



INSTITUTE FOR ADVANCED COMPUTING AND SOFTWARE DEVELOPMENT
AKURDI, PUNE

Documentation On

“Eazy-PG” – Online PG Management System

PG-DAC March 2023

Submitted By:

Group No: 54

Roll No.

233193 Rohan Sarode

233122 Abhishek Magdum

Mr. Rohit Puranik
Centre Coordinator

Mrs. Geeta Darunute
Project Guide

Abstract

Title: **Easy-PG: Simplifying PG Accommodation Search & Management**

With urbanization on the rise and an increasing number of students and professionals moving to cities for education and job opportunities, the demand for Paying Guest (PG) accommodations has witnessed a surge. "Easy-PG" emerges as a pioneering platform to address this burgeoning need, ensuring a hassle-free PG search and management experience for both PG seekers and providers.

The platform, designed with a user-centric approach, acts as a bridge connecting PG seekers with suitable accommodations that match their preferences, budget, and location requirements. Through its intuitive interface, users can filter search results, view detailed descriptions of PG accommodations, see photographs, read reviews, and directly contact PG providers. This transparency ensures that users can make informed decisions without physically visiting multiple PG locations.

For PG providers, "Easy-PG" offers a streamlined management solution. Providers can list their accommodations, update availability, set pricing, and manage bookings all from a single dashboard. The built-in calendar functionality ensures that overbookings and conflicts are avoided. Furthermore, the platform offers a secure payment gateway, simplifying the monthly rent collection process and minimizing cash transactions.

One of the standout features of "Easy-PG" is its community-driven approach. Users can rate and review PG accommodations, providing valuable feedback for future PG seekers. This also ensures that PG providers maintain the quality of their services to secure positive reviews and attract more occupants.

"Easy-PG" is also designed with security in mind. All user data, including contact details, is encrypted. The platform also includes a built-in chat feature, allowing PG seekers and providers to communicate without revealing personal contact information.

In conclusion, "Easy-PG" is revolutionizing the PG accommodation landscape. By marrying technology with user needs, the platform ensures a seamless, secure, and efficient PG search and management experience, benefitting millions of urban migrants.

Acknowledgment

We, Rohan Sarode and Abhishek Magdum, wish to extend our deepest gratitude to everyone who provided their invaluable assistance and insight throughout the duration of our project.

Foremost, we would like to express our sincerest appreciation to Mrs. Geeta, our project guide, for her unwavering support and guidance. Her knowledge and expertise were instrumental in shaping various stages of the project, and her patience and dedication greatly contributed to its completion.

We are deeply indebted to our esteemed institution, IACSD, for offering us the resources and infrastructure necessary for the realization of our project. The continuous encouragement and opportunities provided by the institution played an indispensable role in our academic journey.

We would also like to thank our peers and faculty members at IACSD for their stimulating suggestions, feedback, and constant encouragement throughout the project's lifecycle. Their collective insights played a pivotal role in ensuring the project's success.

Lastly, our heartfelt gratitude goes out to our families for their consistent support, patience, and motivation. Their unwavering faith in our abilities kept us going through challenging times.

In conclusion, we would like to dedicate this project to all those who believed in us and our capabilities. We hope our work stands as a testament to the combined efforts and dedication of everyone involved.

Rohan Sarode (233193)

Abhishek Magdum (233122)

Table of content

ABSTRACT.....	2
ACKNOWLEDGEMENT.....	3
INTRODUCTION.....	8
FEATURES	8
1.1 PROJECT OBJECTIVE.....	8
1.2 PROJECT OVERVIEW.....	8
1.3 PROJECT SCOPE	9
1.4 STUDY OF THE SYSTEM	9
1.4.1 MODULES.....	9
SYSTEM ANALYSIS.....	11
2.1 EXISTING SYSTEM	11
2.2 PROPOSED SYSTEM	12
2.3 SYSTEM REQUIREMENT SPECIFICATION.....	12
2.3.1 GENERAL DESCRIPTION.....	12
2.3.2 SYSTEM OBJECTIVES	13
2.3.3 SYSTEM REQUIREMENTS.....	13
SYSTEM DESIGN.....	16
3.1 INPUT AND OUTPUT DESIGN	16
3.1.1 INPUT DESIGN	16
3.1.2 OUTPUT DESIGN	16
DATABASE DESIGN	17
3.2 DATABASE.....	17
3.3 SYSTEM TOOLS	17
3.3.1 FRONT END.....	17
3.3.2 BACKEND	17

ER Digram.....	18
Class Digram.....	18
Activity Digram For Authentication /Login.....	19
0 th Level DFD Digram.....	19
First Level DFD Digram.....	20
Sequence Digram.....	20
Use Case Digram.....	21
TABLE STRUCTURE	23
PROJECT DIAGRAMS.....	24
CONCLUSION	29
REFERENCES.....	29
ONLINE REFERENCE.....	30

Table figure

1)ER Digram.....	18
2)Class Digram.....	18
3) Digram For Authentication /Login.....	19
4)0 th Level DFD Digram.....	19
5)First Level DFD Digram.....	20
6)Sequence Digram.....	20
7)Use Case Digram.....	21

Introduction

In today's fast-paced world, the search for comfortable and affordable living spaces, especially for students and working professionals, is an ever-escalating challenge. Recognizing this burgeoning demand for user-friendly housing solutions, we proudly introduce "Easy-PG."

Easy-PG is a comprehensive digital platform designed to bridge the gap between property owners and potential tenants looking for Paying Guest (PG) accommodations. Designed with the user in mind, the platform simplifies the process of finding, comparing, and securing PG accommodations tailored to individual preferences.

With urbanization on the rise, cities and towns are experiencing an influx of students and professionals seeking educational and employment opportunities. For many, finding a suitable place to stay that's both budget-friendly and in proximity to educational institutions or workplaces is paramount. Easy-PG aims to alleviate these concerns, offering a transparent, efficient, and streamlined process.

Through Easy-PG, property owners can list their available spaces, providing detailed descriptions, amenities, pricing, and photographs. Prospective tenants, on the other hand, can effortlessly search, filter, and shortlist accommodations that align with their requirements. Beyond just listings, the platform offers features like user reviews, ratings, and direct communication channels, ensuring that all parties involved have a clear, transparent, and seamless experience.

Moreover, understanding the importance of trust in such transactions, Easy-PG incorporates a robust verification process for all listed properties, ensuring safety and reliability for its users.

In essence, Easy-PG is not just a platform; it's a solution – one that brings convenience, assurance, and a touch of home to those in search of their next abode.

FEATURES

Expansive PG Listings: Whether you're looking for a single room, shared accommodation, or an entire flat, EASY-PG boasts an extensive list of PG accommodations tailored to every individual's needs.

Advanced Search Mechanism: Our platform allows users to effortlessly search for PGs based on location, budget, amenities, and other essential criteria, ensuring you find your ideal accommodation without the hassle.

Secure Booking and Payments: With integrated payment gateways, users can securely book their chosen PG and make online payments with ease.

Landlord and Tenant Dashboards: Separate dashboards for landlords and tenants ensure both parties can manage their listings, bookings, payments, and feedback efficiently.

Safety Checks: Ensuring the safety of our users is paramount. EASY-PG conducts regular safety checks and verifies listed PGs to ensure a secure living environment.

1.1. PROJECT OBJECTIVE

The primary objective of the "EASY-PG" project is to design and implement a digital platform that serves as a comprehensive solution for PG (Paying Guest) accommodations, addressing the myriad challenges faced by both PG seekers and providers. The project aims to simplify, streamline, and modernize the process of finding, booking, and managing PG accommodations.

1.2. PROJECT OVERVIEW

"EASY-PG" is a digital platform designed to bridge the gap between PG seekers and providers in the urban landscape. It offers a wide array of PG accommodations, catering to diverse needs and budgets. Users can effortlessly navigate listings, view comprehensive PG profiles with descriptions, images, and reviews, and check real-time room availability. The platform supports instant bookings with a secure payment system. For PG providers, a dedicated portal allows efficient management of their listings. Emphasizing safety and transparency, "EASY-PG" ensures all listed accommodations undergo a verification process. In essence, "EASY-PG" streamlines the search and booking process for PG accommodations, ensuring a hassle-free experience for both seekers and providers.

1.3. PROJECT SCOPE

EASY-PG" aims to become the go-to digital hub for PG accommodations in urban areas. With its user-friendly interface, it intends to facilitate quick searches, secure bookings, and efficient management for PG providers. As urbanization increases and the demand for affordable housing grows, the platform's potential for expansion and integration with other housing solutions is vast, positioning "EASY-PG" as an essential tool for both PG seekers and providers in the modern city landscape.

1.4. STUDY OF THE SYSTEM

1.4.1. MODULES

The project compilation we identify the responsibility be presented with the following modules and roles.

The modules involved are:

- Administrator
- Homeowner
- Tenant

1.4.1.1 ADMINISTRATOR

The Administrator module is a critical component of the "EASY-PG" system, providing overarching control and management features. Here's a detailed breakdown:

Login & Authentication:

The administrator can securely log into the system using credentials. The system uses advanced encryption and security protocols to ensure data safety.

PG Management:

1. **Add/Remove PG Listings:** The admin can add new PG accommodations to the platform or remove outdated ones.
2. **Edit PG Details:** Allows for updating details of existing PGs such as rent, facilities, and images.
3. **Verify PG Listings:** Every new PG listing can be authenticated and verified for its authenticity and legality.

User Management:

1. **Manage PG Owners:** Can view, verify, or deactivate PG owner accounts.
2. **Manage PG Seekers:** Ability to oversee the PG seekers' profiles, their history, and can intervene if issues arise.

<ADD DIAGRAM>

1.4.1.2 HOMEOWNER

The Homeowner module in the "EASY-PG" system caters specifically to PG accommodation owners, granting them a comprehensive suite of tools to manage their listings effectively. Here's an in-depth exploration:

Account Management:

1. **Registration & Verification:** PG owners can create an account, which will then undergo a verification process to ensure authenticity.
2. **Profile Management:** Owners can update personal details, contact information, and profile picture.

PG Listing Management:

1. **Add New Listings:** Allows homeowners to list new PG accommodations, complete with details like rent, facilities, images, and more.
2. **Edit Existing Listings:** Homeowners can modify the details of their PG listings whenever necessary.
3. **Availability Status:** Option to mark a PG room or property as available or occupied.
4. **Archiving Listings:** If a particular PG is no longer available for rent, it can be archived without being deleted.

<ADD DIGRAM OF HOMEOWNER>

1.4.1.3 TENANTS

The Tenant module of the "EASY-PG" system is designed with the specific needs and preferences of potential PG residents in mind. This module ensures a seamless search, booking, and living experience for tenants. Here's a comprehensive breakdown:

Account Management:

2. **Registration & Verification:** Tenants can register and create their profiles, which may undergo a verification for security purposes.
3. **Profile Management:** Tenants can update personal details, contact information, preferences, and rental history.

PG Search & Filters:

1. **Advanced Search:** Enables tenants to search for PG accommodations based on locality, price range, amenities, and more.
2. **Filter & Sort Options:** Further refine searches based on criteria like gender preference, food options, and others.
3. **PG Details:** View comprehensive details of each listing including images, rent, facilities, and homeowner details.

SYSTEM ANALYSIS

System analysis is the methodical investigation and detailed examination of a system's components and specifications. It aims to understand the current setup, identify weaknesses, and determine user requirements. By analyzing data flows, system interactions, and user needs, analysts can pinpoint areas for enhancement and design a more efficient and optimized solution. This process not only ensures that the proposed system meets the specific objectives but also lays the groundwork for a smooth transition and implementation. Through system analysis, businesses can streamline their operations, improve user experience, and adapt to ever-changing needs and environments.

2.1 EXISTING SYSTEM

1. **Offline Listings:** Homeowners typically advertise their PG accommodations through local newspapers, community boards, or word-of-mouth.
2. **Physical Visits:** Interested tenants often need to physically visit multiple PG accommodations before making a choice.
3. **Limited Reach:** Homeowners can only reach potential tenants in their immediate vicinity or those who happen to come across their ads.
4. **No Standardized Pricing:** Pricing is often arbitrary without a standardized system, leading to varied costs for similar amenities.
5. **Payment Methods:** Monthly payments are typically done in cash or direct bank transfers without any digital receipts.
6. **Lack of Reviews:** Tenants don't have an avenue to read or provide reviews about their PG experiences.
7. **No Booking System:** There's no advance booking system; it's typically on a first-come-first-serve basis.
8. **Communication Barriers:** Communication between homeowners and potential tenants can sometimes be tedious, with back-and-forth phone calls and messages.
9. **Lack of Amenities Information:** Tenants might be unaware of all amenities provided until they physically visit or move in.
10. **Contractual Agreements:** Formal agreements, if any, are traditionally hand-written and not standardized across different PG accommodations.

2.2 PROPOSED SYSTEM

The proposed "EASY-PG" platform would revolutionize the traditional PG searching method by providing a digitized, centralized, and user-friendly interface. It will offer homeowners the ability to

list their accommodations online with detailed amenities, photos, and pricing. Tenants can effortlessly search, review, and book PG accommodations that fit their preferences. The platform would also integrate a secure payment system, offer digital contracts, and foster transparent communication between homeowners and tenants, all while providing a feedback mechanism through reviews and ratings. This end-to-end solution aims to make the PG search and booking process seamless, transparent, and efficient.

2.3 SYSTEM REQUIREMENT SPECIFICATION

2.3.1 GENERAL DESCRIPTION

The "EASY-PG" system is envisioned as a comprehensive digital platform that streamlines the process of finding and booking PG accommodations. It requires a robust backend database to store property listings, user profiles, reviews, and transaction records. The front end would be interactive, responsive, and user-centric, allowing users to navigate and operate effortlessly. Security is paramount; hence, encryption and authentication mechanisms will be integrated. The system will support multiple user roles, including administrators, homeowners, and tenants, each with distinct privileges. Additionally, it will feature search filters, notifications, digital payment options, and a feedback mechanism to enhance user experience and ensure seamless operations.

2.3.2 SYSTEM OBJECTIVES

- Streamline PG search and booking.
- Support multiple user roles (admin, homeowner, tenant).
- Enhance user experience with filters and notifications.
- Integrate secure digital payment options.
- Provide a platform for feedback and reviews.

SYSTEM REQUIREMENTS

NON-FUNCTIONAL REQUIREMENTS

Performance Requirements: The system should be able to handle multiple simultaneous user requests without performance degradation.

Security Requirements: User data, especially payment details, should be encrypted. Login credentials must be stored securely using encryption and hashing techniques.

Availability: The platform should maintain an uptime of 99.5%, ensuring service availability for users at all times.

Scalability: The system should be scalable to accommodate an increasing number of PG listings and users.

Maintainability: Code should be written clearly with appropriate comments to facilitate future updates or bug fixes.

Usability: The user interface must be intuitive and user-friendly, with a minimal learning curve for new users.

Backup: Regular data backups should be scheduled to prevent data loss.

Compatibility: The platform should be accessible and fully functional across various devices, including desktops, tablets, and mobile phones.

Response Time: The response time for user requests should not exceed 2 seconds under regular load conditions.

Disaster Recovery: The system should have mechanisms in place for quick recovery in the event of any unforeseen issues or disasters.

Localization: If intended for users from different regions, the system should support multiple languages and regional settings.

Regulatory Compliance: Ensure all implemented features adhere to local and international regulations related to data privacy and online transactions.

FUNCTIONAL REQUIREMENTS

User Registration and Authentication:

Allow users (homeowners and tenants) to register by providing necessary details.

Authenticate users when they log in, allowing them to reset their passwords if forgotten.

Property Listings:

Enable homeowners to list their PG properties, specifying details like location, amenities, rent, and images.

Allow edits, updates, or deletions to listed properties.

Search and Filters:

Let tenants search for PG properties based on location, rent range, amenities, and other criteria.

Provide filtering options for more refined search results.

Booking and Payments:

Allow tenants to book a PG property and make online payments.

Send confirmation notifications to both homeowners and tenants upon successful booking.

Reviews and Ratings:

Tenants can leave reviews and ratings for PG properties they have stayed in.

Homeowners can respond to reviews.

Notifications:

Notify homeowners when a booking is made or a payment is received.

Notify tenants about booking confirmations, upcoming rent due dates, or any other important events.

Admin Dashboard:

Provide an admin dashboard to manage users (tenants and homeowners), oversee transactions, and handle disputes if any.

Enable content moderation capabilities for reviews and property listings.

Reporting and Analytics:

Generate reports on the number of listings, bookings, revenue, etc.

Offer analytics to homeowners about their property's performance.

Communication:

Allow homeowners and tenants to communicate through an in-app messaging system.

Favourites and Wishlist:

Tenants can mark certain PG listings as favourites or add to a wishlist for future reference.

Map Integration:

Display listed properties on a map, helping tenants to visualize locations and nearby amenities.

Policies and Agreements:

Display terms of service, privacy policies, and rental agreements, ensuring clear understanding between tenants and homeowners.

MODERATOR

ADMINISTRATOR

➤ MANAGE HOMEOWNERS**Description of Features:**

The administrator has the ability to add, view, delete, and block homeowners. This ensures that only genuine homeowners are registered on the platform.

➤ MANAGE TENANTS**Description of Features:**

The administrator can oversee the tenants' profiles, allowing them to add, delete, view, or block any tenant as per the platform's policies.

➤ MANAGE PG LISTINGS**Description of Features:**

The administrator can add new PG listings, delete inappropriate listings, and view all the PGs listed on the platform to ensure quality and authenticity.

➤ MANAGE BOOKINGS

Description of Features:

The administrator has the capability to view all the bookings made on the platform, ensuring that the process is smooth and disputes are minimal.

Functional Requirements:

The system must recognize the admin's login credentials and ensure a secure login process.

Only the designated individual(s) should have access to the admin account to maintain the integrity of the platform.

MODERATOR**Description of Features:**

A moderator plays a pivotal role in bridging the gap between the homeowners and tenants. While they can oversee the bookings for the interim, in future updates, they might be able to suggest and manage certain PG listings themselves. By managing both the user ends - homeowners and tenants, the moderator effectively reduces the workload of the admin. The moderator has access to most administrative rights, except for overseeing other moderators. They can also view and manage PG listings, oversee booking details, and edit their profiles as necessary.

Functional Requirement:

The system should distinctly identify a moderator's login and provide them access to their designated functionalities.

SYSTEM DESIGN

The design of the Easy-PG system is a comprehensive solution for the challenges associated with finding and booking PG accommodations. This phase delves into a meticulous interpretation of the functional requirements, emphasizing on translating the specified features into a coherent system architecture.

➤ Logical Design

➤ Physical Design

During the logical design phase, the system flow and functionalities are mapped out. This encompasses the inputs (e.g., PG details, user profiles), outputs (booking confirmations, search results), databases (listings, user accounts), and procedures (booking process, profile management). This representation ensures the system caters to user requirements effectively and efficiently. The logical blueprint of the system is delineated using data flow diagrams and database designs.

The subsequent phase, physical design, translates the logical structure into a tangible system architecture. This phase specifies the detailed workings of the system, ensuring it addresses all the functionalities and provides a seamless user experience.

3.1 INPUT AND OUTPUT DESIGN

3.1.1 INPUT DESIGN:

The input design for Easy-PG serves as a crucial interface between the users and the system. Whether it's homeowners inputting details about their PG accommodations or tenants updating their preferences, the input process is designed to be intuitive and user-friendly. Every input undergoes validation to ensure accuracy, minimizing the chances of errors. For instance, when a homeowner lists a new PG, they're prompted to fill in all the necessary details through a well-structured form. Should there be any discrepancies or missing details, user-friendly error messages are displayed to guide the user to rectify them.

3.1.2 OUTPUT DESIGN:

Outputs in Easy-PG are crafted to be user-centric, offering clarity and aiding in quick decision-making. When tenants search for PG accommodations, the results are displayed in a concise yet informative manner, ensuring they have all the information they need at a glance. Bookings, notifications, and any other system-generated messages are designed to be straightforward, reducing ambiguity. A preview feature ensures that before any major decision, be it a booking or listing, users can review their choices and the system's responses, ensuring they're always in control.

DATABASE DESIGN

3.2 DATABASE

The heart of the Easy-PG system is its robust database, ensuring efficient storage, retrieval, and manipulation of data pertaining to PG accommodations, homeowners, and tenants. Databases encapsulate the core data, organized methodically into tables for optimized data operations.

Two foundational pillars of database organization are:

- **Primary key** - This represents a unique identifier for every record within a table. For instance, each PG listing or tenant profile will have a distinct ID, ensuring unambiguous data retrieval.
- **Foreign key** - This plays a pivotal role in creating relationships between different tables, ensuring data integrity and offering a seamless query experience. For instance, a booking record might have foreign keys linking to both a tenant and a PG listing.

To maintain data integrity and prevent redundancy, the technique of normalization is applied to the [blob:https://web.whatsapp.com/7e706cad-13ab-4a77-853c-8cb411a97407](https://web.whatsapp.com/7e706cad-13ab-4a77-853c-8cb411a97407) database tables.

3.3 SYSTEM TOOLS

3.3.1 FRONT END:

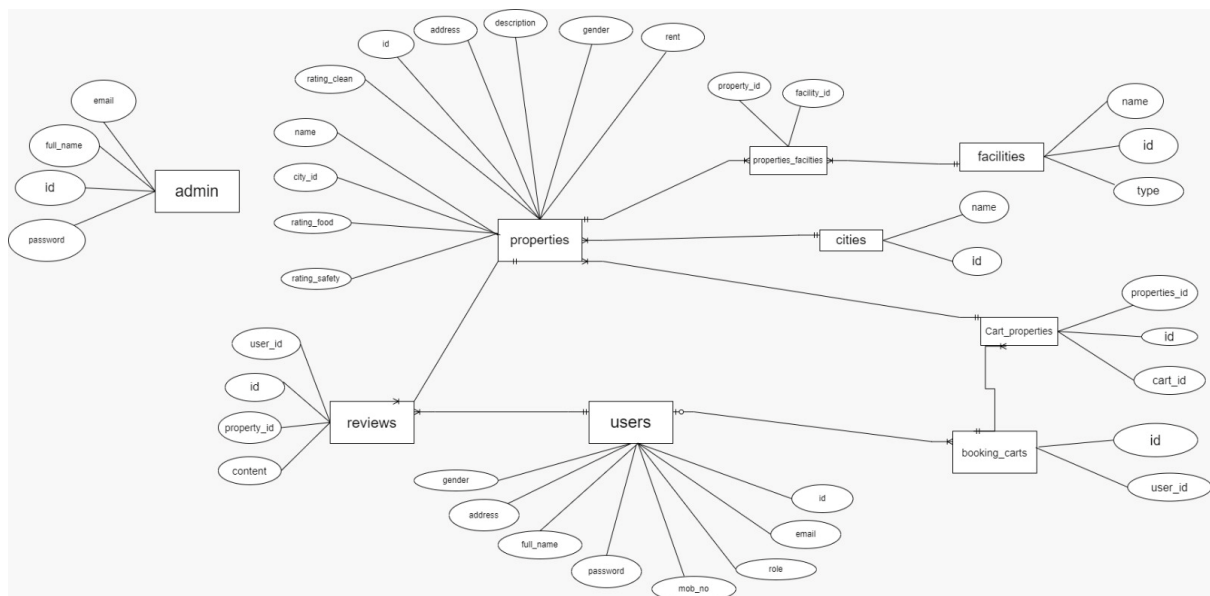
For Easy-PG, the front end is constructed using React. React, also commonly referred to as React.js or ReactJS, is a leading, open-source JavaScript library that empowers developers to craft compelling user interfaces or UI components. Spearheaded by Facebook, React boasts an expansive community of individual developers and corporations. Especially suitable for single-page applications, React's main focus is on state management and efficiently reflecting this state in the DOM. Given that React chiefly handles rendering, additional libraries are often incorporated for routing and further client-side features in comprehensive applications like Easy-PG.

3.3.2 BACKEND:

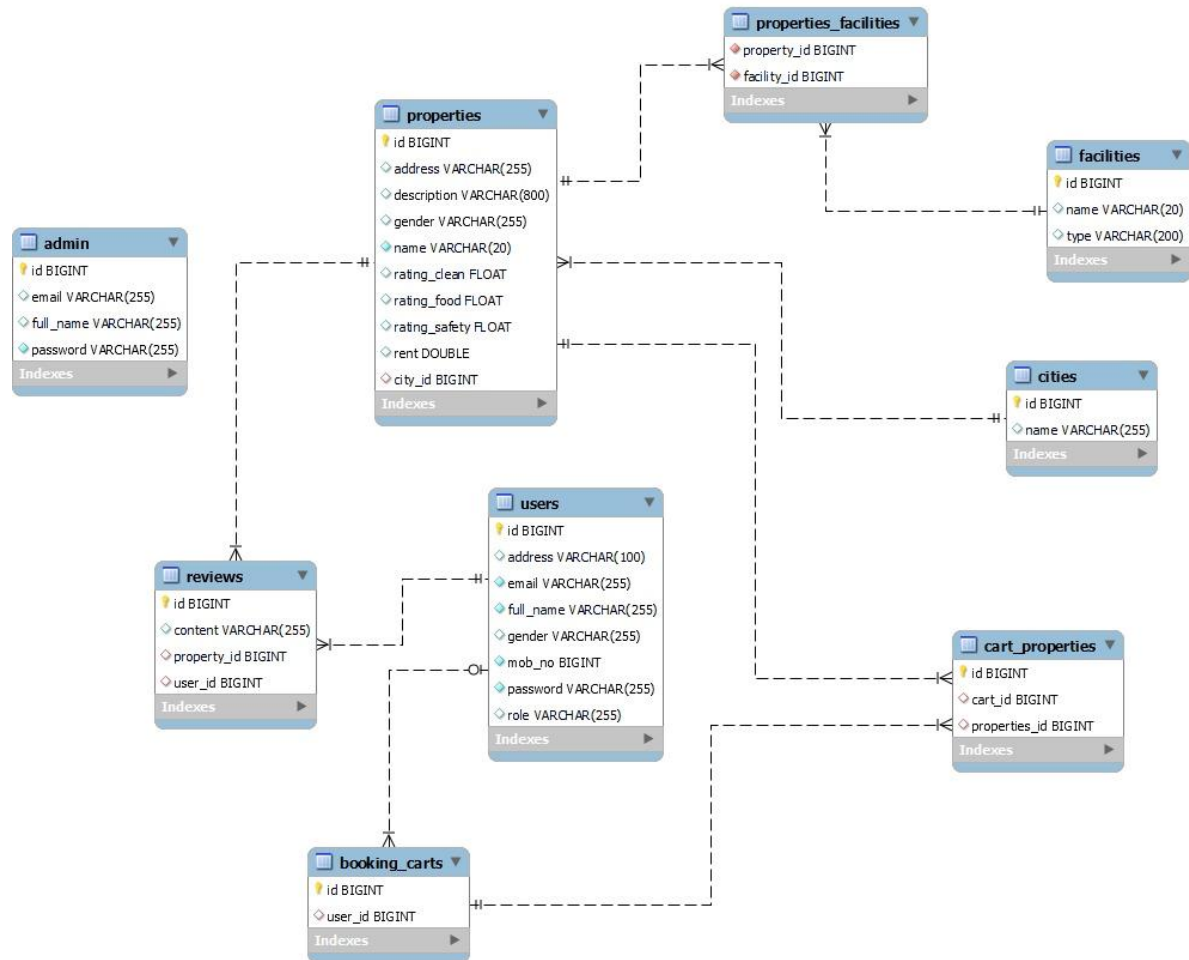
For the backend architecture of Easy-PG, MySQL is employed as the relational database management system (RDBMS). Revered for its efficiency, MySQL stands tall as a preeminent open-source RDBMS. SQL, an acronym for Structured Query Language, serves as the foundation for data operations in MySQL. Navicat is the chosen tool for designing tables within the MySQL environment for this project.

Spring-Boot:

Spring-Boot streamlines the process of connecting to MySQL, facilitating seamless data fetch operations and updates. As a versatile Java-based framework, Spring provides an expansive suite of tools for web application development atop the Java EE platform. While it doesn't restrict any specific programming model, Spring has earned acclaim in the Java ecosystem as a complementary tool to the Enterprise JavaBeans (EJB) model, especially for its inversion of control capabilities.

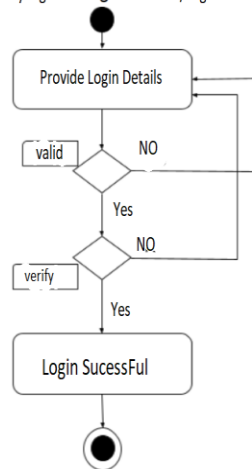


ER Digram

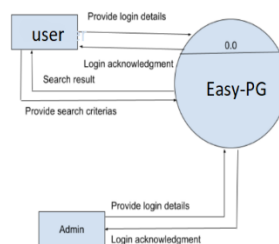


Class Digram

Activity Digrm for Authentication/Login

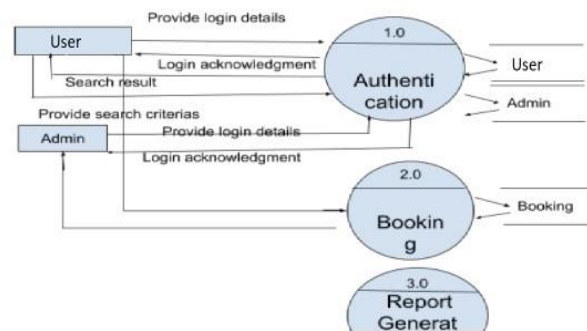


Activity Digram For Authentication /Login

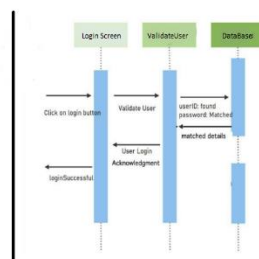


0th Level DFD Digram

First Level DFD Digram

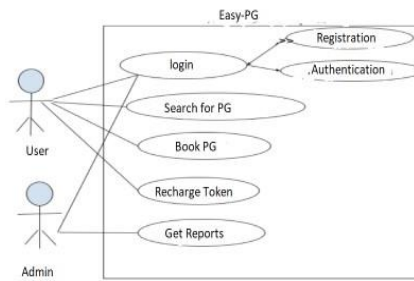


First Level DFD Digram



Sequence diagrams

Use Case Diagram



Use Case Diagram

Table Structures

```

+-----+
| Tables_in_easypg |
+-----+
| booking_carts    |
| cart_properties  |
| cities           |
| facilities       |
| interested_users_properties |
| properties       |
| properties_facilities |
| reviews         |
| users           |
+-----+
9 rows in set (0.00 sec)

```

MySQL 8.0 Command Line Cli

```
mysql> select * from cart_properties;
```

id	cart_id	properties_id
1	2	2
2	2	2
3	4	4
4	5	7
5	6	6

5 rows in set (0.00 sec)

```
mysql> select * from cities;
```

id	name
1	pune
2	Kolhapur
3	Mumbai
4	sanagli
5	Satara
6	Dhule
7	Akola
8	Solpaur

8 rows in set (0.00 sec)

```
mysql> select * from facilities;
```

id	name	type
1	Gym	Fitness
3	Laundry	Service
5	Parking	Convenience
6	Cafeteria	Dining
9	library	book

5 rows in set (0.00 sec)

```
mysql> select * from properties;
```

id	address	description	gender	name	rating_clean	rating_food	rating_safety	rent	city_id
2	789 Downtown Avenue, Metroville	Modern loft-style apartments in the heart of downtown.	FEMALE	Urban Lofts	4.5	4.2	4.6	1500	2
3	789 Sunshine Street, Sunville	Bright and sunny apartments close to local amenities.	MALE	Sunny Residences	4.3	4.5	4.8	950	4
4	123 Hillside Lane, Hilltown	Cozy apartments on a hill with beautiful views.	FEMALE	Hillside Haven	4.6	4.2	4.5	800	5
5	789 Oceanfront Road, Beachville	Apartments by the sea with fresh ocean breeze.	MALE	Seaside Living	4.7	4.3	4.9	1300	7
6	123 Serenity Lane, Quietville	Elegant apartments in a peaceful neighborhood.	FEMALE	Tranquil Towers	4.9	4.4	4.7	1050	8

82°F High winds soon

Search

ENG IN 2:00 PM 8/23/2023

```

MySQL 8.0 Command Line Cli x + v
-----
6 rows in set (0.01 sec)

mysql> select * from properties_facilities;
+-----+-----+
| property_id | facility_id |
+-----+-----+
| 7 | 9 |
+-----+-----+
1 row in set (0.01 sec)

mysql> select * from reviews;
+----+-----+-----+-----+
| id | content | property_id | user_id |
+----+-----+-----+-----+
| 1 | Great place to stay with friendly staff! | 2 | 1 |
| 2 | The amenities provided were top-notch. | 2 | 2 |
| 3 | Clean and well-maintained rooms. | 3 | 3 |
| 4 | Had a wonderful experience staying here. | 5 | 4 |
| 5 | The location was convenient for my work. | 2 | 5 |
+----+-----+-----+-----+
5 rows in set (0.01 sec)

mysql> select * from users;
+----+-----+-----+-----+-----+-----+-----+-----+
| id | address | email | full_name | gender | mob_no | password | role |
+----+-----+-----+-----+-----+-----+-----+-----+
| 1 | 123 Greenfield Avenue, Greenvale | amelia@example.com | Amelia Davis | FEMALE | 1237895555 | ameliapass@123 | USER |
| 2 | 456 Park Avenue, Townsville | jane@example.com | Jane Smith | FEMALE | 9876543210 | strongpassword@342 | USER |
| 3 | 789 Downtown Road, Metroville | alex@example.com | Alex Johnson | MALE | 5551234567 | secret@123 | USER |
| 4 | 123 Riverside Drive, Naturetown | emma@example.com | Emma Williams | FEMALE | 1235557890 | password@1234 | USER |
| 5 | 456 Sunshine Street, Sunville | michael@example.com | Michael Brown | MALE | 9875554321 | michaelpass@345 | USER |
| 6 | 789 Hillside Lane, Hilltown | olivia@example.com | Olivia Taylor | FEMALE | 5557891234 | olivia@123 | USER |
| 7 | 123 Plaza Street, Central City | william@example.com | William Johnson | MALE | 1235556789 | williampass@213 | USER |
| 8 | 456 Oceanfront Road, Beachville | sophia@example.com | Sophia Lee | FEMALE | 9875551234 | sophiapass@123 | USER |
+----+-----+-----+-----+-----+-----+-----+-----+
8 rows in set (0.00 sec)

mysql>

```

```

MySQL 8.0 Command Line Cli x + v
-----
+----+-----+-----+-----+-----+-----+-----+-----+
| 2 | 456 Park Avenue, Townsville | jane@example.com | Jane Smith | FEMALE | 9876543210 | strongpassword@342 | USER |
| 3 | 789 Downtown Road, Metroville | alex@example.com | Alex Johnson | MALE | 5551234567 | secret@123 | USER |
| 4 | 123 Riverside Drive, Naturetown | emma@example.com | Emma Williams | FEMALE | 1235557890 | password@1234 | USER |
| 5 | 456 Sunshine Street, Sunville | michael@example.com | Michael Brown | MALE | 9875554321 | michaelpass@345 | USER |
| 6 | 789 Hillside Lane, Hilltown | olivia@example.com | Olivia Taylor | FEMALE | 5557891234 | olivia@123 | USER |
| 7 | 123 Plaza Street, Central City | william@example.com | William Johnson | MALE | 1235556789 | williampass@213 | USER |
| 8 | 456 Oceanfront Road, Beachville | sophia@example.com | Sophia Lee | FEMALE | 9875551234 | sophiapass@123 | USER |
+----+-----+-----+-----+-----+-----+-----+-----+
8 rows in set (0.02 sec)

mysql> select * from properties;
ERROR 1146 (42S02): Table 'easypg.properties' doesn't exist
mysql> show tables;
+-----+
| Tables_in_easypg |
+-----+
| admin |
| booking_carts |
| cart_properties |
| cities |
| facilities |
| interested_users_properties |
| properties |
| properties_facilities |
| reviews |
| users |
+-----+
10 rows in set (0.02 sec)

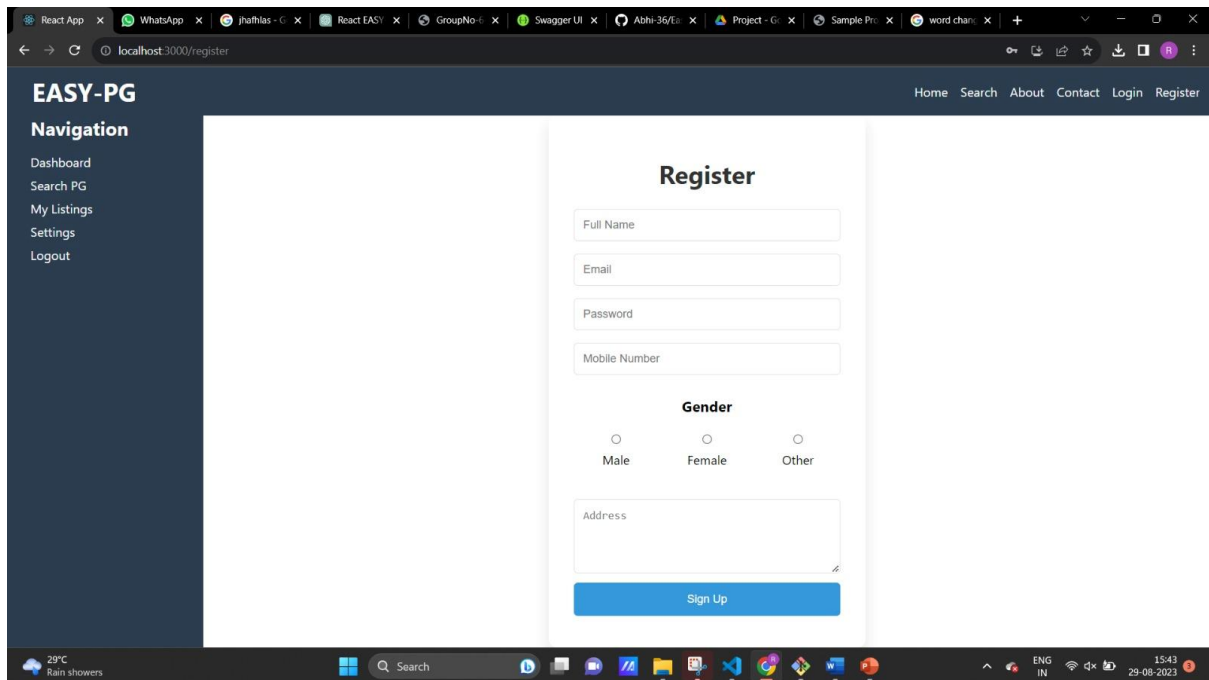
-> ^C

mysql> select * from admin;
+----+-----+-----+-----+
| id | email | full_name | password |
+----+-----+-----+-----+
| 2 | rohan@example.com | Rohan Sarode | rohan@123 |
+----+-----+-----+-----+
1 row in set (0.01 sec)

mysql> select * from booking_carts;
+----+-----+
| id | user_id |
+----+-----+
| 2 | 2 |
| 4 | 4 |
| 6 | 6 |
| 5 | 7 |
+----+-----+
4 rows in set (0.01 sec)

```

Project Digrams



The screenshot shows a web browser at localhost:3000/register. The page has a dark blue header with 'EASY-PG' on the left and navigation links (Home, Search, About, Contact, Login, Register) on the right. A dark blue sidebar on the left contains a 'Navigation' menu with links to Dashboard, Search PG, My Listings, Settings, and Logout. The main content area is white and titled 'Register'. It contains a form with the following fields: 'Full Name', 'Email', 'Password', 'Mobile Number', a 'Gender' section with radio buttons for 'Male', 'Female', and 'Other', and an 'Address' field. A blue 'Sign Up' button is at the bottom of the form. The browser's taskbar at the bottom shows a weather widget (29°C Rain showers), a search bar, and various application icons. The system clock indicates 15:43 on 29-08-2023.

EASY-PG Home Search About Contact Login Register

Navigation

- Dashboard
- Search PG
- My Listings
- Settings
- Logout

Register

Full Name

Email

Password

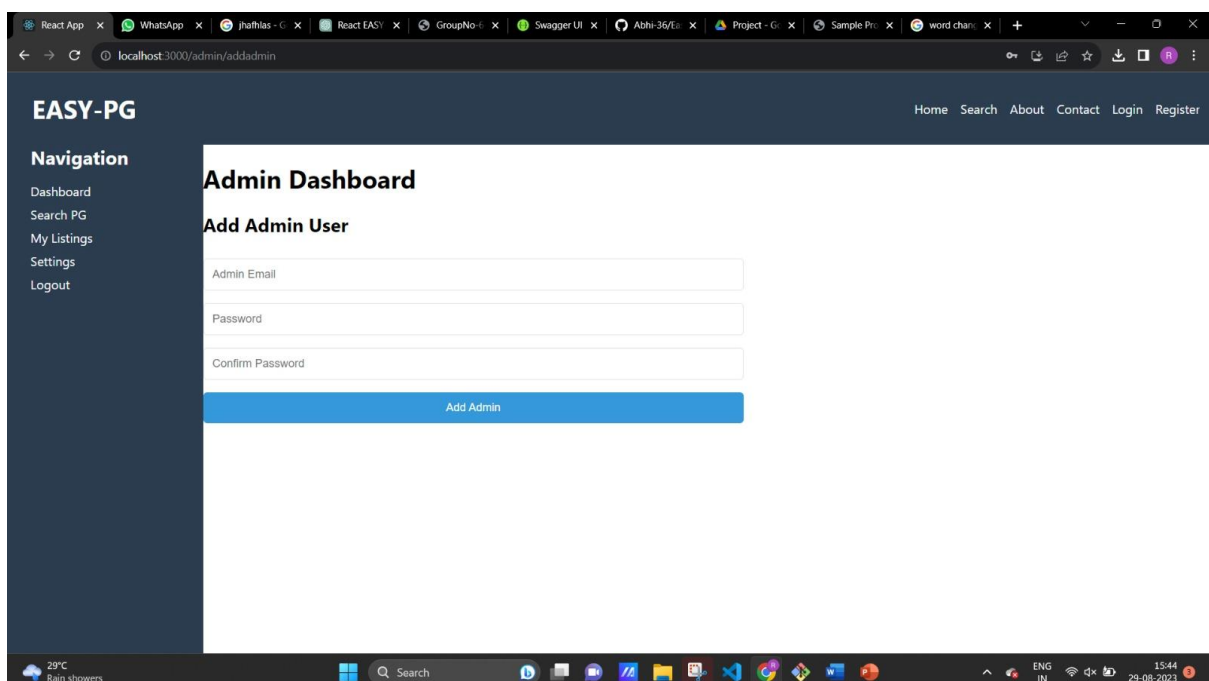
Mobile Number

Gender

☐ Male ☐ Female ☐ Other

Address

Sign Up



The screenshot shows a web browser at localhost:3000/admin/addadmin. The page has a dark blue header with 'EASY-PG' on the left and navigation links (Home, Search, About, Contact, Login, Register) on the right. A dark blue sidebar on the left contains a 'Navigation' menu with links to Dashboard, Search PG, My Listings, Settings, and Logout. The main content area is white and titled 'Admin Dashboard' with a sub-header 'Add Admin User'. It contains a form with the following fields: 'Admin Email', 'Password', and 'Confirm Password'. A blue 'Add Admin' button is at the bottom of the form. The browser's taskbar at the bottom shows a weather widget (29°C Rain showers), a search bar, and various application icons. The system clock indicates 15:44 on 29-08-2023.

EASY-PG Home Search About Contact Login Register

Navigation

- Dashboard
- Search PG
- My Listings
- Settings
- Logout

Admin Dashboard

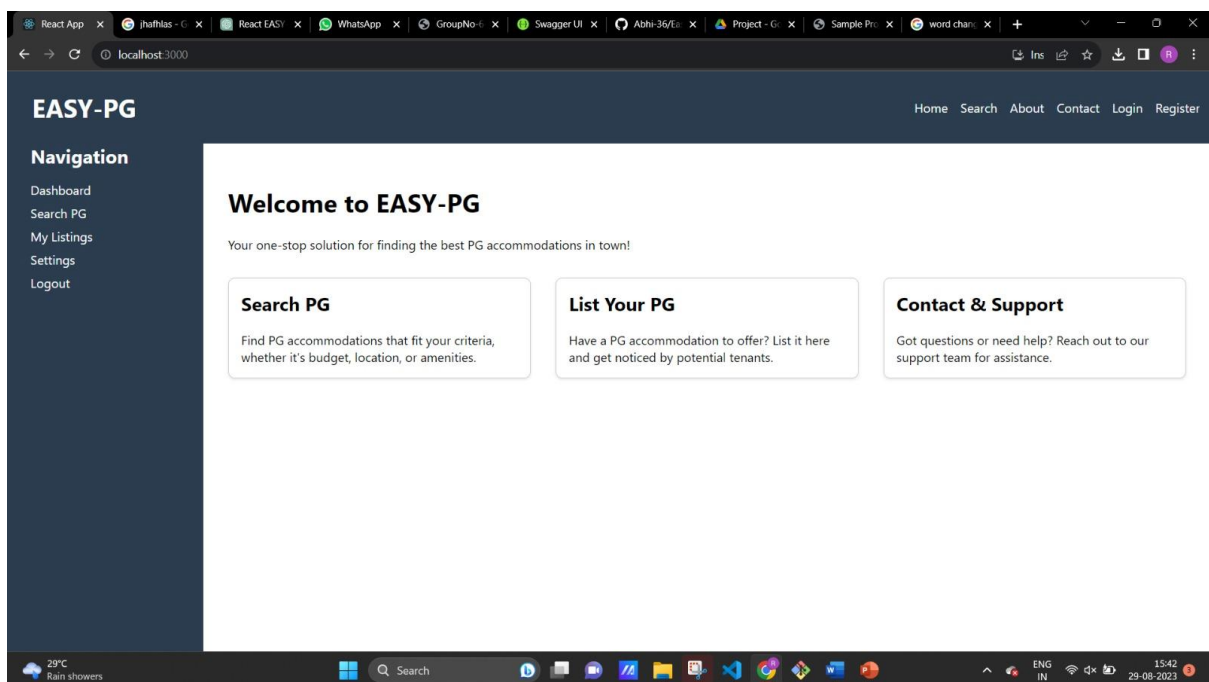
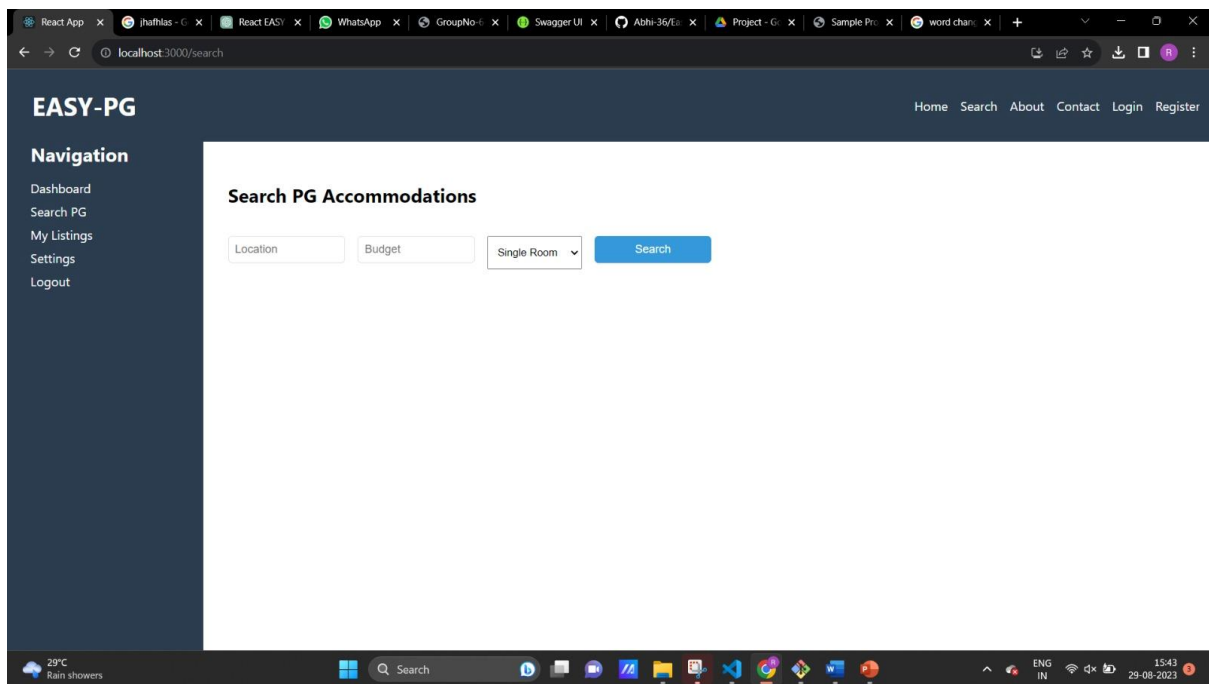
Add Admin User

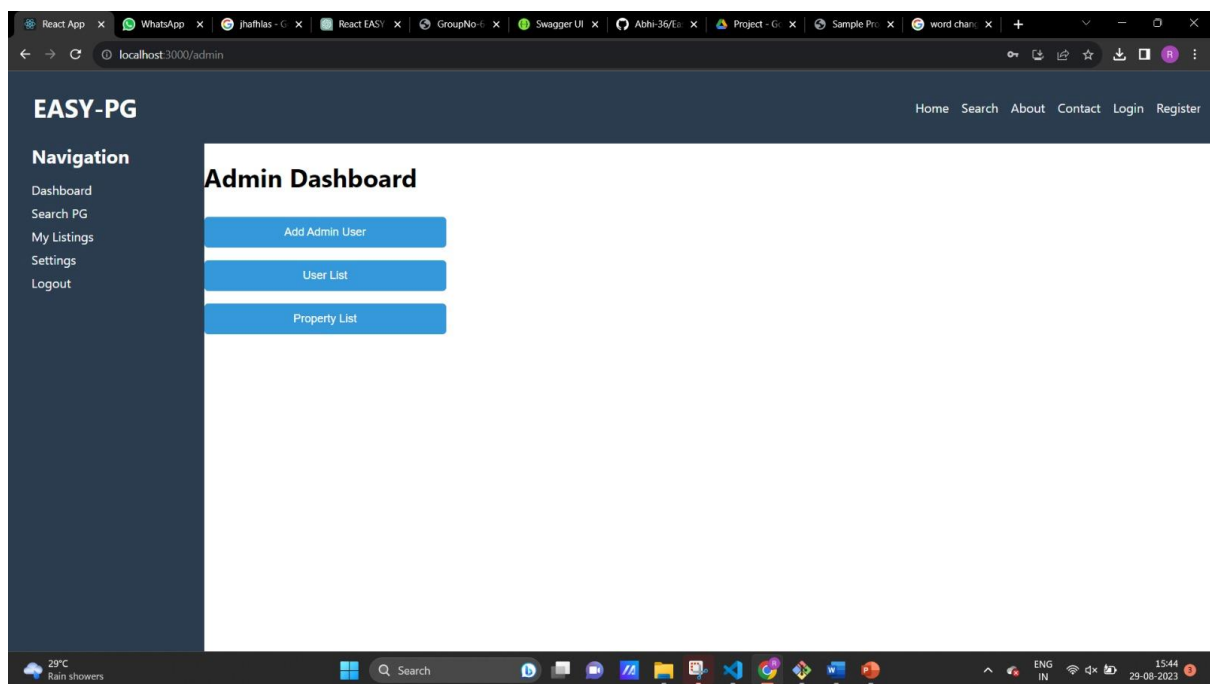
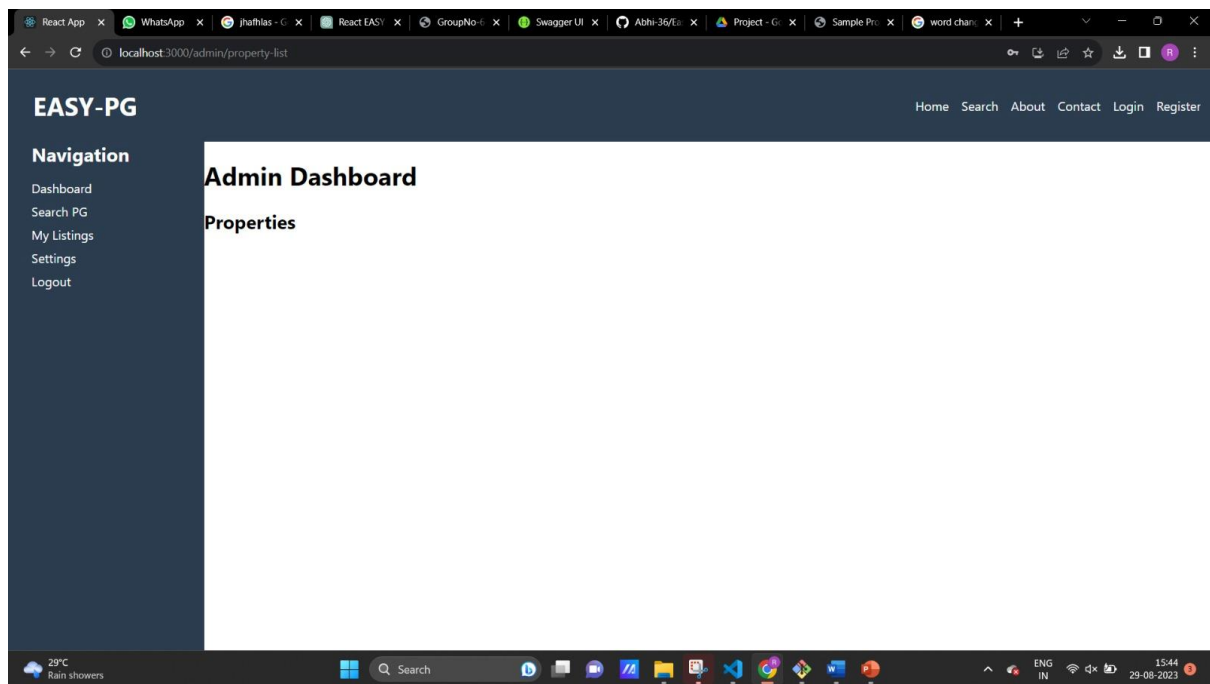
Admin Email

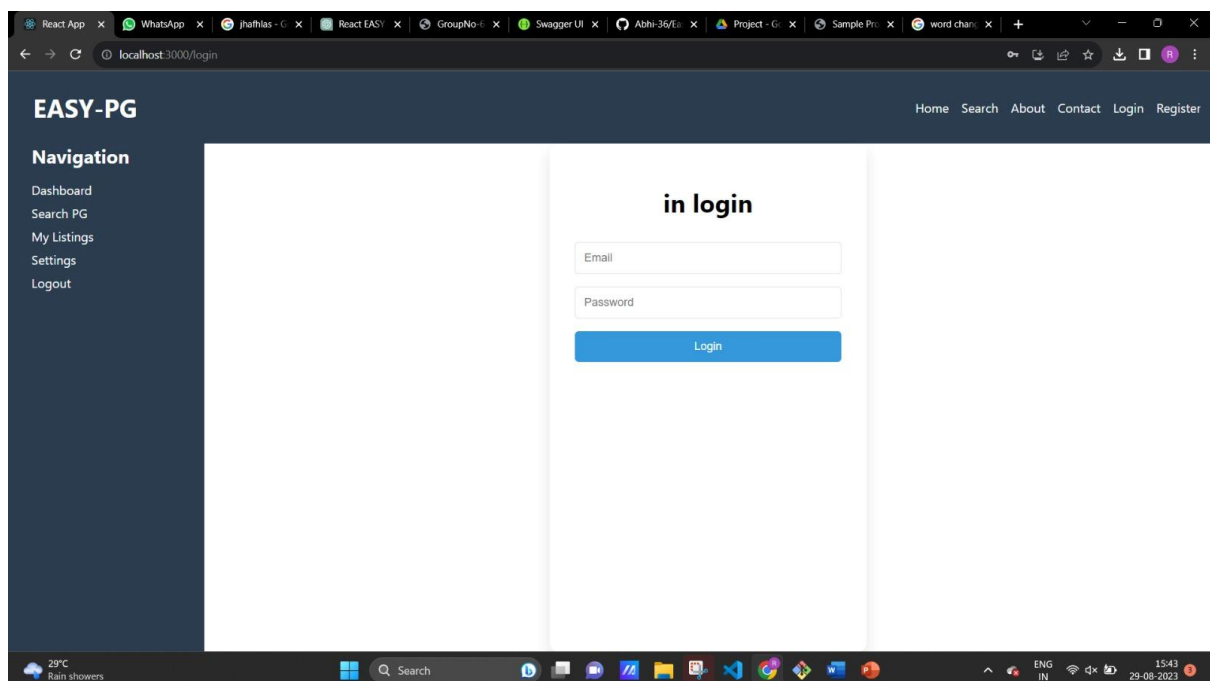
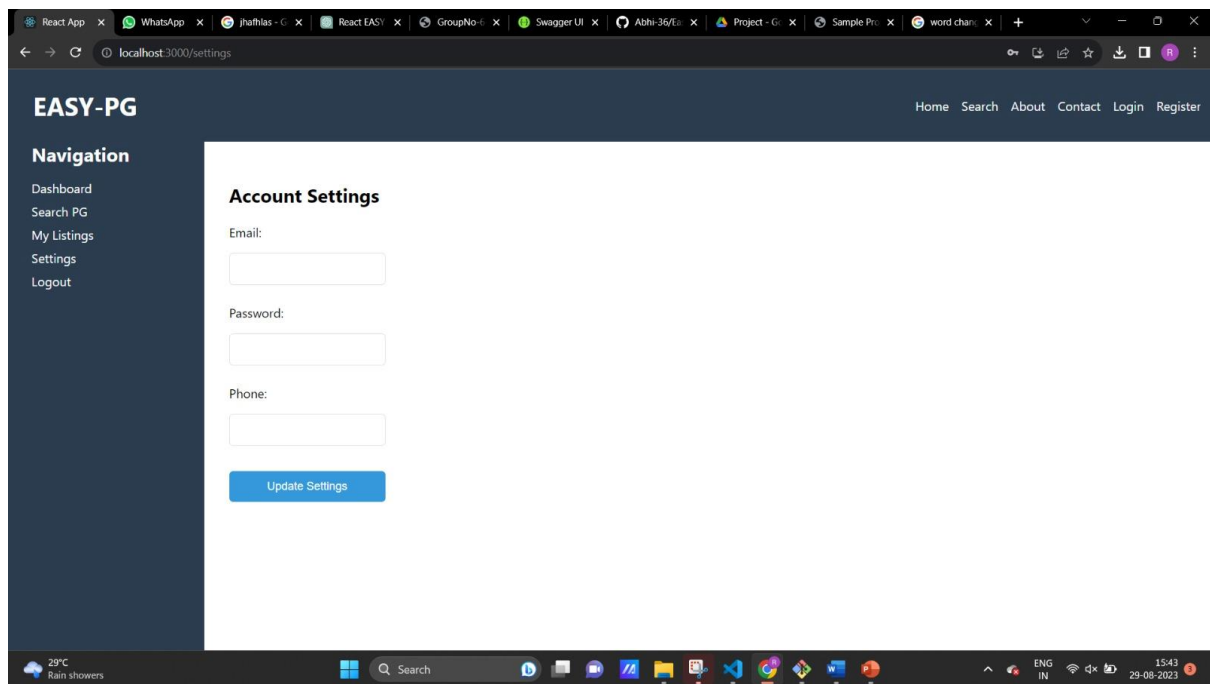
Password

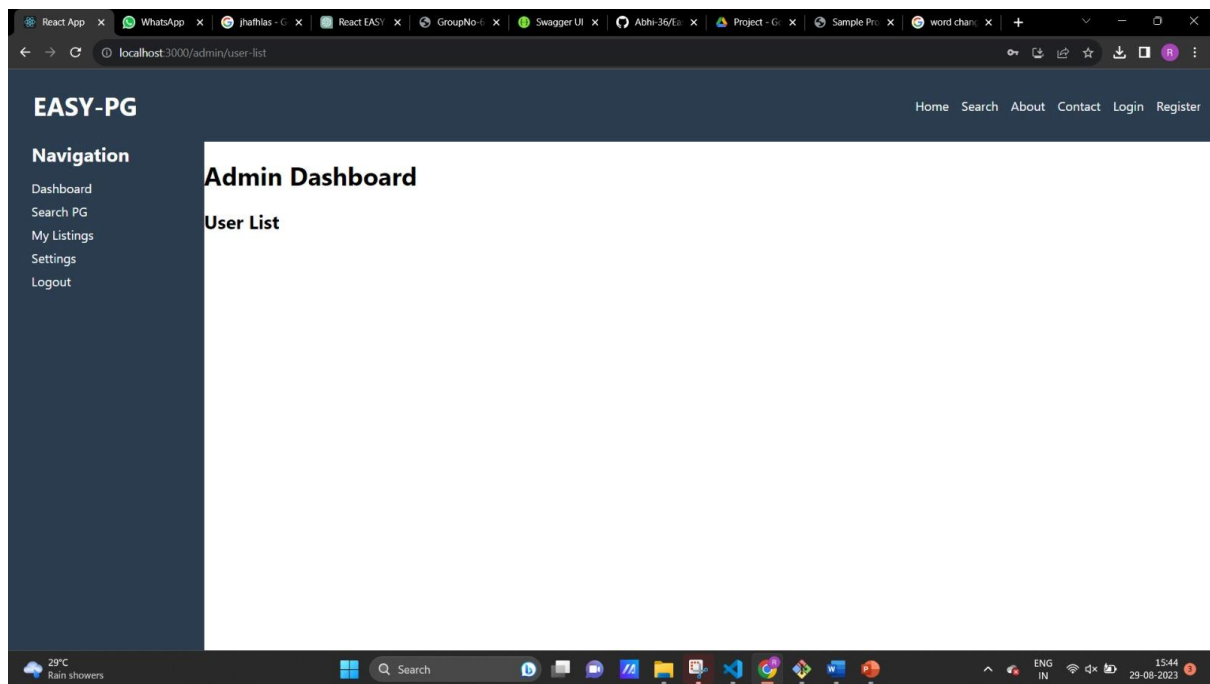
Confirm Password

Add Admin









CONCLUSION

The Easy-PG system, designed to revolutionize the PG accommodation scenario, has been successfully brought to fruition. The intricacies of finding and booking PG accommodations were meticulously analyzed to ensure the platform is both efficient and user-centric. The core objective was to bridge the gap between homeowners with available PG listings and potential tenants seeking suitable accommodations.

Throughout the development of this project, we amassed significant hands-on experience and theoretical insights into numerous facets, such as crafting responsive web interfaces with React.js, understanding the mechanics of database management through MySQL, and ensuring optimum security measures. This project gave us a profound understanding of the software development lifecycle, right from ideation to the deployment stage. Crucially, the iterative testing process helped us ensure the robustness and reliability of Easy-PG.

Having created a comprehensive platform tailored for the PG accommodation market, we take immense pride in our endeavor. The scalability and flexibility of Easy-PG ensure that it's adaptable to various locales and can cater to diverse user preferences.

While we have achieved significant milestones, the journey doesn't end here. The potential for enhancements in Easy-PG is vast. Future iterations could introduce features like an AI-driven roommate matching system, advanced filters based on tenant preferences, or even a community forum for residents. Time constraints were the only limiting factor preventing the incorporation of these additional features in the current release.

In retrospect, the Easy-PG project not only served as a valuable learning experience but also laid the foundation for a platform that could redefine PG accommodations for countless individuals.

REFERENCES

- [1] JavaScript Enlightenment, Cody Lindley-First Edition, based on JavaScript 1.5, ECMA-262, Edition
- [2] Mc Graw Hill's, Java: The complete reference 7th Edition, Herbert Schildt
- [3] Complete CSS Guide, Maxine Sherrin and John Allsopp-O'Reilly Media; September 2012 ONLINE REFERENCE [1] www.w3school.com [2] www.javatpoint.com

ONLINE REFERENCE

- [1] www.Google.com
- [2] www.w3school.com
- [3] www.javatpoint.com
- [4] www.stackoverflow.com
- [5] www.reactbootstrap.com
- [6] www.doc.spring.io/spring-framework.com
- [7] www.geekforgeeks.com
- [8] www.microsoftdoc.com [9] www.geeksforpratice.com