

Astric Centre of Excellence

Patna, Bihar - 800 014

Documentation On

“Book My PG”
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Project Guide

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Our heartfelt thanks go to Mr.Hriday Verma, our Centre Co-ordinator, C-DAC who gave all the required support and kind co-ordination to provide all the necessities to complete the project and throughout the course up to the last day here in Astric Patna.

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1.Introduction

The "Paying Guest Booking System" has been developed to override the problems prevailing in the practicing manual system. This software is supported to eliminate and, in some cases, reduce the hardships faced by this existing system. Moreover, this system is designed to carry out operations in a smooth and effective manner. No formal knowledge is needed for the user to use this system. Thus, by this all it proves it is user-friendly. Paying Guest Booking System can lead to error free, secure, reliable, and fast management system.

This is a basic system that will keep record of housing properties available on rent and will work as connecting bridge between customer and property authorities.

Due to this system, there is no need to visit various places in search of desired property. The information of various properties in various locations can be accessible at one place.

This system will provide a platform for housing properties on rent. This will keep record of PG Houses and their rooms available for rent with their rates and other details and make this information available for customers. Also, will keep record of contact information of customers and will send necessary notices and/or reminders to customer.

2.Project Overview

2.1 Scope

This system is highly flexible, and it is well efficient to make interaction between customers and admin. The key focus of the system is to get room on rent in easy way. The speed and accuracy will be maintained in a proper way.

The PG-Booking System maintains all the property information online. It provides information to one and all who visit the site but to upload a PG for rent and to send a request to rent a desire PG only can be made who register with the site.

2.2 Aims & Objectives

Specific goals are: -

- Time Effective and Cost Effective -PG Booking System available to anybody and anywhere. This saves a lot of time of user and owner
- Mobility-Internet is available to everybody anywhere anytime here, this makes the system highly mobile
- Informative-This system shows all the necessary details about the concerned property therefore is informative
- Wide Approach –any person can visit it. User can search property and admin post any property with photo. Therefore, it has a wide Approach.
- Flexible

The main objective of the Project on Paying Guest Booking System is to manage the details of Paying Guest, Booking, Room, Customer, Payment. The purpose of the project is to build an application program to reduce the manual work for managing the system details. It tracks all the details about the Room, Customer, Payment.

2.3 Functionalities provided by PG Booking System follows:

- Provides the searching facilities based on various factors. Such as Paying Guest, Room, Customer, Payment
- Paying Guest Booking System also manage the Booking Receipt details online for Customer details, Payment details, Paying Guest.
- It tracks all the information of Booking, Booking Receipt, Customer etc.
- Manage the information of Booking, Paying Guest, Customer
- It deals with monitoring the information and transactions of Customer.

- Editing, adding and updating of Records is improved which results in proper resource management of Paying Guest data.
- Integration of all records of Payment

2.4 Module of Paying Guest Booking System

- Paying Guest Management Module: Used for managing the Paying Guest details
- Payment Module: Used for managing the details of Payment
- Booking Receipt Module: Used for managing the details of Booking Receipt
- Booking Management Module: Used for managing the information and details of the Booking.
- Room Module: Used for managing the Room details
- Customer Module: Used for managing the Customer information
- Login Module: Used for managing the login details

2.5 Feasibility

- A feasibility study is an analysis that takes all of a project's relevant factors into account—including economic, technical, and scheduling considerations—to ascertain the likelihood of completing the project successfully.

- A feasibility study is simply an assessment of the practicality of a proposed plan or project.
- The following feasibility studies were conducted to make sure that our software is feasible.

2.5.1 Operational feasibility

As per this study, we concluded that the system is user-friendly and easy to maintain. The project offers a great deal of user experience and convenience to the target group.

2.5.2 Economical feasibility

As per this study, we concluded that the technology stack we are using in our project is open-sourced, freely available, and well-maintained by the community. This reduces the cost of the system as well as development cost, without compromising the quality of the product. This system was found to be ergonomic to the target customer base.

2.5.3 Technical feasibility

As per this study, we found that our choice of technology stack was conducive enough to bring the project to fruition. Irrespective of the system in which our backend ran, the results were as expected, and platform dependency was not found. The system catered to the requirement of the end-user.

3. Project Description

3.1 Operating Environment

Server Side:

Processor: Dual Core or above

HDD: Minimum 500GB Disk Space

RAM: Minimum 4GB

OS: Windows, Linux

Database: MySQL

Client Side:

Processor: Intel Dual Core

HDD: Minimum 80GB Disk Space

RAM: Minimum 1GB

OS: Windows 7, Linux

3.2 Technology Used

Backend:

Category	Technology name
Framework	Spring Boot
ORM Tool	Hibernate
Database	MySQL
Build Tool	Maven
Language	Java

Frontend:

Category	Technology name
Framework	React Js
Language	Html, css, js

3.3 Characteristics

Admin:

- Admin can login to the system
- View the list of all Users
- Publish PG
- Delete PG
- View the list of all the PGs and rooms

User:

- User can login/register to the system
- Search PG
- Rent Room In PG
- Get Booking Details
- cancel Booking

4.Benefits of PG Booking System

- This online PG Booking System is fully functional and flexible.
- It is very easy to use.
- This online PG Booking System helps in administration by streamlining and standardizing the procedures.
- It saves a lot of time, money.
- The PG Booking System and the overall business becomes easy and includes the least of paperwork.
- The application acts as an office that is open 24/7.
- It increases the efficiency of the management at offering quality services to the customers. It provides custom features development and support with the application

5. Diagrams

5.1 Data Flow Diagram

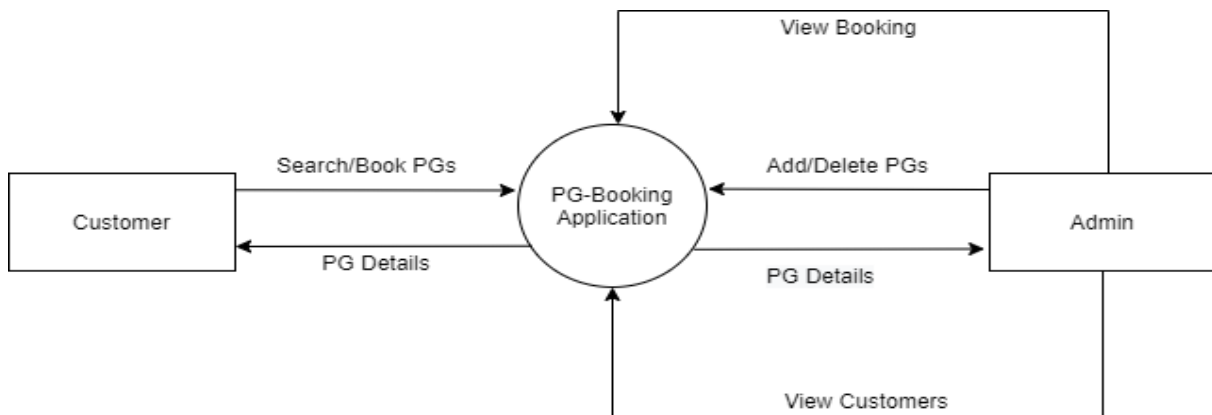


Fig1.1-level0 Data Flow Diagram

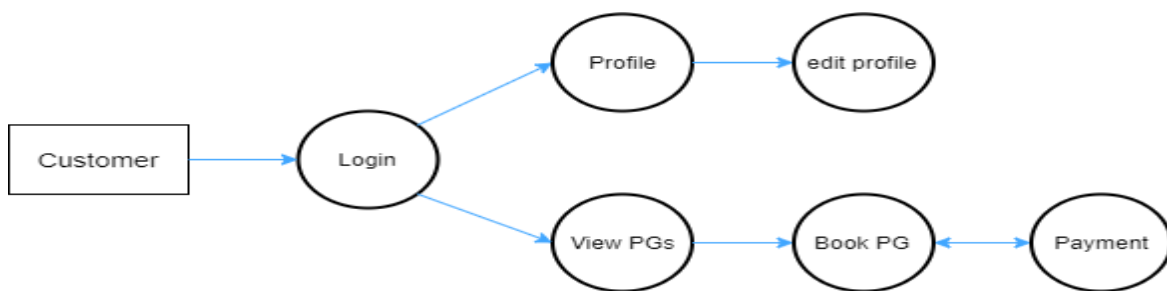


Fig1.2-level1 Data Flow Diagram (Customer)

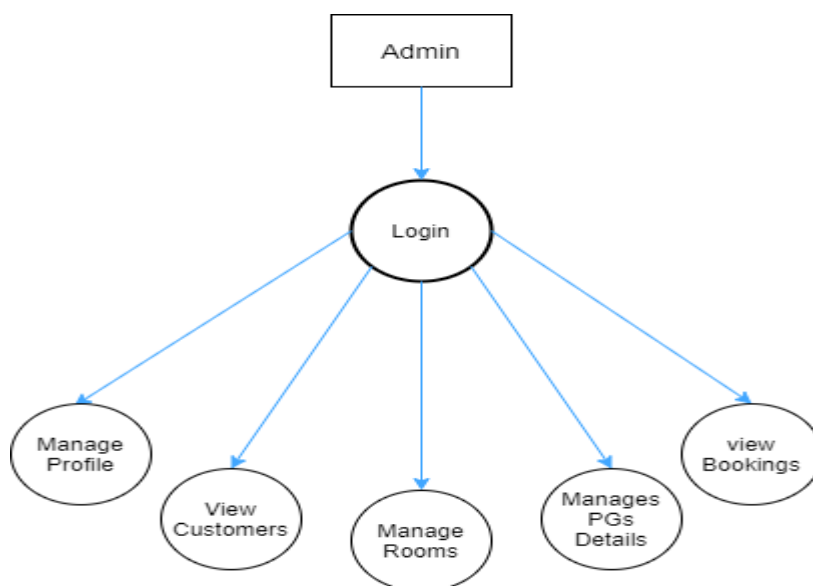


Fig1.3-level-0Data Flow Diagram (Admin)

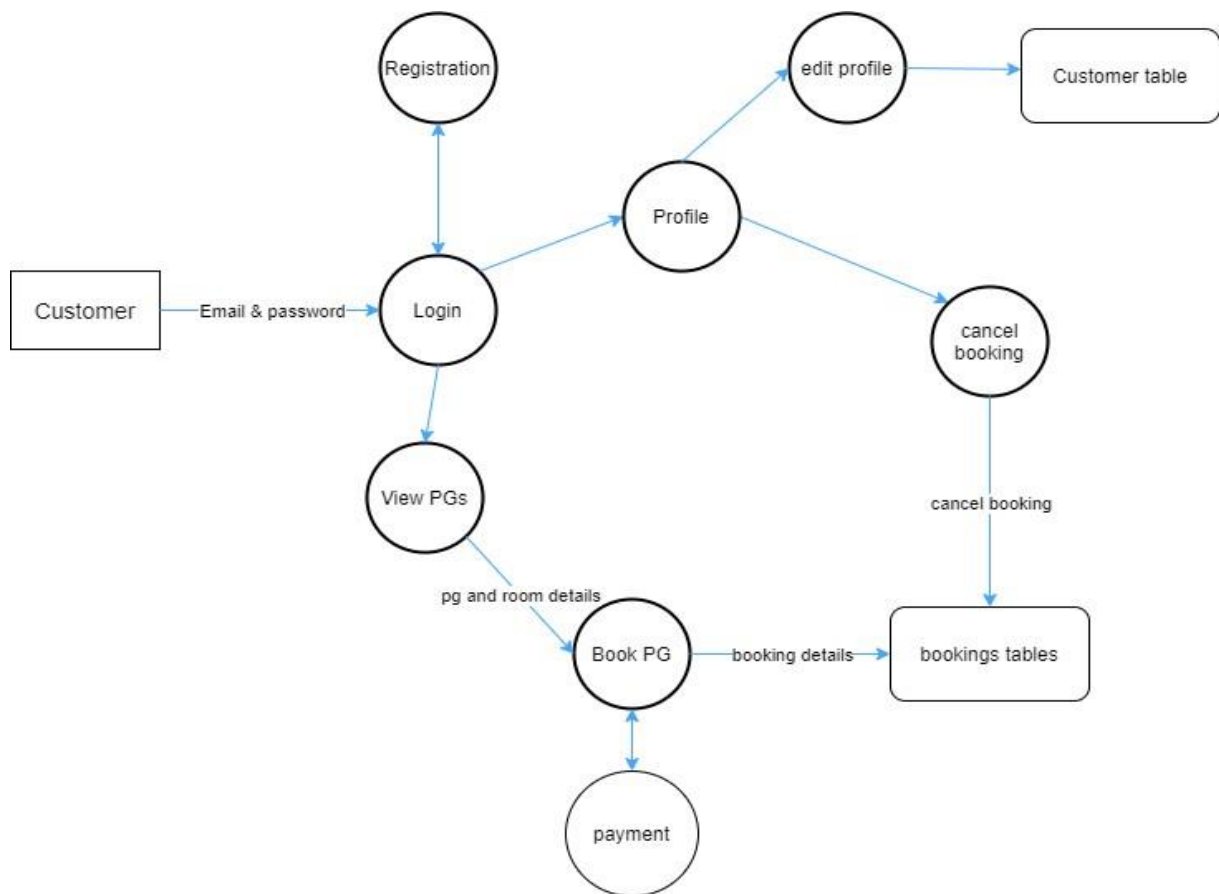


Fig1.4-level-2 Data Flow Diagram (Customer)

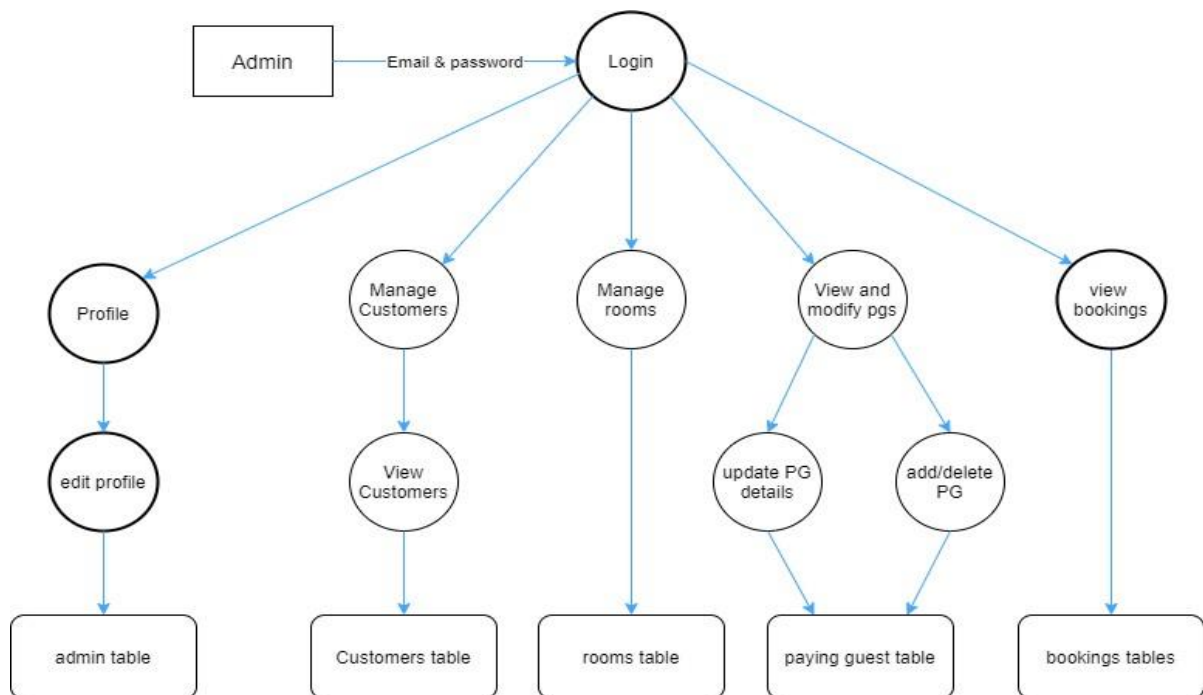


Fig1.5-level-2 Data Flow Diagram (Admin)

5.2 Use Case Diagram

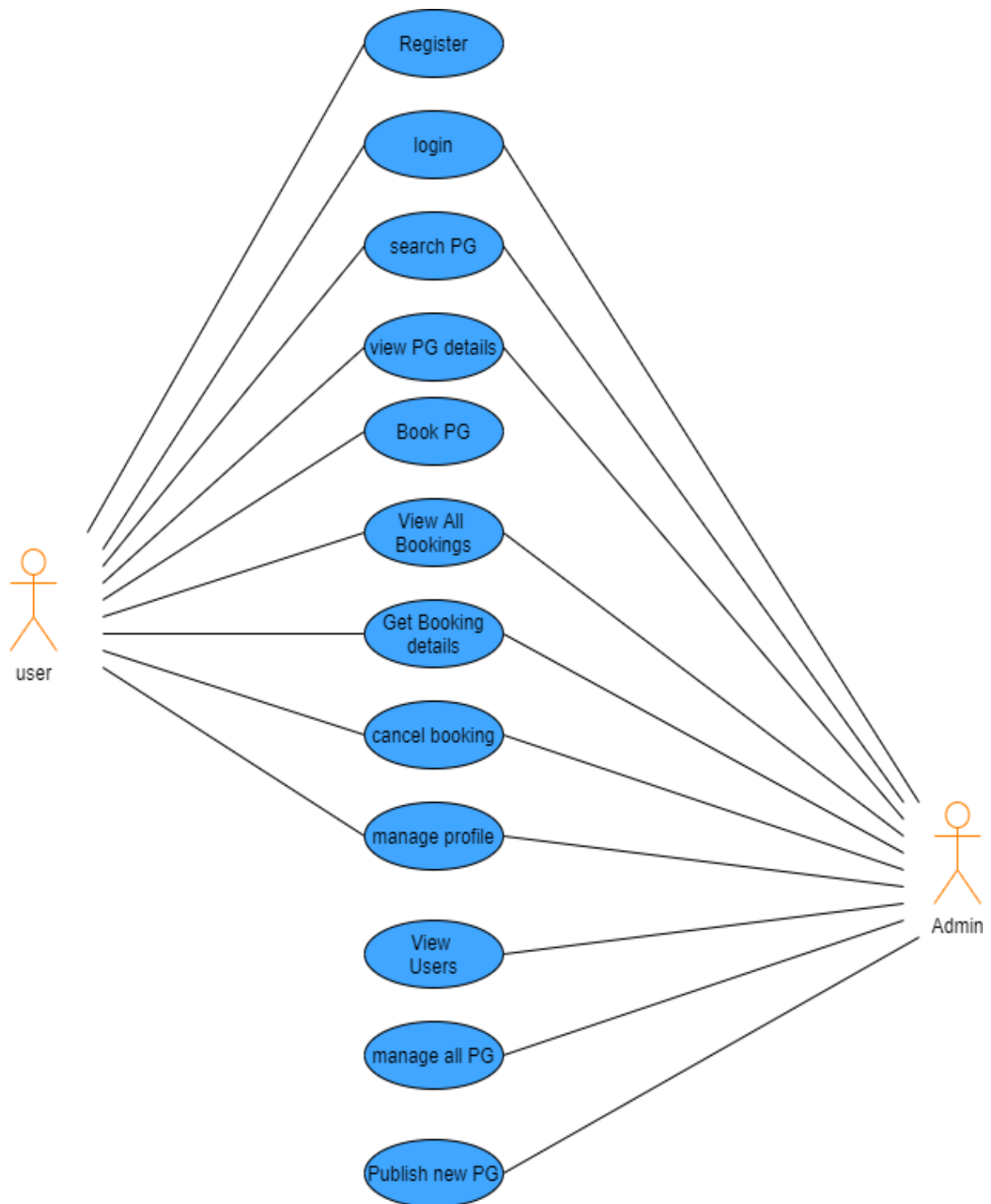


Fig2-Use case Diagram

5.3 Entity relationship Diagram

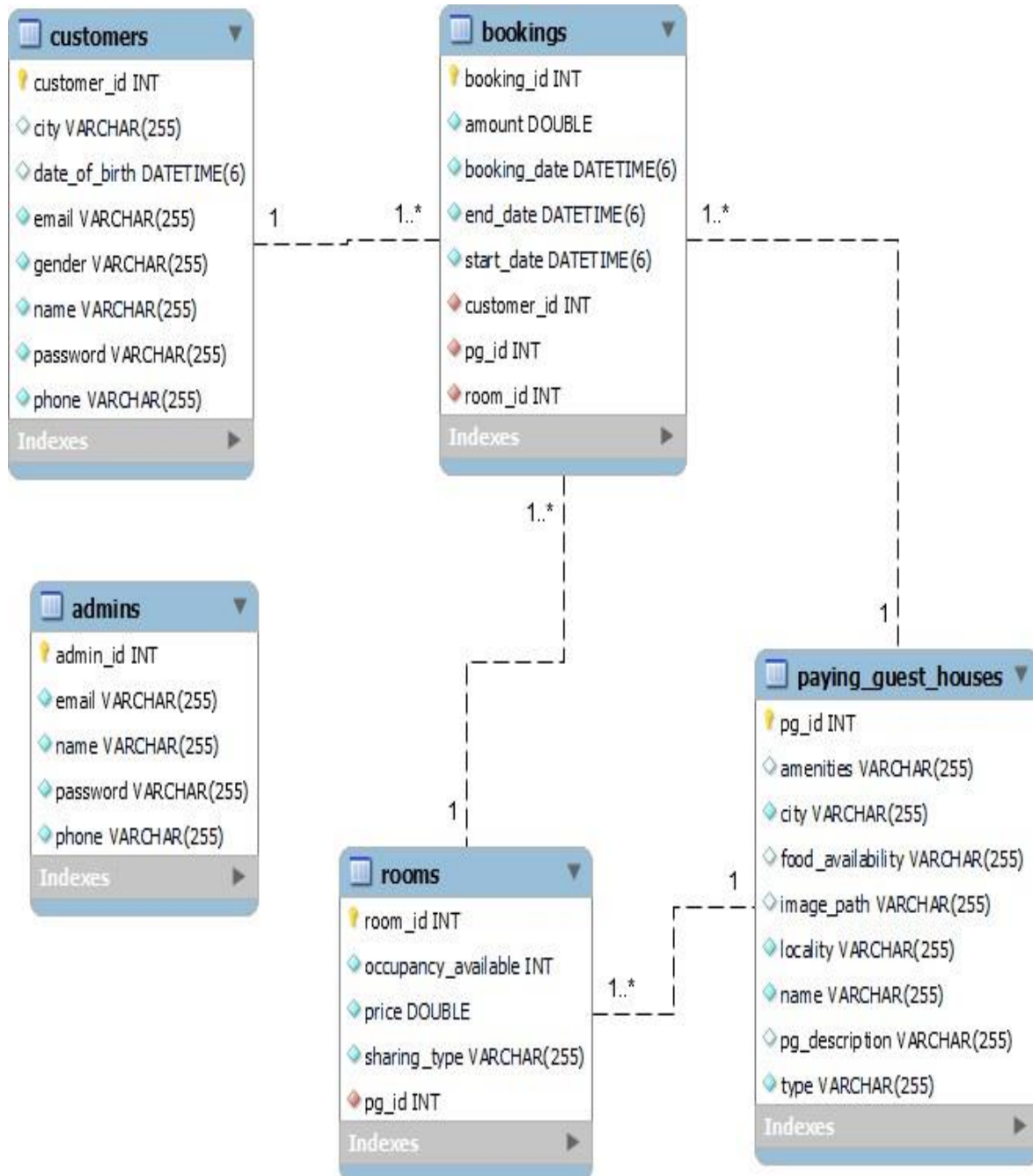


Fig3-ER Diagram

5.4 Class Diagram

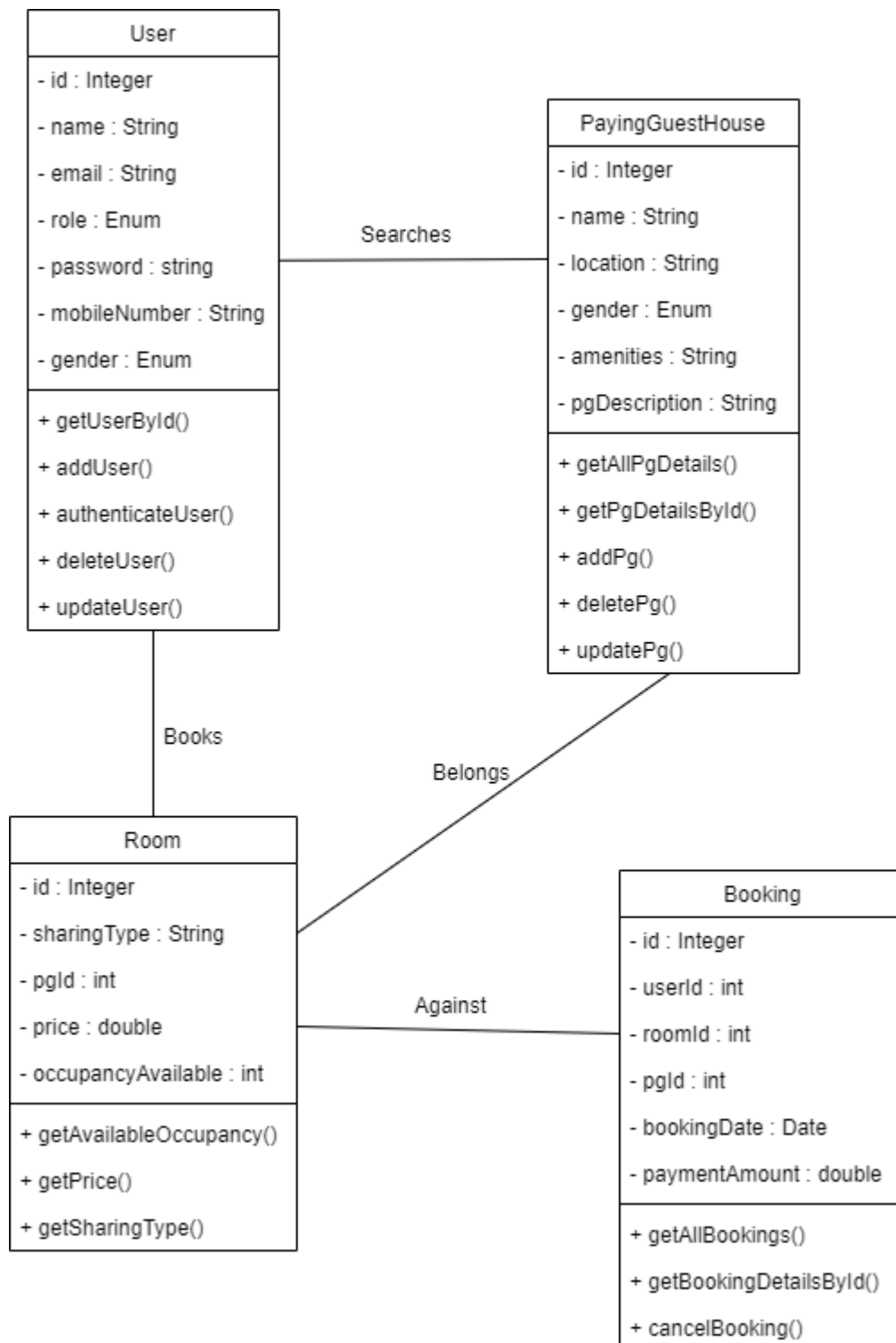


Fig4-Class Diagram

6. Table Structure

Admin Table:

```
mysql> desc admins;
```

Field	Type	Null	Key	Default	Extra
admin_id	int	NO	PRI	NULL	auto_increment
email	varchar(255)	NO		NULL	
phone	varchar(255)	NO	UNI	NULL	
name	varchar(255)	NO		NULL	
password	varchar(255)	NO		NULL	

5 rows in set (0.04 sec)

Customer Table:

```
mysql> desc customers;
```

Field	Type	Null	Key	Default	Extra
customer_id	int	NO	PRI	NULL	auto_increment
city	varchar(255)	YES		NULL	
date_of_birth	datetime(6)	YES		NULL	
email	varchar(255)	NO	UNI	NULL	
gender	varchar(255)	NO		NULL	
phone	varchar(255)	NO	UNI	NULL	
name	varchar(255)	NO		NULL	
password	varchar(255)	NO		NULL	

8 rows in set (0.00 sec)

Paying Guest Houses Table:

```
mysql> desc paying_guest_houses;
```

Field	Type	Null	Key	Default	Extra
pg_id	int	NO	PRI	NULL	auto_increment
amenities	varchar(255)	YES		NULL	
city	varchar(255)	NO		NULL	
food_availability	varchar(255)	YES		NULL	
image_path	varchar(255)	YES	UNI	NULL	
locality	varchar(255)	NO		NULL	
name	varchar(255)	NO		NULL	
pg_description	varchar(255)	YES		NULL	

8 rows in set (0.00 sec)

Rooms Table:

```
mysql> desc rooms;
```

Field	Type	Null	Key	Default	Extra
room_id	int	NO	PRI	NULL	auto_increment
occupancy_available	int	NO		NULL	
price	double	NO		NULL	
sharing_type	varchar(255)	NO		NULL	
pg_id	int	NO	MUL	NULL	

5 rows in set (0.04 sec)

Booking Table:

```
mysql> desc bookings;
```

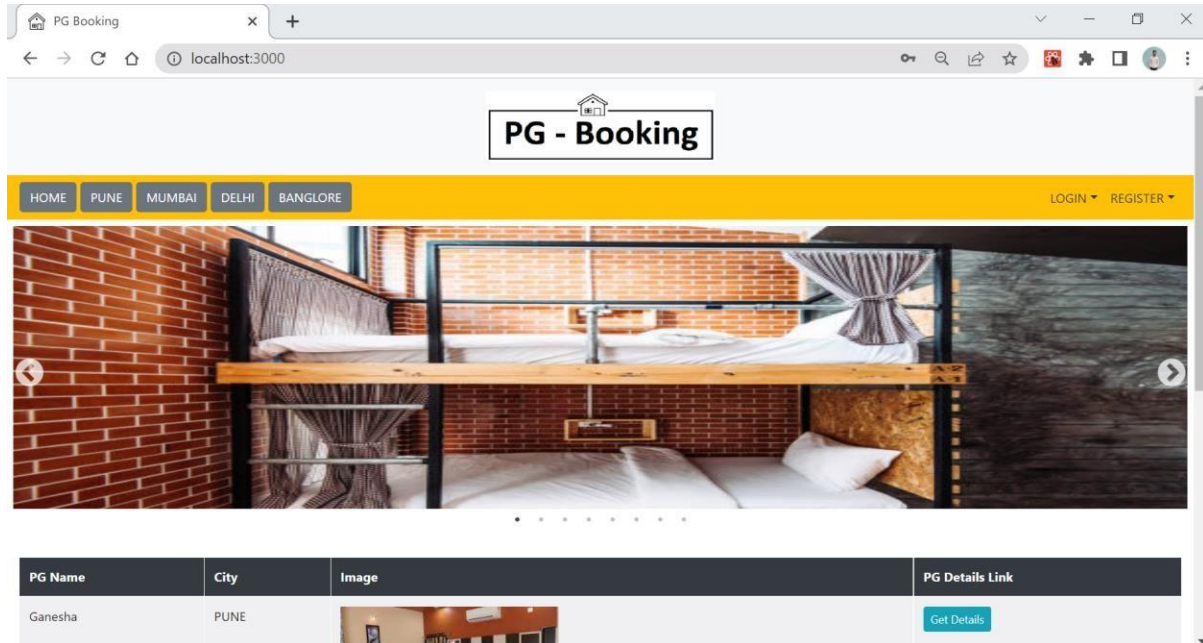
Field	Type	Null	Key	Default	Extra
booking_id	int	NO	PRI	NULL	auto_increment
amount	double	NO		NULL	
booking_date	datetime(6)	NO		NULL	
end_date	datetime(6)	NO		NULL	
start_date	datetime(6)	NO		NULL	
customer_id	int	NO	MUL	NULL	
pg_id	int	NO	MUL	NULL	
room_id	int	NO	MUL	NULL	

8 rows in set (0.04 sec)

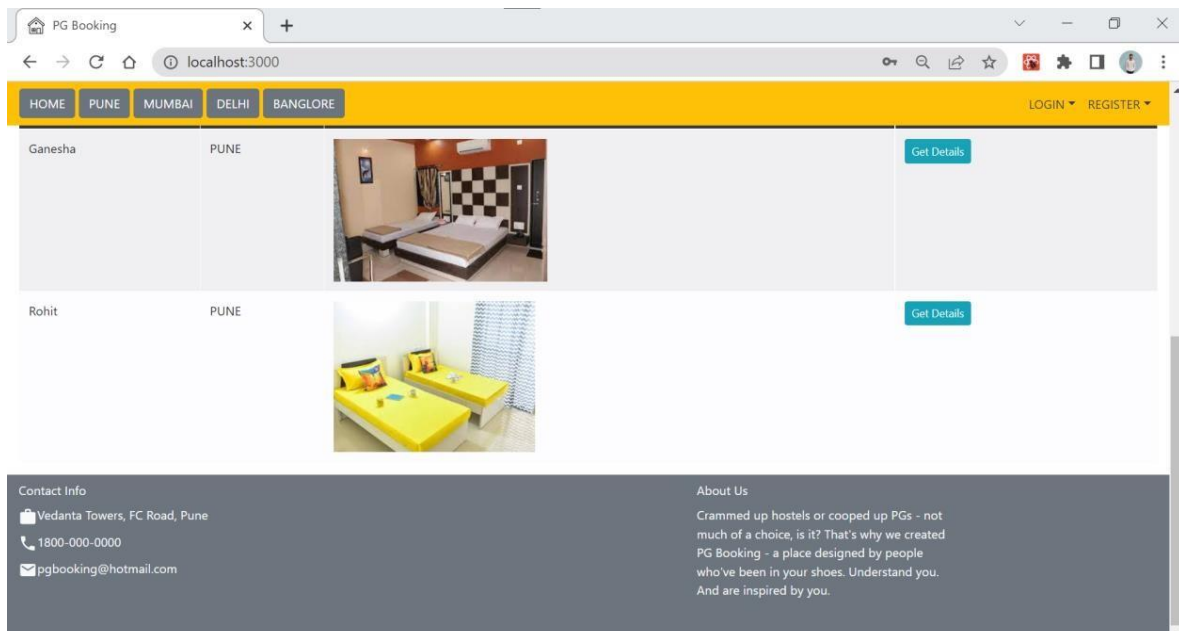
7. User Interface

Home Page

a. Header



b. Footer



Admin Login Page

Admin Login Form

Email Id

Password

Login Now


Admin home page


PG Booking

Welcome admin !

HOME PUNE MUMBAI DELHI BANGLORE

Profile Add New PG Manage PGs Customers Bookings Logout



PG Name	City	Image	PG Details Link
Ganesha	PUNE		Get Details

Admin Profile page

Email ID

admin@gmail.com

User Name

admin

Phone

3456789015

Update Profile

Add New PG

Add New PG

PG Name	<input type="text"/>
City	<input type="text" value="Select City"/>
Locality	<input type="text"/>
Amenities Provided In PG	<input type="text"/>
PG Description	<input type="text"/>
Is Food Available In PG?	<input type="text" value="Select"/>
No of Single Sharing Rooms	<input type="text"/>
Single Sharing Price	<input type="text"/>
No of Double Sharing Rooms	<input type="text"/>
Double Sharing Price	<input type="text"/>
No of Triple Sharing Rooms	<input type="text"/>
Triple Sharing Price	<input type="text"/>
Image	<input type="button" value="Choose file"/> No file chosen

Add PG

Manage all PGs

PG Booking

+

localhost:3000/manageallpgs

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HOME

PUNE

MUMBAI

DELHI

BANGLORE

Profile




Add New PG

Manage PGs

Customers

Bookings

Logout

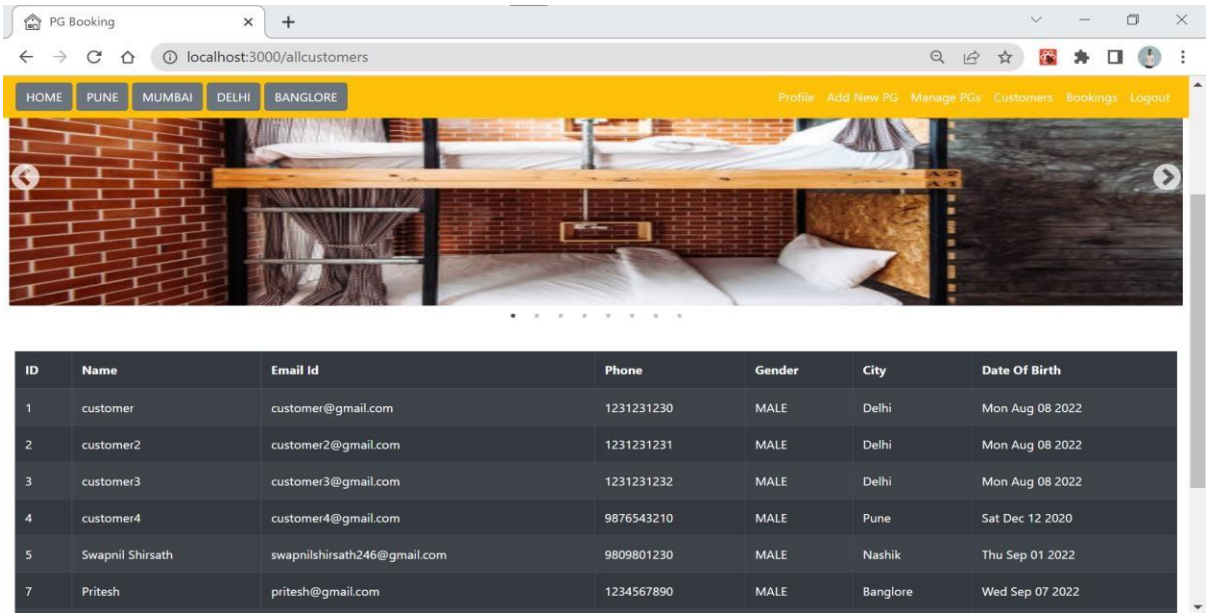
PG ID	PG Name	City	Locality	Image	Edit Details	Delete Details
1	Jeevan	BANGLORE	Hadapsar		<div>Edit PG Details</div>	<div>Delete PG</div>
8	Ganesha	PUNE	Aundh		<div>Edit PG Details</div>	<div>Delete PG</div>
9	Reddy	DELHI	Noida		<div>Edit PG Details</div>	<div>Delete PG</div>

Edit PG Details

Edit PG Details	
PG Name	<input type="text" value="Jeevan"/>
City	<input type="text" value="BANGLORE"/>
Locality	<input type="text" value="Hadapsar"/>
Amenities Provided In PG	<input type="text" value="all"/>
PG Description	<input type="text" value="fully furnished, new construction"/>
Is Food Available In PG?	<input type="text" value="YES"/>
No of Single Sharing Rooms	<input type="text" value="1"/>
Update Single Sharing Price	<input type="text" value="6000"/>
No of Double Sharing Rooms	<input type="text" value="1"/>
Update Double Sharing Price	<input type="text" value="5000"/>
No of Triple Sharing Rooms	<input type="text" value="1"/>
Update Triple Sharing Price	<input type="text" value="4500"/>
<input type="button" value="Update PG Details"/>	

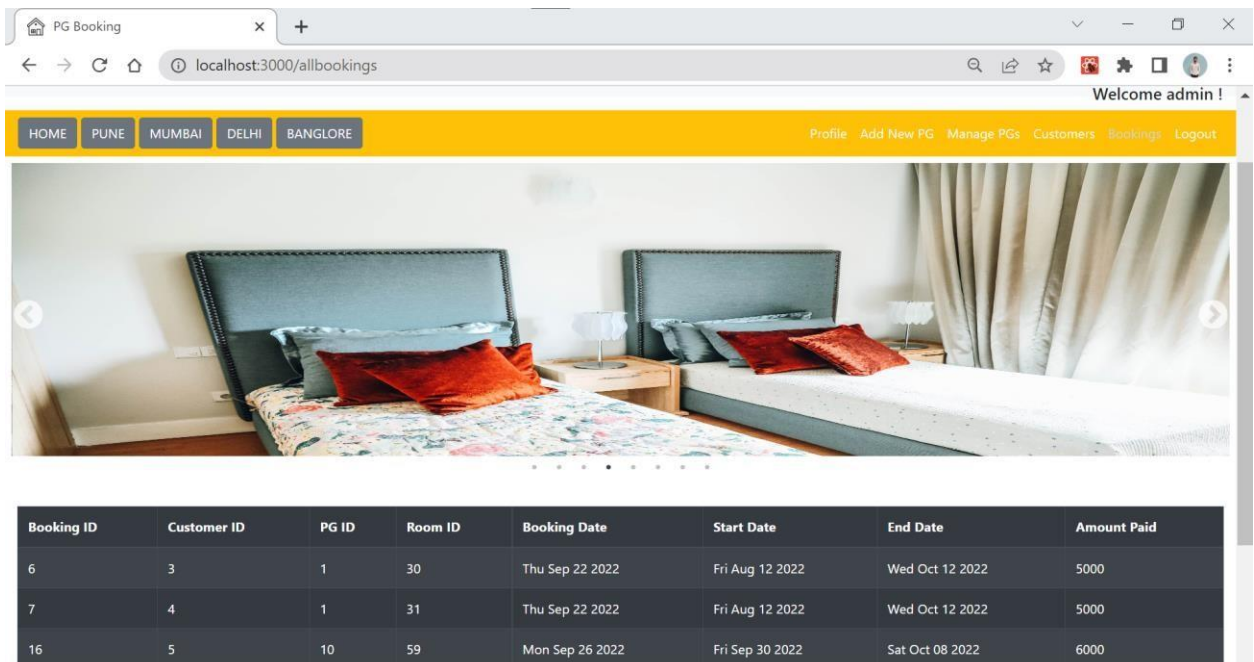
Get All Customers

ID	Name	Email Id	Phone	Gender	City	Date Of Birth
1	customer	customer@gmail.com	1231231230	MALE	Delhi	Mon Aug 08 2022
2	customer2	customer2@gmail.com	1231231231	MALE	Delhi	Mon Aug 08 2022
3	customer3	customer3@gmail.com	1231231232	MALE	Delhi	Mon Aug 08 2022
4	customer4	customer4@gmail.com	9876543210	MALE	Pune	Sat Dec 12 2020
5	Swapnil Shirsath	swapnilshirsath246@gmail.com	9809801230	MALE	Nashik	Thu Sep 01 2022
7	Pritesh	pritesha@gmail.com	1234567890	MALE	Bangalore	Wed Sep 07 2022
8	Rohit	rohit@gmail.com	8888888888	MALE	satara	Thu Sep 29 2022



ID	Name	Email Id	Phone	Gender	City	Date Of Birth
1	customer	customer@gmail.com	1231231230	MALE	Delhi	Mon Aug 08 2022
2	customer2	customer2@gmail.com	1231231231	MALE	Delhi	Mon Aug 08 2022
3	customer3	customer3@gmail.com	1231231232	MALE	Delhi	Mon Aug 08 2022
4	customer4	customer4@gmail.com	9876543210	MALE	Pune	Sat Dec 12 2020
5	Swapnil Shirsath	swapnilshirsath246@gmail.com	9809801230	MALE	Nashik	Thu Sep 01 2022
7	Pritesh	pritesha@gmail.com	1234567890	MALE	Bangalore	Wed Sep 07 2022

All Bookings



Booking ID	Customer ID	PG ID	Room ID	Booking Date	Start Date	End Date	Amount Paid
6	3	1	30	Thu Sep 22 2022	Fri Aug 12 2022	Wed Oct 12 2022	5000
7	4	1	31	Thu Sep 22 2022	Fri Aug 12 2022	Wed Oct 12 2022	5000
16	5	10	59	Mon Sep 26 2022	Fri Sep 30 2022	Sat Oct 08 2022	6000

Booking ID	Customer ID	PG ID	Room ID	Booking Date	Start Date	End Date	Amount Paid
6	3	1	30	Thu Sep 22 2022	Fri Aug 12 2022	Wed Oct 12 2022	5000
7	4	1	31	Thu Sep 22 2022	Fri Aug 12 2022	Wed Oct 12 2022	5000
16	5	10	59	Mon Sep 26 2022	Fri Sep 30 2022	Sat Oct 08 2022	6000

Get PG Details

PG Name	City	Locality	Amenities	PG Description	Is Food Available	Image	Price(per Month)	Action
Reddy	DELHI	Noida	Good food, wifi, cleaning, parking	New Construction, homely food, nice environment	YES		Single Sharing : ₹7000 Double Sharing : ₹6000 Triple Sharing : ₹5000	Book Now

Login Prompt When Customer is not logged in and tries to book PG

PG Name	City	Locality	Amenities	PG Description	Is Food Available	Image	Price(per Month)	Action
Reddy	DELHI	Noida	Good food, wifi, cleaning, parking	New Construction, homely food, nice environment	YES		Single Sharing : ₹7000 Double Sharing : ₹6000 Triple Sharing : ₹5000	Book Now

Customer Login Page

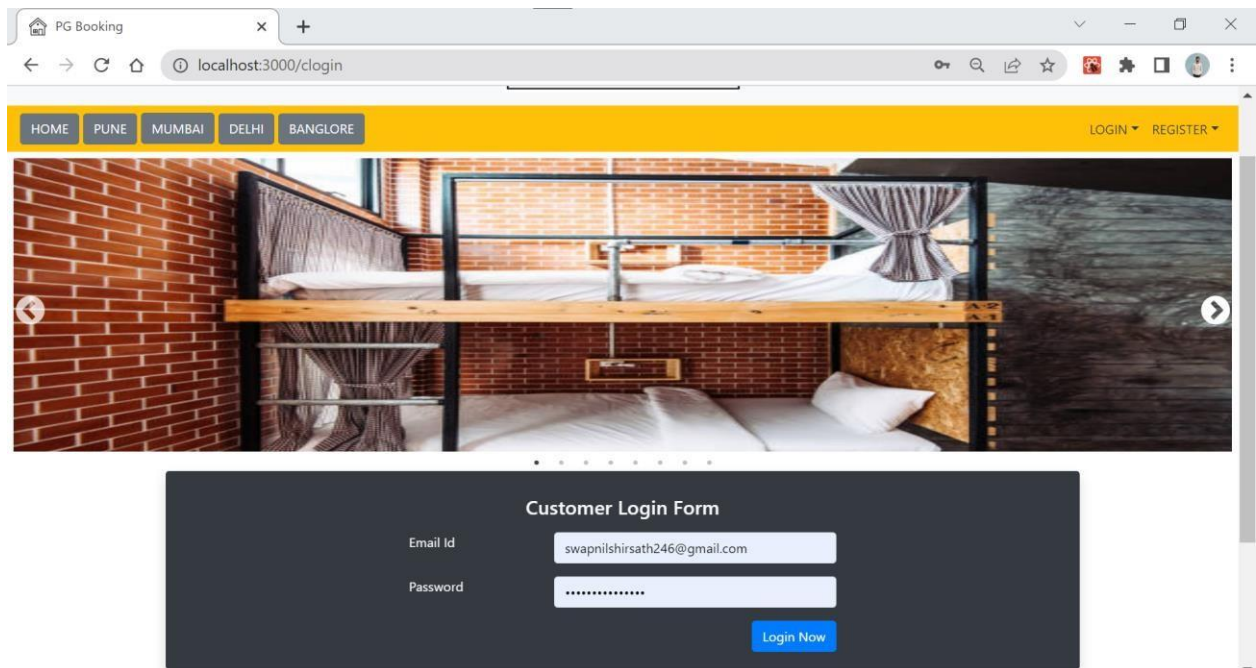
Customer Login Form

Email Id

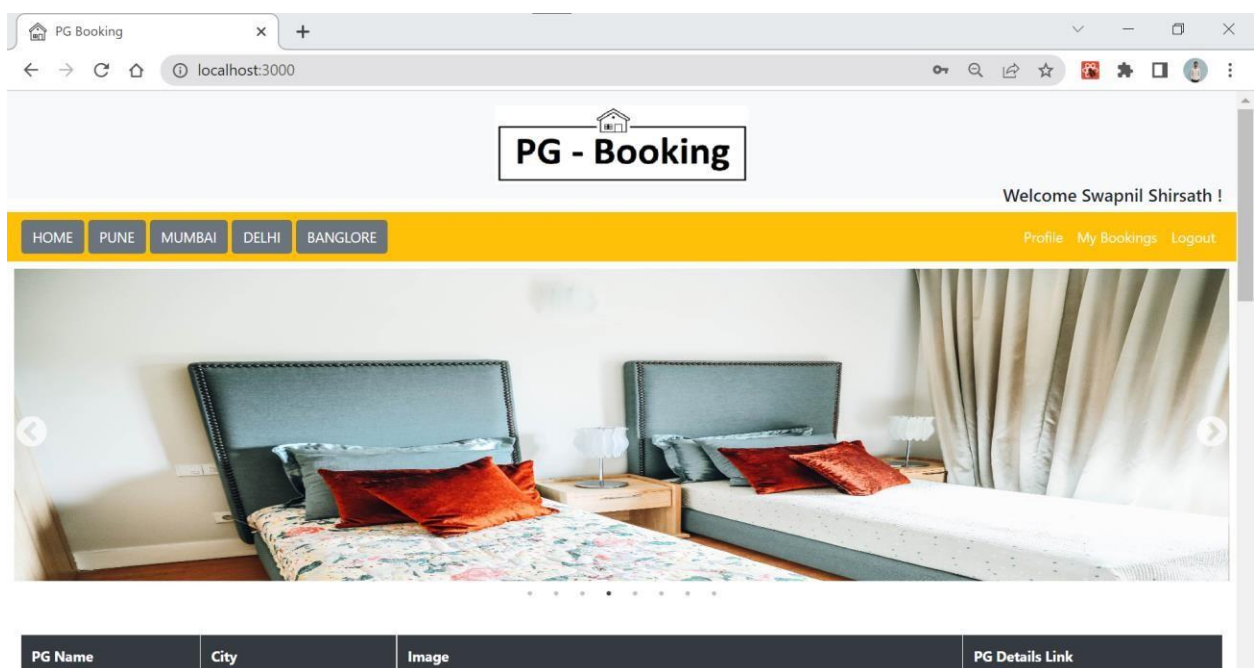
swapnilshirsath246@gmail.com

Password

Login Now



Customer Home Page

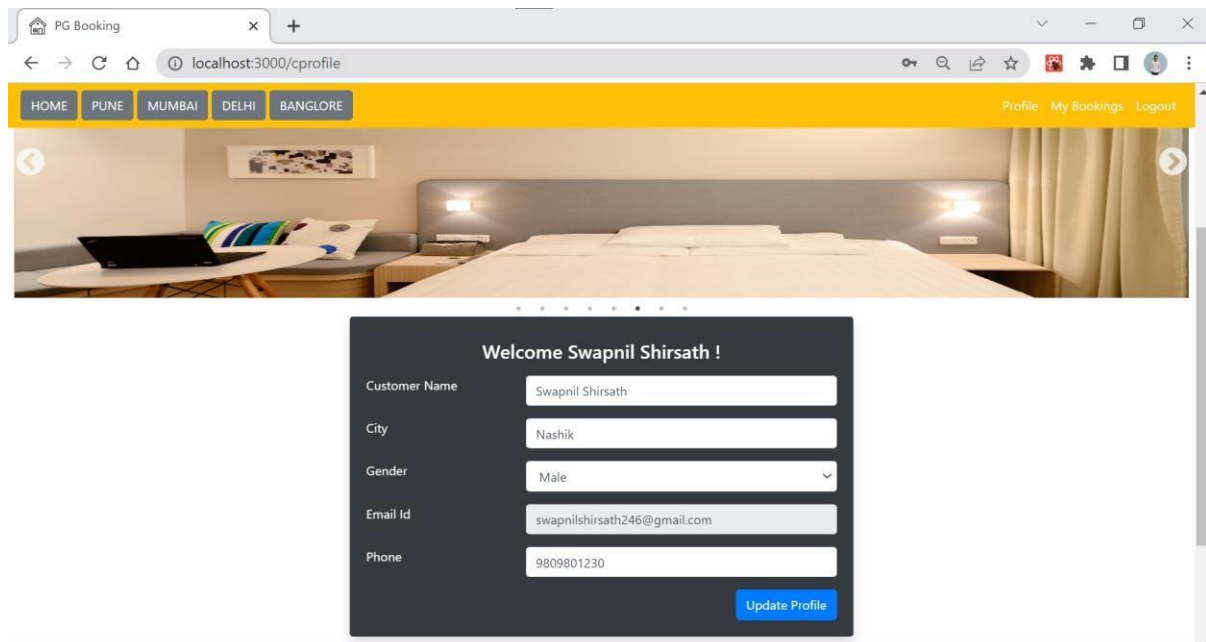


Customer Profile Page

Welcome Swapnil Shirsath !

Customer Name	<input type="text" value="Swapnil Shirsath"/>
City	<input type="text" value="Nashik"/>
Gender	<input type="text" value="Male"/> ▾
Email Id	<input type="text" value="swapnilshirsath246@gmail.com"/>
Phone	<input type="text" value="9809801230"/>

Update Profile




Customer's All Bookings

PG Booking x +

localhost:3000/mybookings

Welcome Swapnil Shirsath !




HOME PUNE MUMBAI DELHI BANGLORE Profile My Bookings Logout




Customer Name	Customer ID	Email	Booking ID	PG ID	Room ID	Booking Date	Start Date	End Date	Amount Paid	Actions
Swapnil Shirsath	5	swapnilshirsath246@gmail.com	16	10	59	2022-09-26	2022-09-30	2022-10-08	6000	Get PG Details Cancel Booking

Customer Name	Customer ID	Email	Booking ID	PG ID	Room ID	Booking Date	Start Date	End Date	Amount Paid	Actions
Swapnil Shirsath	5	swapnilshirsath246@gmail.com	16	10	59	2022-09-26	2022-09-30	2022-10-08	6000	Get PG Details Cancel Booking

Booking Flow

PG Name	City	Image	PG Details Link
Jeevan	BANGLORE		Get Details
Ganesha	PUNE		Get Details
Reddy	DELHI		Get Details

PG Name	City	Locality	Amenities	PG Description	Is Food Available	Image	Price(per Month)	Action
Jeevan	BANGLORE	Hadapsar	all	fully furnished, new construction	YES		Single Sharing : ₹6000 Double Sharing : ₹5000 Triple Sharing : ₹4500	Book Now


Booking Page

PG Booking

localhost:3000/booknewroom

HOME PUNE MUMBAI DELHI BANGLORE

Profile My Bookings Logout



Booking Details

PG Name

Jeevan

Select Sharing Type

SELECT

Start Date

dd- - - - - yyyy

End Date

dd- - - - - yyyy

Bill Amount(₹)

0

Confirm Booking

Booking Details

PG Name

Jeevan

Select Sharing Type

SINGLE

SELECT

SINGLE

DOUBLE

TRIPLE

Start Date

dd- - - - - yyyy

End Date

dd- - - - - yyyy

Bill Amount(₹)

0

Confirm Booking

Booking Details

PG Name

Jeevan

Select Sharing Type

DOUBLE

Start Date

28-Sep-2022

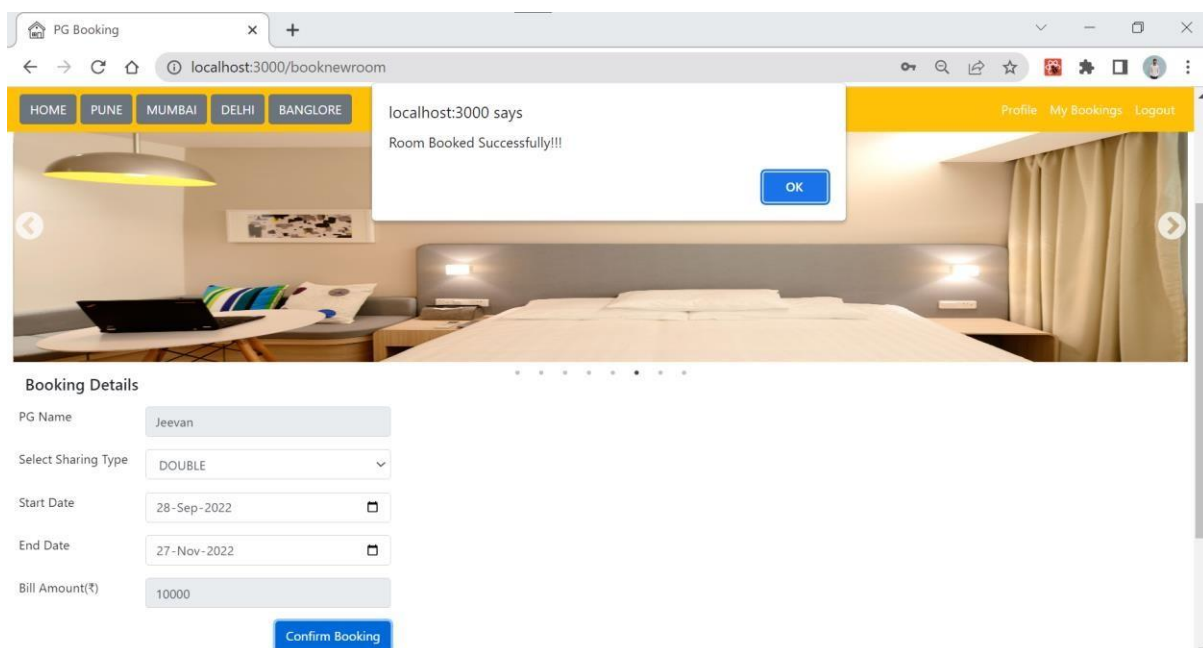
End Date

27-Nov-2022

Bill Amount(₹)

10000

Confirm Booking



8. Future Scope

It can be summarized that the future scope of the project revolves around maintain information regarding:

- We can give more advance software for PG-Booking System including more facilities
- We will host platform on online servers to make it accessible worldwide
- We can add more cities and make this system more convenient and user friendly
- Implement the backup mechanism for taking backup of codebase and database on regular basis on different servers

The above-mentioned points are the enhancements which can be done to increase the applicability and usage of the project. We have left all the option so that if there is any other future requirement in the system by the user for the enhancement of the system then it is possible to implement them.

9. References

1. Stack Overflow: <https://stackoverflow.com/>
2. GitHub: <https://github.com/>
3. Java Docs: <https://docs.oracle.com/javase/8/docs/technotes/tools/windows/javadoc.html>
4. Spring Boot Docs: <https://docs.spring.io/spring-boot/docs/current/reference/htmlsingle/>
5. Hibernate Docs: <https://hibernate.org/orm/documentation/5.4/>
6. ReactJS Docs: <https://reactjs.org/docs/getting-started.htm>