Hotel-Taj(Hotel Management Project)

Team Members:

- Sameer
- Sudeepta
- Raju

1. Introduction

The Hotel-Taj project is a web-based application developed as part of our Advanced Java coursework. The primary aim of the project is to build a comprehensive **Hotel Management System** of a particular hotel and not chains of hotel, that caters to the needs of hotel administrators, staff, and customers. The system streamlines hotel booking processes, staff control and administrative tasks, thereby enhancing operational efficiency and customer experience.

The application is structured to handle tasks such as room booking, Staff services, admin controls, and data management using **JSP (Java Server Pages)**, **Servlets**, and **JDBC** for backend connectivity.

2. Team Contributions

This project was developed collaboratively by a group of three students:

- **Raju**: Focused on the **User Interface (UI)** part of the system. He designed and developed the front-end using HTML, CSS to make the interface user-friendly and visually appealing and designed the whole **Users** perspective where entering to booking to complete it.
- **Sameer**: Responsible for designing the **project flow**, which includes planning the application architecture, creating use cases, and deciding the sequence of actions and navigation among different modules of the system.
- **Sudeepta**: Handled **dataflow and backend connectivity**, including the integration of database operations using **JDBC**, ensuring data consistency, and building CRUD functionalities for different modules.

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Although each member had designated roles, the entire project was a result of **collaborative efforts**, with all three contributing ideas, testing, and debugging the application to ensure smooth functioning.

3. Project Overview

The Hotel-Taj system is divided into three primary portals:

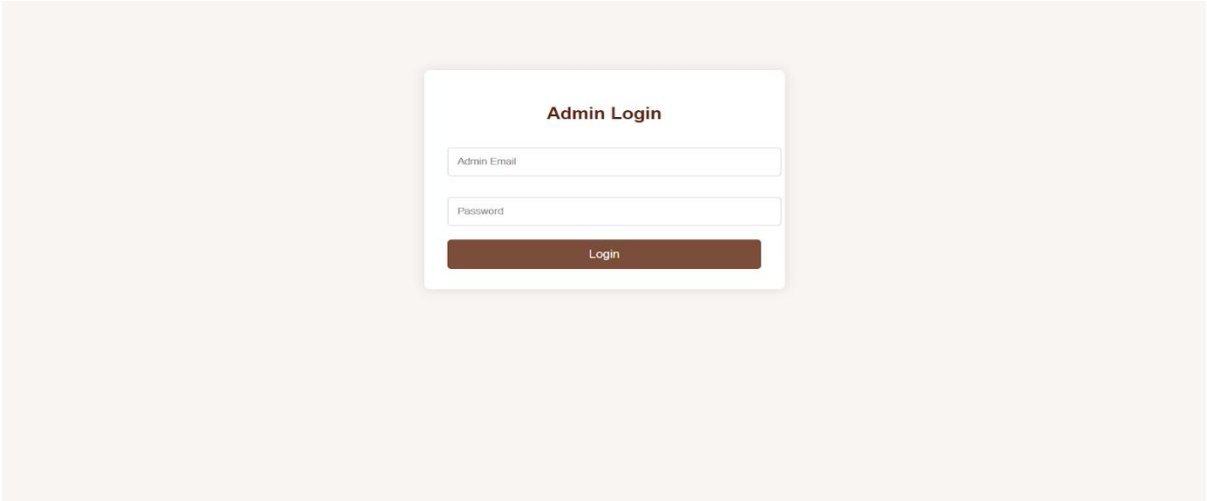
1. **Admin Portal**
2. **User Portal**
3. **Staff Portal**

Each portal has its own set of responsibilities and functionalities that interact with one another to provide a seamless hotel management experience.

4. Modules Description

A. Admin Portal

- Admin login authentication
- View and manage customer bookings
- Manage room categories, availability, and pricing
- Manage vendors and services
- Generate reports and analytics



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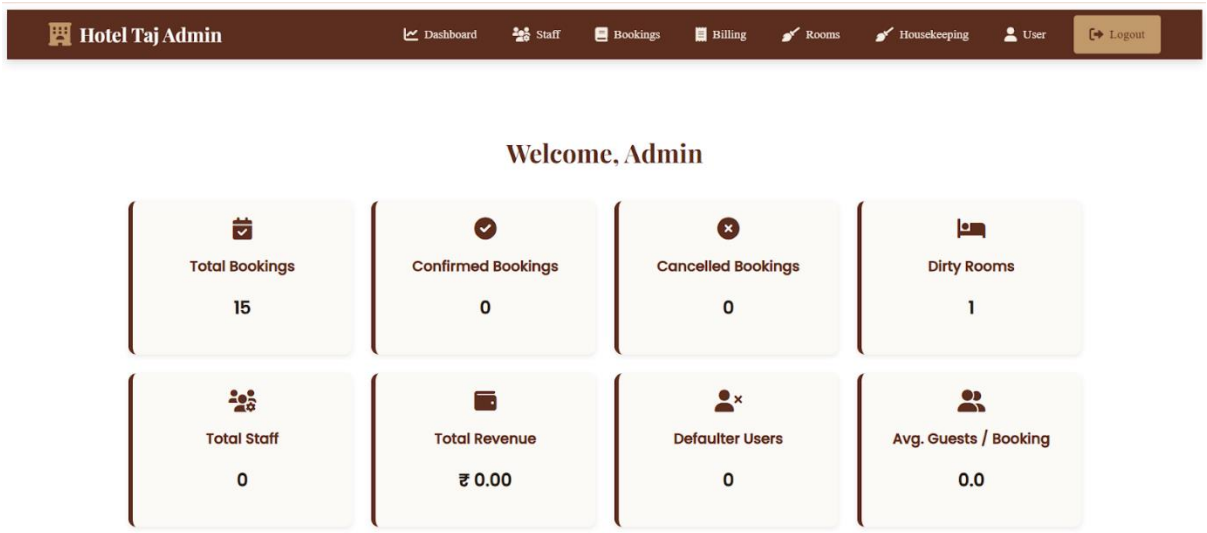

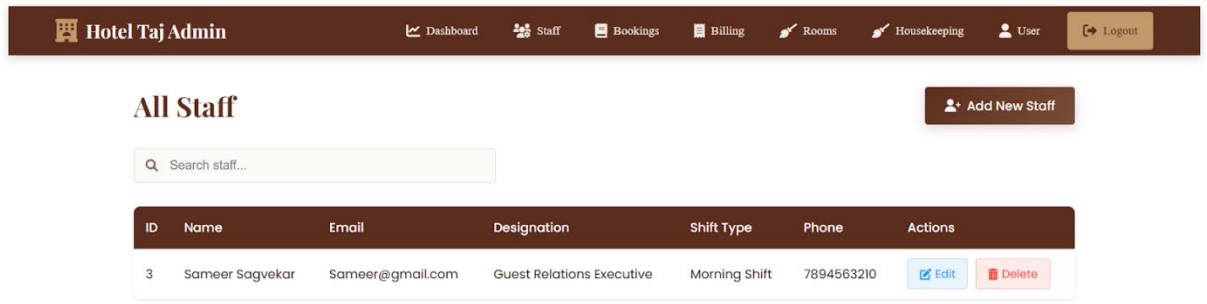

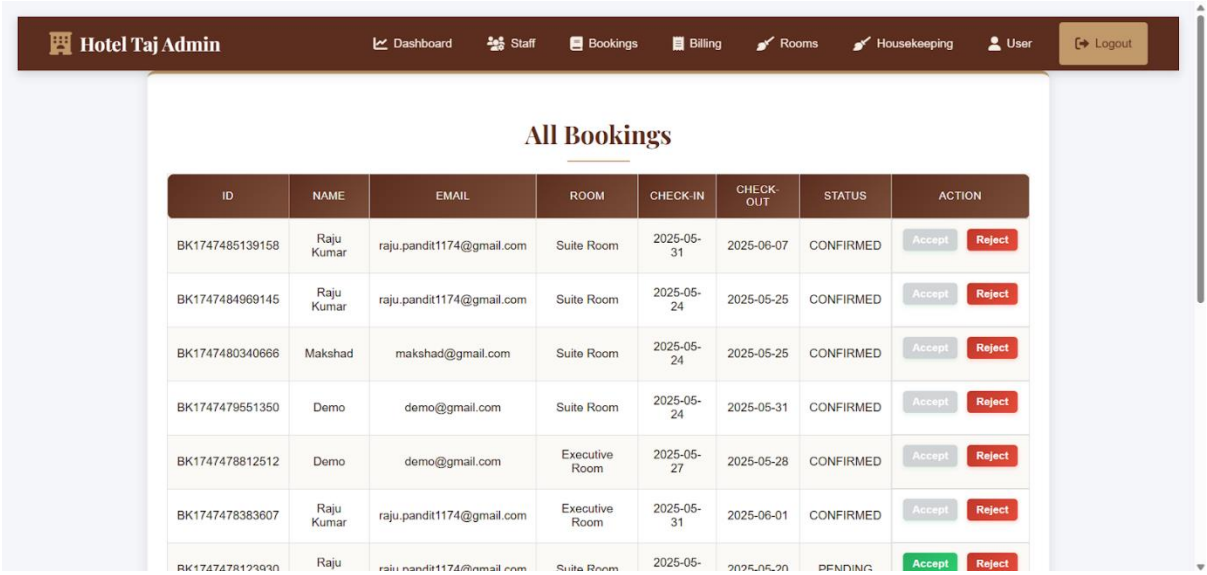

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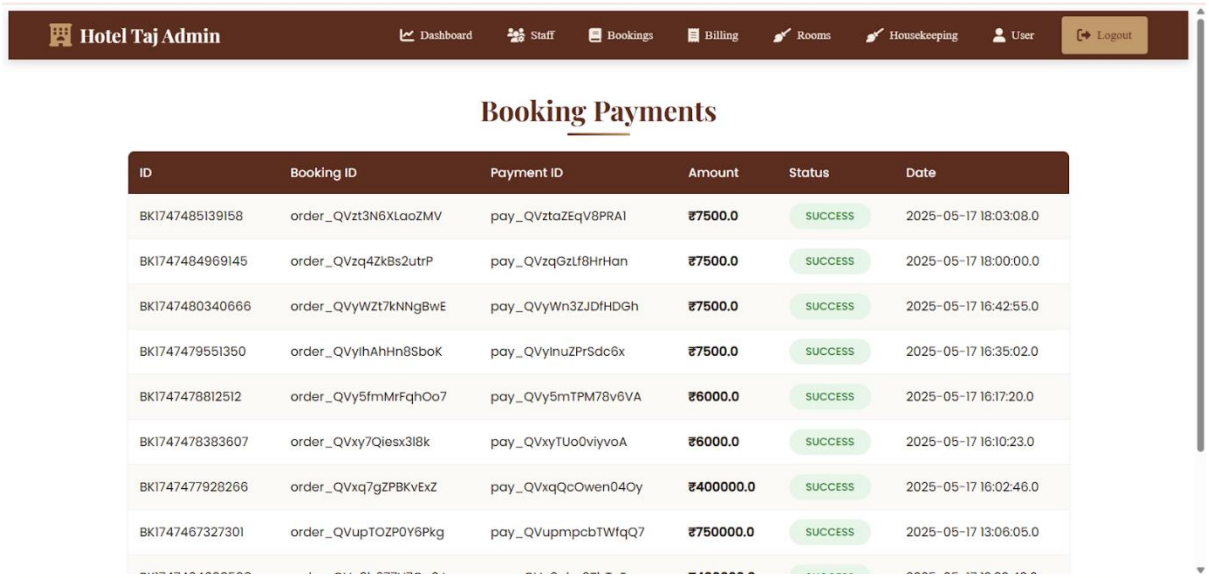

Room Inventory

Add Room

ID	Room Number	Type	Status	Cleaning Status	Actions
1	1	Suite Room	booked	CLEAN	Edit | Delete
2	101	Suite Room	available	DIRTY	Edit | Delete

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Add Room

Room Number:

Room Type:

Deluxe Room

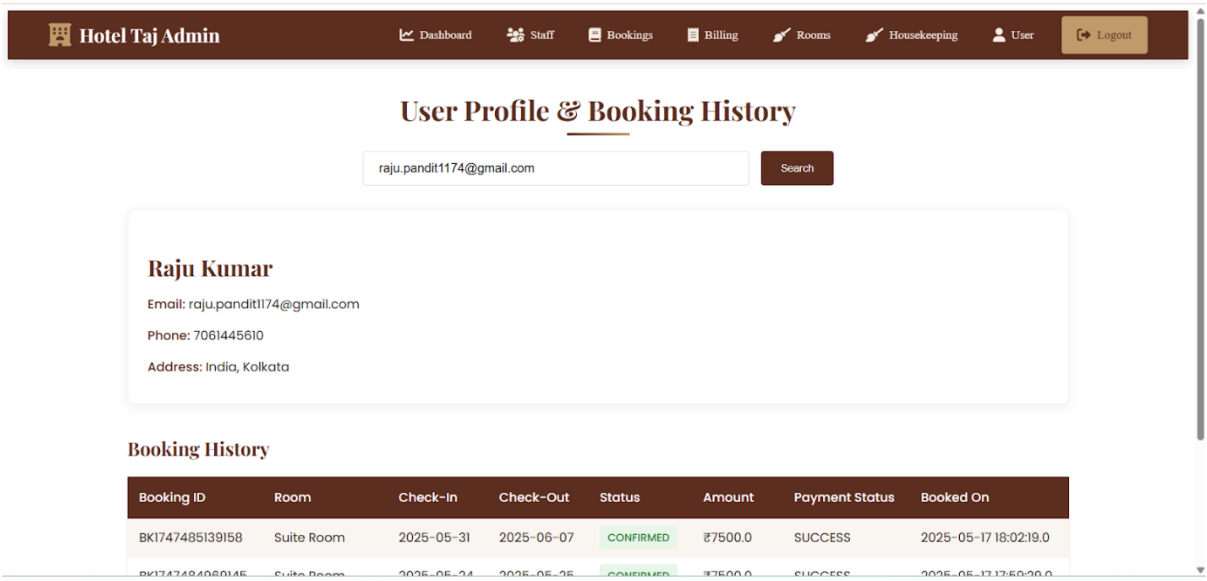
Status:

Available

Cleaning Status:

CLEAN

Add Room



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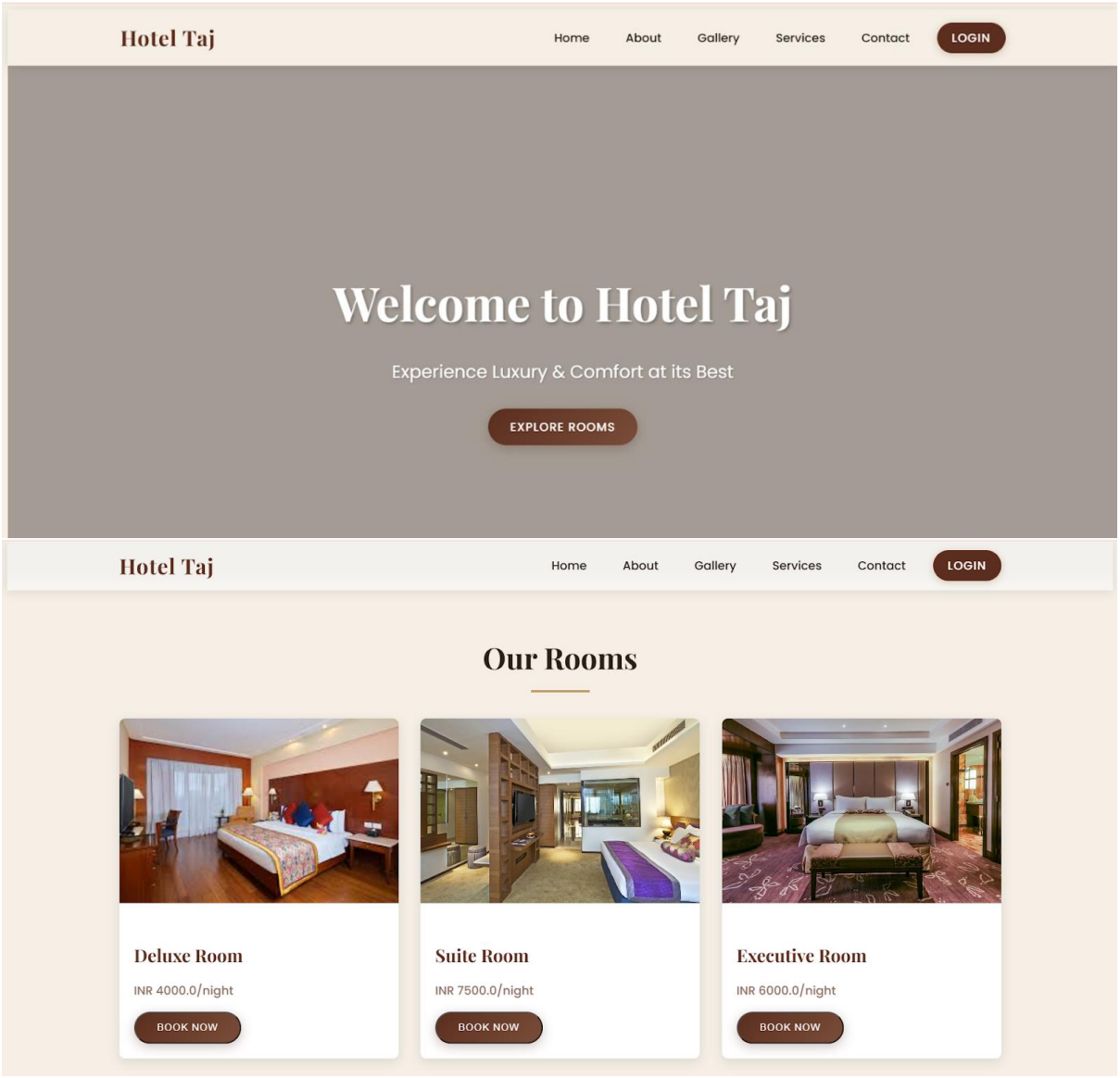
B. User Portal

- User registration and login
- Browse available rooms and services
- Room booking with date and room type selection
- Payment simulation (dummy integration)
- View booking history and status



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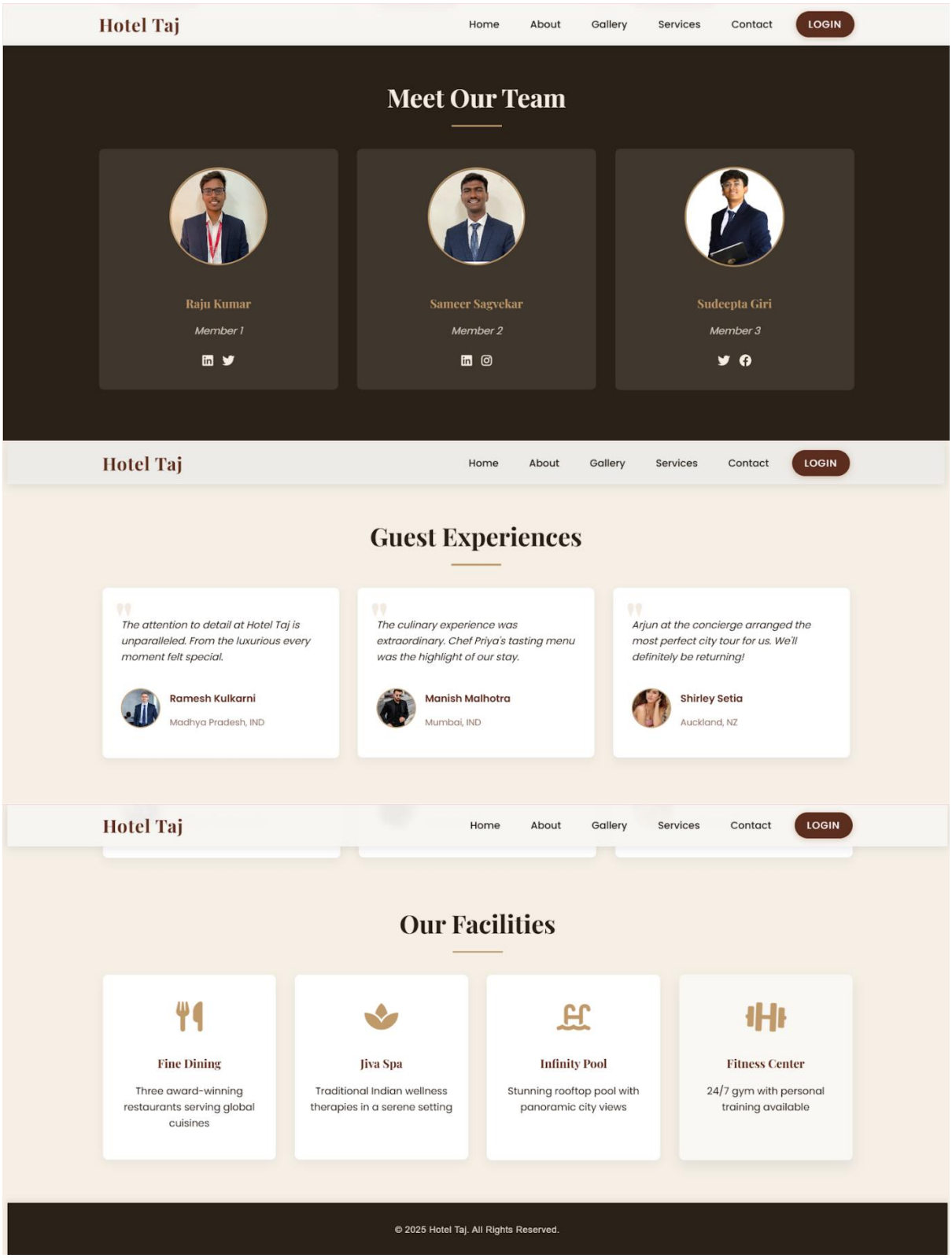

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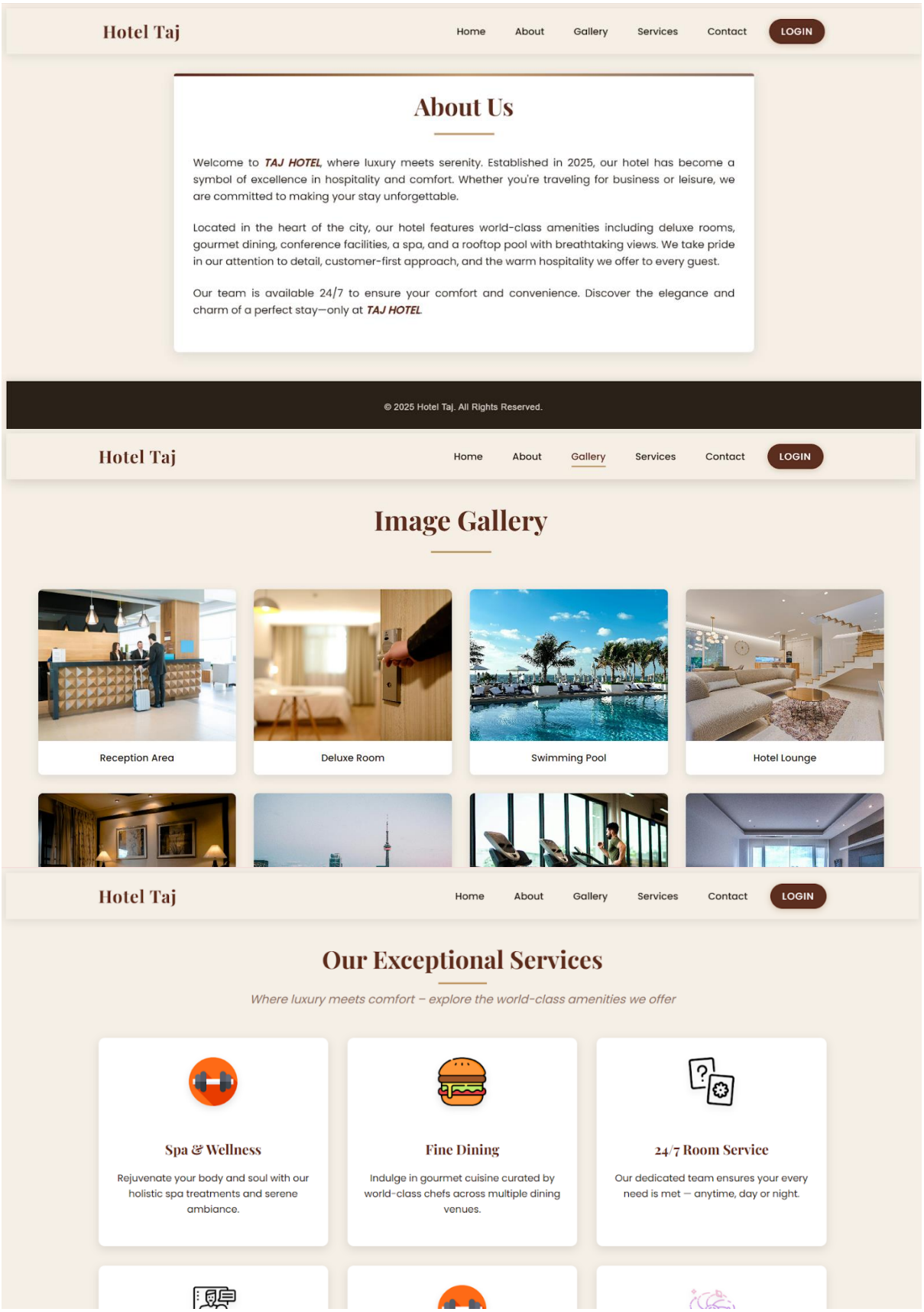

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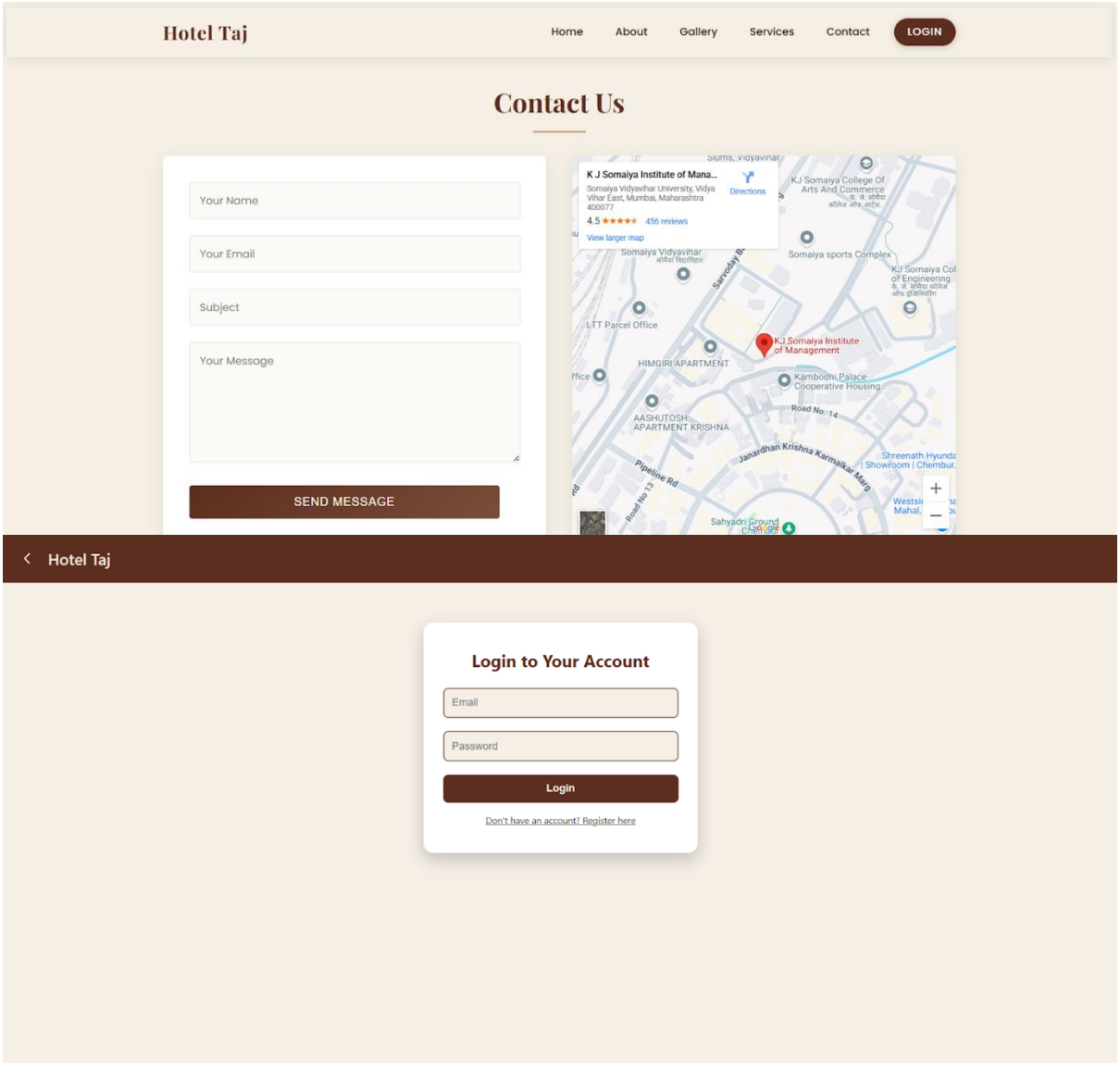

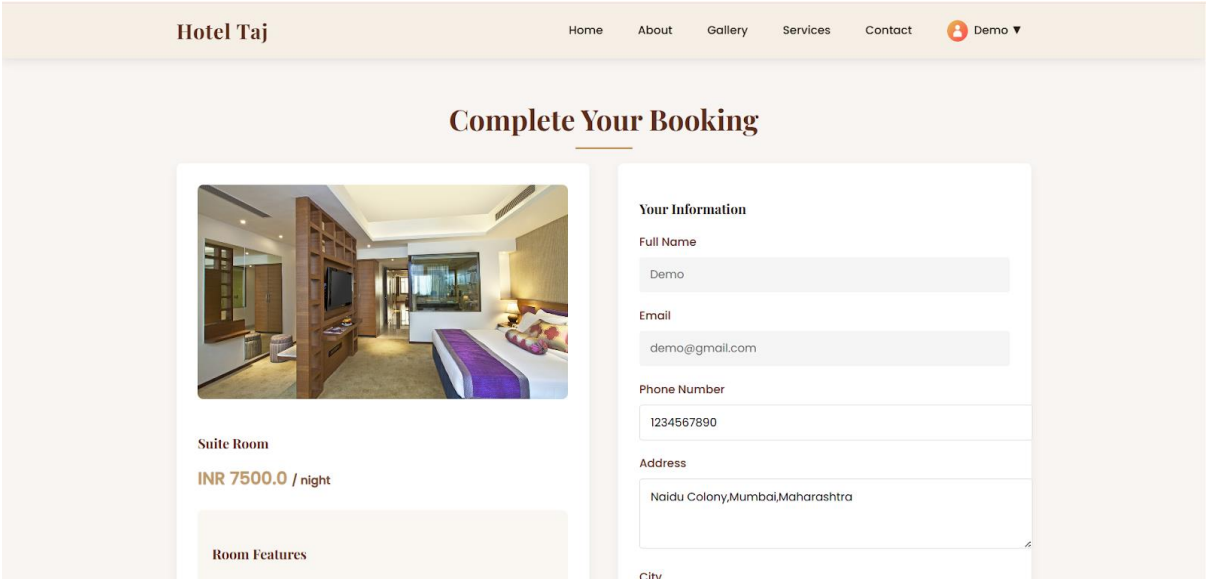

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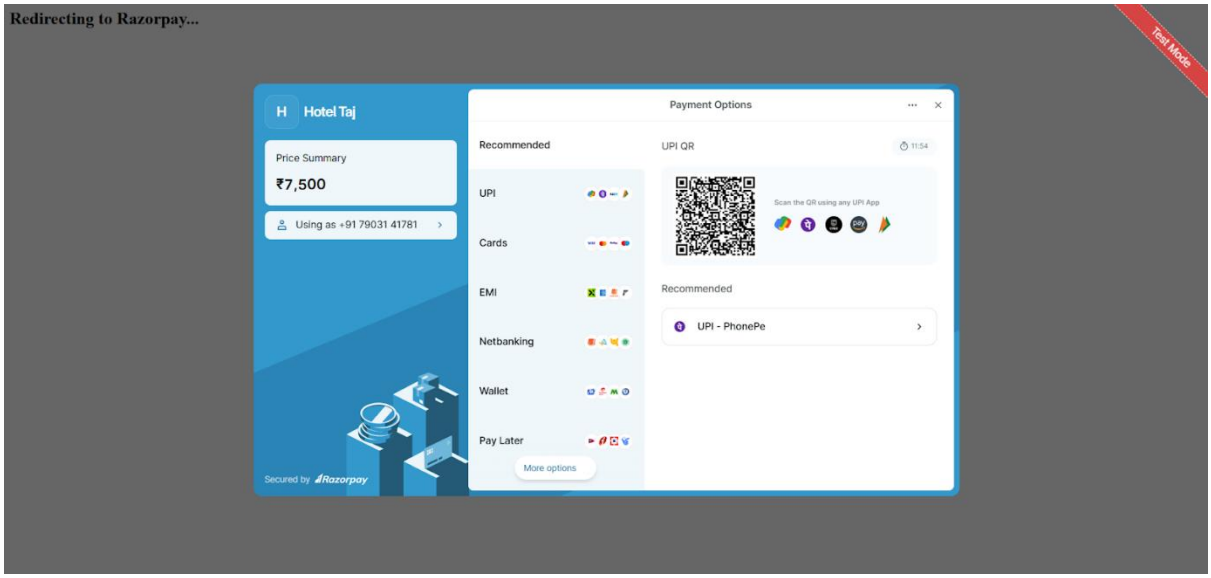

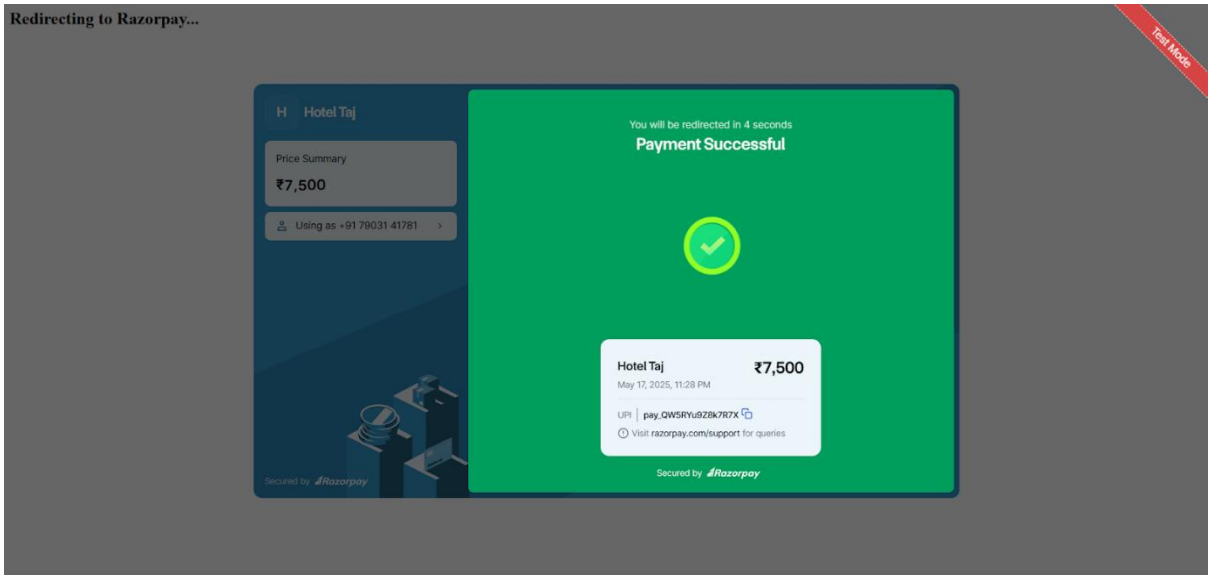

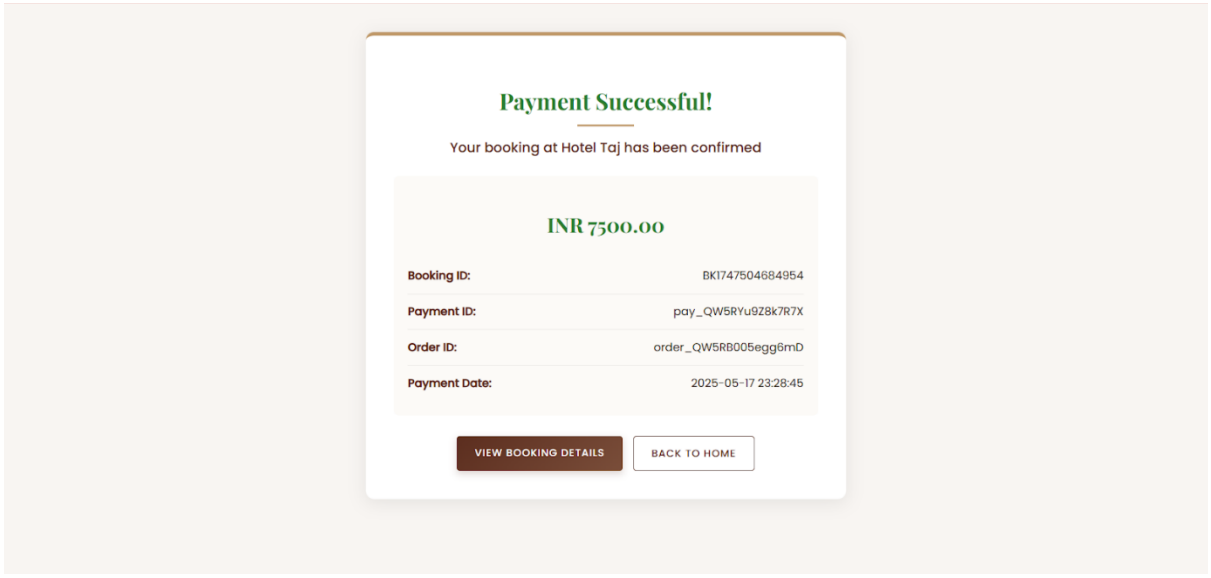

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Recent Booking Details

Booking ID	BK1747504684954
Full Name	Demo
Email	demo@gmail.com
Phone	7903141781
City	Mumbai
Room Name	Suite Room
Room Price	INR 7500.0
Check-In	2025-05-17
Check-Out	2025-05-18
Guests	2
ID Card	Aadhar Card - 761268042268
Special Requests	Can we bring pet with us
Payment ID	pay_QW5RYu9Z8k7R7X

Guests	2
ID Card	Aadhar Card - 761268042268
Special Requests	Can we bring pet with us
Payment ID	pay_QW5RYu9Z8k7R7X
Order ID	order_QW5RB005egg6mD
Amount Paid	INR 7500.0
Payment Date	2025-05-17 23:28:45

Back to Home | Refresh Booking

Hotel Taj

Home | About | Gallery | Services | Contact | Demo ▼

User Profile

Full Name:

Demo

Email:

demo@gmail.com

Phone Number:

1234567890

Address:

Naidu Colony,Mumbai,Maharashtra

City:

Mumbai

ID Card Type:

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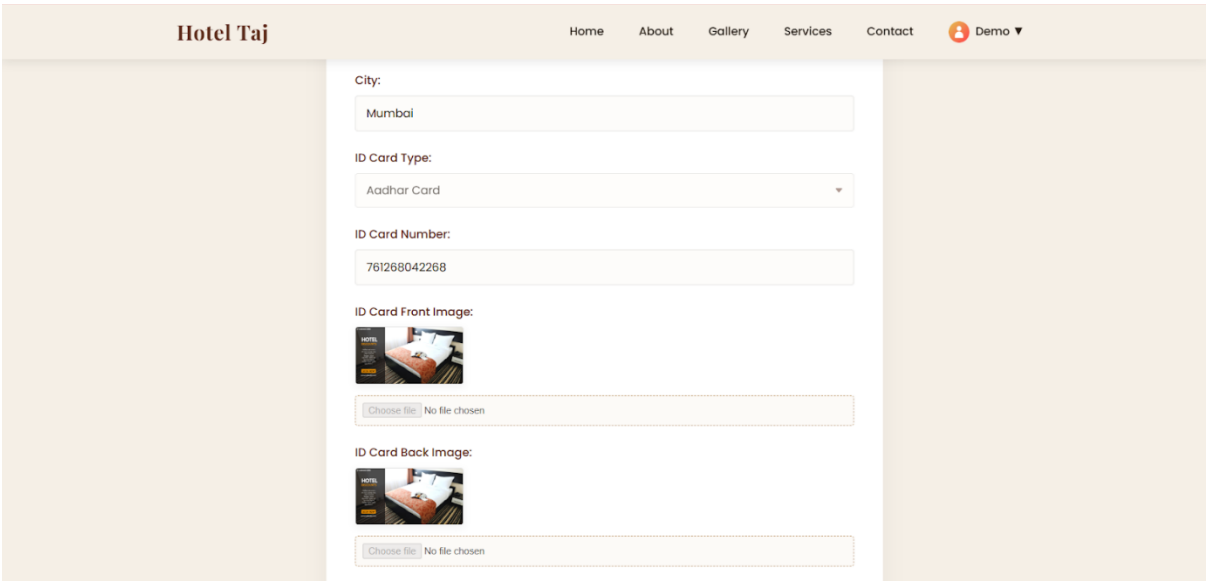

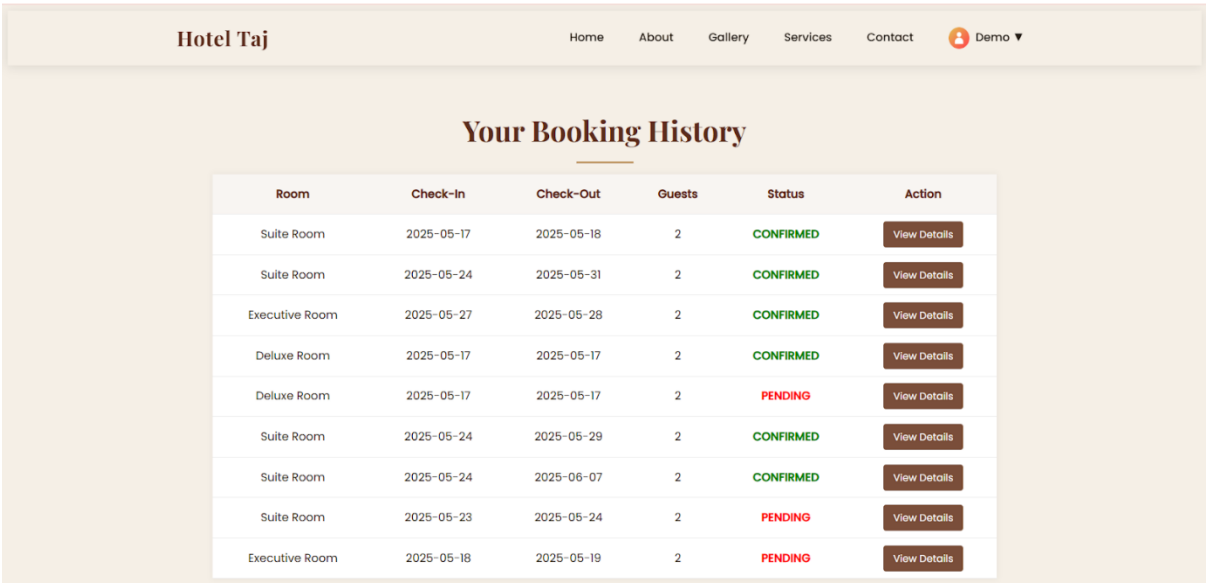

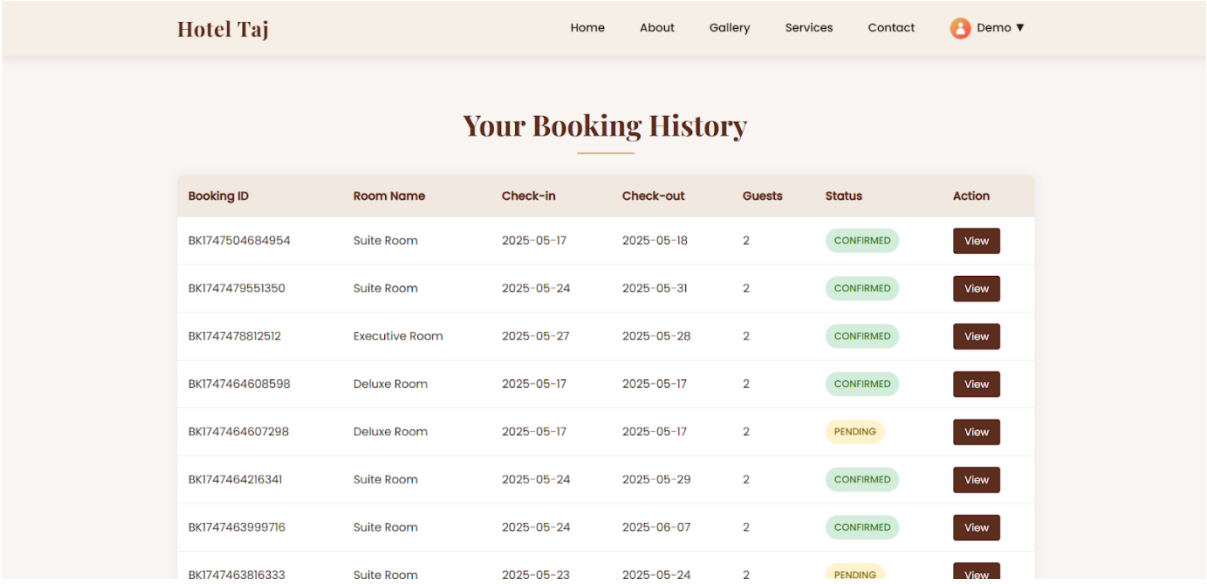

Hotel-Taj(Hotel Management Project)

Hotel Taj

Home About Gallery Services Contact Demo ▼

Booking Detail

Room Information

Room Name: Suite Room

Price: ₹7500 per night

Hotel Taj

Home About Gallery Services Contact Demo ▼

Booking Info

Check-in: 2025-05-17

Check-out: 2025-05-18

Guests: 2

Special Requests: Can we bring pet with us

Status: CONFIRMED

Booking Date: 2025-05-17 23:28:04

User Info

Full Name: Demo

Email: demo@gmail.com

Phone: 7903141781

Address: Naidu Colony,Mumbai,Maharashtra, Mumbai

Hotel Taj

Home About Gallery Services Contact Demo ▼

Full Name: Demo

Email: demo@gmail.com

Phone: 7903141781

Address: Naidu Colony,Mumbai,Maharashtra, Mumbai

ID: Aadhar Card - 761268042268

Payment Info

Order ID: order_QW5RB005egg6mD

Payment ID: pay_QW5RYu9Z8k7R7X

Amount Paid: ₹7500.00

Payment Status: SUCCESS

Payment Date: 2025-05-17 23:28:45

← Back to Booking History

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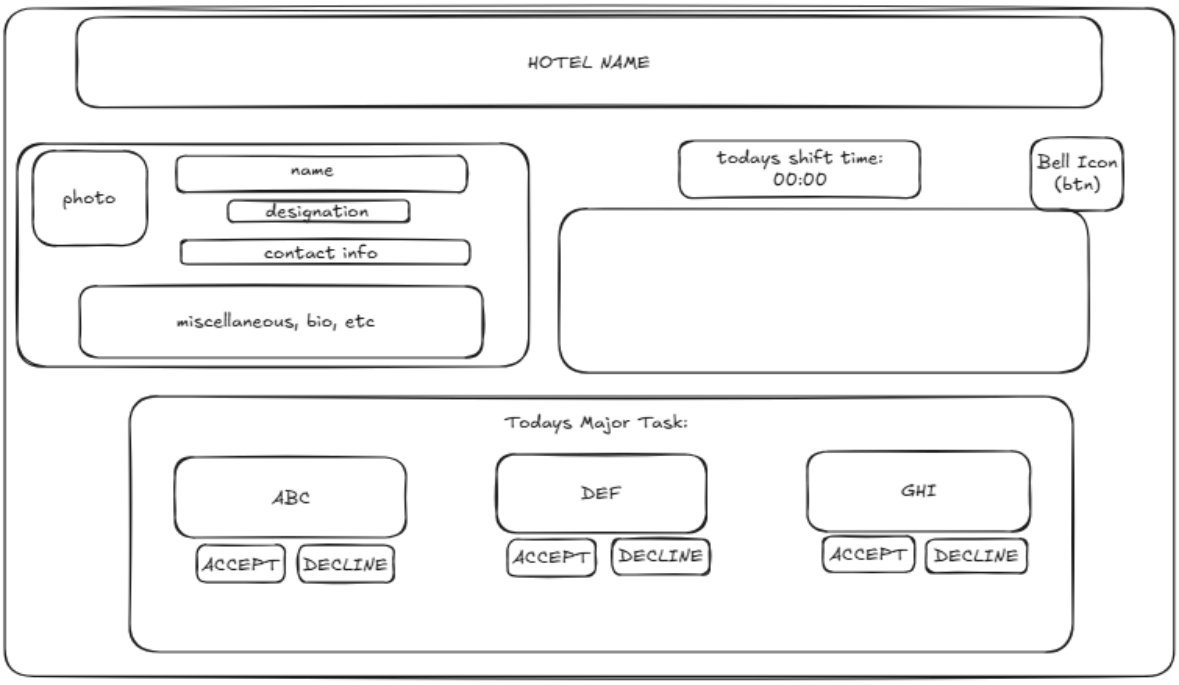
C. Staff Portal

- Staff login
- Manage assigned services (e.g., housekeeping, maintenance)
- Update service status
- Communicate with the admin and report issues
- So one problem occurred while integrating this part but providing with the UI dashboard we were trying to make.



- a staff dashboard module where we would be showing photos, name designation contact information and miscellaneous, etc as a read only and that would be fetched from database and this would be constant wont be updated unless the admin does it.
- the today's shift time box will be updated when the admin updates it.
- the bell icon is basically the notification panel where the admin will implicitly send a emergency text for some work or meetings. onClicking the button it should display the text in the empty box space as shown in the diagram.
- in todays major task the admin will assign works to be done by that particular staff. and once done the staff can mark as done or decline. once any button is clicked it should update it on database. everything would be in view/read mode and just the bell icon and task completion button should be clickable.

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5. Technologies Used

- **Frontend**:
  - HTML, CSS
- **Backend**:
  - Javascript
  - Java (JSP, Servlet)
- **Database**:
  - MySQL(xamp)
- **Server**:
  - Apache Tomcat
- **Tools**:
  - IntelliJ IDEA
  - XAMPP (for MySQL)
  - Razorpay API

6. Challenges Faced

- **UI Consistency**: Initially, integrating UI across modules led to inconsistencies. Raju took the lead in resolving these by standardizing styles and layouts.
- **Session Management**: Ensuring secure and effective session handling for different users was a challenge addressed during the project flow planning by Sameer.
- **Database Connectivity**: Handling concurrency and error handling in database connections was managed efficiently by Sudeepta using prepared statements and proper connection pooling.
- Although there were many challenges but the very main challenge was to integrate the ideas implemented on three different machines(Raju, Sameer, Sudd).

Hotel-Taj(Hotel Management Project)

6. Conclusion

The Hotel-Taj project was a valuable learning experience where we explored the core concepts of Advanced Java, including Servlets, JSP, session management, and JDBC database connectivity. By working in a team, we practiced real-world collaboration, code integration, and debugging in a shared development environment.

We are proud to have developed a fully functional Hotel Management System that simulates a real-life application scenario. All three team members—Sameer, Sudeepta, and Raju—worked with dedication and mutual support, contributing their strengths to different parts of the project and learning a lot in the process.

GitHub Link::

https://github.com/sagvekarsameer/Hotel-Management.git

Alsoo, we don't have any specific WAR file as we have made in MAVEN ARCHTYPE.