Hotel Management System

UE21CS352B - Object Oriented Analysis & Design using Java

Mini Project Report

"Hotel Management System"

Submitted by:

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6th Semester F Section

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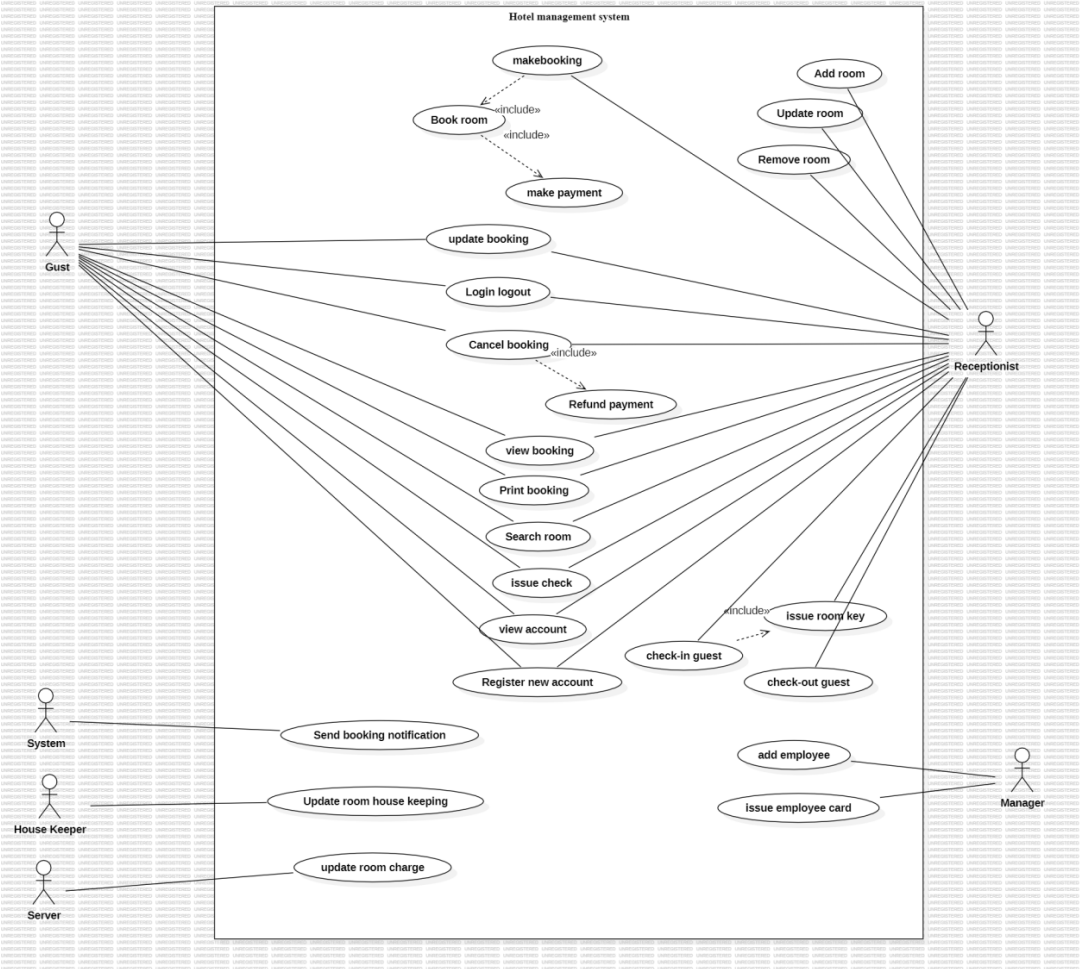
Hotel Management System

Problem Statement

A hotel management system is designed to automate and streamlined various operations within a hotel. It facilitates tasks like a various operation’s like guest reservation, check in and check out and room management and staff management, transactions and billing also. Hotel management system improves efficiency and enhances the guest experience and enable data driven decisions that contributes for the cost saving through the optimized operations and management of the operation also.

Models (Use Case, Class Models, State & Activity)

Use case diagram



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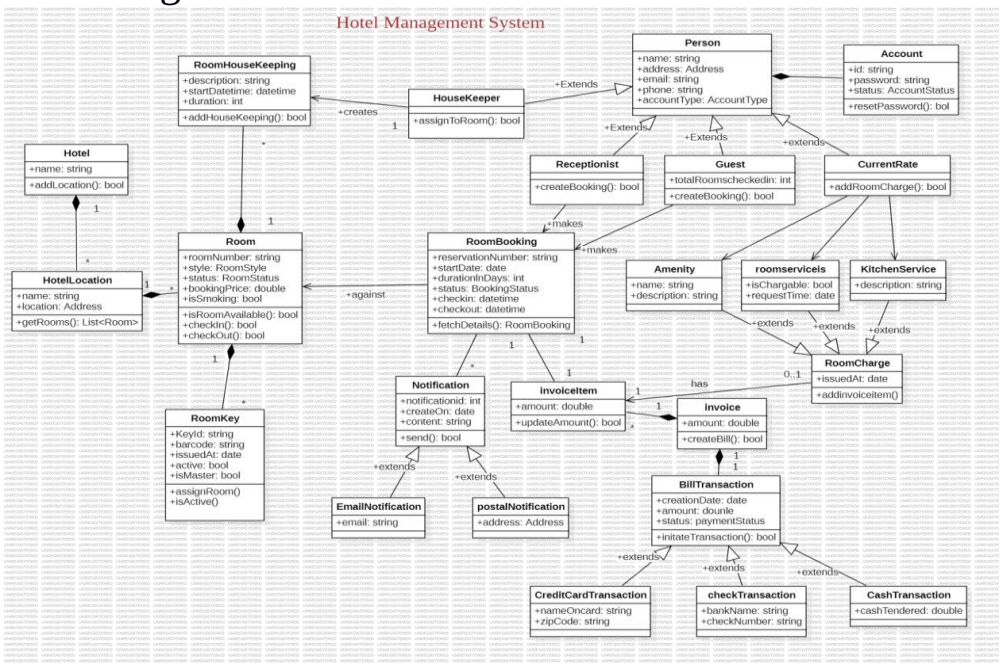
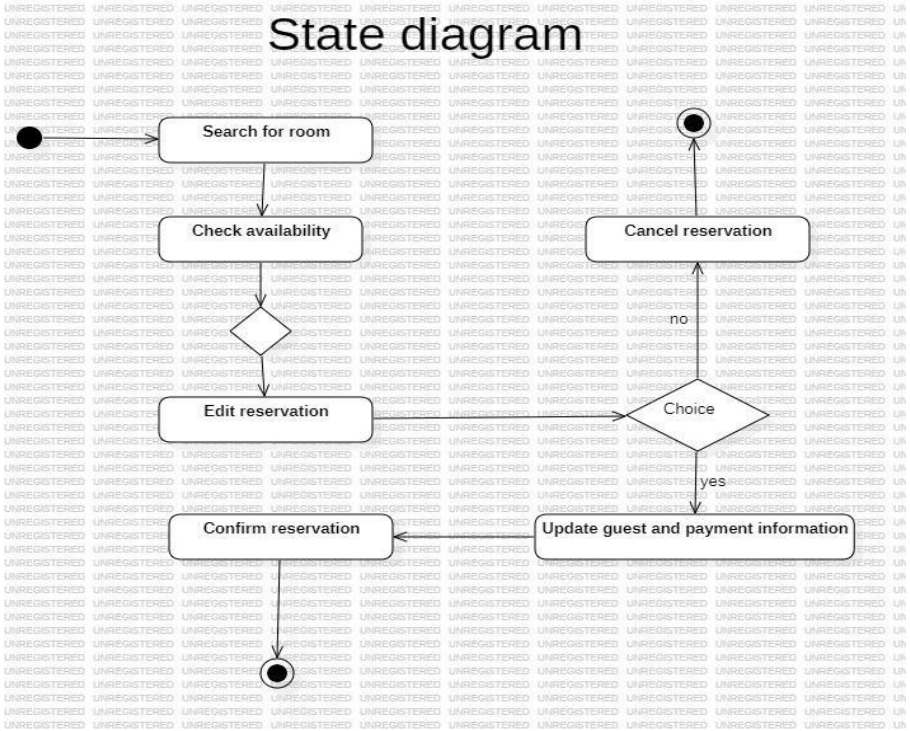
Class diagram:



State Diagram



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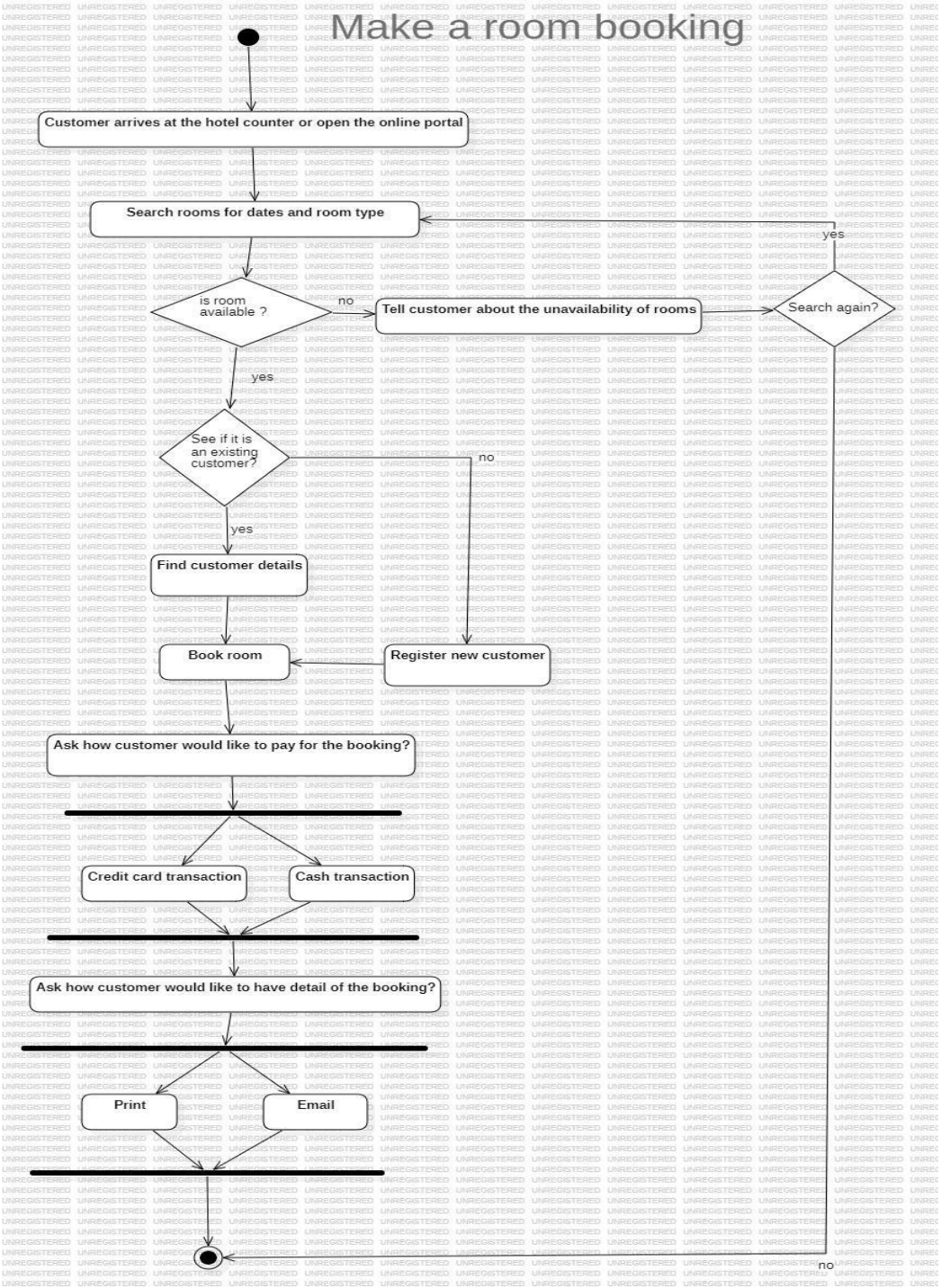
Activity diagram:



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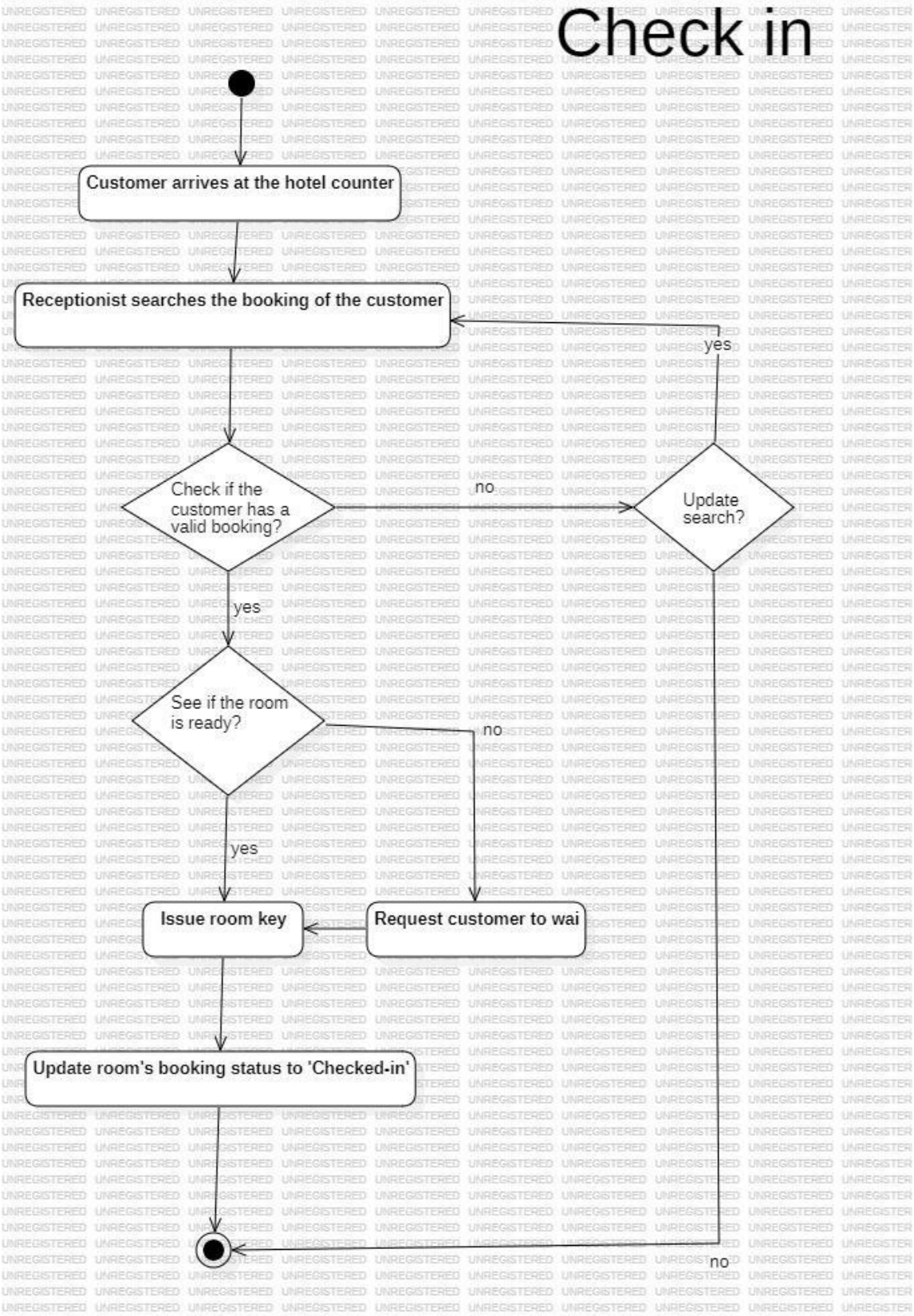

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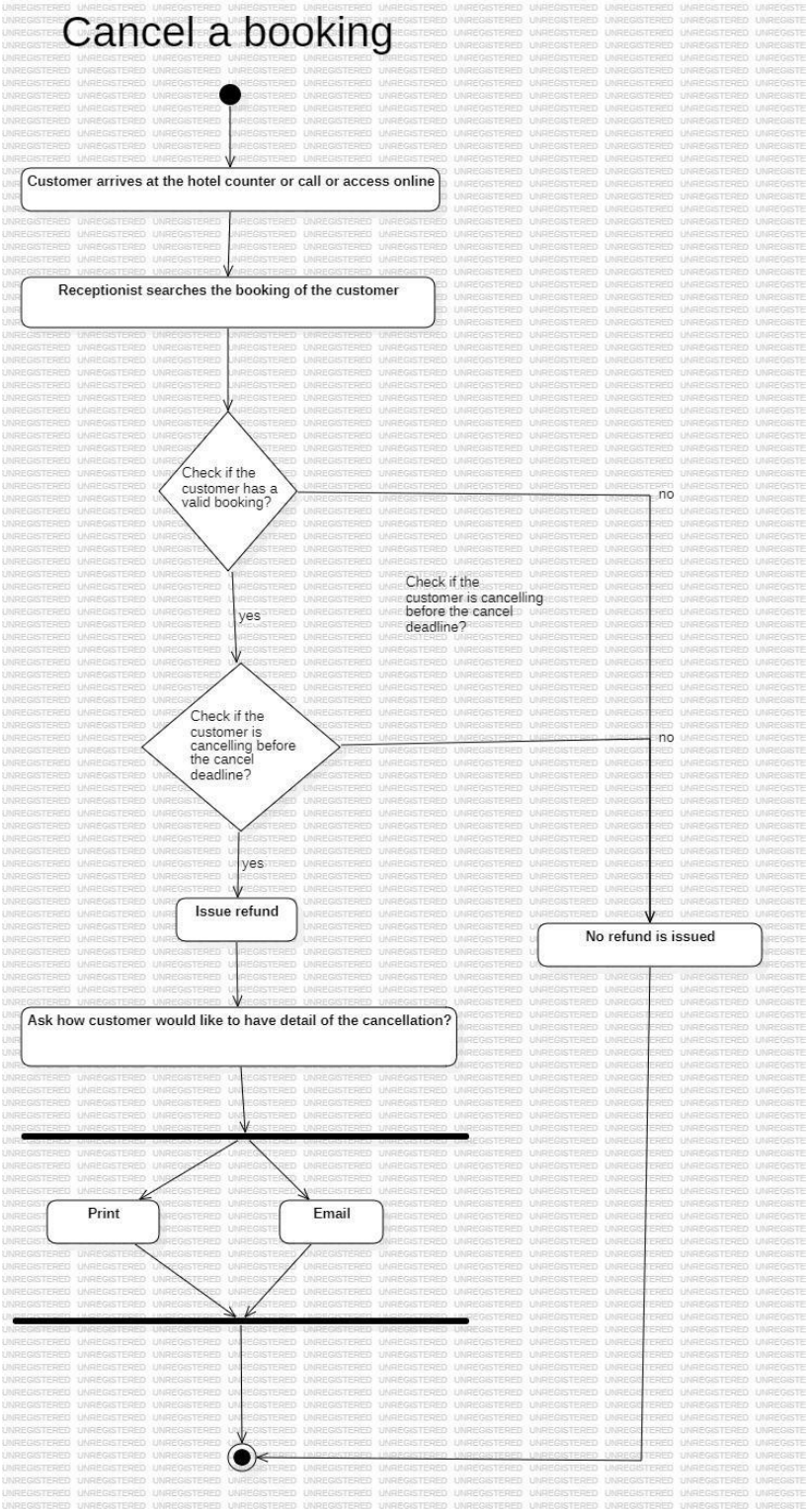

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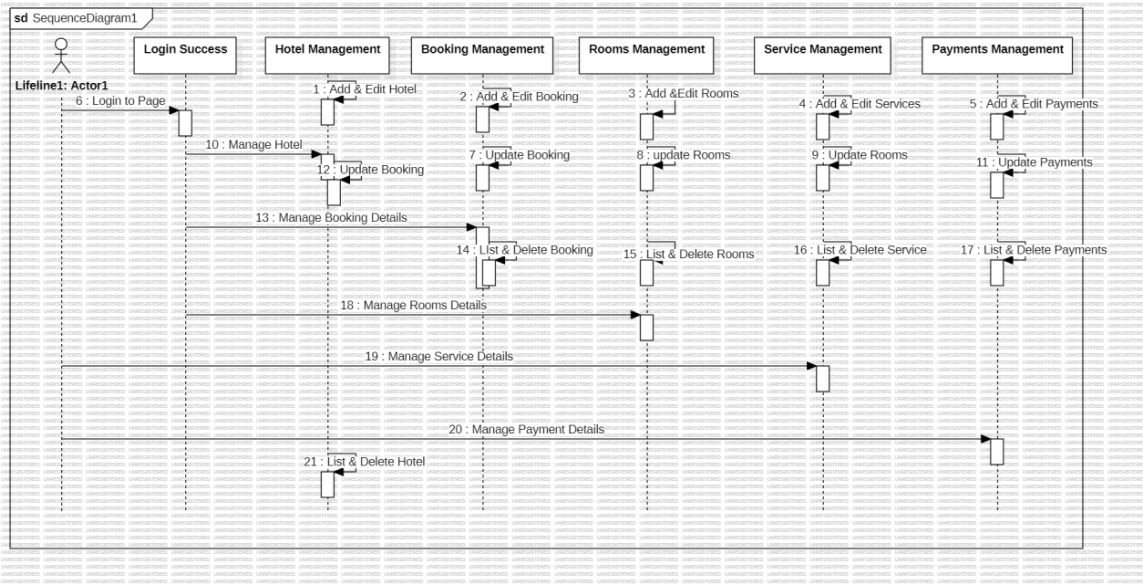
Sequence diagram:



Architectural pattern

Model View Controller (MVC)

Model we mainly focused on the reservations, Room, staff and users. Here we used JPA for the database integrations. Each class represents a distinct entity within the system, enabling the management information.
The controllers in your hotel management system coordinate the data flow and communication between front-end management and back-end services. They handle HTTP requests, invoke normal business logic (e.g. reservation processing, user authentication), interact with database stores to access or retrieve data, and expose dynamic views through Thymeleaf templates.

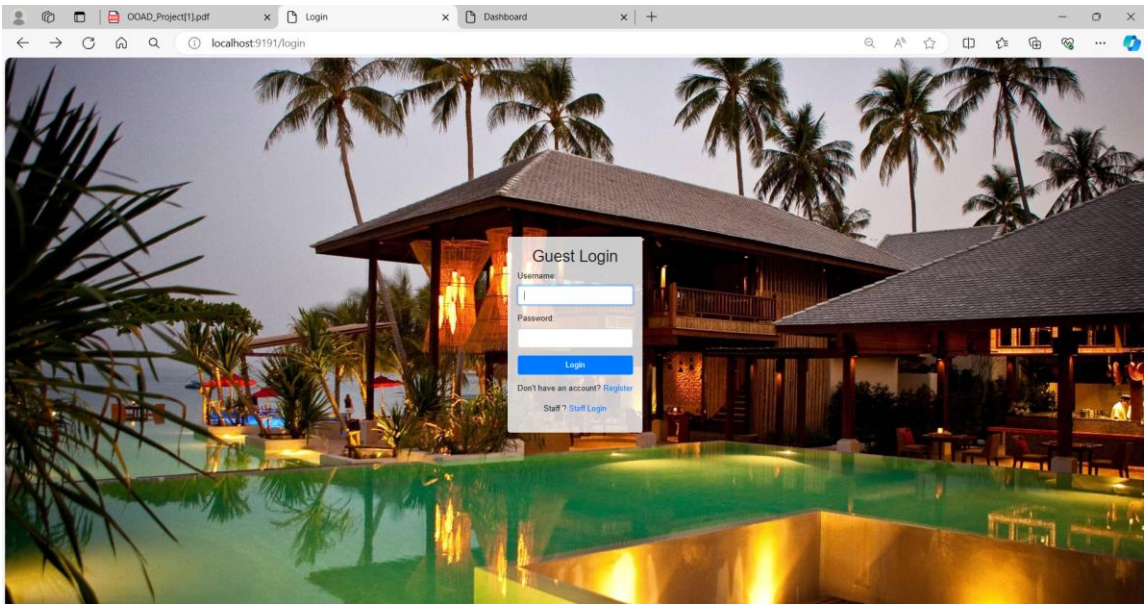
Design principle:
The Single Responsibility Principle (SRP)
It is a fundamental software design principle that emphasizes the importance of each class, module, or object having a single responsibility or causing change. By adhering to SRP, software developers aim to provide modularity, maintainability, and flexibility have increased for their codebases.
Classes should encapsulate only one aspect of functionality or behaviour. Method should perform on only one specific task.

Hotel Management System

Git-hub link of project:

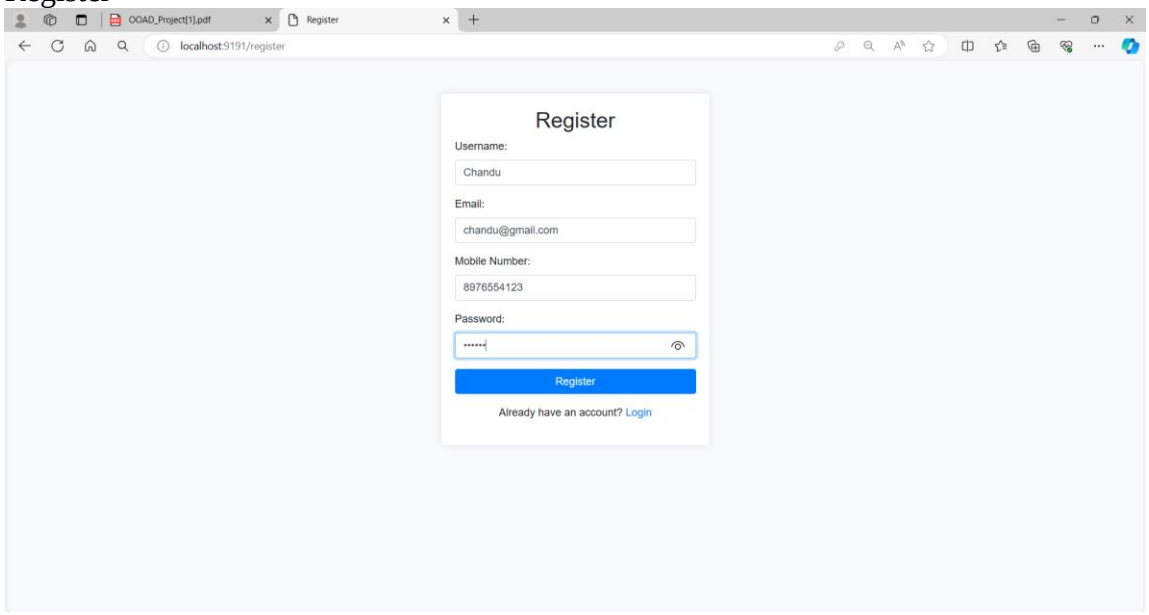
https://github.com/Omkar-Terdal/Hotel-Booking-Sytem

Screenshots with input values populated and output shown (Use white background screens).

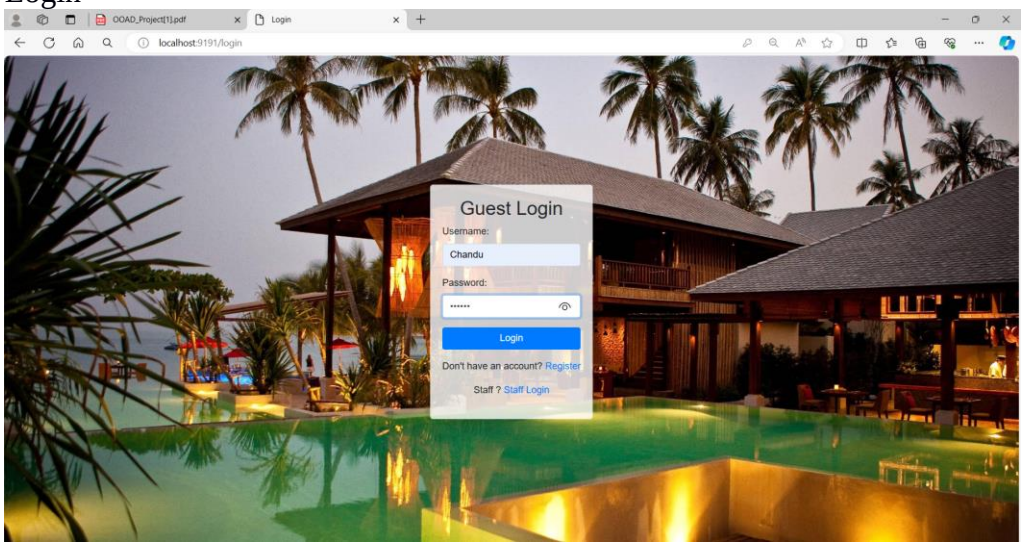


Hotel Management System

Register

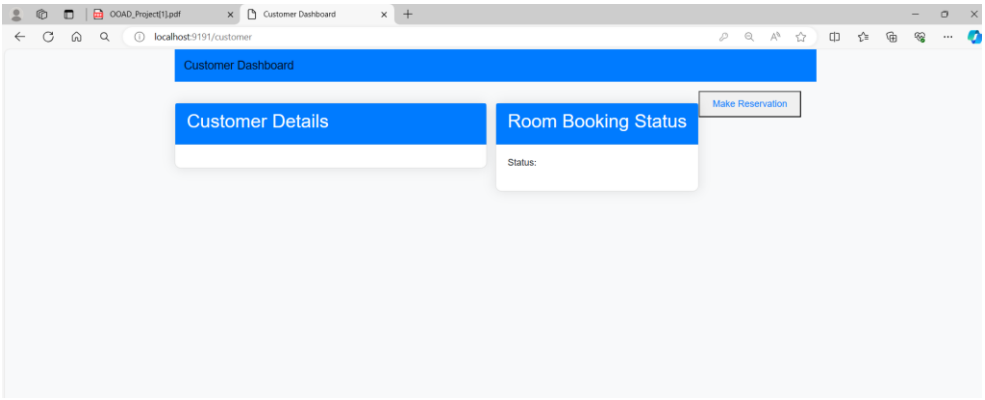


Login

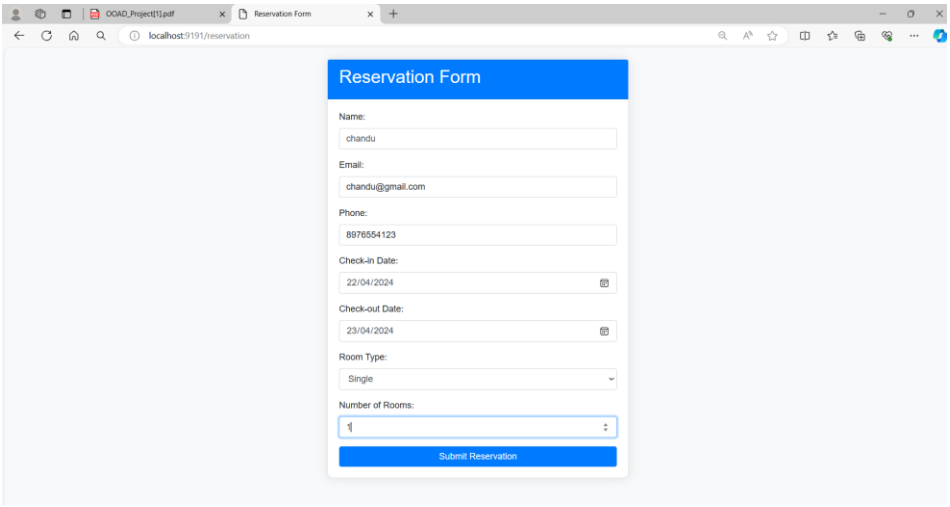


Hotel Management System

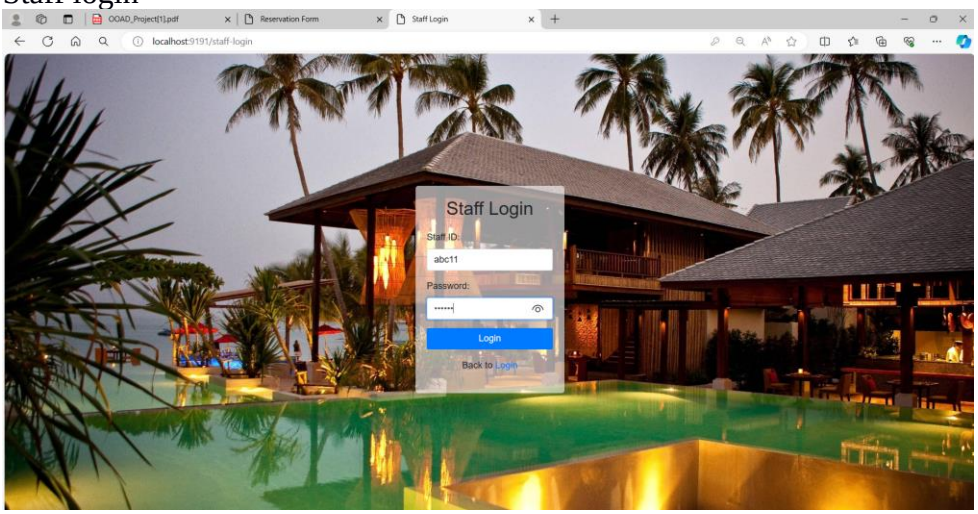
Customer Dashboard:



Reservation



Staff login



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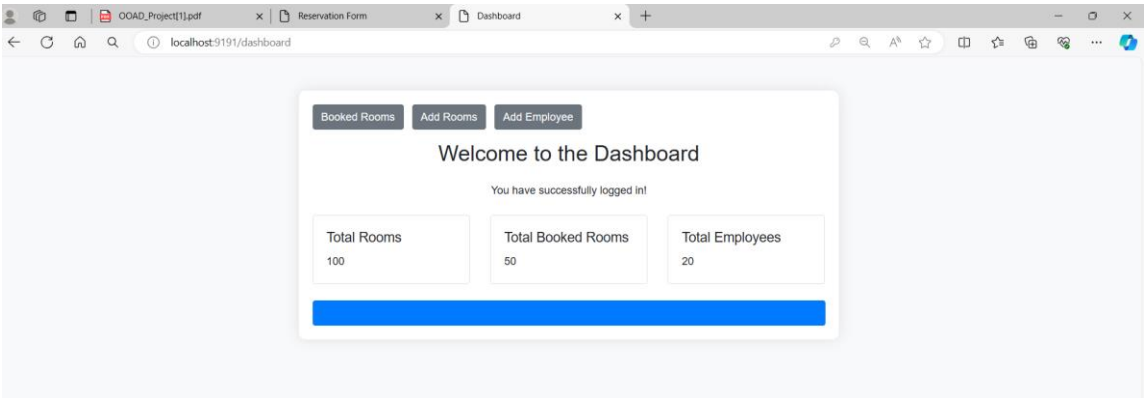
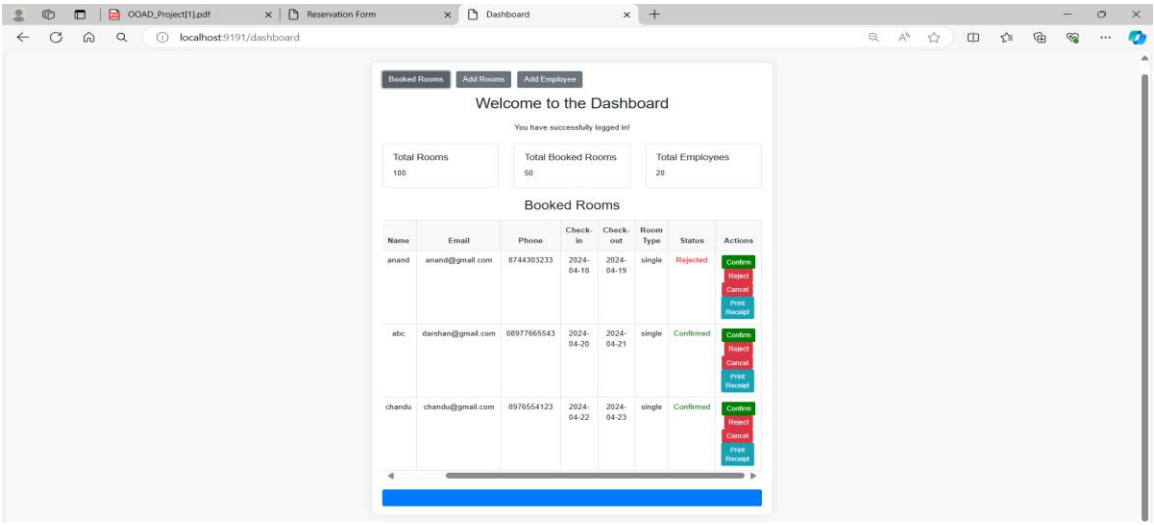
Dashboard





Hotel Management System

Screenshots of the database.

```
use `hotel_management_system`;

show tables;

desc staff;

insert into staff values(1,"abc11","darshu","darshu");

select * from users;

select * from staff;

select * from reservation;
```

Result Grid | Filter Rows: | Edit: | Export/Import: | Wrap Cell Content:

id	username	password	email	number
1	darshan	darshan	darshan@gmail.com	9877665534
2	abc	abc@123	abc@gmail.com	7654332211
3	Chandu	chandu	chandu@gmail.com	8976554123
NULL	NULL	NULL	NULL	NULL


```
use `hotel_management_system`;

show tables;

desc staff;

insert into staff values(1,"abc11","darshu","darshu");

select * from users;

select * from staff;

select * from reservation;
```


Result Grid | Filter Rows: | Edit: | Export/Import: | Wrap Cell Content:

id	staff_id	username	password
1	abc11	darshu	darshu
NULL	NULL	NULL	NULL


```
use `hotel_management_system`;

show tables;

desc staff;

insert into staff values(1,"abc11","darshu","darshu");

select * from users;

select * from staff;

select * from reservation;
```


Result Grid | Filter Rows: | Edit: | Export/Import: | Wrap Cell Content:

id	name	email	phone	checkin	checkout	room_type	number_of_rooms	status	created_at	updated_at
2	anand	anand@gmail.com	8744303233	2024-04-18	2024-04-19	single	1	Rejected	2024-04-15 19:44:52	2024-04-21 12:16:09
4	abc	darshan@gmail.com	08977665543	2024-04-20	2024-04-21	single	1	Confirmed	2024-04-20 13:09:21	2024-04-20 13:10:35
5	chandu	chandu@gmail.com	8976554123	2024-04-22	2024-04-23	single	1	Confirmed	2024-04-21 22:04:19	2024-04-21 22:05:50
NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL