based on location, price, and amenities. The app facilitates seamless communication between students and PG owners for inquiries and bookings. A review system allows users to share experiences, promoting informed decisions. The goal is to enhance transparency, efficiency, and convenience in the housing selection process, ultimately improving the overall college experience.

1.4 References

- <https://www.utexas.edu/>
- <https://www.ijres.org/papers/Volume-10/Issue-5/Ser-15/1005105110.pdf>
- <https://codeshoppy.com/shop/product/pg-locator-for-searching-pg-hostel-or-rental-houses/>

2.Overall Description

2.1 Project Objective

- 1.Implement a robust search algorithm to efficiently match a students with available paying guest accommodations based on their preferences and requirements.
- 2.Develop communication features that enable seamless interaction between students and PG owners for inquiries, scheduling visits, and negotiating rental terms.
- 3.Implement a system that regularly updates the availability status of paying guest accommodations in real-time.

2.2 Target Users

1. College Students:

- Those seeking off-campus accommodations, including PG rooms.
- Students looking for a user-friendly platform to efficiently search and match their housing preferences.

2. PG Owners:

- Individuals renting out accommodations for college students.
- Owners who want a streamlined process for managing inquiries, scheduling visits, and negotiating rental terms.

3.1 Functional Requirements

1. User Registration and Authentication:

- Users should be able to create accounts securely.
- The system must authenticate users during login to ensure data security.

2. Search and Filter Functionality:

- Users should be able to search for PG accommodations based on location, price range, occupancy, amenities, etc.
- Advanced filtering options should be available to refine search results.

3. Room Listing and Management:

- Owners should be able to list available PG rooms with details such as photos, location, price, occupancy, and amenities.
- Owners must have the ability to edit, update, and deactivate their listings as needed.

4. Communication Features:

- Users should be able to communicate with PG owners through messaging or chat features.
- Notifications for new messages and booking inquiries should be provided to users.

5. Review and Rating System:

- Users should be able to leave reviews and ratings for PG accommodations.
- Reviews and ratings should be displayed on room listings to help other users make informed decisions.

6. User Profile Management:

- Users should have the ability to update their profiles, including personal information and preferences.
- Preferences such as favorite listings, saved searches, and past bookings should be managed within user profiles.

7.Map Integration:

- The app should integrate maps to display the location of each PG accommodation.
- Users should be able to view accommodations on a map interface and get directions to each listing.

3.2 Non-Functional Requirements:

1.Performance:

- The app must load quickly and respond to user actions without delay.
- Response times for search queries, listing loading, and messaging should be optimized.

2.Security:

- User data must be encrypted and stored securely to protect privacy.
- Payment transactions must be secure and comply with industry standards for financial data protection.

3.Usability:

- The app interface must be intuitive and easy to navigate for users of all levels of technical proficiency.
- Accessibility features should be implemented to ensure usability for users with disabilities.

4.Reliability:

- The app should be available and functional at all times, with minimal downtime for maintenance.
- Measures should be in place to recover from system failures and prevent data loss.

5.Compatibility:

- The app should be compatible with a variety of devices and operating systems, including smartphones, tablets, and desktop computers.
- Compatibility with different web browsers and screen sizes should be ensured for web-based versions of the app.

3.3 Conscious Requirements:

- **User-Friendly Interface:**

Users consciously expect an intuitive and easy-to-navigate interface to search for accommodations.

- **Secure Authentication:**

Users are conscious of the need for secure authentication to protect their personal information.

- **Real-Time Updates:**

Users expect real-time updates on the availability of accommodations to make informed decisions.

- **Communication Features:**

Users consciously desire seamless communication channels to interact with PG owners for inquiries and bookings.

- **Transparent Information:**

Users consciously seek transparent information about accommodations, including photos, descriptions, and reviews.

3.4 Unconscious Requirements:

- **Psychological Comfort:**

Users may unconsciously seek accommodations that provide a sense of safety and comfort, beyond just the physical amenities listed.

- **Social Integration:**

Users may unconsciously desire accommodations that facilitate social interaction and community building among peers.

- **Adaptability to Preferences:**

Users may unconsciously expect the app to adapt to their preferences over time, such as learning their preferred amenities and locations.

- **Ease of Decision-Making:**

Users may unconsciously prefer accommodations that simplify the decision-making process, perhaps by highlighting key features or offering comparison tools.