

Hotel Booking Website



A project submitted in partial fulfillment of the requirements of Varendra
University for the degree of BSc Engineering in CSE.

June 2023

Submitted by

ID: 193313007

Department of Computer Science and Engineering

Varendra University

Rajshahi, Bangladesh

Supervised by

Md. Toufikul Islam

Lecturer

Department of Computer Science and Engineering

Varendra University

Rajshahi, Bangladesh



**Department of Computer Science and Engineering
Varendra University**

APPROVAL CERTIFICATE

This is to certify that the project entitled “Hotel Booking Website” submitted by Md. Nayim Islam, ID no. 193313007 has been carried out under my supervision. This project has been prepared in partial fulfillment of the requirement for the degree of Bachelor of Science in Computer Science and Engineering.

Md. Toufikul Islam

Lecturer

Department of Computer Science and Engineering

Varendra University

June 2023

Varendra University

Rajshahi, Bangladesh

Abstract

Over the years manual booking has been carried out across most hotels. To overcome the problems of manual booking, I have developed a “Hotel Booking Website”. The hotel booking website is based on a web server, which can be accessed on any computer or smart device. In This application, PHP is a server-side language, MySQL and PHP are used as back-end design, and HTML, CSS, Bootstrap, and JavaScript are used as front-end tools. The system communicates with the database residing on a remote server. It automatically booking management without any manual paper-based work. The system facilitates the end users with interactive design and automated processing of hotel booking.

Acknowledgements

At first, I would like to pay my heartfelt gratitude to Almighty Allah for his divine blessings, which made it possible to complete this project work successfully.

I am sincerely grateful to my honorable teacher and supervisor **Md. Toufikul Islam**, Lecturer, Department of Computer Science and Engineering, Varendra University for his constant guidance, advice, encouragement, and every possible help throughout the work and preparation of this project. He provided the perfect balance of structure and freedom, which allowed me to derive the most from my project experience. He is an excellent mentor. Working with him was a pleasure and a memorable experience.

I owe a debt of gratitude to honorable teacher **Dr. Khademul Islam Molla**, Coordinator, Department of Computer Science and Engineering, Varendra University for his extending helps in various ways.

I would like to thank my respectable teacher **Arifa Ferdousi**, Assistant Professor, Department of Computer Science and Engineering, Varendra University for helping me with valuable suggestion, constructive advice and instruction as well.

I am very grateful to my respectable teachers of Department of Computer Science and Engineering, Varendra University for their valuable suggestion, support, extending facilitation and inspiration from time to time.

Next, I would like to thank my friends for their continued support. They provided the full encouragement required throughout the entire journey of this work.

Lastly, I wish to express my sincere gratitude and heartfelt obligation to my beloved parents for their endless love, affection, blessing, encouragement and unconditional support to pursue my interests.

June 2023

Varendra University
Rajshahi, Bangladesh

Md. Nayim Islam

Contents

Chapter 1: Introduction.....	1
1.1 Problem and Motivation	1
1.1.1 Problem	1
1.1.2 Motivation	2
1.2 Purpose and Objectives	2
1.2.1 Purpose	2
1.2.2 Objective	2
1.3 Goals	4
1.4 Features	5
1.5 Requirements	7
1.5.1 Hardware	7
1.5.2 Software	7
Chapter 2: Project analysis.....	8
2.1 Study and weaknesses of current system	8
2.1.1 Disadvantages of current system	9
2.1.2 Benefits of new system	9
2.2 Feasibility study	10
2.3 Related works and background	12
Chapter 3: Tools and Technologies.....	14
3.1 XAMPP	14
3.1.1 Apache server	14
3.1.2 PhpMyAdmin	14
3.1.3 MySQL	15
3.1.4 PHP	15
3.2 Visual studio code (code editor)	15
3.3 HTML and CSS	16
3.4 JavaScript	16
3.5 Frameworks	17
3.5.1 Bootstrap	17
3.5.2 JavaScript framework (jQuery)	17
3.6 Swiper js	17
3.7 PHPMailer	18
3.8 mPDF	18
Chapter 4: System modules.....	19
4.1 Module types	19
4.2 Admin module	19
4.2.1 Admin functionalities	19
4.3 User module	20
4.3.1 User functionalities	20

Chapter 5: Front-end design of the system.....	21
5.1 Home screen	21
5.1.1 Rooms filters	21
5.1.2 Testimonials	23
5.2 Register page	23
5.2.1 Email verified	24
5.3 Login page	25
5.4 Forgot password page	25
5.4.1 Email verified	26
5.4.2 New password	26
5.5 Profile page	27
5.6 Booking page	27
5.6.1 Cancel booking	28
5.6.2 Review & Rating	29
5.6.3 Booking receipt download (.pdf file)	29
5.7 Logout page	30
5.8 Rooms page	30
5.8.1 Rooms filters	31
5.8.2 Rooms details	32
5.8.3 Rooms book	33
5.8.4 sslCommerz	34
5.8.5 Payment status	35
5.9 Facilities	35
5.10 Contact US	36
5.11 About	36
Chapter 6: Back-end design of the system.....	38
6.1 Admin login	38
6.2 Dashboard	38
6.3 Booking page	39
6.3.1 New booking	39
6.3.2 Refund booking	39
6.3.3 Booking record	39
6.4 Users information	43
6.5 Users queries	43
6.6 Rating & Reviews	44
6.7 Rooms page	44
6.8 Features & Facilities Page	46
6.9 Carousel page	47
6.10 Settings page	48

Chapter 7: Database design of the system.....	51
7.1 Introduction	51
7.1.1 Database table's	51
7.1.2 Admin information entity	51
7.1.3 Bookings details entity	52
7.1.4 Booking order entity	52
7.1.5 Carousel entity	53
7.1.6 Contact details entity	53
7.1.7 Facilities entity	53
7.1.8 Features entity	54
7.1.9 Ratings & Reviews entity	54
7.1.10 Rooms entity	54
7.1.11 Rooms facilities entity	55
7.1.12 Rooms features entity	55
7.1.13 Rooms images entity	55
7.1.14 Setting entity	55
7.1.15 Teams details entity	55
7.1.16 User information entity	56
7.1.17 Users queries entity	56
7.2 Entity relationship diagram	57
Chapter 8: Data flow diagram.....	58
8.1 Data Flow Diagram	58
8.1.1 Data Flow Diagram Symbol	58
8.1.2 Context Level DFD – 0 Level	59
8.3 Admin DFD	60
8.4 User DFD	61
Chapter 9: Conclusion and Future work.....	62
9.1 Conclusion	62
9.2 Future Work	63
References.....	64

List of Figures

Figure 4.2	Admin module	19
Figure 4.3	User module	20
Figure 5.1	User home page	21
Figure 5.1.1	User home page rooms filters	22
Figure 5.1.2	User home page testimonials	23
Figure 5.2	User register page	24
Figure 5.2.1	User email verification	24
Figure 5.3	User login page	25
Figure 5.4	User forgot password page	25
Figure 5.4.1	User forgot password email verified	26
Figure 5.4.2	User new password pop-up	26
Figure 5.5	User profile page	27
Figure 5.6	User booking page	28
Figure 5.6.1	User cancel booking page	28
Figure 5.6.2	User review & rating page	29
Figure 5.6.3	User booking receipt download	29
Figure 5.7	User logout page	30
Figure 5.8	User rooms page	31
Figure 5.8.1	User rooms page filters	32
Figure 5.8.2	User rooms details page	33
Figure 5.8.3	User rooms book page	34
Figure 5.8.4	User payment method sslCommerz	34
Figure 5.8.5	User payment status	35
Figure 5.9	User facilities page	35
Figure 5.10	User contact page	36
Figure 5.11	User about US page	37
Figure 6.1	Admin login panel	38
Figure 6.2	Admin dashboard	39
Figure 6.3.1	Admin new booking page	40
Figure 6.3.2	Admin refund booking page	41
Figure 6.3.3	Admin booking record page	42
Figure 6.4	Admin user information page	43
Figure 6.5	Admin user queries page	43
Figure 6.6	Admin rating & review page	44
Figure 6.7	Admin rooms page	46
Figure 6.8	Admin facilities & features page	47
Figure 6.9	Admin carousel page	48
Figure 6.10	Admin setting page	50
Figure 7.18	E-R diagram	57
Figure 8.1	DFD symbol	58
Figure 8.2	0-Level DFD	59
Figure 8.3	Admin DFD	60
Figure 8.4	User DFD	61

List of Tables

Table 7.1	Database table's	51
Table 7.2	Admin information entity	51
Table 7.3	Booking details entity	52
Table 7.4	Booking order entity	52
Table 7.5	Carousel entity	53
Table 7.6	Contact details entity	53
Table 7.7	Facilities entity	53
Table 7.8	Features entity	54
Table 7.9	Ratings & Reviews entity	54
Table 7.10	Rooms entity	54
Table 7.11	Room facilities entity	55
Table 7.12	Room features entity	55
Table 7.13	Room images entity	55
Table 7.14	Settings entity	55
Table 7.15	Team details entity	55
Table 7.16	User information entity	56
Table 7.17	User queries entity	56

Chapter 1

Introduction

1.1 Problem and Motivation

1.1.1 Problem

The traditional process of booking hotel accommodations has several limitations and inefficiencies. Travelers often face difficulties in finding suitable hotels, making reservations, and obtaining real-time information about availability and pricing. Additionally, hotels struggle with managing bookings, optimizing occupancy rates, and providing a seamless experience for their guests. These challenges highlight the need for a modern and user-friendly solution that addresses the following key problems:

Inefficient Booking Process: The traditional method of booking hotels involves time-consuming phone calls, emails, or reliance on travel agents. This process lacks convenience, transparency, and instant access to accurate information. It results in delays, miscommunications, and inconvenience for travelers.

Lack of Real-time Information: Travelers often encounter difficulties in obtaining up-to-date information about hotel availability, rates, amenities, and reviews. This lack of transparency leads to uncertainty and may result in misunderstandings, overbooking, or discrepancies in pricing.

Limited Personalization: Existing hotel booking systems often lack personalized recommendations and advanced search filters that cater to individual preferences and requirements. Travelers are left with generic options that may not align with their specific needs, leading to a suboptimal booking experience.

Inefficient Hotel Management: Hotels struggle with managing their bookings effectively, leading to overbooking or underutilization of their resources. The lack of a centralized system makes it challenging to synchronize reservations across various channels and efficiently allocate room inventory.

1.1.2 Motivation

The motivation behind the Hotel Booking Website project is to meet the evolving needs and preferences of modern travelers. In today's fast-paced world, people are increasingly relying on online platforms for their travel arrangements, including hotel bookings. The project aims to provide a convenient and efficient solution that simplifies the process of finding and booking hotels. By creating a user-friendly interface, incorporating advanced search and filtering options, and offering comprehensive information about hotels, the website aims to enhance the overall user experience. The motivation is to empower users with the ability to explore a wide range of accommodations, compare prices, read reviews, and make informed decisions based on their specific requirements and preferences. By streamlining the booking process and offering secure payment options, the project seeks to save users time and effort while ensuring a seamless and enjoyable booking experience for their travel needs. Ultimately, the motivation is to create a trusted platform that connects travelers with the perfect accommodations, making their travel experiences more convenient, enjoyable, and memorable.

1.2 Purpose and Objectives

1.2.1 Purpose

The purpose of the Hotel Booking Website project is to develop a comprehensive and user-friendly online platform that simplifies the hotel booking process for travelers while providing efficient management solutions for hotels. The project aims to leverage technology to enhance the overall experience of both travelers and hoteliers, ensuring convenience, transparency, and personalized services.

1.2.2 Objectives

Objectives for a Hotel Booking Website project can be outlined as follows:

Develop a User-Friendly Interface:

- Create an intuitive and visually appealing user interface that enhances the overall user experience.
- Ensure easy navigation, clear information presentation, and seamless interaction throughout the website.

Implement a Comprehensive Search and Booking System:

- Enable users to search for hotels based on various criteria such as location, dates, price range, amenities, and room types.

- Develop a secure and efficient booking system that allows users to reserve hotel rooms, select preferred options, and make payments seamlessly.

Integrate Multiple Payment Options:

- Incorporate popular and secure payment gateways to offer users a range of payment options.
- Ensure smooth and secure transactions by implementing appropriate encryption and fraud prevention measures.

Provide Detailed Hotel Information:

- Display comprehensive information about each hotel, including descriptions, amenities, photos, room types, and availability.
- Enable users to view guest reviews and ratings to make informed decisions.

Implement User Accounts and Profiles:

- Allow users to create personal accounts and profiles to manage their bookings, preferences, and payment information.
- Provide a personalized experience by saving user preferences and offering tailored recommendations.

Ensure Integration with Third-Party Services:

- Integrate with external services such as mapping APIs, transportation providers, and tour booking platforms to offer a comprehensive travel experience.
- Enable users to view hotel locations, and nearby attractions, and access additional travel services.

Enhance Security and Data Privacy:

- Implement robust security measures to protect user data, including personal information and payment details.
- Comply with data privacy regulations and ensure secure transmission and storage of sensitive information.

Optimize Website Performance:

- Develop a fast and responsive website that performs well across various devices and screen sizes.
- Implement caching mechanisms, minimize loading times, and optimize server infrastructure to ensure a smooth user experience.

Offer Excellent Customer Support:

- Provide multiple channels for customer support, such as live chat, email, or phone, to address user queries and concerns promptly.
- Implement a ticketing system to track and resolve customer issues effectively.

Conduct Regular Testing and Maintenance:

- Perform comprehensive testing to identify and fix any bugs, errors, or usability issues.
- Regularly update and maintain the website to ensure compatibility with evolving technologies and user expectations.

1.3 Goals

The Hotel Booking Website project aims to develop a comprehensive and user-friendly online platform that simplifies the hotel booking process for travelers while providing efficient management solutions for hotels. The project has the following goals:

Enhance User Experience

- Develop an intuitive and user-friendly interface for seamless navigation and ease of use.
- Implement advanced search filters and personalized recommendations based on user preferences.
- Provide a responsive design that offers a consistent experience across different devices.

Streamline the Booking Process

- Enable travelers to search, compare, and book hotels easily and efficiently.
- Implement a smooth and secure payment gateway for seamless transactions.
- Provide instant confirmation of reservations and clear communication of booking details.

Provide Real-time Information

- Integrate reliable data sources to ensure accurate and up-to-date information on hotel availability, rates, amenities, and user reviews.
- Enable travelers to access real-time pricing and availability information to make informed decisions.
- Implement mechanisms to ensure the reliability and accuracy of the information presented.

Optimize Hotel Management

- Develop a comprehensive hotel management system that allows hotels to efficiently handle reservations and manage room inventory.
- Enable hotels to track availability in real-time and synchronize bookings across multiple channels.
- Provide tools for effective room allocation, optimizing occupancy rates, and maximizing revenue.

Ensure Security and Trust

- Implement robust security measures to protect user data and ensure secure transactions.
- Establish a reliable review system to promote transparency and trust between travelers and hotels.

- Maintain a trustworthy platform that prioritizes data privacy and user confidentiality.

Enhance Collaboration with Hotels

- Foster partnerships with hotels to encourage their participation and engagement on the platform.
- Provide hoteliers with insights and analytics to optimize their operations and improve guest satisfaction.
- Continuously gather feedback from hotels to enhance the platform's features and functionality.

Continuous Improvement and Adaptability

- Regularly update and enhance the website based on user feedback and evolving industry trends.
- Keep up with technological advancements to incorporate new features and improve performance.
- Ensure scalability and adaptability to accommodate increasing user demands and changing market requirements.

By achieving these goals, the Hotel Booking Website project aims to revolutionize the hotel booking process, providing a seamless and efficient experience for travelers while empowering hotels to optimize their operations and maximize guest satisfaction.

1.4 Features

The Hotel Booking Website project aims to develop a comprehensive and user-friendly online platform that simplifies the hotel booking process for travelers while providing efficient management solutions for hotels. The project includes the following features:

User Registration and Profile Management

- Allow users to create accounts and manage their profiles.
- Store user preferences and booking history for personalized recommendations.
- Enable users to update personal information and manage communication preferences.

Advanced Search and Filtering

- Provide robust search functionality to find hotels based on location, dates, and specific criteria.
- Implement advanced filtering options such as price range, amenities, ratings, and user reviews.
- Enable users to sort and compare search results based on their preferences.

Hotel Listings and Detailed Information

- Display comprehensive hotel listings with high-quality images, detailed descriptions, and amenities.
- Include information on room types, availability, pricing, and cancellation policies.
- Integrate user-generated reviews and ratings to assist users in making informed decisions.

Real-time Availability and Pricing

- Integrate with hotel management systems to provide real-time information on room availability.
- Display accurate pricing information, including any discounts, special offers, or package deals.
- Ensure synchronization between the website and hotels to prevent overbooking or discrepancies.

Secure Online Booking and Payment

- Enable users to book hotels directly through the website using a secure and reliable booking system.
- Implement secure payment gateways to facilitate seamless and safe transactions.
- Provide instant booking confirmation and email notifications to users.

Personalized Recommendations

- Utilize machine learning algorithms to analyze user preferences and provide personalized hotel recommendations.
- Offer tailored suggestions based on previous bookings, ratings, and user behavior.
- Continuously improve recommendation algorithms based on user feedback and interactions.

Hotel Management Dashboard

- Develop a comprehensive dashboard for hoteliers to manage their property listings and reservations.
- Provide tools for room inventory management, availability tracking, and pricing control.
- Enable hotels to update room details, manage bookings, and communicate with guests.

Review and Rating System

- Implement a robust review and rating system for users to provide feedback on their hotel experiences.
- Display user reviews and ratings to assist other travelers in making informed decisions.
- Ensure transparency and authenticity by moderating reviews and preventing fraudulent activities.

Mobile Responsiveness

- Design and optimize the website to be mobile-friendly and responsive across various devices.
- Ensure a seamless and consistent user experience on smartphones and tablets.

Admin Panel

- Develop an admin panel to manage user accounts, hotel listings, and system settings.
- Provide analytics and reporting features for monitoring website performance and user activities.
- Enable administrators to address user queries, handle disputes, and manage content.

By incorporating these features, the Hotel Booking Website project aims to provide travelers with a user-friendly and efficient platform for finding and booking hotels, while enabling hoteliers to effectively manage their operations and enhance guest satisfaction.

1.5 Requirements

1.5.1 Hardware

- A desktop computer or Laptop.

1.5.2 Software

- XAMPP.
- Programming Languages: HTML, CSS, JavaScript, PHP.
- Frameworks and Libraries: swiper js, Ajax, Bootstrap 5.
- Any code editor.
- Any operating systems.

Chapter 2

Project analysis

2.1 Study and weaknesses of current system

Functionality Assessment:

- Evaluate the system's core features, such as hotel search, booking process, reservation management, and user account functionality.
- Identify any missing or incomplete features that may hinder the user experience or limit the system's capabilities.

User Interface Evaluation:

- Analyze the website's user interface design, navigation structure, and overall ease of use.
- Assess the clarity of information presentation, intuitiveness of the booking process, and accessibility across different devices.

Performance Analysis:

- Measure the system's loading speed, responsiveness, and scalability to handle concurrent user requests.
- Identify any performance bottlenecks or slowdowns that may negatively impact the user experience or result in system downtime.

Security Assessment:

- Review the system's security measures, such as data encryption, secure connections, and protection against common vulnerabilities.
- Identify any potential weaknesses in data handling, storage, or transmission that may expose user information to unauthorized access.

Customer Feedback Collection:

- Gather user feedback through surveys, reviews, or support interactions to understand their experiences, concerns, and suggestions.
- Identify common complaints, pain points, or areas where users feel the system falls short of their expectations.

Competitive Analysis:

- Compare the current system with other leading Hotel Booking Websites to benchmark its performance, features, and user experience.
- Highlight areas where the current system lags behind competitors and may need improvements.

Weaknesses Identification:

- Consolidate the findings from the evaluation process to identify the weaknesses and limitations of the current system.

- Categorize the weaknesses based on their impact on functionality, usability, performance, security, or customer satisfaction.

Recommendations for Improvement:

- Propose specific recommendations and strategies to address the identified weaknesses.
- Suggest enhancements such as feature additions, user interface improvements, performance optimizations, security upgrades, and customer support enhancements.

2.1.1 Disadvantages of current system

Lack of Real-Time Customer Support: If the system does not offer real-time customer support options, such as live chat or chatbot assistance, it can result in delays in addressing user queries or concerns, potentially impacting customer satisfaction.

Lack of Multi-Language Support: If the system does not support multiple languages, it can hinder its usability for international users or users who prefer to browse and book in their native language.

Dependency on Internet Connectivity: Since the hotel booking process is conducted online, users are dependent on stable Internet connectivity. In case of network issues or downtime, users may face difficulties in accessing the website or making bookings.

Lack of Customization: The current system may lack advanced customization options for users. Users may not be able to specify detailed preferences or special requirements during the booking process, which can limit personalization.

Reliance on Third-Party Services: The integration of payment gateways or other third-party services can introduce dependencies and potential issues. Any disruptions or changes in the services provided by these third-party providers can impact the overall functionality of the booking system.

2.1.2 Benefits of new system

Enhanced User Experience: The new system aims to provide a seamless and intuitive user experience. A user-friendly interface, streamlined navigation, and clear instructions can make it easier for users to search for hotels, view details, and make reservations. By reducing friction in the booking process, the new system enhances user satisfaction and encourages repeat bookings.

Personalization and Recommendations: The new system can leverage user data and preferences to offer personalized recommendations. By analyzing user behavior, booking history, and preferences, the system can suggest hotels, room types, and amenities that align with the user's preferences. This personalized approach enhances the user's ability to find suitable accommodations and increases their overall satisfaction with the booking experience.

Advanced Search and Filtering Options: The new system can provide advanced search and filtering options to help users refine their search results. Users can filter hotels based on

location, price range, amenities, guest ratings, and other relevant factors. This functionality allows users to find hotels that meet their specific requirements, saving time and effort in the search process.

Diverse Payment Options: The new system can offer a wide range of payment options to accommodate user preferences. This can include traditional methods such as credit cards and bank transfers, as well as emerging options like digital wallets or cryptocurrencies. Providing diverse payment options enhances flexibility and convenience for users, leading to a higher likelihood of successful bookings.

Real-Time Availability and Pricing Updates: The new system can integrate with hotel inventory management systems to provide real-time availability and pricing updates. Users can rely on accurate and up-to-date information, reducing the chances of encountering discrepancies or unavailable bookings. This feature ensures transparency and builds trust with users, improving their confidence in the system.

Comprehensive Information and Visual Content: The new system can offer detailed hotel information, including high-quality images, descriptions, amenities, and guest reviews. Users can make well-informed decisions based on comprehensive and reliable information. Additionally, the system can incorporate virtual tours or 360-degree images to provide a more immersive and engaging experience for users, helping them visualize the hotel before making a reservation.

Robust Customer Support: The new system can prioritize robust customer support services. This can include 24/7 live chat support, dedicated helplines, and prompt email responses to assist users with inquiries, modifications, cancellations, or other issues. Effective customer support ensures users feel supported throughout their booking journey, improving their overall satisfaction and loyalty.

Integration with Travel Planning Tools: The new system can integrate with travel planning tools and services, allowing users to seamlessly coordinate their hotel bookings with other travel arrangements such as flights, car rentals, or activities. This integration simplifies the travel planning process for users, providing a comprehensive and cohesive experience.

By incorporating these benefits, the new hotel booking website system aims to provide an improved user experience, personalized recommendations, reliable information, and efficient customer support. These enhancements contribute to increased user satisfaction, higher conversion rates, and the potential for increased customer loyalty and retention.

2.2 Feasibility study

Technical Feasibility:

- **Availability of Resources:** Assess whether the necessary technical resources, such as hardware, software, and infrastructure, are readily available or can be acquired within the project timeline.
- **Development Expertise:** Evaluate the availability of skilled developers and technical personnel who can design, develop, and maintain the website system.

- **Integration Capability:** Determine if the system can integrate with external systems, such as hotel inventory management systems or payment gateways, to provide a seamless user experience.

Economic Feasibility:

- **Cost-Benefit Analysis:** Conduct a cost-benefit analysis to determine the financial viability of the project. Assess the development costs, operational expenses, and potential revenue generation from the website system.
- **Return on Investment (ROI):** Evaluate the estimated ROI by considering factors such as market demand, projected user base, and revenue models (e.g., commission-based fees or advertising revenue).
- **Competitiveness:** Analyze the market competition and potential market share that the hotel booking website system can capture. Assess the potential for revenue growth and sustainability in the long term.

Legal and Regulatory Feasibility:

- **Compliance Requirements:** Identify and evaluate legal and regulatory requirements related to online hotel booking platforms, such as data protection, consumer protection, and payment security regulations.
- **Intellectual Property Rights:** Ensure that the project does not infringe on any existing patents, trademarks, copyrights, or intellectual property rights of other entities.
- **Contractual Obligations:** Assess any legal obligations associated with partnerships, agreements with hotels, or third-party service providers. Ensure compliance with contractual terms and conditions.

Operational Feasibility:

- **User Adoption:** Assess the willingness of potential users (both customers and hotels) to adopt the new hotel booking website system. Conduct surveys or interviews to understand user preferences and expectations.
- **Scalability:** Determine if the system can handle increasing user traffic and accommodate a growing number of hotels and bookings over time.
- **Operational Efficiency:** Evaluate how the system can streamline and automate processes, such as hotel availability updates, reservation management, and payment processing, to optimize operational efficiency.

Schedule Feasibility:

- **Time Constraints:** Evaluate the project timeline, considering the development, testing, and deployment phases. Assess if the project can be completed within the desired timeframe and if any dependencies or risks may cause delays.
- **Project Management:** Ensure the availability of skilled project managers who can effectively plan, monitor, and control the project's progress to meet the desired deadlines.

Based on the findings of the feasibility study, stakeholders can make informed decisions regarding the viability and potential success of the hotel booking website system project. The study will help identify any potential challenges or risks and guide the project's planning, resource allocation, and implementation strategies.

2.3 Related works and background

Background:

The hotel industry has experienced significant growth with the increasing popularity of online travel booking platforms. Travelers now prefer the convenience and flexibility offered by hotel booking websites, enabling them to explore a wide range of options, compare prices, and make reservations with ease. This shift in consumer behavior has led to the emergence of numerous online hotel booking systems, each striving to provide a user-friendly and comprehensive platform.

Related Works:

Booking.com: Booking.com is one of the leading hotel booking websites globally. It offers an extensive selection of hotels, apartments, and vacation rentals across various destinations. The platform focuses on providing a seamless user experience, allowing users to filter search results based on preferences, read customer reviews, and make secure bookings. It also offers features like price comparisons, real-time availability updates, and 24/7 customer support.

Expedia: Expedia is a well-established online travel agency that offers hotel bookings, flights, car rentals, and vacation packages. With a user-friendly interface, Expedia allows travelers to search for accommodations based on location, price range, and amenities. The platform provides detailed hotel descriptions, high-quality images, and customer reviews to assist users in making informed decisions. Expedia also offers loyalty programs and discounts to encourage repeat bookings.

Airbnb: Although known for its vacation rental listings, Airbnb has expanded its offerings to include hotel accommodations. It provides a unique approach to hotel booking by focusing on curated experiences and local hosts. Airbnb's website and app enable users to discover hotels based on location, price, and specific preferences. The platform emphasizes personalized recommendations and allows users to communicate directly with hosts for additional information.

Agoda: Agoda is a popular hotel booking platform, particularly in the Asian market. It offers a wide range of hotel options across different price ranges and provides localized services in multiple languages. Agoda's user-friendly interface allows users to search for hotels, compare prices, and access exclusive deals. The platform also offers features like flexible booking options, reward programs, and customer support.

TripAdvisor: TripAdvisor is a well-known travel website that offers hotel bookings, as well as user-generated reviews and recommendations. Users can search for hotels, read reviews from fellow travelers, and compare prices from various booking sites. TripAdvisor provides an extensive database of hotels worldwide, making it a valuable resource for travelers seeking reliable information and insights.

These related works and their success in the hotel booking industry showcase the significance of providing a user-friendly interface, personalized recommendations, reliable information, and efficient customer support. By understanding the strengths and weaknesses of existing systems,

a new hotel booking website system can be designed and developed to meet user expectations and provide a competitive edge in the market.

Chapter 3

Tools and Technologies

3.1 XAMPP

XAMPP is a free and open-source cross-platform web server solution stack package developed by Apache Friends, consisting mainly of the Apache HTTP Server, MariaDB database, and interpreters for scripts written in the PHP and Perl programming languages. XAMPP stands for Cross-Platform (X), Apache (A), MariaDB (M), PHP (P), and Perl (P). It is a simple, lightweight Apache distribution that makes it extremely easy for developers to create a local web server for testing and deployment purposes. Everything needed to set up a web server – server application (Apache), database (MariaDB), and scripting language (PHP) – is included in an extractable file. XAMPP is also cross-platform, which means it works equally well on Linux, Mac, and Windows.

3.1.1 Apache server

The Apache HTTP Server, informally called Apache, is the world's most popular web server software that in 2009 it became the first web server software to serve more than 100 million websites. The Apache development began in early 1995 and was originally based on the NCSA HTTP server. Apache is developed and maintained by an open community of developers under the patronage of the Apache Software Foundation. Mostly used on a Unix-like system, the software is also available for a vast variety of operating systems, including Microsoft Windows, Open VMS, eComStation, NetWare, and TPF. In my project, I have used Apache version of 2.4.

3.1.2 PhpMyAdmin

It is an open-source tool and also, and it is free and written in PHP, XHTML, CSS, and JavaScript planned to manage the administration of MySQL by using the web. It is able to perform various missions like creating, and modifying databases, tables, and fields, executing SQL statements, or managing and supervising users. In my project, I have used PhpMyAdmin version 5.2.1.

3.1.3 MySQL

SQL stands for Structured Query Language. MySQL is an open-source Relational Database Management System (RDBMS); it is a popular database for use in web applications and is a central part of the greatly used LAMP (Linux, Apache, MySQL, and Perl/PHP/Python) open-source web application software stack.

MySQL is used by many applications like WordPress, Joomla, TYPO3, Drupal, MyBB, phpBB, MODX, and other software. Numerous large-scale websites including Google, YouTube, Facebook, Twitter, and Flickr are also using MySQL. In my project, I have used MySQL version 5.0.11

3.1.4 PHP

It stands for PHP: Hypertext Preprocessor but, originally stood for Personal Home Page. It is a server-side scripting language designed for web development, as well as used for general-purpose language. It was created in 1994 by Rasmus Lerdorf, in the present time the reference execution of PHP is produced by the PHP group.

In January 2013, PHP was installed on more than 240 million websites, and 2.1 million web servers. The PHP code can be combined with several web frameworks and templating engines or simply it can be mixed with HTML code.

The PHP code is generally processed by a PHP interpreter, which is commonly executed as a native module of the web server or a Common Gateway Interface (CGI) executable. After the interpretation and execution of the PHP code, the results will be sent by the web server to its client. There are many versions of the PHP and the version. In my project, I have used PHP version 8.3

3.2 Visual Studio Code (VS Code)

Visual Studio Code (VS Code) is a lightweight and extensible source code editor developed by Microsoft. Its development began as an expansion of the Monaco project, aiming to provide a powerful yet lightweight tool for code editing across multiple platforms. Since its initial release, VS Code has gained significant popularity due to its performance, rich feature set, customization options, and vibrant extension ecosystem. It continues to evolve and improve, catering to the needs of developers worldwide.

3.3 HTML and CSS

HTML stands for Hypertext Markup Language and CSS stands for Cascading Style Sheets are the crucial technologies for creating web pages. HTML supplies the structure of the page, and CSS the layout, for the diversity of devices. Together with scripting and graphics, HTML and CSS are the fundamentals of building Web Applications and Web pages.

HTML provides designers and developers with the following facilities,

- To design forms for directing transactions with remote services, for use in making reservations, searching for information, ordering products, and others.
- Retrieving online information through hypertext links.
- To include video and sound clips, spreadsheets, and other applications straight in their documents.
- Designer can publish online documents with text, headings, tables, photos, and others.

CSS describes the Web page's presentation, involving layout, colors, and fonts. It enables the designer to adjust the presentation to various types of devices, like small screens, large screens, or printers.

CSS is separate from HTML, and their separation makes it easy to preserve and maintain sites, share style sheets across pages, and accommodate pages to various environments.

3.4 JavaScript

JavaScript often abbreviated as JS, is a high-level, interpreted programming language. It is a language that is also characterized as dynamic, weakly typed, prototype-based, and multi-paradigm.

Alongside HTML and CSS, JavaScript is one of the three core technologies of the World Wide Web. JavaScript enables interactive web pages and thus is an essential part of web applications. The vast majority of websites use it, and all major web browsers have a dedicated JavaScript engine to execute it.

As a multi-paradigm language, JavaScript supports event-driven, functional, and imperative (including object-oriented and prototype-based) programming styles. It has an API for working with text, arrays, dates, regular expressions, and basic manipulation of the DOM, but the language itself does not include any I/O, such as networking, storage, or graphics facilities, relying for these upon the host environment in which it is embedded. JavaScript was influenced by programming languages such as Self and Scheme.

3.5 Frameworks

3.5.1 Bootstrap 5

Bootstrap is a front-end framework and collection of tools and mechanisms for building web applications. It consists of HTML and CSS-based design templates for navigations, forms, buttons, typography, and other interface elements, and also JavaScript extensions.

Bootstrap is free and open source, and its purpose is to make easy the development of dynamic websites and web applications.

Bootstrap was developed by Mark Otto and Jacob Thomton and named Twitter Blueprint. Before the Bootstrap framework, designers were using different libraries for interface development, which had many inconsistencies and their maintenance was difficult.

On 31 Jan 2012, bootstrap 2 was released. This framework has brought many changes to the existing components and, also, added 12 column grid layout and responsive design constituents. On August 19, 2013, bootstrap 3 was announced, which moved to the first approach of mobile and using a flat design.

3.5.2 JavaScript Framework (jQuery)

jQuery is a JavaScript library intended to make simple the client-side scripting of HTML. It is the most popular JavaScript framework, which is free and open-source software licensed under the MIT License.

Several of the largest companies that are using jQuery include:

- Google
- IBM
- Microsoft and
- Netflix

3.6 Swiper js

Swiper.js is a popular JavaScript library developed by Vladimir Kharlampidi in 2014. It provides a lightweight and versatile solution for creating touch-enabled sliders and carousels on websites and web applications. Its ease of use, extensive features, and active community have contributed to its widespread adoption among web developers.

3.7 PHPMailer

PHPMailer is an open-source PHP library created by Brent R. Matzelle in 2001. It was developed to provide a robust and feature-rich solution for sending emails from PHP applications. PHPMailer gained popularity due to its simplicity, flexibility, and continuous updates from the developer and the open-source community. It remains widely used today and has become a standard choice for email functionality in PHP development.

3.8 mPDF

mPDF is a PHP library created by Ian Back in 2005 to enable dynamic PDF generation from HTML content. It gained popularity due to its simplicity, reliability, and feature-richness. Over the years, mPDF has evolved, incorporating advanced PDF features and maintaining compatibility with different PHP versions. It continues to be actively developed and widely used in PHP projects for generating printable PDF documents.

Chapter 4

System Modules

4.1 Modules Types

The Hotel Booking Website project has mainly two modules. These two types of modules have two different functions. Which fulfills various tasks of user and admin.

- Admin Module
- User Module

4.2 Admin Module

The admin is a person who runs and manages the system. The admin has full access to the system.

4.2.1 Admin Functionalities

- Add/modify/delete/view Room information
- Add/modify/delete/view Room images
- Add/modify/delete/view Facilities
- Add/modify/delete/view Features
- Modify staff's information
- View Customer information
- Add/modify/delete/Contact information
- Shutdown mode website

The following figure illustrates the admin module.

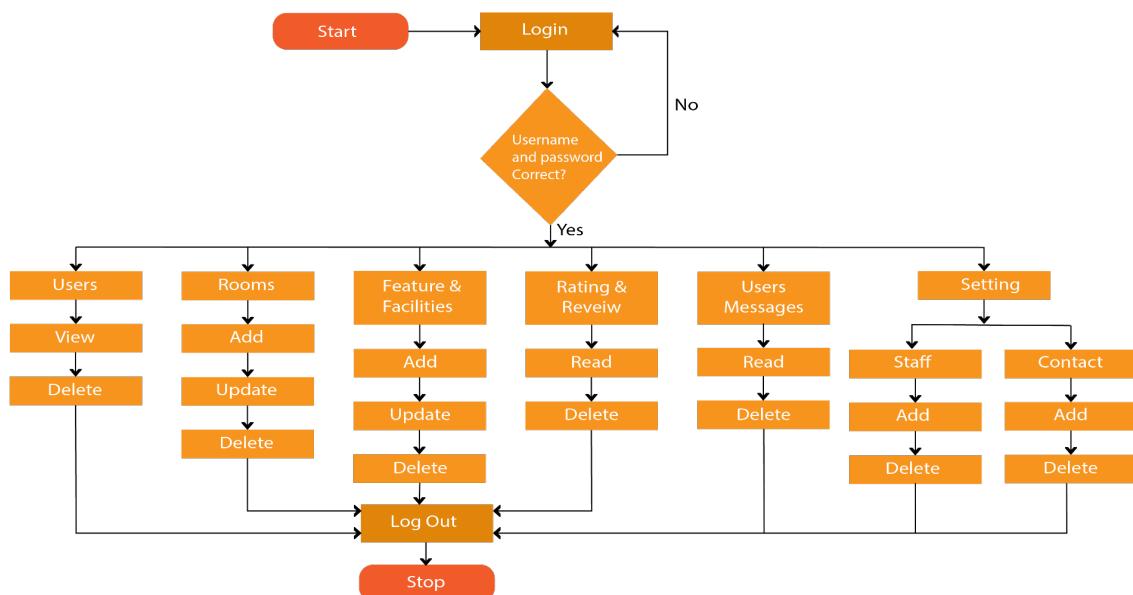


Figure 4.2: Admin module

4.3 User Module

Any user can browse it. Users can make bookings by opening an account.

4.3.1 User Functionalities

- View Profile
- View Rooms
- View Facilities
- View Features
- Check-in and Check-out
- Booked Room
- Contact Us
- Review & Rating
- Online payment

The following figure illustrates the teacher module.

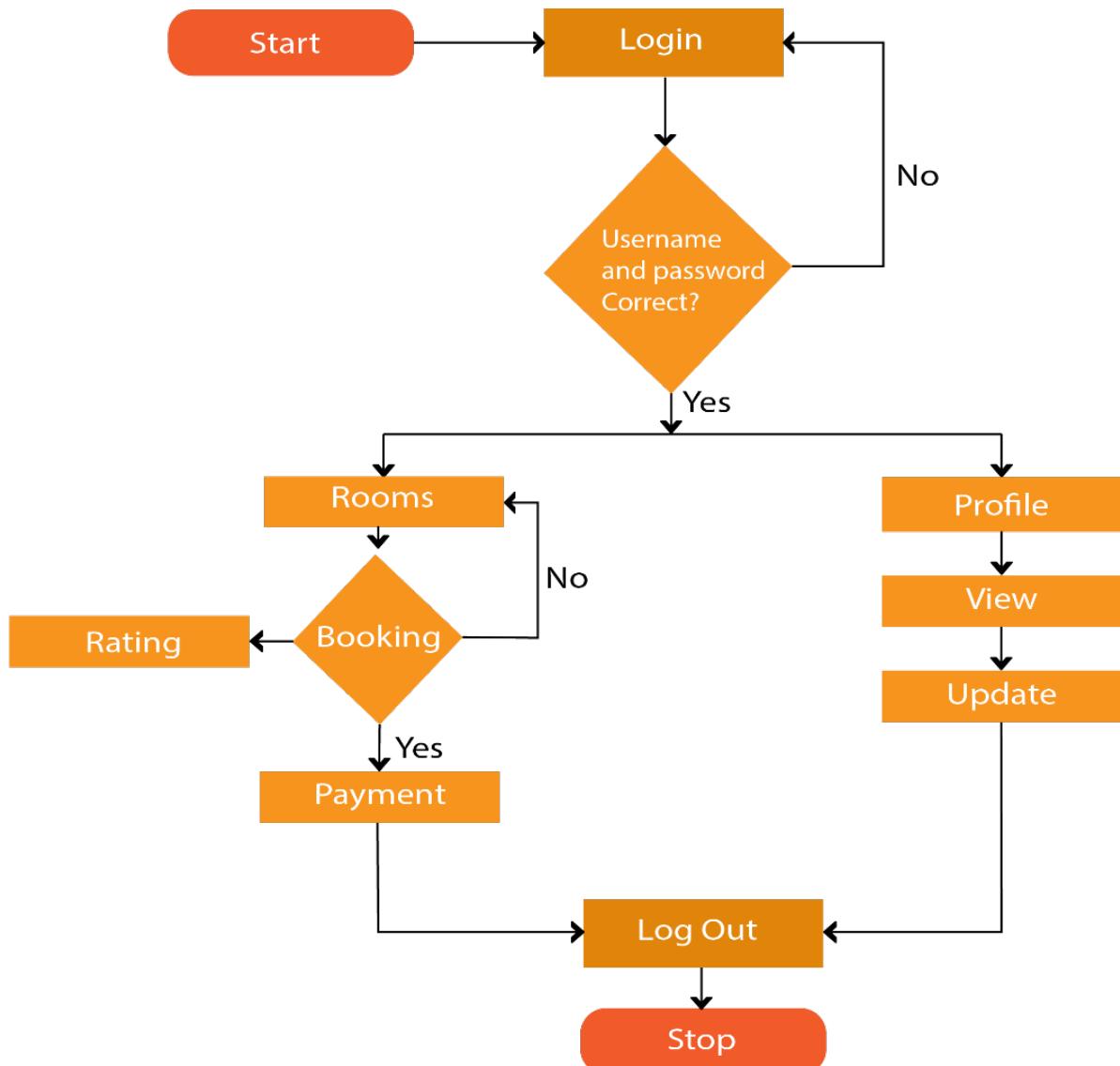


Figure 4.3: User module

Chapter 5

Front-end Design of the System

5.1 Home Screen

This home screen can be accessed by any person through any browser and get an idea about our various services. Any user without login is allowed to enter the hotel booking website. But the user will not be able to make a booking without logging in. But for any information, users can go to our contact us option and email us or call us and ask.

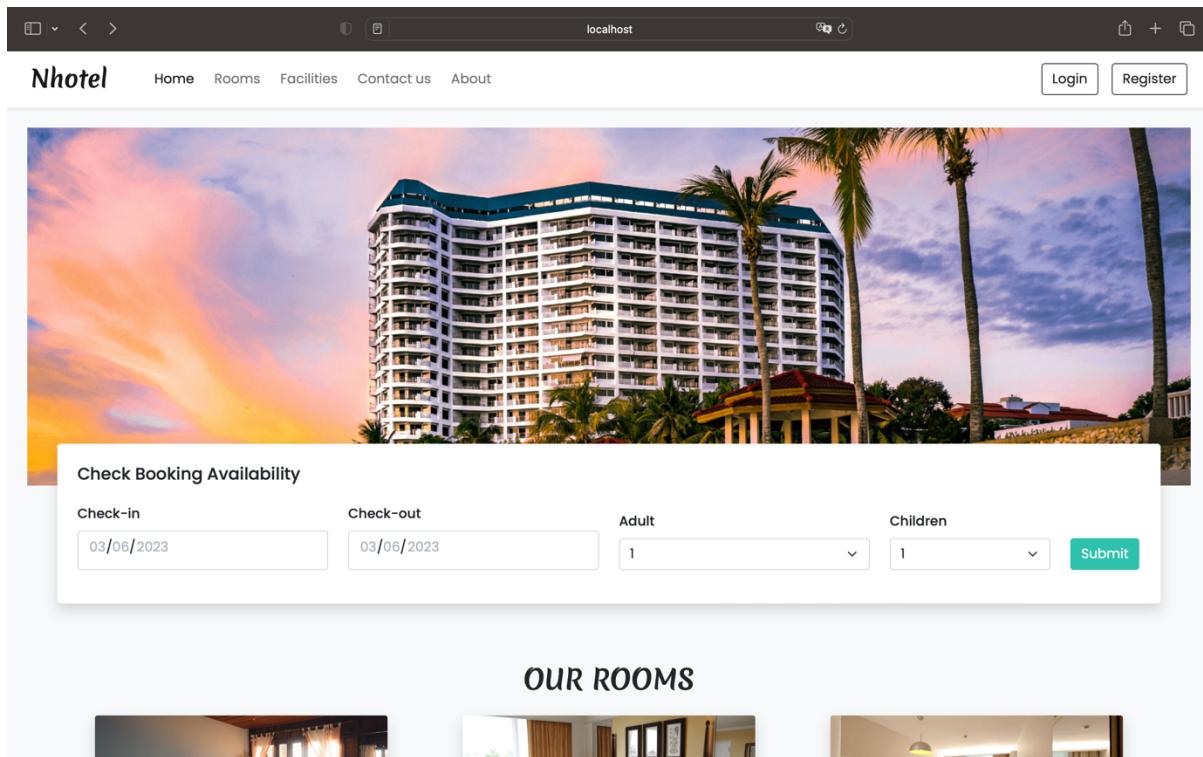


Figure 5.1: User home page

5.1.1 Rooms filters

If any user needs to know how many rooms are available on the desired days, then the user can use the filter option and according to the number of people staying, the user can use the filter option to know how many rooms are available and what facilities. Of course, the user can use it without login.

localhost

Nhotel Home Rooms Facilities Contact us About Login Register

Check Booking Availability

Check-in 03/06/2023	Check-out 03/06/2023	Adult 1	Children 1	Submit
------------------------	-------------------------	------------	---------------	---------------

OUR ROOMS

a
1

Features
2 Room

Facilities
Oven

Guest
1 Adults 1 Children

Book Now More details..

q
1

Features
2 Room

Facilities
Oven

Guest
1 Adults 1 Children

Book Now More details..

A
1

Features

Facilities

Guest
1 Adults 1 Children

Rating

Book Now More details..

More Rooms >>

OUR FACILITIES

Figure 5.1.1: User home page rooms filters

5.1.2 Testimonials

Here some users' top reviews are shown by Swiper js. When the user login for booking a room reviews about his service are shown here. So that other users can get a very good idea about this room service.

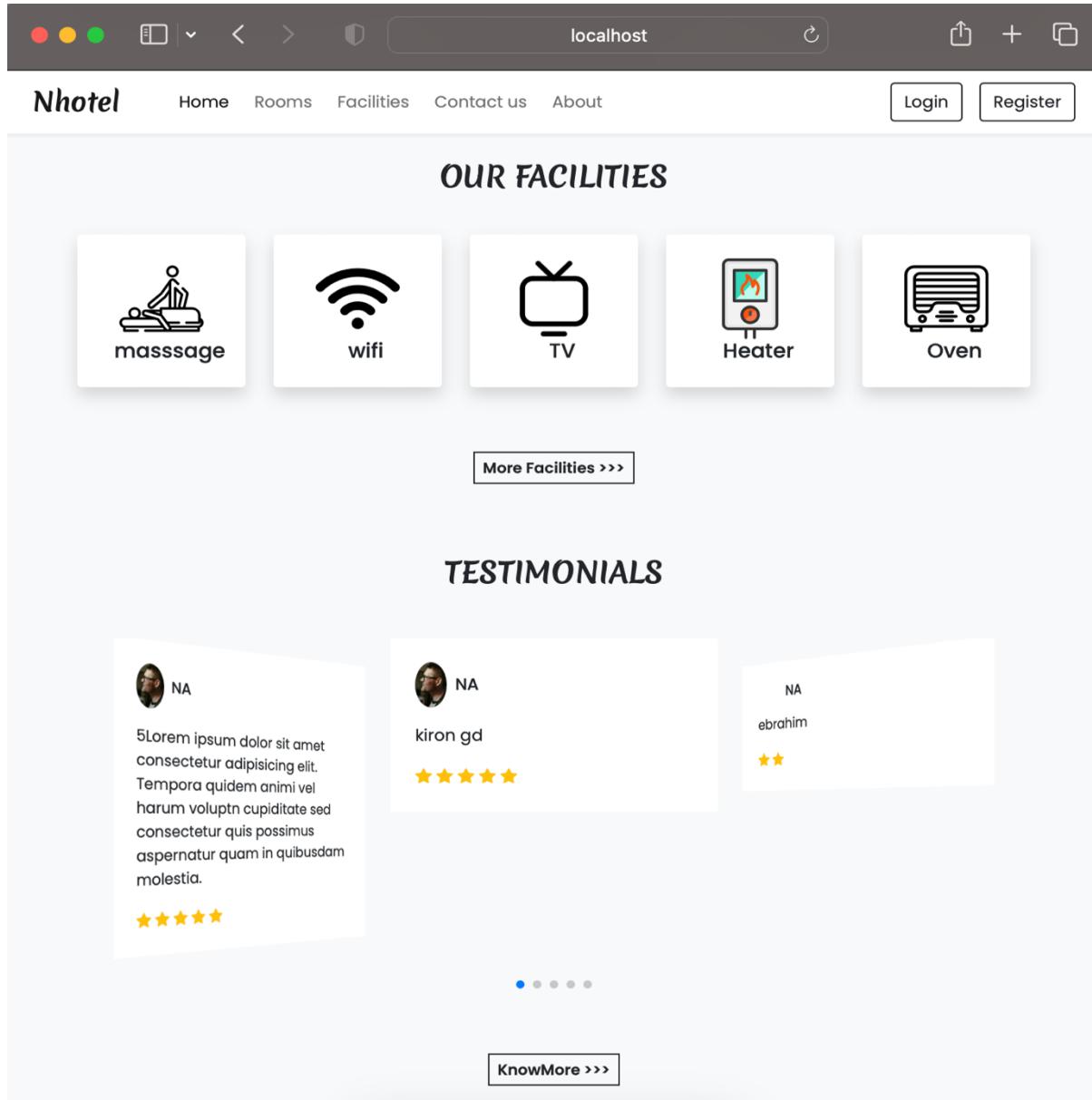


Figure 5.1.2: User home testimonials

5.2 Register page

If the user wants to book a room, he must register and open a valid account. Here password_hash 64 encrypted function is used always keeping in mind the security of the user. Of course, the user's email, and phone number will be matched whether registered before. In the case of a password, the user is given a warning to give a strong password. Email Validation with some more checks is done then the form submit message is given to the user.

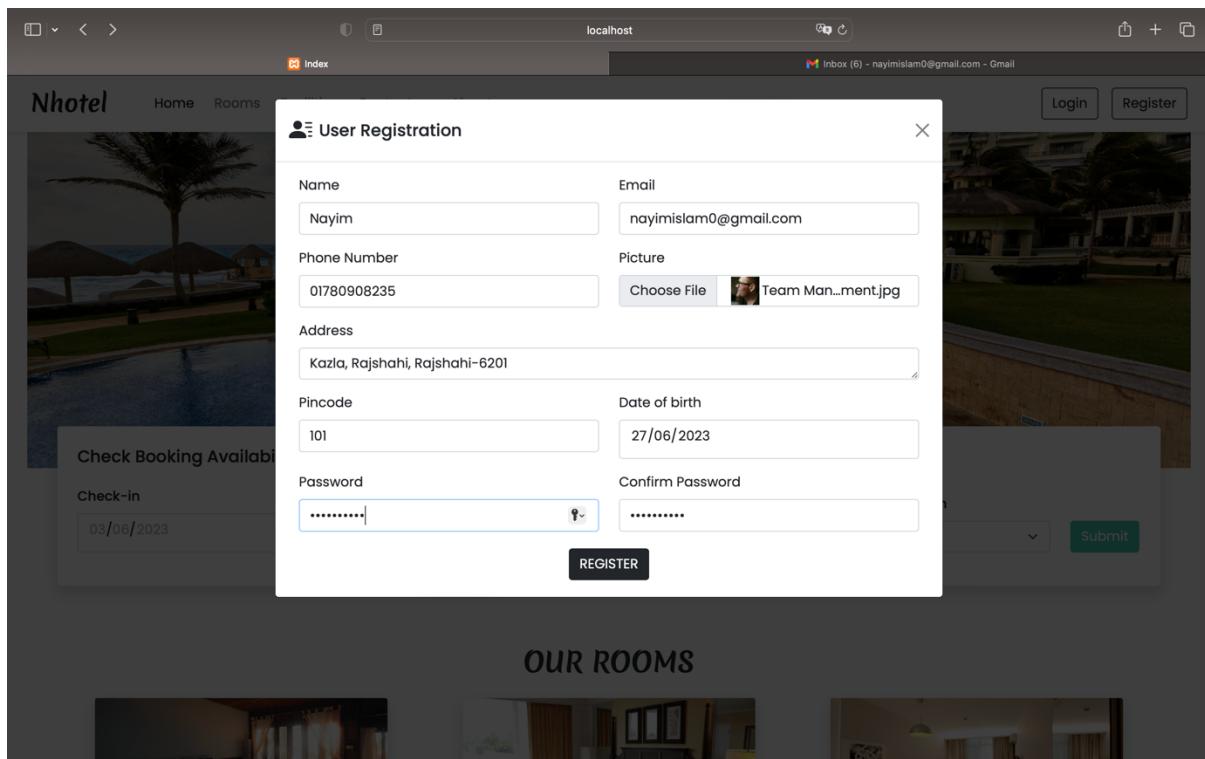


Figure 5.2: User register page

5.2.1 Email verified

After submitting the form, a confirmation email is sent to the user's email to check whether the user's email is valid. If the user clicks on the link in the email within 10 minutes, the user's account will be activated. other ways try again.

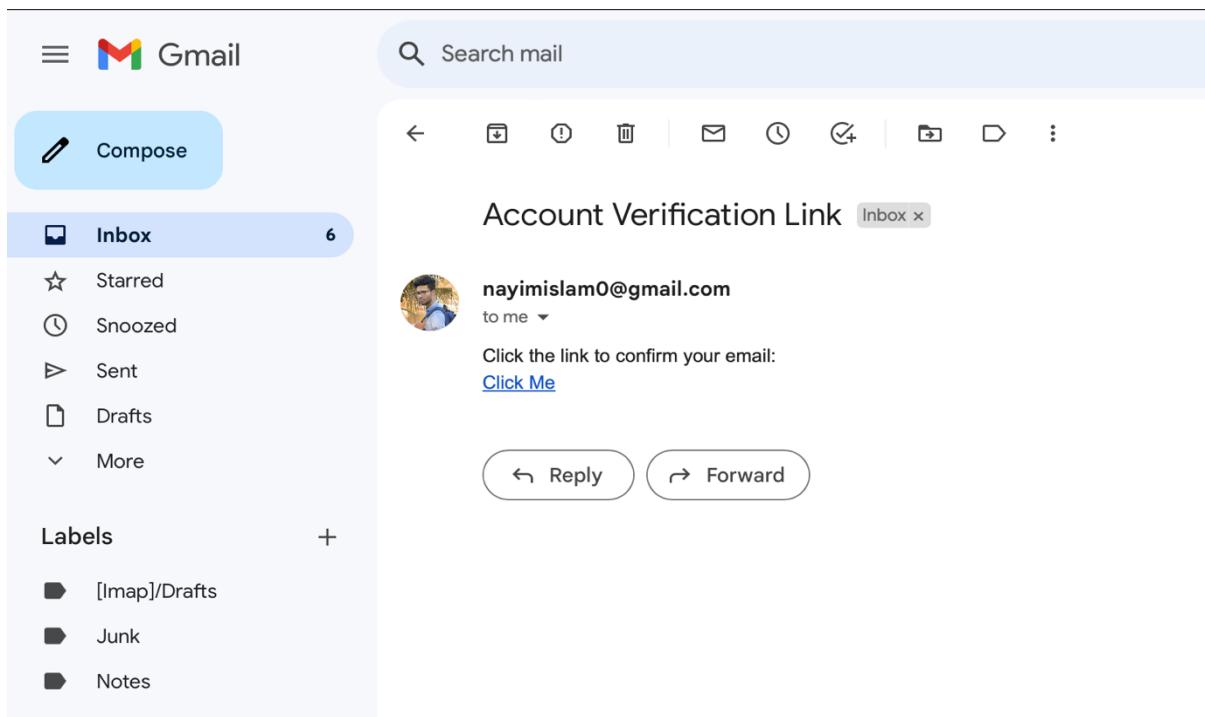


Figure 5.2.1: User email verification

5.3 Login page

The user can only log in with the registered email. Conditions must be valid email & password.

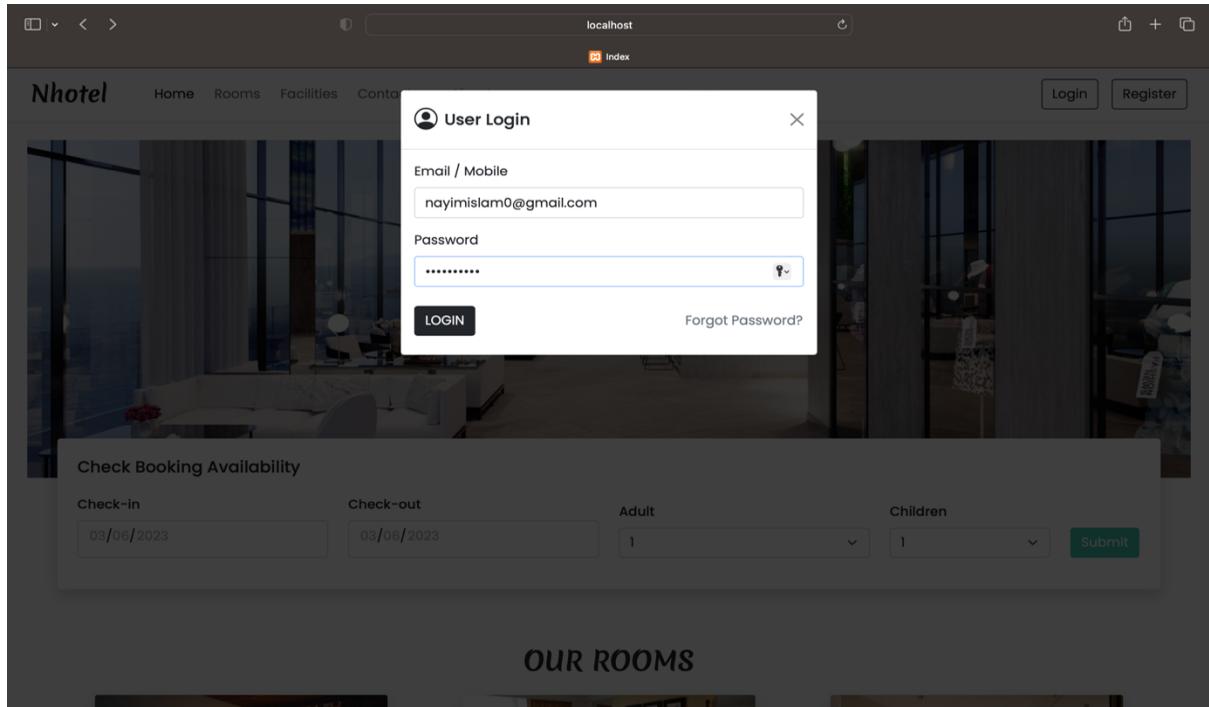


Figure 5.3: User login page

5.4 Forgot password page

If the user forgets the password, then the user can set a new password with his valid email by clicking on the forgotten password option.

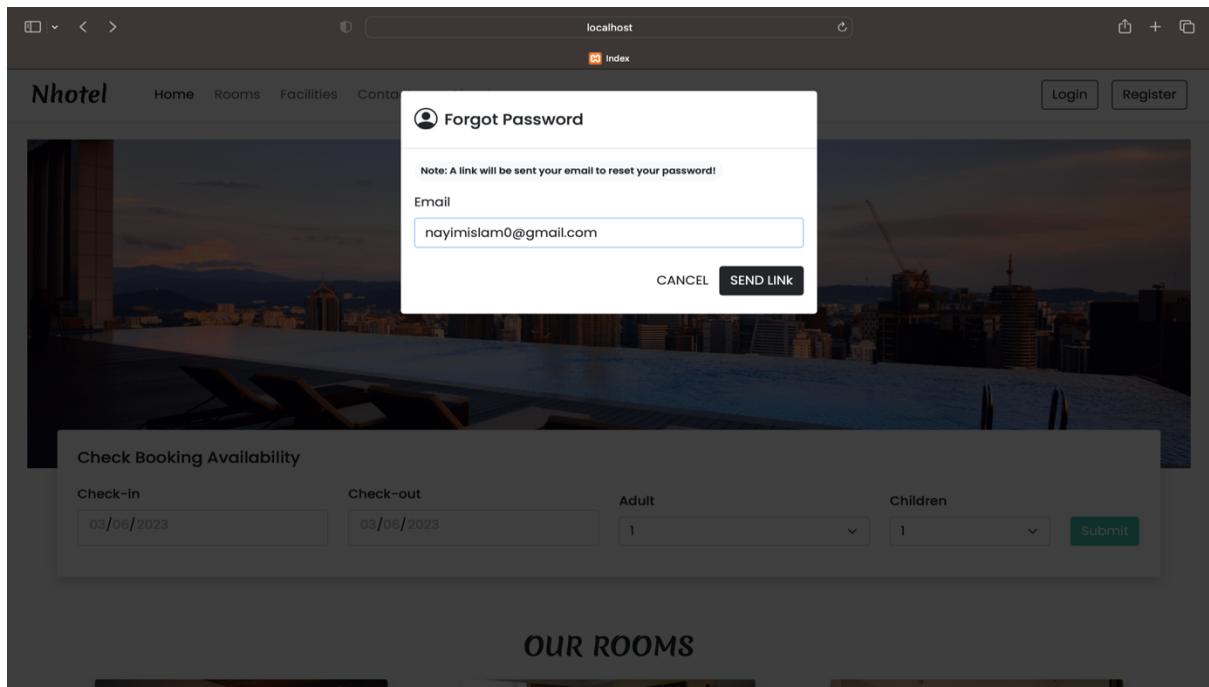


Figure 5.4: User forgot password page

5.4.1 Email verified

After clicking forgot password, a confirmation email is sent to the user's email to check whether the user's email is valid. If the user clicks on the link in the email within 10 minutes, the user's account will open a new pop-up option to create a new password. other ways try again.

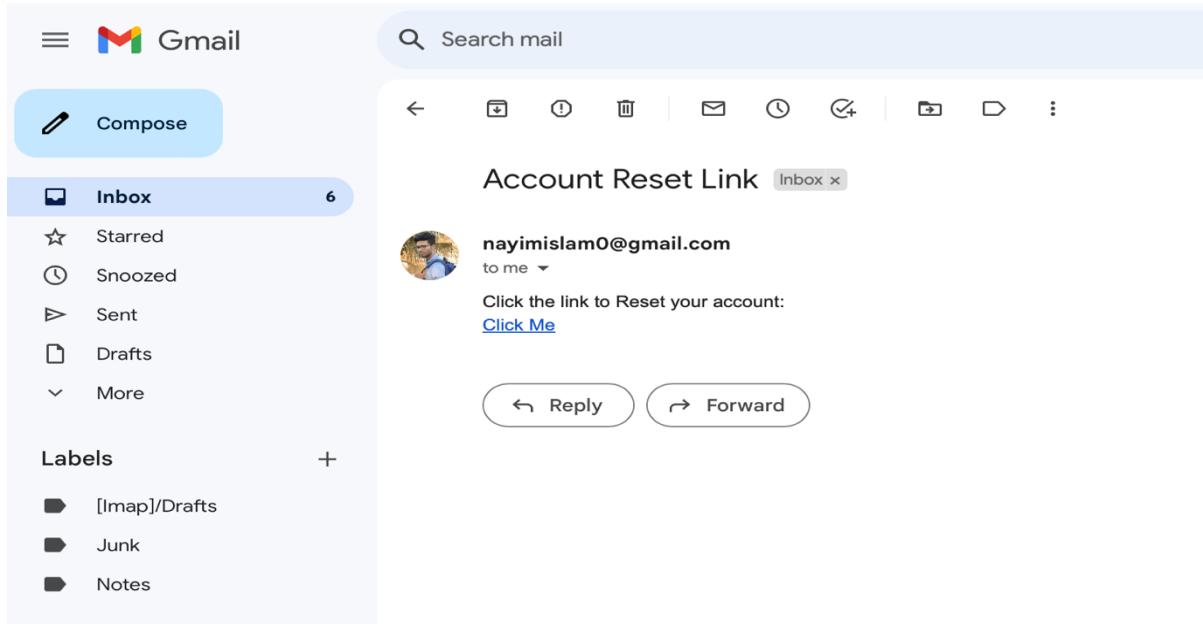


Figure 5.4.1: User forgot password page

5.4.2 New password

After verifying the user's email, the user's new password will be given in the new pop-up text box. The password will be saved in the database using the password_hash 64 encrypted functions.

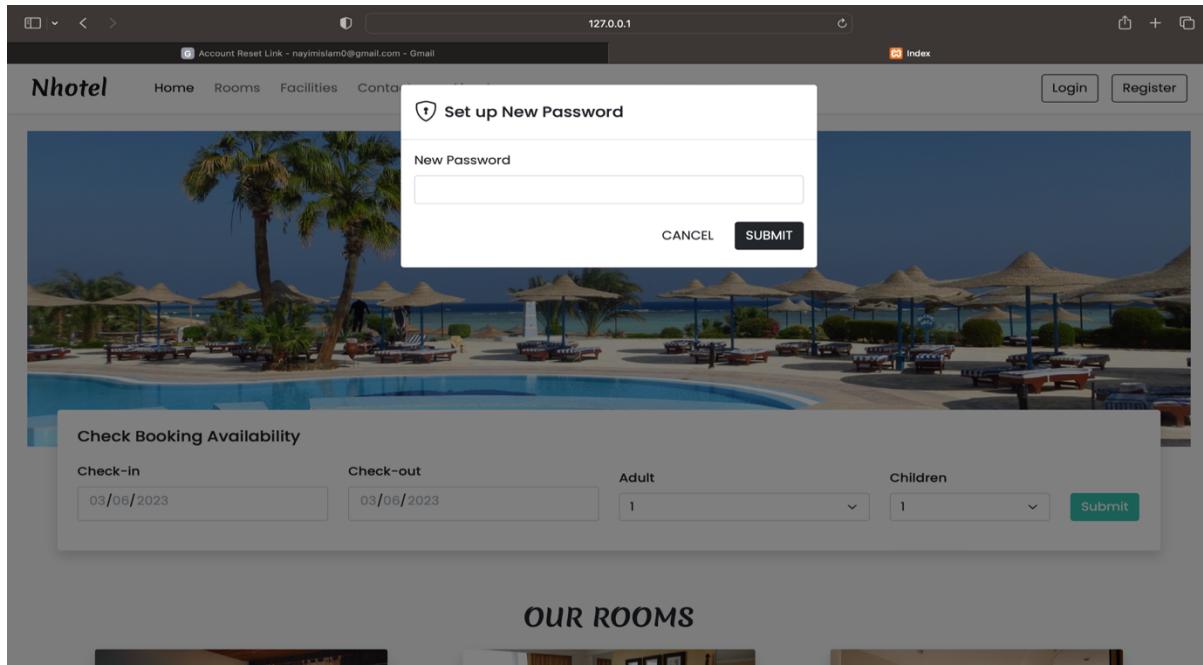


Figure 5.4.2: User new password pop-up

5.5 Profile page

After logging in, the user can enter the user's profile and change all his/her profile information. The user can change his profile picture if he wants. After the user clicks on the Save Change button, all new information will be saved in the database.

The screenshot shows the User Profile page of a web application. At the top, there is a header bar with browser controls, a URL field showing '127.0.0.1', and a user profile icon labeled 'Nayim'. Below the header, the page title is 'Profile' and the breadcrumb navigation is 'HOME > Profile'. The main content area is divided into several sections:

- Basic Information:** Contains fields for Name ('Nayim'), Phone Number ('01780908235'), Date of birth ('27/06/2023'), Pincode ('101'), and Address ('Kazla, Rajshahi, Rajshahi-6201'). A 'Save Changes' button is located at the bottom of this section.
- Picture:** Displays a circular profile picture of a man with glasses and a beard. Below it is a 'New Picture' section with a 'Choose File' button and a placeholder 'no f...ted'. A 'Save Changes' button is located at the bottom of this section.
- Change Password:** Contains fields for 'New Password' and 'Confirm Password', along with a 'Save Changes' button.

Figure 5.5: User profile page

5.6 Booking page

Users can view all the booking details of the user by visiting the booking page. how many of the user's rooms have been booked and how many have been canceled? Date of booking with amount and room number or order number.

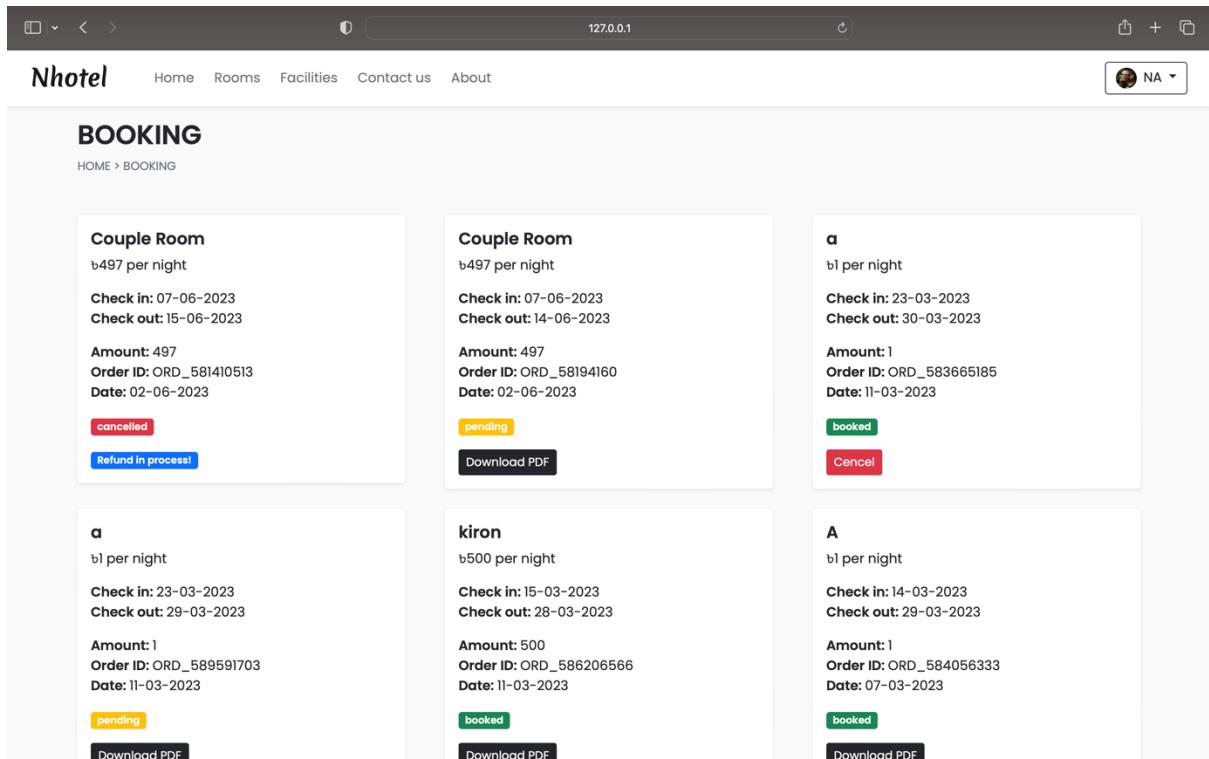


Figure 5.6: User booking page

5.6.1 Cancel booking

The user can cancel his booking by going to the booking page. Click the cancel button to cancel. When the user clicks on the cancel button, a popup will appear for confirmation.

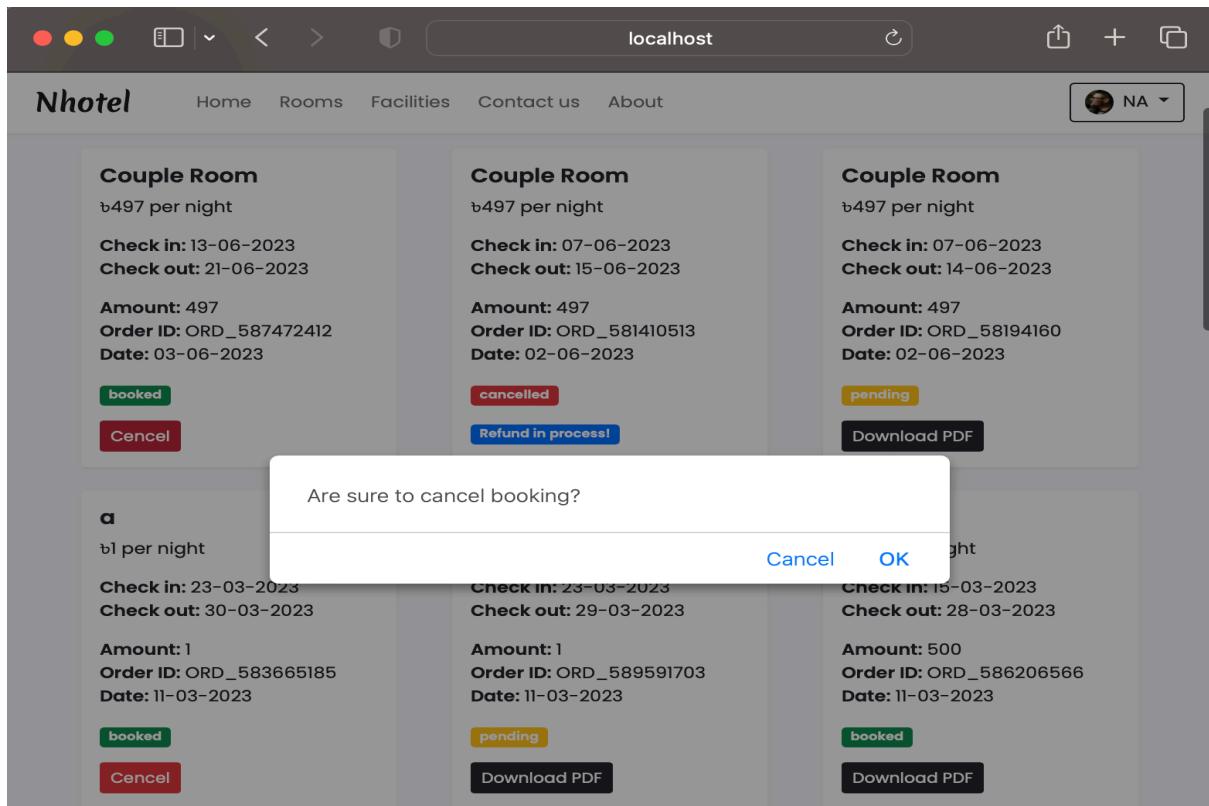


Figure 5.6.1: User cancel booking page

5.6.2 Review & Rating

By going to the user's booking page, he can review all the rooms that he has already booked. How the user's room service is like, click on the review and rating option, if the pop-up opens, he can write in the place of the text and he can point how much he wants to point for service in 5 points.

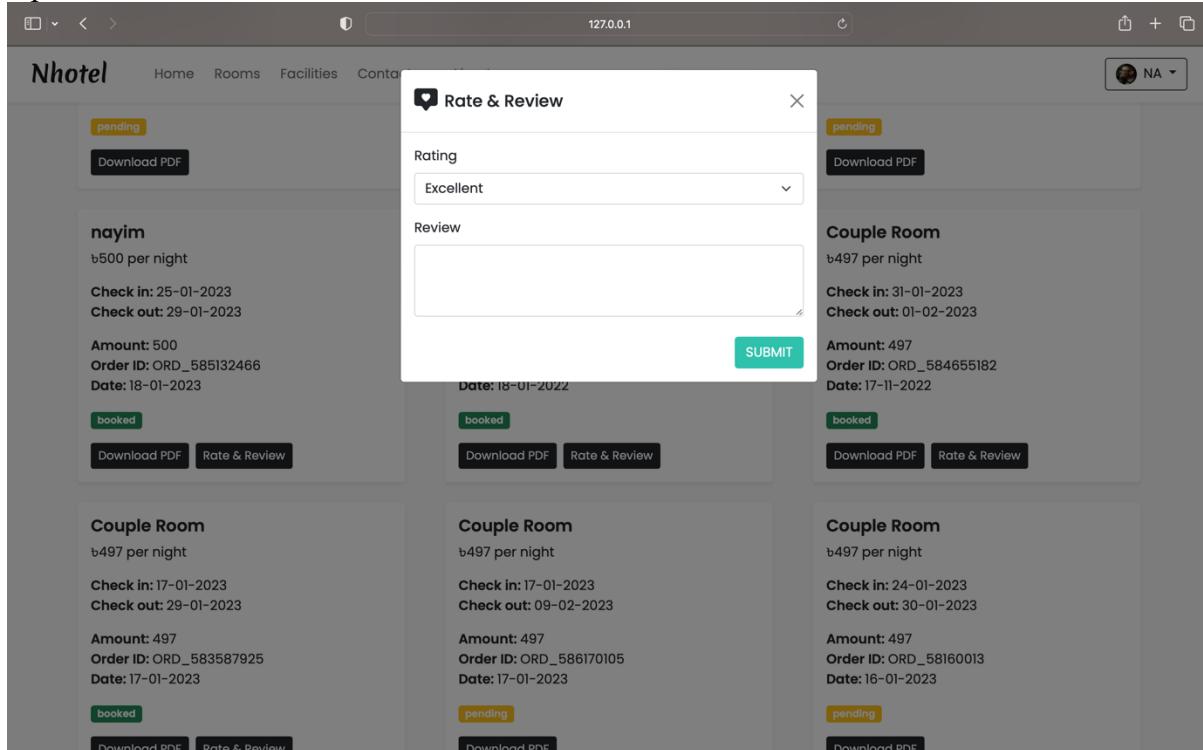


Figure 5.6.2: User Review & Rating page

5.6.3 Booking receipt download (.pdf file)

After the user's booking is confirmed, the user can download his payslip. This will show in the user's booking page and the user can download it in PDF format whenever he wants.

BOOKING RECEIPT

Order ID: ORD_58194160	Booking Date: 05:40pm 02-06-2023
Status: pending	
Name: NA	Email: md.nayimislam.eng@gmail.com
Phone Number: 1521728832	Address: ALIGONJ BATHANPARA, RAJPARA, PABA, RAJSHAHI.
Room Name: Couple Room	Cost: ₹497 per night
Check-in: 07-06-2023	Check-out: 14-06-2023
Transaction Amount: ₹	Failure Response:

Figure 5.6.3: User Booking receipt download

5.7 Logout page

On the top right side of the hotel booking website, the user's profile picture is seen, if the user clicks there, the logout option will appear at the bottom if clicked, the user's profile will be logged out.

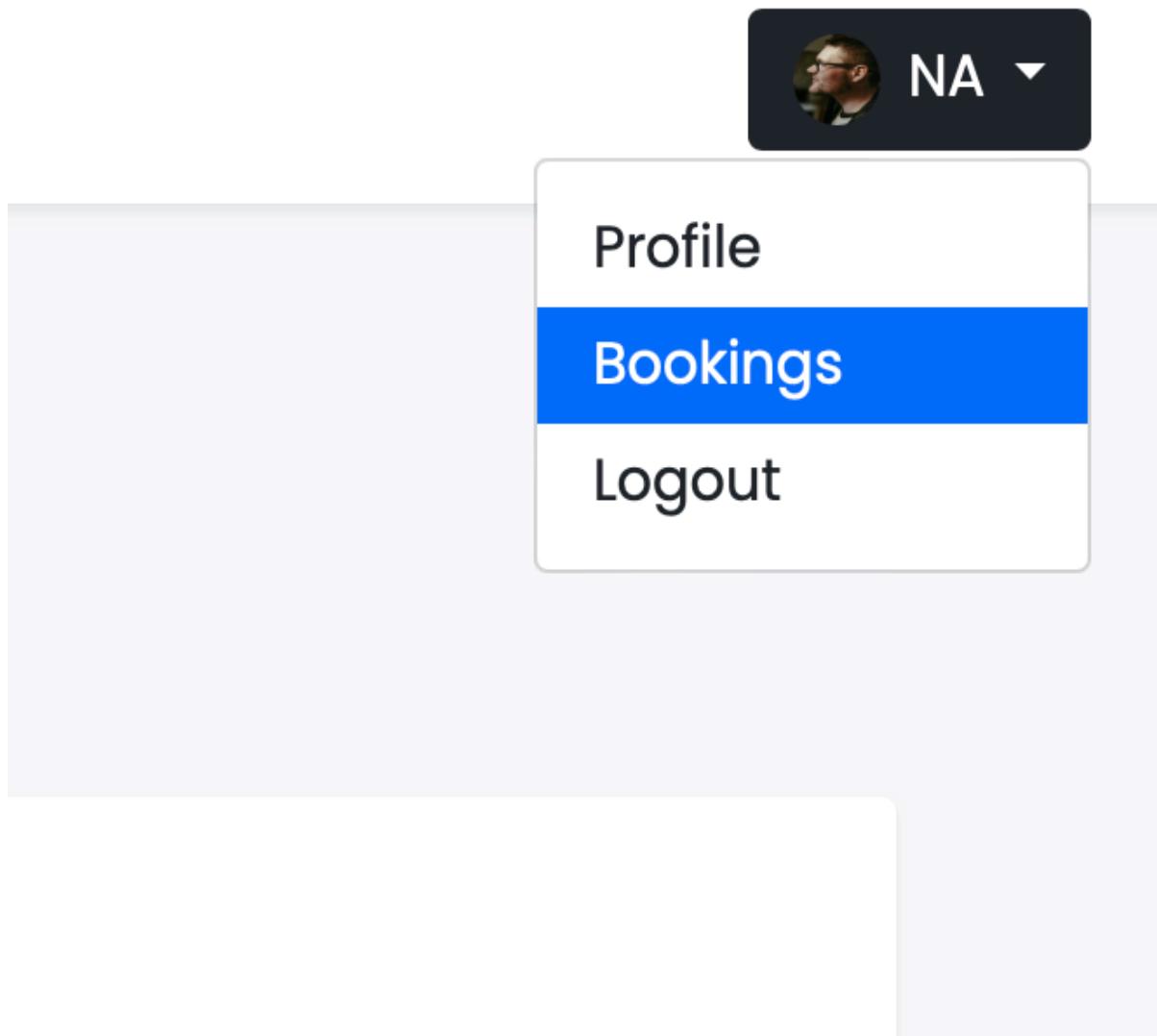


Figure 5.7: User logout page

5.8 Rooms page

If the user goes to the room page, he can see all the rooms of the hotel by scrolling. Users will know room capacity, room features, facilities, and cost per night.

Nhotel

Home Rooms Facilities Contact us About

NA

OUR ROOMS

FILTERS

CHECK AVAILABILITY

Check-in
03/06/2023

Check-out
03/06/2023

FACILITIES

- AC
- Oven
- Heater
- TV
- wifi
- massage

GUESTS

Adults Children

Couple Room ₦497 per night

Features
1 Room 1 Bathroom 1 Balcony
1 Sofa
Facilities
AC TV wifi
Guest
2 Adults 1 Children

A ₦1 per night

Features
Facilities
Guest
1 Adults 1 Children

B ₦1 per night

Features
2 Room
Facilities
Oven
Guest
1 Adults 1 Children

C ₦1 per night

Features
2 Room
Facilities
Oven
Guest
1 Adults 1 Children

Nhotel

Lore ipsum dolor sit amet consectetur adipisicing elit. Tempora quidem animi vel harum voluptn cupiditate sed consectetur quis possimus aspernatur quam in quibusdam

Links

[Home](#)
[Rooms](#)
[Facilities](#)

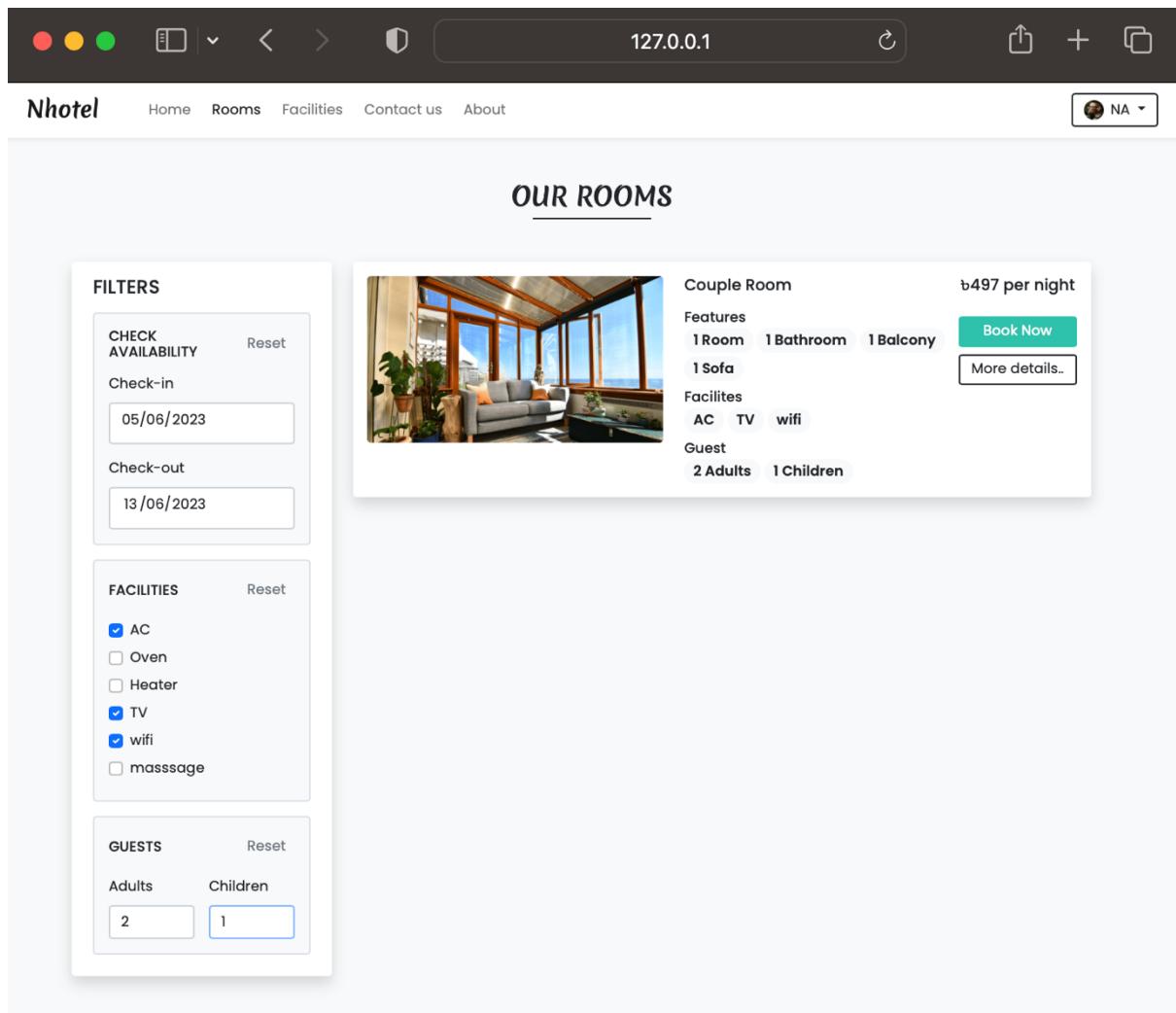
Follow us

[Twitter](#)
[Facebook](#)
[Instagram](#)

Figure 5.8: User rooms page

5.8.1 Rooms filters

If the user wants, the user can filter and search according to their needs. which day the rooms are available and can be filtered depending on certain features, facilities, and capacity.



Nhotel

Lorem ipsum dolor sit amet consectetur adipisicing elit. Tempora quidem animi vel harum voluptu cupiditate sed consectetur quis possimus aspernatur quam in quibusdam molestia.

Links

- [Home](#)
- [Rooms](#)
- [Facilities](#)
- [Contact us](#)
- [About](#)

Follow us

- [Twitter](#)
- [Facebook](#)
- [Instagram](#)

Designed and Developed by NAYIM

Figure 5.8.1: User rooms page filters

5.8.2 Rooms details

Users can click on Rooms details in two ways. Users can click on Rooms details from the home page and go to the Rooms page and click on Rooms details. By clicking on Rooms details, the user can see the review of that room and know more about the room.

The screenshot shows a web browser window with the address bar displaying '127.0.0.1'. The main content area is a hotel booking interface. At the top, there's a navigation bar with links for Home, Rooms, Facilities, Contact us, and About. A user profile icon with 'NA' is also present. Below the navigation, the title 'Couple Room' is displayed, followed by a breadcrumb trail 'HOME > ROOMS'. To the left is a large image of a modern couple room featuring a double bed, a sofa, and a small round table. To the right, there's a summary box with the price '\$497 per night', a two-star rating, and sections for Features (1 Room, 1 Bathroom, 1 Balcony, 1 Sofa), Facilities (AC, TV, wifi), Guest (2 Adults, 1 Children), and Area (500 sq.ft.). A prominent green 'Book Now' button is at the bottom of this box. Below these sections, there's a 'Description' section with a placeholder text 'The "HOTEL BOOKING WEBSITE" is a web-based application that allows handling all hotel activities in online.' and a 'Reviews & Ratings' section with three entries: one one-star review, one two-star review, and a four-star review.

Couple Room

HOME > ROOMS

\$497 per night

★★

Features

1 Room 1 Bathroom 1 Balcony 1 Sofa

Facilities

AC TV wifi

Guest

2 Adults 1 Children

Area

500 sq.ft.

Book Now

Description

The "HOTEL BOOKING WEBSITE" is a web-based application that allows handling all hotel activities in online.

Reviews & Ratings

NA
Ipsum aspernatur quam in quibusdam molestia.

★
Tempora quidem animi vel harum voluptn cupiditate sed consectetur quis possimus aspernatur quam in quibusdam molestia.

★★★★
Tempora quidem animi vel harum voluptn cupiditate sed consectetur quis possimus aspernatur quam in quibusdam molestia.

Figure 5.8.2: User rooms details page

5.8.3 Rooms book

Users can click on Rooms Book in two ways. users can click on Rooms Book from the home page and go to the room page and click on Rooms Book. After clicking on Rooms Book, the user has to give the user's full name, phone number, address, and check-in -- check-out date. After that user will click on pay now.

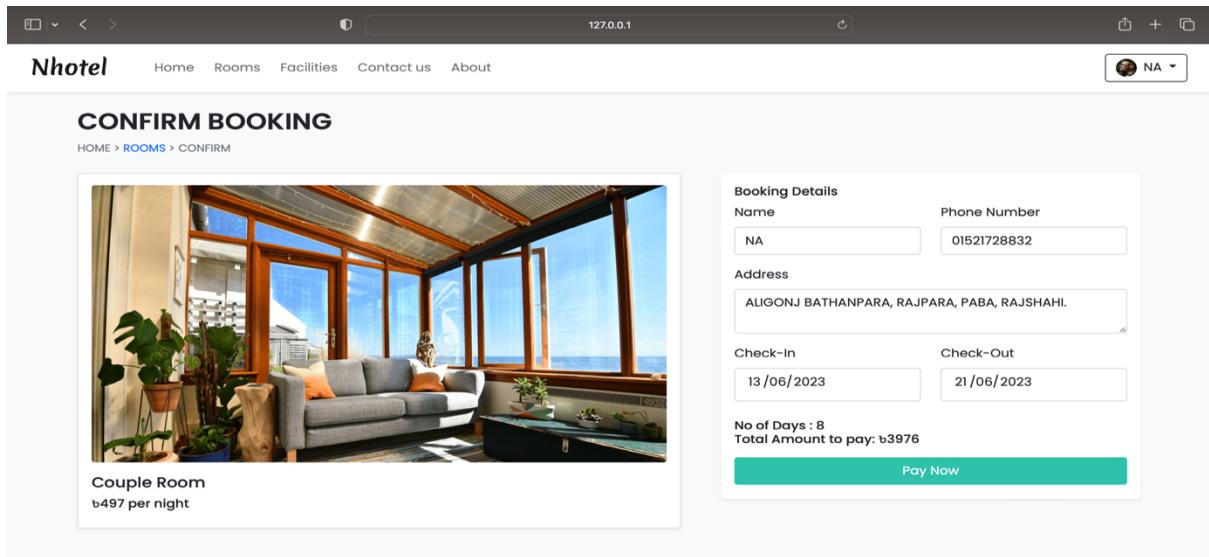


Figure 5.8.3: User rooms book page

5.8.4 sslCommerz

The user's ID and the amount of money will be shown before payment confirmation. Although the sslCommerz Payment Method has been used here for understanding, in real life all types of Payment Methods will be exactly the same. Users can make payments using card or mobile banking.

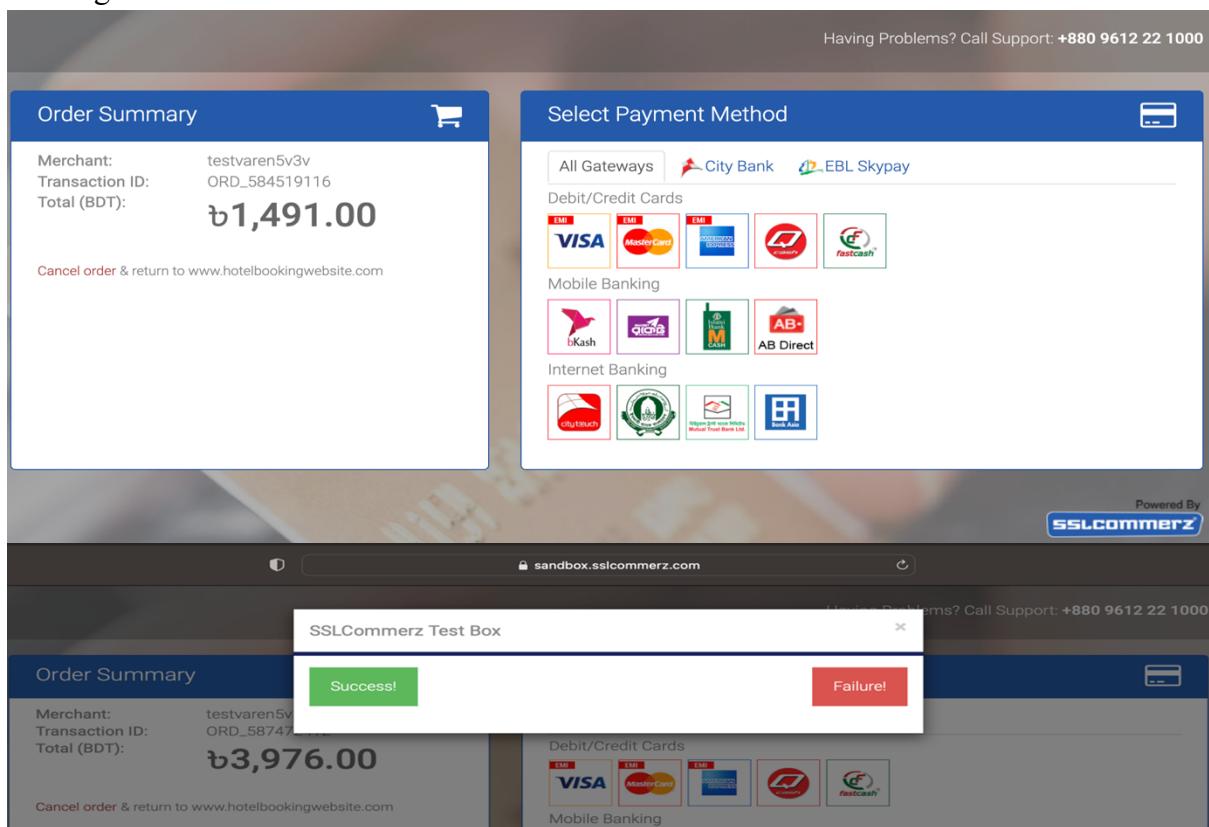


Figure 5.8.4: User payment method sslCommerz

5.8.5 Payment status

If the user's payment is successful then such a page will open. Payment done and booking successful status will appear.

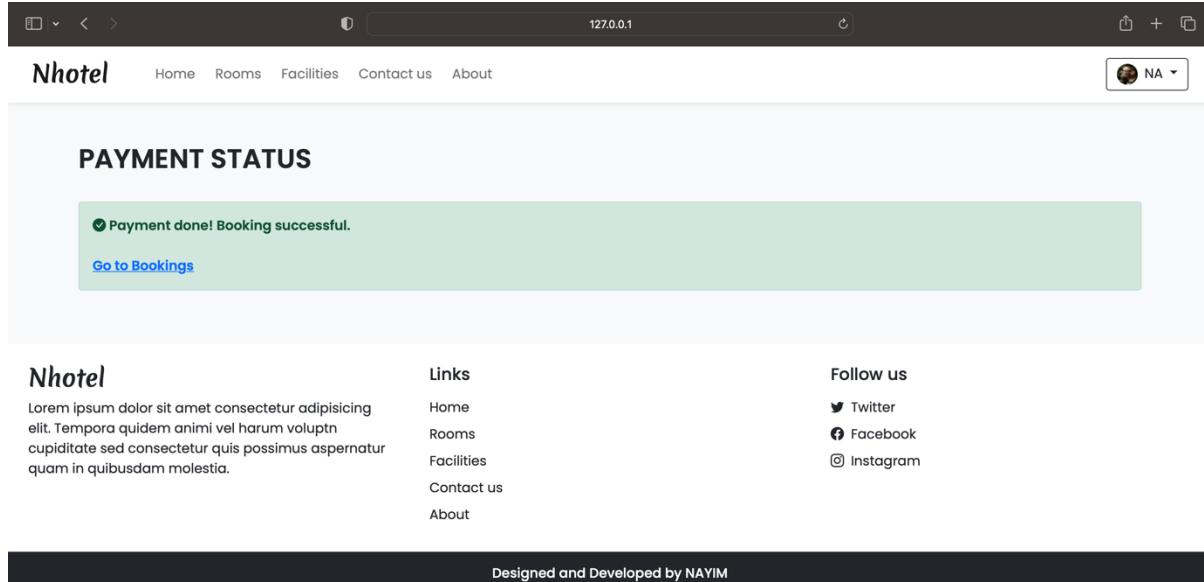


Figure 5.8.5: User payment status

5.9 Facilities

The user can read the details of the facilities by going to the facilities option and the user can see what facilities are provided.

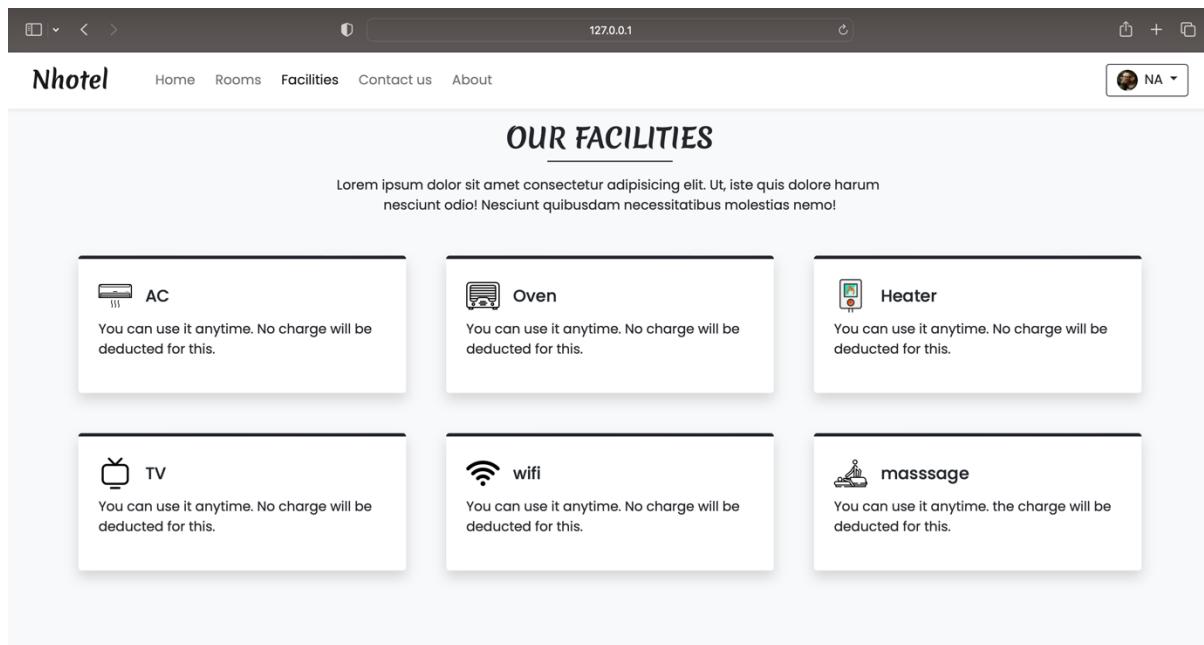


Figure 5.9: User facilities page

5.10 Contact US

In the contact US option, if the user needs to know something, the user can send an sms to the admin or if the user has any complaints, he can send an sms to the admin. Even if there is any problem related to the user's account or any problem related to booking, he can inform the admin by SMS.

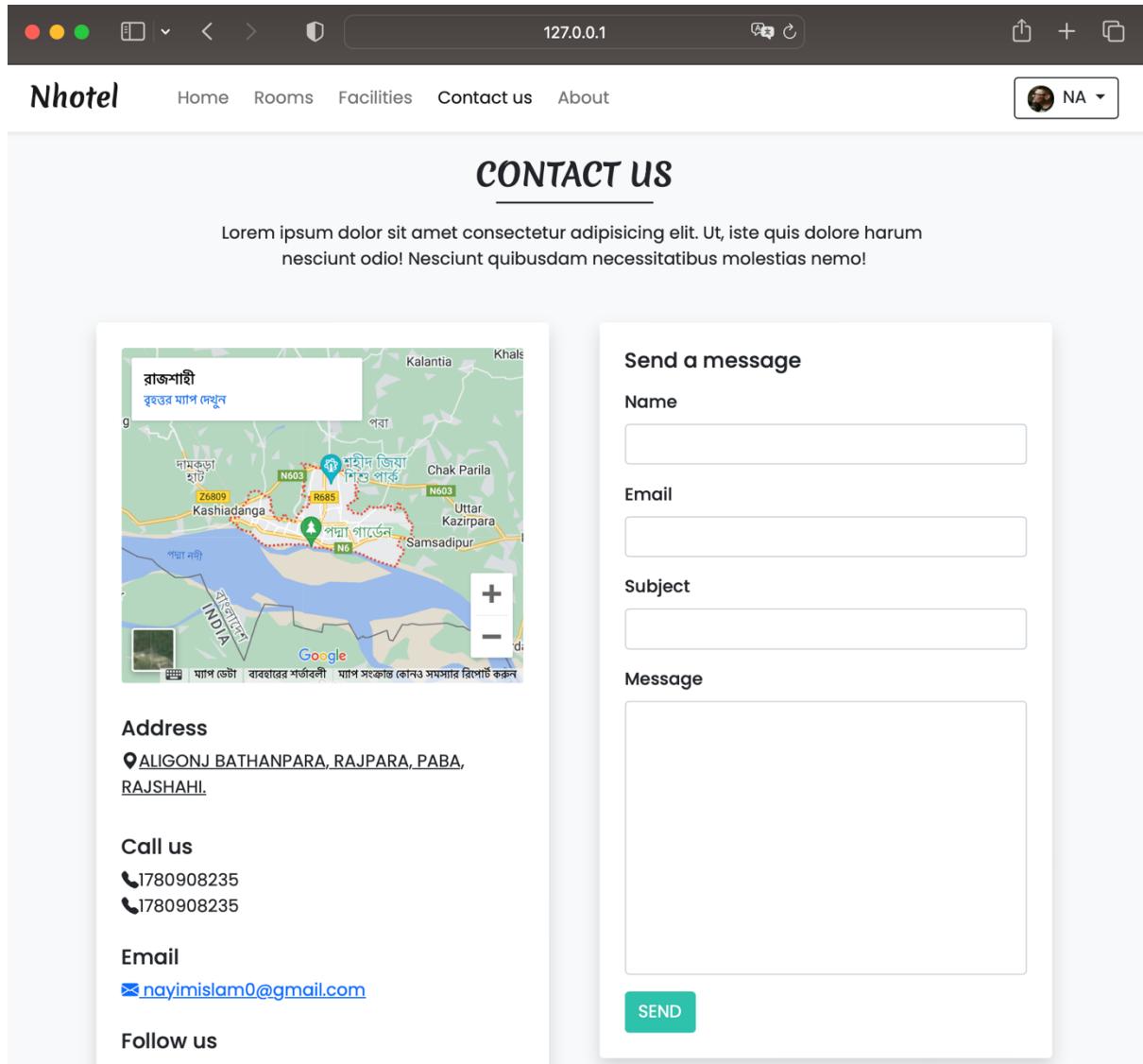


Figure 5.10: User contact page

5.11 About

By going to the About section of the hotel booking website, the user can know all the details of the manager and know about the hotel. How many rooms are there, how many customers are there, total reviews, how many staff are there, and you can know who is on duty for management.

The screenshot shows the 'ABOUT US' section of the Nhotel website. At the top, there is a navigation bar with links for Home, Rooms, Facilities, Contact us, and About. A user profile icon is also present. The main heading 'ABOUT US' is centered above a short paragraph of placeholder text ('Lorem ipsum dolor sit amet consectetur adipisicing elit. Tempora quidem animi vel harum voluptn cupiditate sed consectetur quis possimus aspernatur quam in quibusdam molestia.') followed by a large portrait of a smiling man in a suit. Below this, four white rectangular boxes provide statistics: '100+ ROOMS' with a building icon, '200+ CUSTOMERS' with a group of people icon, '150+ REVIEWS' with a star icon, and '200+ STAFFS' with a group of people icon. Further down, a section titled 'MANAGEMENT TEAM' displays three profile pictures of men with their names below them: Md. Abdullah, Md. Alamin, and Md. Sakib Hosen. An ellipsis indicates more team members.

Nhotel

Home Rooms Facilities Contact us About

127.0.0.1

ABOUT US

Lorem ipsum dolor sit amet consectetur adipisicing elit. Tempora quidem animi vel harum voluptn cupiditate sed consectetur quis possimus aspernatur quam in quibusdam molestia.

Lorem ipsum dolor sit.

Lorem, ipsum dolor sit amet consectetur adipisicing elit.
Sunt temporibus eum, sed adipisci sint quidem neque.
Lorem, ipsum dolor sit amet consectetur adipisicing elit.
Sunt temporibus eum, sed adipisci sint quidem neque.



100+ ROOMS

200+ CUSTOMERS

150+ REVIEWS

200+ STAFFS

MANAGEMENT TEAM

Md. Abdullah

Md. Alamin

Md. Sakib Hosen

• • •

Figure 5.11: User about US page

Chapter 6

Back-end Design of the System

6.1 Admin login

You can enter the admin panel with the admin password and user ID. Admin is allowed to make all kinds of modifications. As all the work of this project is fully dynamic so admin can change even the name of the hotel.

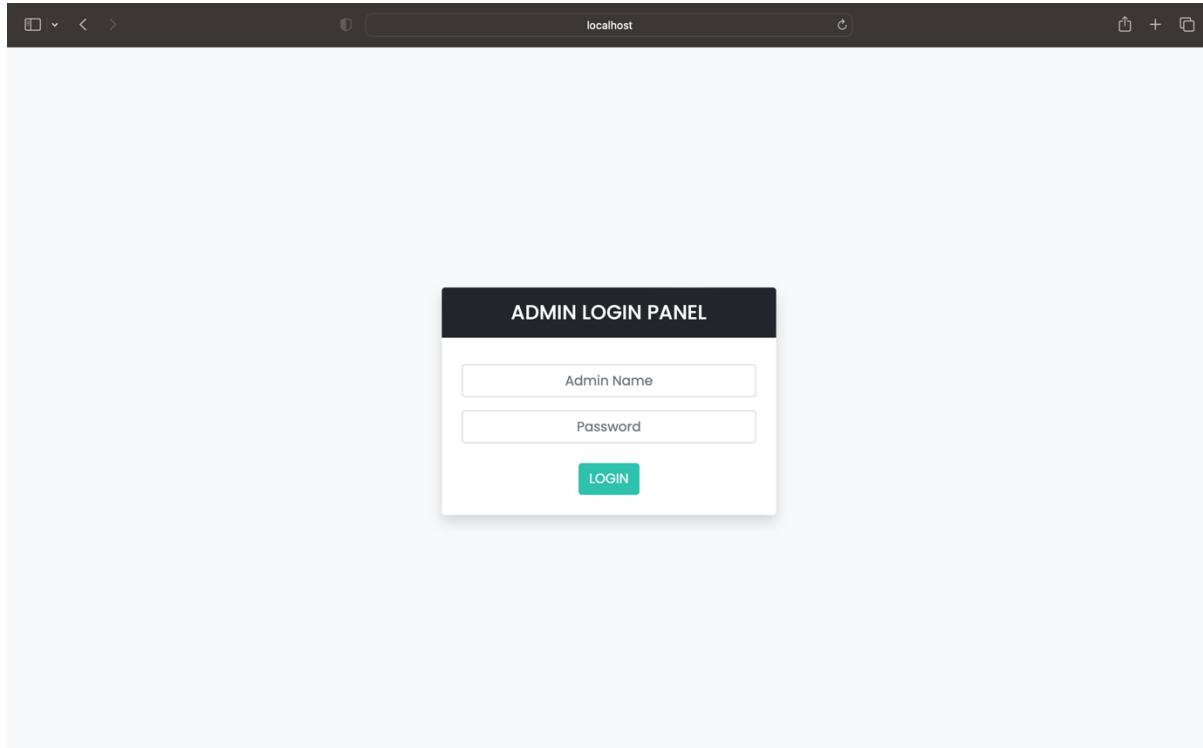


Figure 6.1: Admin login panel

6.2 Dashboard

Admin can see all information in a summarized way through Dashboard. For example Total New Bookings, Total Refund Bookings, Total User Queries, Total Ratings, and Reviews. In the Booking analytics section of the Dashboard, the admin can estimate the total profit and loss by seeing the total bookings and the total amount, the total active bookings and the total amount, and the total cancellation bookings and the total amount. Again, in the User, Queries, Review analytics section of the Dashboard, the admin can see the total registrations, total

queries, and total reviews. All this information can be seen by the user for 30 days or 1 year or full-time. Admin can see Total Accounts, Total Active Accounts, Total Inactive Accounts, and Total Unverified Accounts in the User Section of the Dashboard.

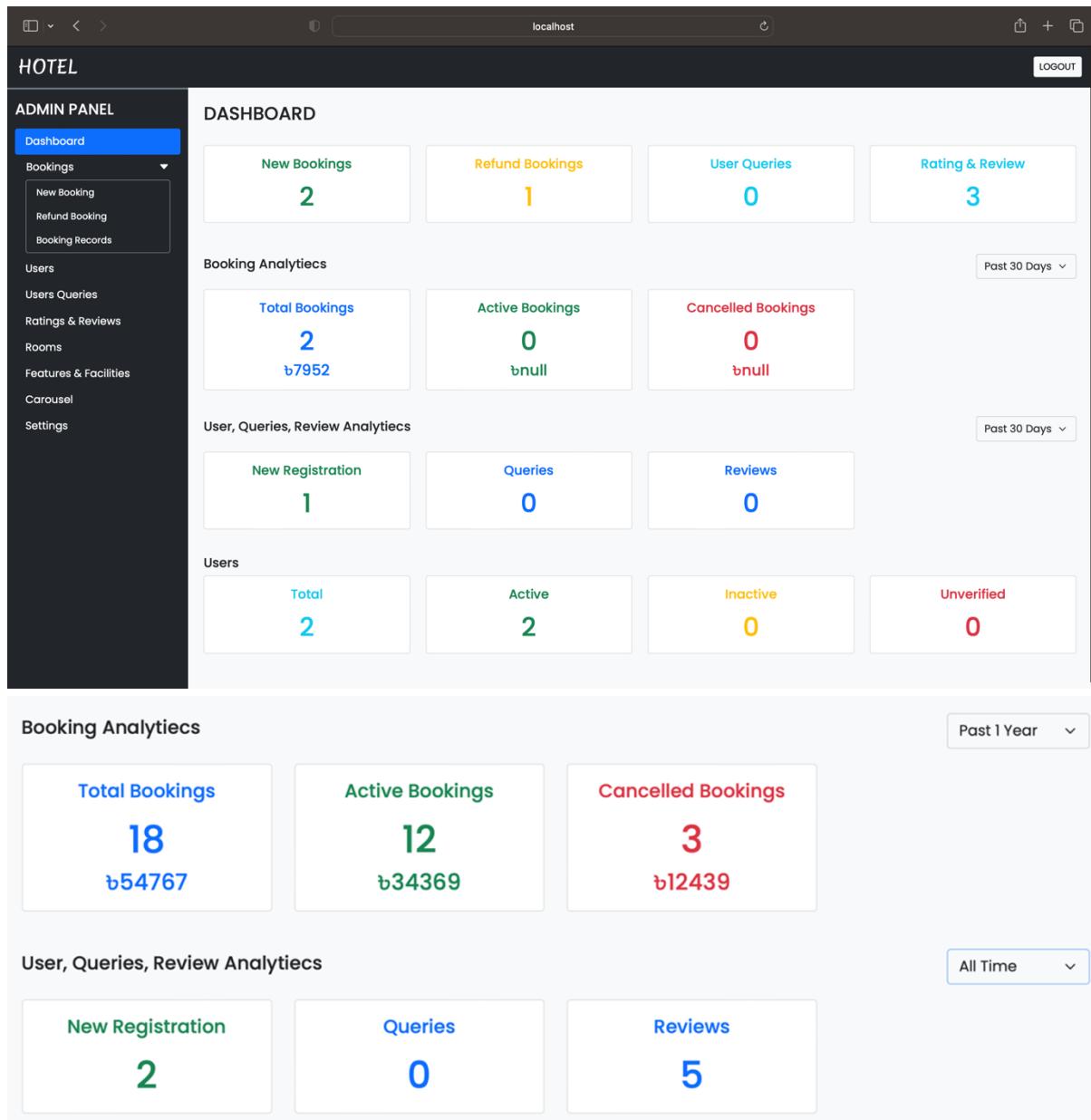


Figure 6.2: Admin dashboard

6.3 Booking page

6.3.1 New booking

This option of the admin panel will show all the new booking rooms of the user. If the admin wants to conform, he will assign the room with a room number for the user. And if for some reason the admin wants to cancel the room booking then click on the cancel booking button.

Since the project has been made thinking about the future, so there may be many users in the future and many rooms may be booked at the same time, so a search button has been made to easily assign or cancel a room to a specific user so that it can be found easily.

The figure consists of three vertically stacked screenshots of a web-based hotel booking administration system. The interface is dark-themed with light-colored text and buttons.

Screenshot 1: New Bookings List

This screenshot shows the main 'New Bookings' page. On the left is a sidebar titled 'ADMIN PANEL' with links for Dashboard, Bookings (which is expanded), Users, Users Queries, Ratings & Reviews, Rooms, Features & Facilities, Carousel, and Settings. The main area is titled 'NEW BOOKINGS' and contains a table with two rows of booking data. Each row includes columns for '#', User Details, Room Details, Bookings Details, and Action.

#	User Details	Room Details	Bookings Details	Action
1	Order ID: ORD_583665185 Name: NA Phone No: 1521728832	Room: a Price: b1	Check-in: 23-03-2023 Check-out: 30-03-2023 Paid: b7 Date: 11-03-2023	<button>Assign Room</button> <button>Cancel Booking</button>
2	Order ID: ORD_587472412 Name: NA Phone No: 1521728832	Room: Couple Room Price: b497	Check-in: 13-06-2023 Check-out: 21-06-2023 Paid: b3976 Date: 03-06-2023	<button>Assign Room</button> <button>Cancel Booking</button>

Screenshot 2: Assign Room Dialog

A modal dialog box titled 'Assign Room' is displayed over the booking list. It contains a label 'Room Number' with an input field and a note: 'Note: Assign Room Number only when user has been arrived!'. At the bottom right of the dialog are 'CANCEL' and 'ASSIGN' buttons.

Screenshot 3: Cancel Booking Dialog

A modal dialog box titled 'Are you sure. You want to cancel this user' is displayed over the booking list. It contains 'Cancel' and 'OK' buttons. The background of this dialog is semi-transparent, allowing the booking list to be partially visible.

Figure 6.3.1: Admin new booking page

6.3.2 Refund booking

This option of the admin panel will show all the refund bookings of the user. When the admin refunds the money of the user's canceled room booking, click on the refund button. Since the project has been made thinking about the future, there may be many users in the future and many room bookings may be canceled at the same time, so a search button has been made to refund the room booking money to a specific user so that it can be easily found.

The screenshot shows the 'REFUND BOOKINGS' section of the Admin Panel. On the left, a sidebar lists various admin functions: Dashboard, Bookings (with New Booking, Refund Booking selected, and Booking Records), Users, Users Queries, Ratings & Reviews, Rooms, Features & Facilities, Carousel, and Settings. The main area displays a table of refund bookings. A single row is shown with the following details:

#	User Details	Room Details	Refund Amount	Action
1	Order ID: ORD_581410513 Name: NA Phone No: 1521728832	Room: Couple Room Check-in: 07-06-2023 Check-out: 15-06-2023 Date: 02-06-2023	₹3976	<button>Refund</button>

A modal window is displayed in the foreground, asking 'Refund money for this booking?' with 'Cancel' and 'OK' buttons. The background shows the rest of the 'REFUND BOOKINGS' table.

Figure 6.3.2: Admin Refund booking page

6.3.3 Booking record

In this section, the admin can see all booking records of the user. There is a search button to easily find the booking record of a specific user and the user can download the payslip from the action button to give the booking slip of a specific user.

The screenshot shows two views of the Admin Booking Record page. The top view displays a list of bookings with columns for User Details, Room Details, Bookings Details, Status, and Action. The bottom view shows the same list with a modal dialog overlaid on the second row. The modal asks 'Do you want to allow downloads on "localhost"? You can change which websites can download files in the Websites section of Safari Settings.' It has 'Cancel' and 'Allow' buttons. The status of the second booking is 'pending'.

#	User Details	Room Details	Bookings Details	Status	Action
1	Order ID: ORD_58194160 Name: NA Phone No: 1521728832	Room: Couple Room Price: b497	Amount: b Date: 02-06-2023	pending	B
2	Order ID: ORD_589591703 Name: NA Phone No: 1521728832	Room: a Price: b1	Amount: b Date: 11-03-2023	pending	B
3	Order ID: ORD_586206566 Name: NA Phone No: 1521728832	Room: kiron Price: b500	Amount: b6500 Date: 11-03-2023	booked	B
4	Order ID: ORD_584056333 Name: NA Phone No: 1521728832	Room: A Price: b1	Amount: b15 Date: 07-03-2023	booked	B
5	Order ID: ORD_583451337 Name: NA Phone No: 1521728832	Room: Couple Room Price: b497	Amount: b Date: 27-02-2023	pending	B

BOOKING RECIEPT

Order ID: ORD_58194160	Booking Date: 05:40pm 02-06-2023
Status: pending	
Name: NA	Email: md.nayimislam.eng@gmail.com
Phone Number: 1521728832	Address: ALIGONJ BATHANPARA, RAJPARA, PABA, RAJSHAHI.
Room Name: Couple Room	Cost: b497 per night
Check-in: 07-06-2023	Check-out: 14-06-2023
Transaction Amount:	Failure Response:

Figure 6.3.3: Admin booking record page

6.4 Users information

In this section, the admin can see all the information of the user. There is a search button to easily find the information of a particular user. Here the user's name, phone number, email, address, and date of birth along with the user's profile can be seen whether the user's account has been verified or not by email.

The screenshot shows the 'HOTEL' admin panel. On the left, the 'ADMIN PANEL' sidebar includes 'Dashboard', 'Bookings' (with 'New Booking', 'Refund Booking', 'Booking Records'), 'Users' (which is selected and highlighted in blue), 'Users Queries', 'Ratings & Reviews', 'Rooms', 'Features & Facilities', 'Carousel', and 'Settings'. The main area is titled 'USERS INFORMATION' and contains a table with two rows of user data. The columns are: #, Name, Email, Phone no., Location, DOB, Verified, Status, Date, and Action. Row 1: #1, Name NA, Email md.nayimislam.eng@gmail.com, Phone no. 01521728832, Location ALIGONJ BATHANPARA, RAJPARA, PABA, RAJSHAHI. | 62, DOB 2023-01-15, Verified (green checkmark), Status Inactive, Date 16-1-2020. Row 2: #2, Name Nayim, Email nayimislam0@gmail.com, Phone no. 01780908235, Location Kazla, Rajshahi, Rajshahi-6201 | 101, DOB 2023-06-27, Verified (green checkmark), Status active, Date 03-6-2023. A search bar at the top right says 'Type to search'.

#	Name	Email	Phone no.	Location	DOB	Verified	Status	Date	Action
1	NA	md.nayimislam.eng@gmail.com	01521728832	ALIGONJ BATHANPARA, RAJPARA, PABA, RAJSHAHI. 62	2023-01-15	<input checked="" type="checkbox"/>	Inactive	16-1-2020	
2	Nayim	nayimislam0@gmail.com	01780908235	Kazla, Rajshahi, Rajshahi-6201 101	2023-06-27	<input checked="" type="checkbox"/>	active	03-6-2023	

Figure 6.4: Admin users information page

6.5 Users queries

In order to know any problem or anything of the user, all the sms sent by the contact us option will be shown here. Admin will read the sms problems according to the user's name by looking at the date-time and will click on the seen button when it is read. If all the sms are read together by the admin, then will click on the see all button. If for some reason the admin wants to delete the sms then click on the delete button.

The screenshot shows the 'HOTEL' admin panel. The 'ADMIN PANEL' sidebar includes 'Dashboard', 'Bookings' (with 'New Booking', 'Refund Booking', 'Booking Records'), 'Users' (selected and highlighted in blue), 'Users Queries' (which is selected and highlighted in blue), 'Ratings & Reviews', 'Rooms', 'Features & Facilities', 'Carousel', and 'Settings'. The main area is titled 'USER QUERIES' and contains a table with three rows of user messages. The columns are: #, Name, Email, Subject, Message, Date, and Action. Row 1: #1, Name MD.NAYIM ISLAM, Email md.nayimislam.eng@gmail.com, Subject HOTEL, Message HOTEL Lorem ipsum dolor sit amet consectetur adipisicing elit., Date 04-06-2023. Row 2: #2, Name MD.NAYIM ISLAM, Email md.nayimislam.eng@gmail.com, Subject HOTEL, Message HOTEL Lorem ipsum dolor sit amet consectetur adipisicing elit., Date 04-06-2023. Row 3: #3, Name MD.NAYIM ISLAM, Email md.nayimislam.eng@gmail.com, Subject HOTEL, Message HOTEL Lorem ipsum dolor sit amet consectetur adipisicing elit., Date 03-06-2023. At the top right of the table are buttons for 'Mark all read' (with a checkmark icon) and 'Delete all' (with a trash bin icon). Each message row has 'Read' and 'Delete' buttons at the end.

#	Name	Email	Subject	Message	Date	Action
1	MD.NAYIM ISLAM	md.nayimislam.eng@gmail.com	HOTEL	HOTEL Lorem ipsum dolor sit amet consectetur adipisicing elit.	04-06-2023	<button>Read</button> <button>Delete</button>
2	MD.NAYIM ISLAM	md.nayimislam.eng@gmail.com	HOTEL	HOTEL Lorem ipsum dolor sit amet consectetur adipisicing elit.	04-06-2023	<button>Read</button> <button>Delete</button>
3	MD.NAYIM ISLAM	md.nayimislam.eng@gmail.com	HOTEL	HOTEL Lorem ipsum dolor sit amet consectetur adipisicing elit.	03-06-2023	<button>Read</button> <button>Delete</button>

Figure 6.5: Admin users queries page

6.6 Rating & Reviews

All user ratings and reviews can be seen here. After reading the rating & review of the admin, click on the seen button and if you want to delete, click on the delete button. Admin will click on seen all button after reading all ratings & reviews together and can also click on delete all button. However, if deleted, it will be deleted from the database, so it will also be removed from the Rating & Review option of the room.

The screenshot shows the 'RATINGS & REVIEWS' section of the Admin Panel. The left sidebar lists various admin functions: Dashboard, Bookings (New Booking, Refund Booking, Booking Records), Users, Users Queries, Ratings & Reviews (selected), Rooms, Features & Facilities, Carousel, and Settings. The main area displays a table of reviews with the following data:

#	Room	User	Date	Action
	Name	Name	Rating	Review
1	kiron	NA	5	kiron gd 11-03-2023 read Delete
2	A	NA	2	ebrahim 07-03-2023 read Delete
3	Couple Room	NA	1	Ipossimus aspernatur quam in quibusdam molestia. 17-01-2023 Delete
4	Couple Room	NA	4	4Tempora quidem animi vel harum voluptn cupiditate sed consectetur quis possimus aspernatur quam in quibusdam molestia. 17-01-2023 Delete
5	A	NA	5	5Lorem ipsum dolor sit amet consectetur adipisicing elit. Tempora quidem animi vel harum voluptn cupiditate sed consectetur quis possimus aspernatur quam in quibusdam molestia. 17-01-2020 read Delete

Figure 6.6: Admin rating & reviews page

6.7 Rooms page

Admin can add room in room section where room name, room area, room price, total adult, total child, room features, room facility, and room description are available. Any time also has the option of the admin modifying or deleting the room. There is also an option to upload pictures from different sides of the room and a select option for thumb pictures. Using the swiper js function, the user has the option to slide one after the other. The option to keep any room active or inactive has been kept for admin needs.

#	Name	Area	Guests	Price	Quantity	Status	Action
1	Couple Room	500 sq.ft.	Adult: 2 Children: 1	₹497	2	active	<button>Edit</button> <button>Print</button> <button>Delete</button>
2	a	1 sq.ft.	Adult: 1 Children: 1	₹1	1	inactive	<button>Edit</button> <button>Print</button> <button>Delete</button>
3	a	1 sq.ft.	Adult: 1 Children: 1	₹1	1	inactive	<button>Edit</button> <button>Print</button> <button>Delete</button>
4	A	1 sq.ft.	Adult: 1 Children: 1	₹1	1	active	<button>Edit</button> <button>Print</button> <button>Delete</button>
5	q	1 sq.ft.	Adult: 1 Children: 1	₹1	1	active	<button>Edit</button> <button>Print</button> <button>Delete</button>
6	a	1 sq.ft.	Adult: 1 Children: 1	₹1	1	active	<button>Edit</button> <button>Print</button> <button>Delete</button>

Add Room

Name	Area			
Price	Quantity			
#	Adult (Max.)	Children (Max.)		
1				
2	<input type="checkbox"/> 1 Room <input type="checkbox"/> 1 Bathroom <input type="checkbox"/> 1 Balcony <input type="checkbox"/> 1 Sofa <input type="checkbox"/> 5 Sofa	<input type="checkbox"/> 2 Room <input type="checkbox"/> 2 Bathroom <input type="checkbox"/> 2 Balcony <input type="checkbox"/> 2 Sofa	<input type="checkbox"/> 3 Room <input type="checkbox"/> 3 Bathroom <input type="checkbox"/> 3 Balcony <input type="checkbox"/> 3 Sofa	<input type="checkbox"/> 4 Room <input type="checkbox"/> 4 Bathroom <input type="checkbox"/> 4 Balcony <input type="checkbox"/> 4 Sofa
3				
4				
5	<input type="checkbox"/> AC <input type="checkbox"/> wifi	<input type="checkbox"/> Oven <input type="checkbox"/> massage	<input type="checkbox"/> Heater	<input type="checkbox"/> TV
6	Description			
		<button>CANCEL</button> <button>SUBMIT</button>		

The image shows two screenshots of a web-based hotel booking application's admin panel. Both screenshots have a dark theme with a sidebar on the left containing navigation links like Dashboard, Bookings, Users, Ratings & Reviews, Rooms (which is highlighted in blue), Features & Facilities, Carousel, and Settings.

Screenshot 1: Edit Room

This modal window is titled "Edit Room". It contains fields for "Name" (Couple Room), "Area" (500), "Price" (497), "Quantity" (2), "Adult(Max.)" (2), "Children(Max.)" (1), and a "Description" box with the text: "The 'HOTEL BOOKING WEBSITE' is a web-based application that allows handling all hotel activities in online." At the bottom are "CANCEL" and "SUBMIT" buttons.

Screenshot 2: Add Image

This modal window is titled "Couple Room". It has a "Choose File" input field showing "no file selected" and an "ADD" button. Below it is a grid of images labeled 1 through 6. Each image has a "Thumb" (Thumbnail) and a "Delete" button. The first image shows a living room area with a sofa, coffee table, and chairs. The second image shows a bedroom with a bed and curtains.

Figure 6.7: Admin rooms page

6.8 Features & Facilities Page

Admin can add or delete features and facilities to his hotel. It is good to say that these features and facilities are dynamically modified with each room during the next room add or delete.

ADMIN PANEL

- Dashboard
- Bookings
 - New Booking
 - Refund Booking
 - Booking Records
- Users
- Users Queries
- Ratings & Reviews
- Rooms
 - Rooms
 - Features & Facilities
- Carousel
- Settings

FEATURES & FACILITIES

Features

#	Name	Action
3	3 Room	Delete
4	4 Room	Delete
5	1 Bathroom	Delete
6	2 Bathroom	Delete
7	3 Bathroom	Delete
8	4 Bathroom	Delete
9	1 Balcony	Delete

Facilities

#	Icon	Name	Description	Action
1		AC	You can use it anytime. No charge will be deducted for this.	Delete
2		Oven	You can use it anytime. No charge will be deducted for this.	Delete
3		Balcony	You can use it anytime. No charge will be deducted for this.	Delete

Add Facility

Features

#	Name	Action
6	2 Bed	Delete
7	3 Bed	Delete
8	4 Bed	Delete
9	1 Bed	Delete
10	2 Bed	Delete
11	3 Bed	Delete
12	4 Bed	Delete
13	1 Sofa	Delete

Facilities

#	Icon	Name	Description	Action
1		AC	You can use it anytime. No charge will be deducted for this.	Delete
2		Oven	You can use it anytime. No charge will be deducted for this.	Delete
3		Balcony	You can use it anytime. No charge will be deducted for this.	Delete

Add Feature

Features

#	Name	Action
3	3 Room	Delete
4	4 Room	Delete
5	1 Bathroom	Delete
6	2 Bathroom	Delete

Figure 6.8: Admin features & facilities page

6.9 Carousel page

Here the admin adds some beautiful pictures around his hotel and pictures of the entire hotel. This is done using the swiper js function on the home page in the user section in the Carousel form. Home page images will change dynamically every few seconds. Can be deleted as well.

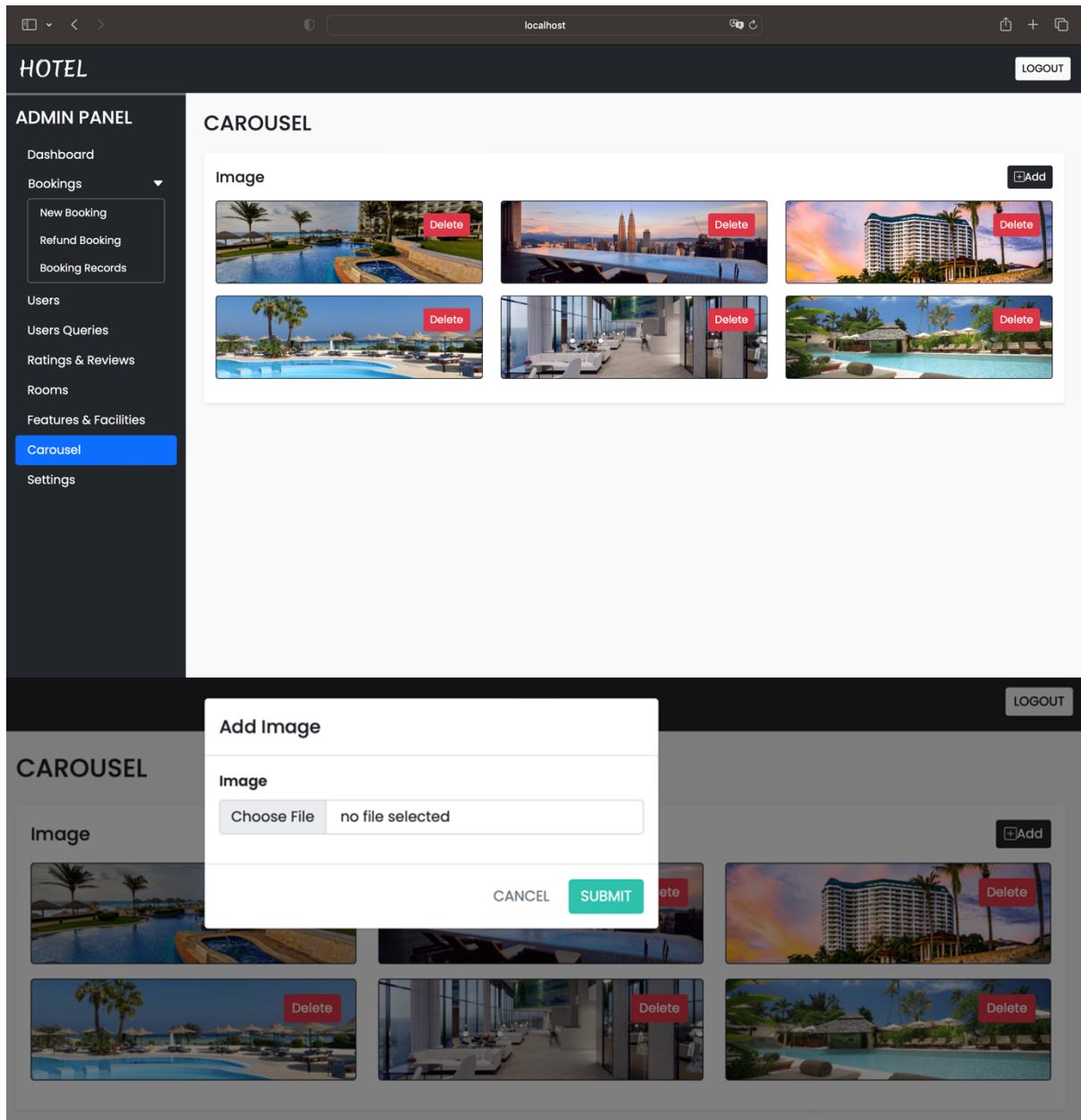


Figure 6.9: Admin carousel page

6.10 Settings page

In the settings page, the admin can enter the title of the website and information about the hotel in the general setting part, which will be saved in the database and then displayed dynamically in the font-end through Ajax. If you toggle the shutdown mode, the website will go into shutdown mode, the user will not be able to book any room, which means the font-end will not work, a pop-up will show a message that the website is working, that's why the website is in shutdown mode. After that, contact the manager of the hotel in the contact setting section and give the information about the location of the Hotel. Finally, the names of those who are connected to the management team are added with their pictures. Users can see its About page.

HOTEL

ADMIN PANEL

- Dashboard
- Bookings
- New Booking
- Refund Booking
- Booking Records
- Users
- Users Queries
- Ratings & Reviews
- Rooms
- Features & Facilities
- Carousel
- Settings**

General Settings

Site Title
Nhotel

About us
Lorem ipsum dolor sit amet consectetur adipisicing elit. Tempora quidem animi vel harum voluptu cupiditate sed consectetur quis possimus aspernatur quam in quibusdam molestia.

Shutdown Website
No customers will be allowed to book hotel room. when shutdown mode is turned on.

Contact Settings

Address
ALIGONJ BATHANPARA, RAJPARA, PABA, RAJSHAHI.

Google Map
<https://goo.gl/maps/93HrgAy92EwCvI8>

Phone Numbers
1780908235
1780908235

E-mail
nayimislam0@gmail.com

Social Links

<https://www.facebook.com/mdnayimislam.eng>
<https://www.instagram.com/mdnayimislam.eng>
<https://www.twitter.com/>

Iframe


Management Team

Add

SETTINGS

General Settings

Site Title
Nhotel

About us
Lorem ipsum dolor sit amet consectetur adipisicing elit. Tempora quidem animi vel harum voluptu cupiditate sed consectetur quis possimus aspernatur quam in quibusdam molestia.

Shutdown Website
No customers will be allowed to book hotel room. when shutdown mode is turned on.

Contact Settings

Shutdown Website
No customers will be allowed to book hotel room. when shutdown mode is turned on.

Contacts Settings

Address
ALIGONJ BATHANPARA, RAJPARA, PABA, RAJS

Social Links

<https://www.facebook.com/mdnayim>

Google Map Link
<https://goo.gl/maps/93HrgAy92EwCvI8>

Phone Numbers
1780908235
1780908235

Email
nayimislam0@gmail.com

Iframe src
<https://www.google.com/maps/embed?pt>



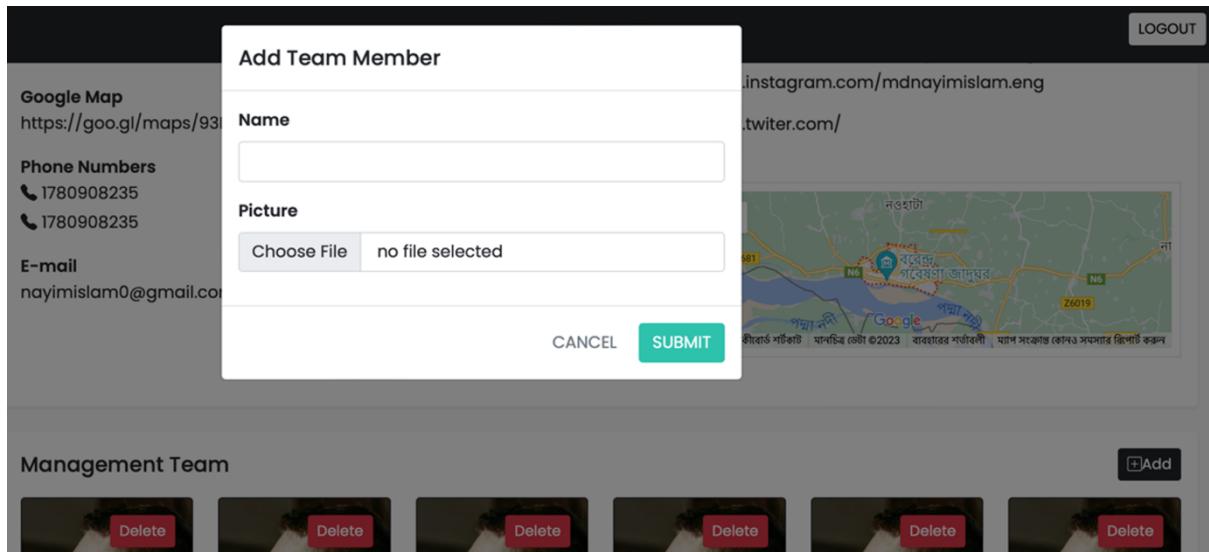


Figure 6.10: Admin Settings page

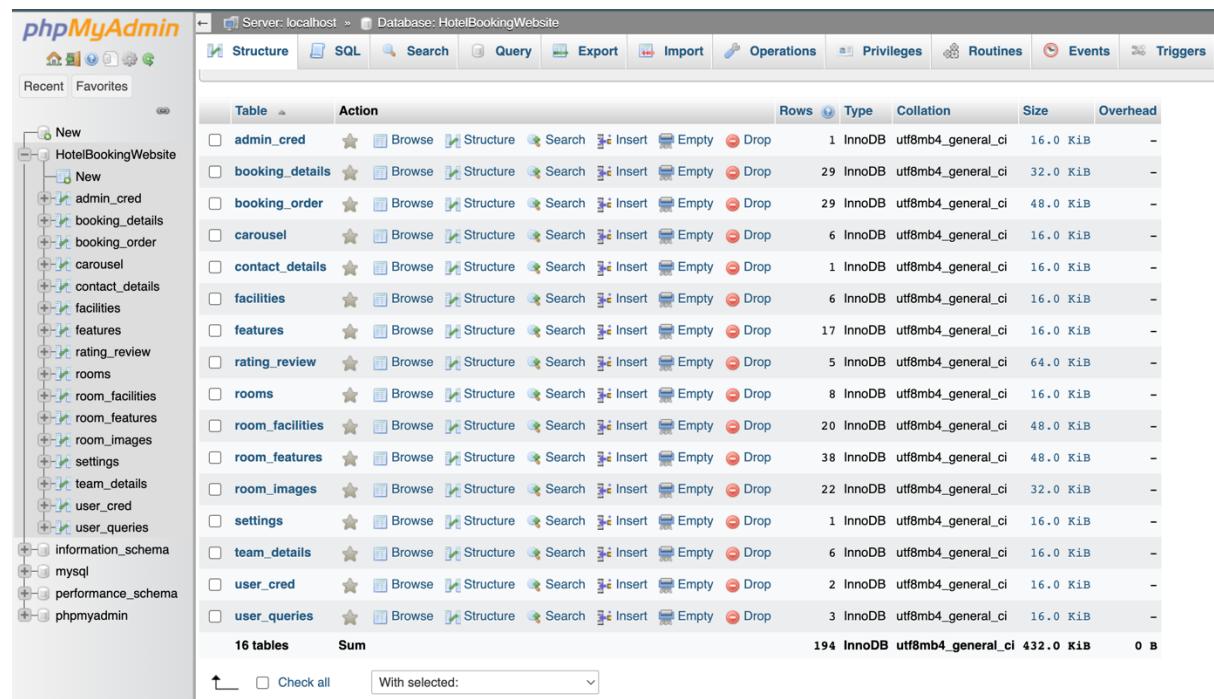
Chapter 7

Database Design of the System

7.1 Introduction

To achieve the flow of data and data processing task, I have created a database named HotelBookingWebsite and inside this database thirteen entities have been created as mentioned below.

7.1.1 Database table's

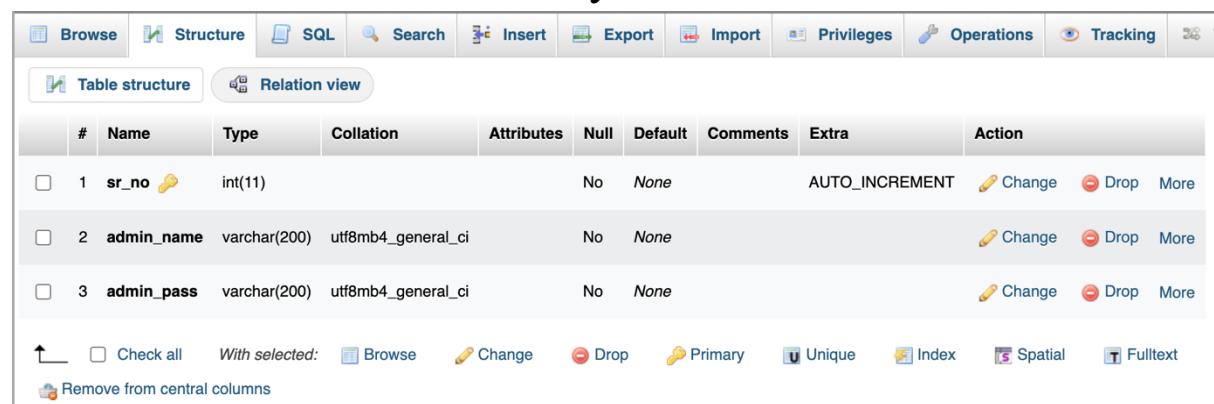


The screenshot shows the phpMyAdmin interface for the 'HotelBookingWebsite' database. The left sidebar lists various databases and their structures. The main area displays a table of 16 tables with columns for Name, Action, Rows, Type, Collation, Size, and Overhead. The tables listed are: admin_cred, booking_details, booking_order, carousel, contact_details, facilities, features, rating_review, rooms, room_facilities, room_features, room_images, settings, team_details, user_cred, and user_queries. The total size of the database is 432.0 KiB.

Table	Action	Rows	Type	Collation	Size	Overhead
admin_cred	Browse Structure Search Insert Empty Drop	1	InnoDB	utf8mb4_general_ci	16.0 KiB	-
booking_details	Browse Structure Search Insert Empty Drop	29	InnoDB	utf8mb4_general_ci	32.0 KiB	-
booking_order	Browse Structure Search Insert Empty Drop	29	InnoDB	utf8mb4_general_ci	48.0 KiB	-
carousel	Browse Structure Search Insert Empty Drop	6	InnoDB	utf8mb4_general_ci	16.0 KiB	-
contact_details	Browse Structure Search Insert Empty Drop	1	InnoDB	utf8mb4_general_ci	16.0 KiB	-
facilities	Browse Structure Search Insert Empty Drop	6	InnoDB	utf8mb4_general_ci	16.0 KiB	-
features	Browse Structure Search Insert Empty Drop	17	InnoDB	utf8mb4_general_ci	16.0 KiB	-
rating_review	Browse Structure Search Insert Empty Drop	5	InnoDB	utf8mb4_general_ci	64.0 KiB	-
rooms	Browse Structure Search Insert Empty Drop	8	InnoDB	utf8mb4_general_ci	16.0 KiB	-
room_facilities	Browse Structure Search Insert Empty Drop	20	InnoDB	utf8mb4_general_ci	48.0 KiB	-
room_features	Browse Structure Search Insert Empty Drop	38	InnoDB	utf8mb4_general_ci	48.0 KiB	-
room_images	Browse Structure Search Insert Empty Drop	22	InnoDB	utf8mb4_general_ci	32.0 KiB	-
settings	Browse Structure Search Insert Empty Drop	1	InnoDB	utf8mb4_general_ci	16.0 KiB	-
team_details	Browse Structure Search Insert Empty Drop	6	InnoDB	utf8mb4_general_ci	16.0 KiB	-
user_cred	Browse Structure Search Insert Empty Drop	2	InnoDB	utf8mb4_general_ci	16.0 KiB	-
user_queries	Browse Structure Search Insert Empty Drop	3	InnoDB	utf8mb4_general_ci	16.0 KiB	-

Table 7.1: Database table's

7.1.2 Admin information entity



The screenshot shows the phpMyAdmin interface for the 'admin_cred' table. The top navigation bar includes tabs for Browse, Structure, SQL, Search, Insert, Export, Import, Privileges, Operations, Tracking, and a dropdown for Relation view. The 'Table structure' tab is selected. The table structure is displayed with columns: #, Name, Type, Collation, Attributes, Null, Default, Comments, Extra, and Action. The table contains three rows for columns 'sr_no', 'admin_name', and 'admin_pass'. The 'sr_no' column is defined as int(11) with AUTO_INCREMENT, while 'admin_name' and 'admin_pass' are defined as varchar(200) with utf8mb4_general_ci collation. The 'Action' column for each row includes options for Change, Drop, and More.

#	Name	Type	Collation	Attributes	Null	Default	Comments	Extra	Action
1	sr_no	int(11)			No	None		AUTO_INCREMENT	Change Drop More
2	admin_name	varchar(200)	utf8mb4_general_ci		No	None			Change Drop More
3	admin_pass	varchar(200)	utf8mb4_general_ci		No	None			Change Drop More

Table 7.2: Admin information entity

7.1.3 Bookings details entity

	#	Name	Type	Collation	Attributes	Null	Default	Comments	Extra	Action
<input type="checkbox"/>	1	sr_no	int(11)			No	None		AUTO_INCREMENT	Change Drop More
<input type="checkbox"/>	2	booking_id	int(11)			No	None			Change Drop More
<input type="checkbox"/>	3	room_name	varchar(200)	utf8mb4_general_ci		No	None			Change Drop More
<input type="checkbox"/>	4	price	int(11)			No	None			Change Drop More
<input type="checkbox"/>	5	total_pay	int(11)			No	None			Change Drop More
<input type="checkbox"/>	6	room_no	varchar(100)	utf8mb4_general_ci		Yes	NULL			Change Drop More
<input type="checkbox"/>	7	user_name	varchar(200)	utf8mb4_general_ci		No	pending			Change Drop More
<input type="checkbox"/>	8	phonenum	bigint(20)			No	None			Change Drop More
<input type="checkbox"/>	9	address	varchar(200)	utf8mb4_general_ci		No	None			Change Drop More

Check all With selected: Browse Change Drop Primary Unique Index Spatial Fulltext

Table 7.3: Bookings details entity

7.1.4 Booking order entity

	#	Name	Type	Collation	Attributes	Null	Default	Comments	Extra	Action
<input type="checkbox"/>	1	booking_id	int(11)			No	None		AUTO_INCREMENT	Change Drop More
<input type="checkbox"/>	2	user_id	int(11)			No	None			Change Drop More
<input type="checkbox"/>	3	room_id	int(11)			No	None			Change Drop More
<input type="checkbox"/>	4	check_in	date			No	None			Change Drop More
<input type="checkbox"/>	5	check_out	date			No	None			Change Drop More
<input type="checkbox"/>	6	arrival	int(11)			Yes	0			Change Drop More
<input type="checkbox"/>	7	refund	int(11)			Yes	NULL			Change Drop More
<input type="checkbox"/>	8	booking_status	varchar(100)	utf8mb4_general_ci		Yes	pending			Change Drop More
<input type="checkbox"/>	9	order_id	varchar(200)	utf8mb4_general_ci		No	None			Change Drop More
<input type="checkbox"/>	10	trans_id	varchar(200)	utf8mb4_general_ci		Yes	NULL			Change Drop More
<input type="checkbox"/>	11	trans_amt	int(11)			Yes	NULL			Change Drop More
<input type="checkbox"/>	12	trans_status	varchar(200)	utf8mb4_general_ci		Yes	pending			Change Drop More
<input type="checkbox"/>	13	trans_resp_msg	varchar(200)	utf8mb4_general_ci		Yes	NULL			Change Drop More
<input type="checkbox"/>	14	rate_review	int(11)			Yes	NULL			Change Drop More
<input type="checkbox"/>	15	datetime	datetime			No	current_timestamp()			Change Drop More

Check all With selected: Browse Change Drop Primary Unique Index Spatial Fulltext Add to center

Table 7.4: Booking order entity

7.1.5 Carousel entity

Browse Structure SQL Search Insert Export Import Privileges Operations Tracking																																									
Table structure Relation view		<table border="1"> <thead> <tr> <th>#</th><th>Name</th><th>Type</th><th>Collation</th><th>Attributes</th><th>Null</th><th>Default</th><th>Comments</th><th>Extra</th><th>Action</th></tr> </thead> <tbody> <tr> <td>1</td><td>sr_no</td><td>int(11)</td><td></td><td></td><td>No</td><td>None</td><td></td><td>AUTO_INCREMENT</td><td>Change Drop More</td></tr> <tr> <td>2</td><td>image</td><td>varchar(500)</td><td>utf8mb4_general_ci</td><td></td><td>No</td><td>None</td><td></td><td></td><td>Change Drop More</td></tr> </tbody> </table>										#	Name	Type	Collation	Attributes	Null	Default	Comments	Extra	Action	1	sr_no	int(11)			No	None		AUTO_INCREMENT	Change Drop More	2	image	varchar(500)	utf8mb4_general_ci		No	None			Change Drop More
#	Name	Type	Collation	Attributes	Null	Default	Comments	Extra	Action																																
1	sr_no	int(11)			No	None		AUTO_INCREMENT	Change Drop More																																
2	image	varchar(500)	utf8mb4_general_ci		No	None			Change Drop More																																
<input type="checkbox"/> <input checked="" type="checkbox"/> Check all With selected: Browse Change Drop Primary Unique Index Spatial Fulltext																																									
Table 7.5: Carousel entity																																									

7.1.6 Contact details entity

Browse Structure SQL Search Insert Export Import Privileges Operations Tracking																																																																																																																										
Table structure Relation view		<table border="1"> <thead> <tr> <th>#</th><th>Name</th><th>Type</th><th>Collation</th><th>Attributes</th><th>Null</th><th>Default</th><th>Comments</th><th>Extra</th><th>Action</th></tr> </thead> <tbody> <tr> <td>1</td><td>sr_no</td><td>int(11)</td><td></td><td></td><td>No</td><td>None</td><td></td><td>AUTO_INCREMENT</td><td>Change Drop More</td></tr> <tr> <td>2</td><td>address</td><td>varchar(500)</td><td>utf8mb4_general_ci</td><td></td><td>No</td><td>None</td><td></td><td></td><td>Change Drop More</td></tr> <tr> <td>3</td><td>gmap</td><td>varchar(500)</td><td>utf8mb4_general_ci</td><td></td><td>No</td><td>None</td><td></td><td></td><td>Change Drop More</td></tr> <tr> <td>4</td><td>pn1</td><td>bigint(20)</td><td></td><td></td><td>No</td><td>None</td><td></td><td></td><td>Change Drop More</td></tr> <tr> <td>5</td><td>pn2</td><td>bigint(20)</td><td></td><td></td><td>No</td><td>None</td><td></td><td></td><td>Change Drop More</td></tr> <tr> <td>6</td><td>email</td><td>varchar(200)</td><td>utf8mb4_general_ci</td><td></td><td>No</td><td>None</td><td></td><td></td><td>Change Drop More</td></tr> <tr> <td>7</td><td>fb</td><td>varchar(200)</td><td>utf8mb4_general_ci</td><td></td><td>No</td><td>None</td><td></td><td></td><td>Change Drop More</td></tr> <tr> <td>8</td><td>insta</td><td>varchar(200)</td><td>utf8mb4_general_ci</td><td></td><td>No</td><td>None</td><td></td><td></td><td>Change Drop More</td></tr> <tr> <td>9</td><td>tw</td><td>varchar(200)</td><td>utf8mb4_general_ci</td><td></td><td>No</td><td>None</td><td></td><td></td><td>Change Drop More</td></tr> <tr> <td>10</td><td>iframe</td><td>varchar(500)</td><td>utf8mb4_general_ci</td><td></td><td>No</td><td>None</td><td></td><td></td><td>Change Drop More</td></tr> </tbody> </table>											#	Name	Type	Collation	Attributes	Null	Default	Comments	Extra	Action	1	sr_no	int(11)			No	None		AUTO_INCREMENT	Change Drop More	2	address	varchar(500)	utf8mb4_general_ci		No	None			Change Drop More	3	gmap	varchar(500)	utf8mb4_general_ci		No	None			Change Drop More	4	pn1	bigint(20)			No	None			Change Drop More	5	pn2	bigint(20)			No	None			Change Drop More	6	email	varchar(200)	utf8mb4_general_ci		No	None			Change Drop More	7	fb	varchar(200)	utf8mb4_general_ci		No	None			Change Drop More	8	insta	varchar(200)	utf8mb4_general_ci		No	None			Change Drop More	9	tw	varchar(200)	utf8mb4_general_ci		No	None			Change Drop More	10	iframe	varchar(500)	utf8mb4_general_ci		No	None			Change Drop More
#	Name	Type	Collation	Attributes	Null	Default	Comments	Extra	Action																																																																																																																	
1	sr_no	int(11)			No	None		AUTO_INCREMENT	Change Drop More																																																																																																																	
2	address	varchar(500)	utf8mb4_general_ci		No	None			Change Drop More																																																																																																																	
3	gmap	varchar(500)	utf8mb4_general_ci		No	None			Change Drop More																																																																																																																	
4	pn1	bigint(20)			No	None			Change Drop More																																																																																																																	
5	pn2	bigint(20)			No	None			Change Drop More																																																																																																																	
6	email	varchar(200)	utf8mb4_general_ci		No	None			Change Drop More																																																																																																																	
7	fb	varchar(200)	utf8mb4_general_ci		No	None			Change Drop More																																																																																																																	
8	insta	varchar(200)	utf8mb4_general_ci		No	None			Change Drop More																																																																																																																	
9	tw	varchar(200)	utf8mb4_general_ci		No	None			Change Drop More																																																																																																																	
10	iframe	varchar(500)	utf8mb4_general_ci		No	None			Change Drop More																																																																																																																	
<input type="checkbox"/> <input checked="" type="checkbox"/> Check all With selected: Browse Change Drop Primary Unique Index Spatial Fulltext																																																																																																																										
Table 7.6: Contact details entity																																																																																																																										

7.1.7 Facilities entity

Browse Structure SQL Search Insert Export Import Privileges Operations Tracking																																																													
Table structure Relation view		<table border="1"> <thead> <tr> <th>#</th><th>Name</th><th>Type</th><th>Collation</th><th>Attributes</th><th>Null</th><th>Default</th><th>Comments</th><th>Extra</th><th>Action</th></tr> </thead> <tbody> <tr> <td>1</td><td>id</td><td>int(11)</td><td></td><td></td><td>No</td><td>None</td><td></td><td>AUTO_INCREMENT</td><td>Change Drop More</td></tr> <tr> <td>2</td><td>icon</td><td>varchar(200)</td><td>utf8mb4_general_ci</td><td></td><td>No</td><td>None</td><td></td><td></td><td>Change Drop More</td></tr> <tr> <td>3</td><td>name</td><td>varchar(200)</td><td>utf8mb4_general_ci</td><td></td><td>No</td><td>None</td><td></td><td></td><td>Change Drop More</td></tr> <tr> <td>4</td><td>description</td><td>varchar(200)</td><td>utf8mb4_general_ci</td><td></td><td>No</td><td>None</td><td></td><td></td><td>Change Drop More</td></tr> </tbody> </table>										#	Name	Type	Collation	Attributes	Null	Default	Comments	Extra	Action	1	id	int(11)			No	None		AUTO_INCREMENT	Change Drop More	2	icon	varchar(200)	utf8mb4_general_ci		No	None			Change Drop More	3	name	varchar(200)	utf8mb4_general_ci		No	None			Change Drop More	4	description	varchar(200)	utf8mb4_general_ci		No	None			Change Drop More
#	Name	Type	Collation	Attributes	Null	Default	Comments	Extra	Action																																																				
1	id	int(11)			No	None		AUTO_INCREMENT	Change Drop More																																																				
2	icon	varchar(200)	utf8mb4_general_ci		No	None			Change Drop More																																																				
3	name	varchar(200)	utf8mb4_general_ci		No	None			Change Drop More																																																				
4	description	varchar(200)	utf8mb4_general_ci		No	None			Change Drop More																																																				
<input type="checkbox"/> <input checked="" type="checkbox"/> Check all With selected: Browse Change Drop Primary Unique Index Spatial Fulltext																																																													
Table 7.7: Facilities entity																																																													

7.1.8 Features entity

Table structure										
#	Name	Type	Collation	Attributes	Null	Default	Comments	Extra	Action	
1	id	int(11)			No	<i>None</i>		AUTO_INCREMENT	Change Drop More	
2	name	varchar(200)	utf8mb4_general_ci		No	<i>None</i>			Change Drop More	
<input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/>										
<input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/>										
<input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/>										
<input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/>										
<input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/>										
<input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/>										
<input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/>										
<input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/>										
<input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/>										
<input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/>										
<input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/>										
<input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/>										
<input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/>										
<input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/>										
<input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/>										
<input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/>										
<input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/>										
<input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/>										
<input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/>										
<input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/>										
<input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/>										
<input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/>										
<input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/>										
<input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/>										
<input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/>										
<input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/>										
<input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/>										
<input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/>										
<input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/>										
<input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/>										
<input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/>										
<input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/>										
<input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/>										
<input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/>										
<input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/>										
<input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/>										
<input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/>										
<input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/>										
<input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/>										
<input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/>										
<input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/>										
<input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/>										
<input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/>										
<input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/>										
<input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/>										
<input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/>										
<input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/>										
<input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/>										
<input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/>										
<input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/>										
<input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/>										
<input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/>										
<input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/>										
<input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/>										
<input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/>										
<input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/>										
<input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/>										
<input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/>										
<input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/>										
<input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/>										
<input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/>										
<input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/>										
<input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/>										

7.1.11 Rooms facilities entity

#	Name	Type	Collation	Attributes	Null	Default	Comments	Extra	Action
<input type="checkbox"/>	1 sr_no 🔑	int(11)			No	None		AUTO_INCREMENT	Change Drop More
<input type="checkbox"/>	2 room_id 🔑	int(11)			No	None			Change Drop More
<input type="checkbox"/>	3 facilities_id 🔑	int(11)			No	None			Change Drop More

[↑](#) [Check all](#) With selected: [Browse](#) [Change](#) [Drop](#) [Primary](#) [Unique](#) [Index](#) [Spatial](#)

Table 7.11: Rooms facilities entity

7.1.12 Rooms features entity

#	Name	Type	Collation	Attributes	Null	Default	Comments	Extra	Action
<input type="checkbox"/>	1 sr_no 🔑	int(11)			No	None		AUTO_INCREMENT	Change Drop More
<input type="checkbox"/>	2 room_id 🔑	int(11)			No	None			Change Drop More
<input type="checkbox"/>	3 features_id 🔑	int(11)			No	None			Change Drop More

[↑](#) [Check all](#) With selected: [Browse](#) [Change](#) [Drop](#) [Primary](#) [Unique](#) [Index](#) [Spatial](#)

Table 7.12: Rooms features entity

7.1.13 Rooms images entity

#	Name	Type	Collation	Attributes	Null	Default	Comments	Extra	Action
<input type="checkbox"/>	1 sr_no 🔑	int(11)			No	None		AUTO_INCREMENT	Change Drop More
<input type="checkbox"/>	2 room_id 🔑	int(11)			No	None			Change Drop More
<input type="checkbox"/>	3 image	varchar(500)	utf8mb4_general_ci		No	None			Change Drop More
<input type="checkbox"/>	4 thumb	tinyint(4)			No	0			Change Drop More

[↑](#) [Check all](#) With selected: [Browse](#) [Change](#) [Drop](#) [Primary](#) [Unique](#) [Index](#) [Spatial](#) [Fulltext](#)

Table 7.13: Rooms images entity

7.1.14 Setting entity

#	Name	Type	Collation	Attributes	Null	Default	Comments	Extra	Action
<input type="checkbox"/>	1 sr_no 🔑	int(11)			No	None		AUTO_INCREMENT	Change Drop More
<input type="checkbox"/>	2 site_title	varchar(200)	utf8mb4_general_ci		No	None			Change Drop More
<input type="checkbox"/>	3 site_about	varchar(5000)	utf8mb4_general_ci		No	None			Change Drop More
<input type="checkbox"/>	4 shutdown	tinyint(1)			No	0			Change Drop More

[↑](#) [Check all](#) With selected: [Browse](#) [Change](#) [Drop](#) [Primary](#) [Unique](#) [Index](#) [Spatial](#) [Fulltext](#)

Table 7.14: Setting entity

7.1.15 Teams details entity

	#	Name	Type	Collation	Attributes	Null	Default	Comments	Extra	Action
<input type="checkbox"/>	1	sr_no	int(11)		No	None		AUTO_INCREMENT	Change Drop More	
<input type="checkbox"/>	2	name	varchar(200)	utf8mb4_general_ci	No	None			Change Drop More	
<input type="checkbox"/>	3	picture	varchar(500)	utf8mb4_general_ci	No	None			Change Drop More	

Check all With selected: Browse Change Drop Primary Unique Index Spatial Fulltext

Table 7.15: Teams details entity

7.1.16 User information entity

	#	Name	Type	Collation	Attributes	Null	Default	Comments	Extra	Action
<input type="checkbox"/>	1	id	int(11)		No	None		AUTO_INCREMENT	Change Drop More	
<input type="checkbox"/>	2	name	varchar(200)	utf8mb4_general_ci	No	None			Change Drop More	
<input type="checkbox"/>	3	email	varchar(200)	utf8mb4_general_ci	No	None			Change Drop More	
<input type="checkbox"/>	4	address	varchar(500)	utf8mb4_general_ci	No	None			Change Drop More	
<input type="checkbox"/>	5	phonenum	varchar(200)	utf8mb4_general_ci	No	None			Change Drop More	
<input type="checkbox"/>	6	pincode	int(11)		No	None			Change Drop More	
<input type="checkbox"/>	7	dob	date		No	None			Change Drop More	
<input type="checkbox"/>	8	profile	varchar(200)	utf8mb4_general_ci	No	None			Change Drop More	
<input type="checkbox"/>	9	password	varchar(200)	utf8mb4_general_ci	No	None			Change Drop More	
<input type="checkbox"/>	10	is_verified	int(11)		No	0			Change Drop More	
<input type="checkbox"/>	11	token	varchar(200)	utf8mb4_general_ci	Yes	NULL			Change Drop More	
<input type="checkbox"/>	12	t_expire	date		Yes	NULL			Change Drop More	
<input type="checkbox"/>	13	status	int(11)		No	1			Change Drop More	
<input type="checkbox"/>	14	datentime	datetime		No	current_timestamp()			Change Drop More	

Check all With selected: Browse Change Drop Primary Unique Index Spatial Fulltext Add

Table 7.16: User information entity

7.1.17 Users queries entity

	#	Name	Type	Collation	Attributes	Null	Default	Comments	Extra	Action
<input type="checkbox"/>	1	sr_no	int(11)		No	None		AUTO_INCREMENT	Change Drop More	
<input type="checkbox"/>	2	name	varchar(200)	utf8mb4_general_ci	No	None			Change Drop More	
<input type="checkbox"/>	3	email	varchar(200)	utf8mb4_general_ci	No	None			Change Drop More	
<input type="checkbox"/>	4	subject	varchar(200)	utf8mb4_general_ci	No	None			Change Drop More	
<input type="checkbox"/>	5	message	varchar(500)	utf8mb4_general_ci	No	None			Change Drop More	
<input type="checkbox"/>	6	datentime	datetime		No	current_timestamp()			Change Drop More	
<input type="checkbox"/>	7	seen	tinyint(4)		No	0			Change Drop More	

Check all With selected: Browse Change Drop Primary Unique Index Spatial Fulltext Add

Table 7.17: Users queries entity

7.2 Entity Relationship Diagram

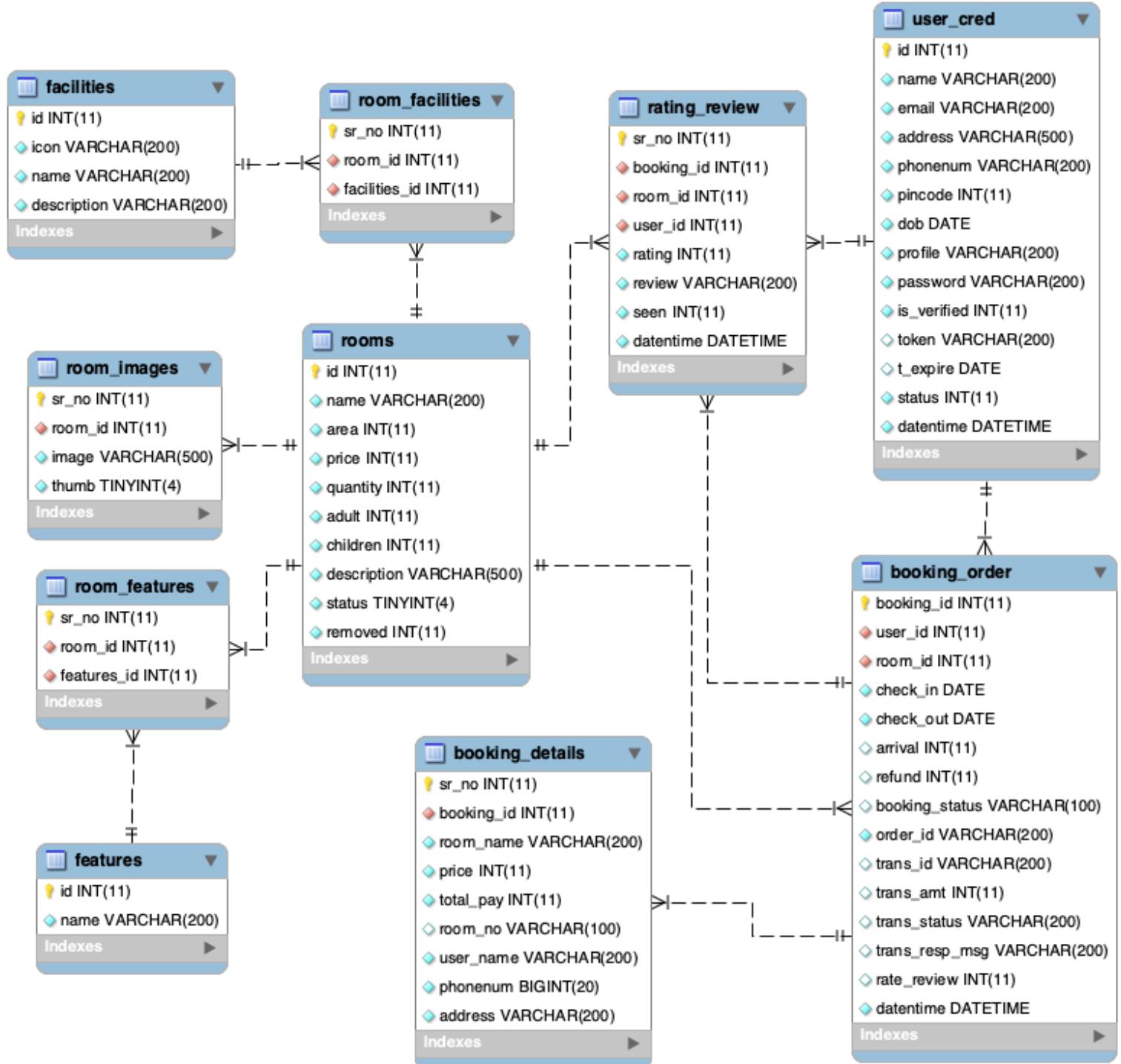


Figure 7.2: E-R Diagram

Chapter 8

Data flow diagram

8.1 Data Flow Diagram

A data flow diagram (DFD) is a graphical representation of the "flow" of data through a system, modeling its process aspects. A DFD is often used as a preliminary step to create an overview of the system without going into great detail, which can later be elaborated. DFDs can also be used for the visualization of data processing (structured design).

A DFD shows what kind of information will be input to and output from the system, how the data will advance through the system, and where the data will be stored. It does not show information about process timing or whether processes will operate in sequence or in parallel, unlike a traditionally structured flowchart which focuses on control flow, or a UML activity workflow diagram, which presents both control and data flows as a unified model [11].

The Data flow diagram (DFD) contains some symbols for drawing the data flow diagram.

8.1.1 Data Flow Diagram Symbol

Symbol	Description
	Data Flow – Data flow is the pipeline through the packets of information flow.
	Process: A Process or task performed by the system
	Entity: Entities are objects of the system. A source or destination data of a system.
	Data Store: A place where data is stored.

Figure 8.1: DFD symbol

8.1.2 Context Level DFD – 0 Level

A context-level DFD (Data Flow Diagram) is the most basic form of DFD. It aims to show how the entire system works at a glance. It shows all user modules that operate the system. There is only one process in the system and all the data flows either into or out of this process. Context-level DFDs demonstrate the interactions between the process and external entities. They do not contain Data Stores. Some of the benefits of a Context Diagram are:

- Shows the overview of the boundaries of a system
- No technical knowledge is required to understand the simple notation.
- Simple to draw, amend and elaborate as its limited notation.

Hotel Booking Website context level data flow diagram shows there are two ways to run the system- Admin and Users.

0-Level DFD: Context Level

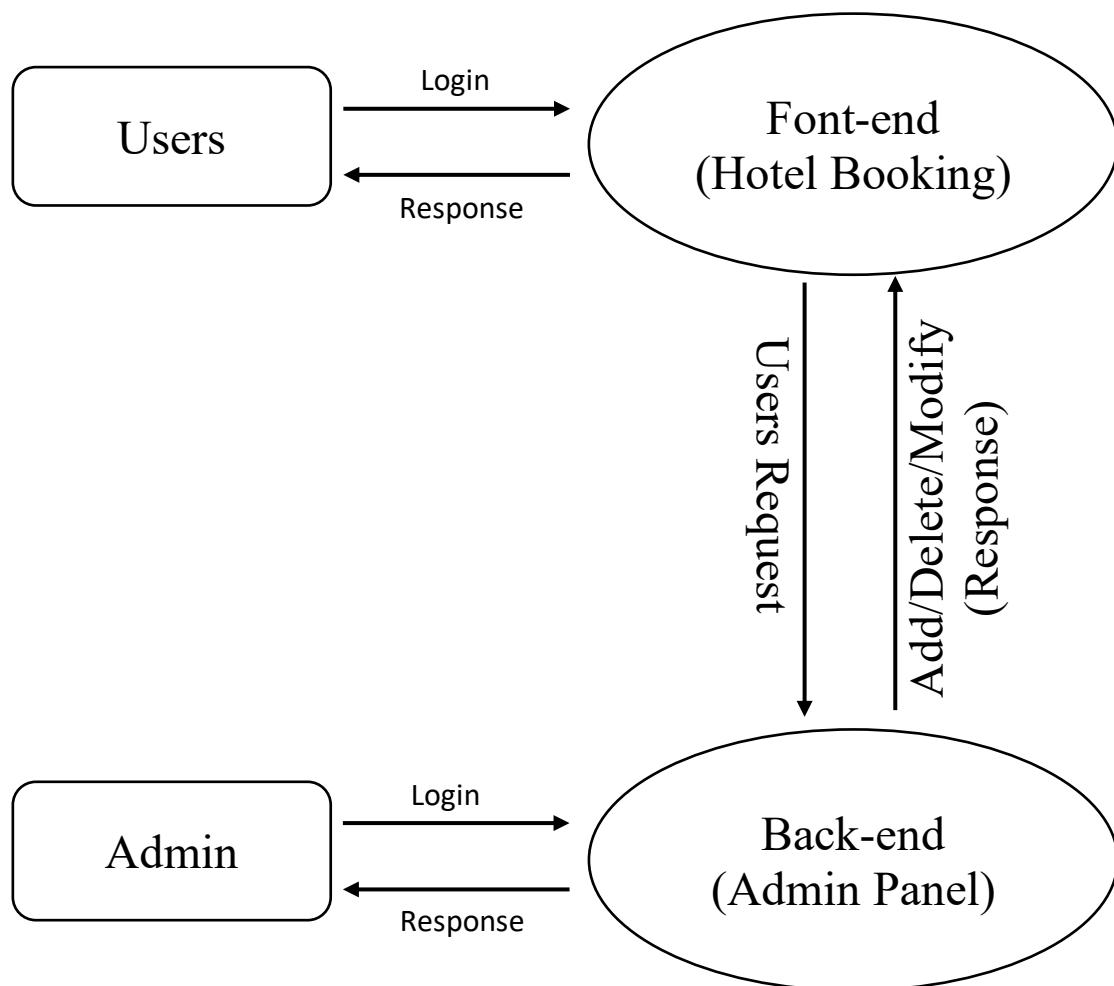
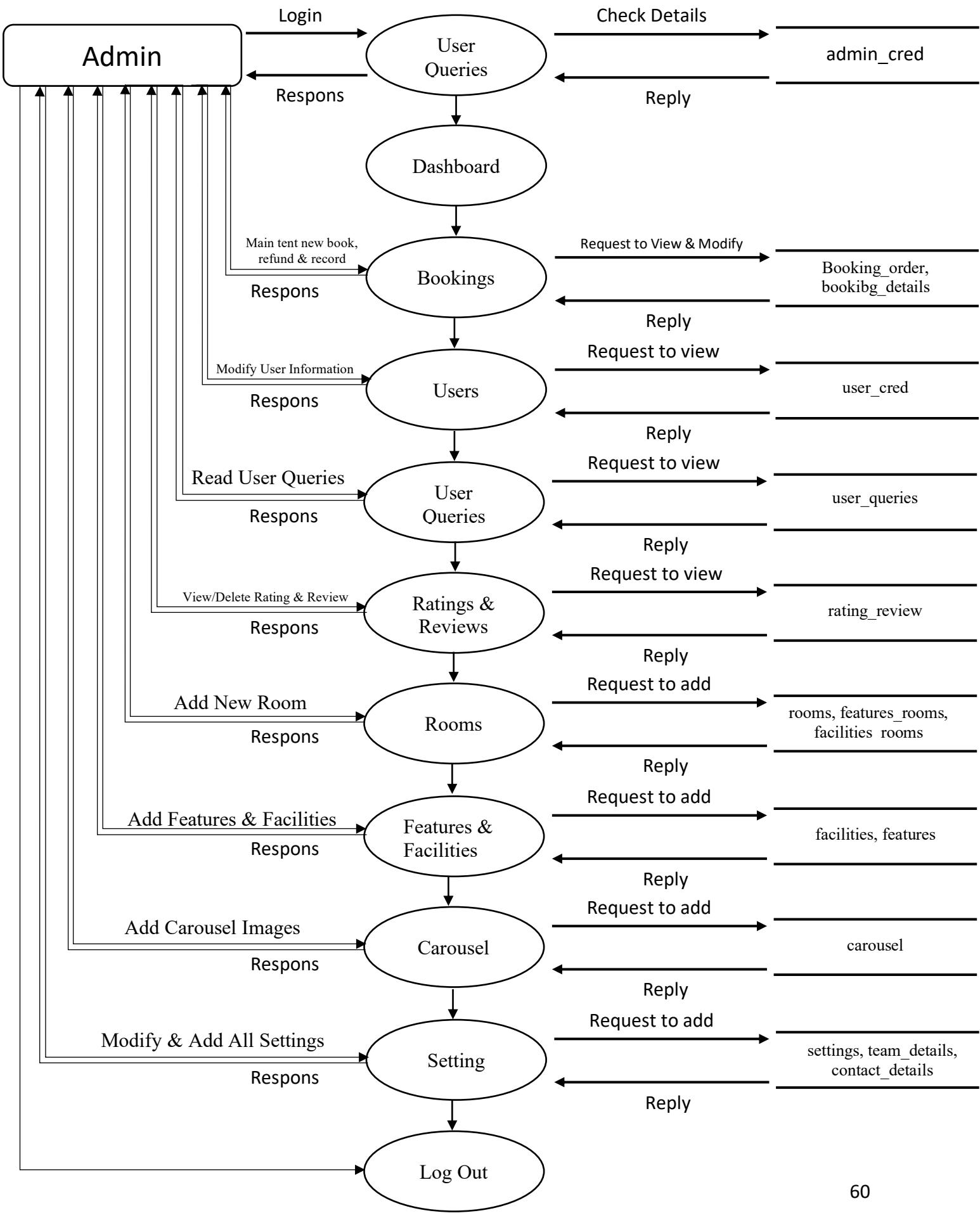
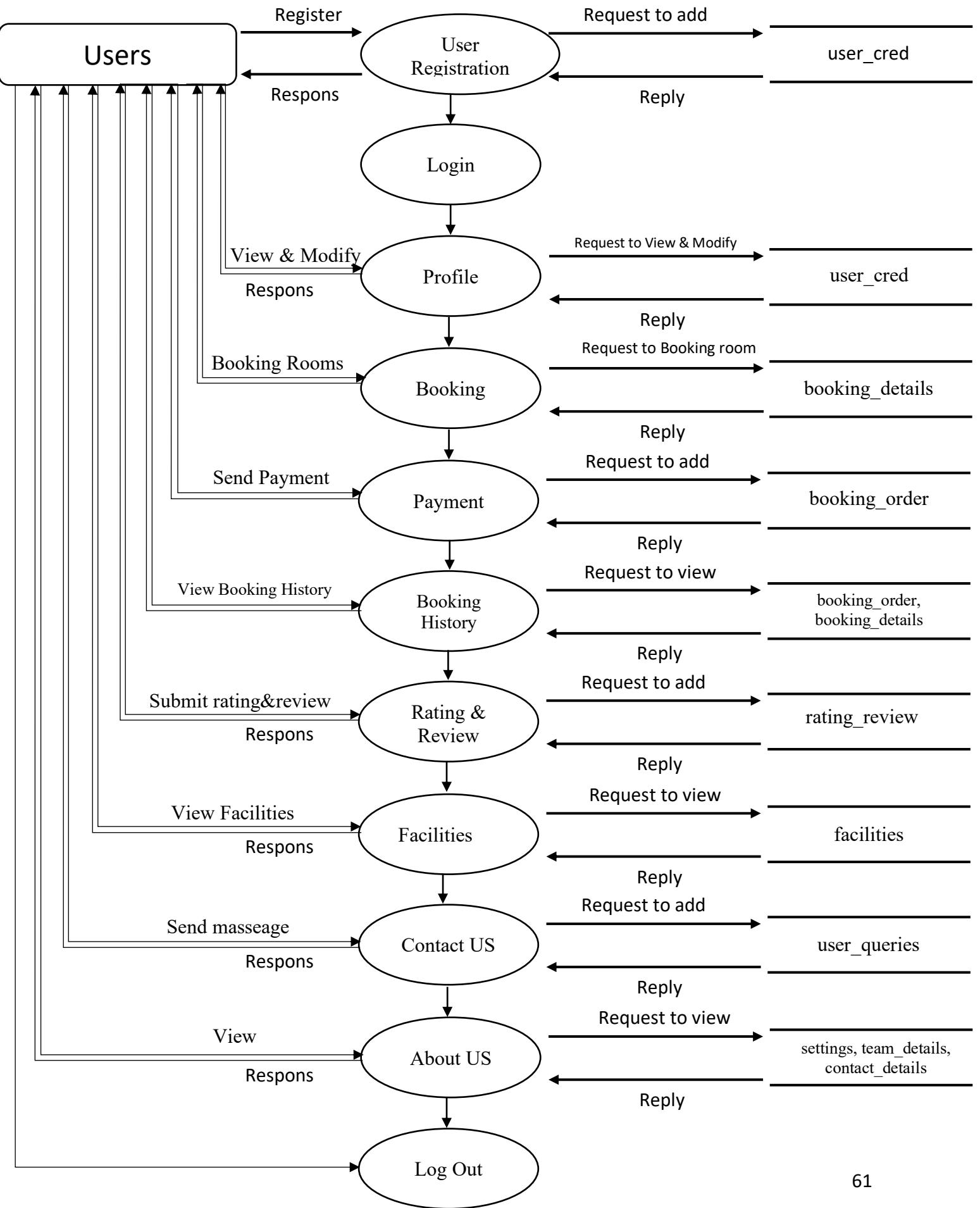


Figure 8.2: 0-Level DFD

8.1.3 Admin – Data Flow Diagram



8.1.4 User – Data Flow Diagram



Chapter 9

Conclusion and Future Work

9.1 Conclusion

This System can take care of each member whether its Owner or Customer. This System In conclusion, the Hotel Booking Website project has been successfully developed to provide users with a convenient and efficient platform for booking hotels online. The project utilized a combination of HTML, CSS, PHP, and JavaScript to create an intuitive and visually appealing interface while ensuring smooth functionality.

The project's key features include hotel search functionality, user registration, and login system, booking management, and user reviews. These features enable users to search for hotels based on their preferences, view detailed information, make reservations, and provide feedback on their experiences. The development process involved overcoming various challenges such as integrating different technologies, ensuring data security, and optimizing performance.

Throughout the project, emphasis was placed on creating a user-friendly experience, and the website's design was carefully crafted to provide a seamless booking process. Additionally, measures were taken to ensure the security of user information and the website's functionality.

9.2 Future Work

While the Hotel Booking Website project has achieved its primary objectives, there are several areas for future improvement and expansion. Some potential future work includes:

Integration of Payment Gateways: Adding secure payment gateways to facilitate online payments for hotel bookings, providing users with a seamless transaction experience.

Advanced Search Filters: Enhancing the search functionality by incorporating advanced filters such as price range, hotel amenities, location proximity, and user ratings, allowing users to find hotels that meet their specific requirements more effectively.

Mobile Application Development: Developing a mobile application to complement the website, allowing users to access the booking platform on their smartphones or tablets for greater convenience and accessibility.

Integration of Live Availability and Pricing: Implementing real-time integration with hotel reservation systems to display live availability and pricing information, ensuring that users have the most up-to-date and accurate details.

Loyalty Programs and Discounts: Introducing loyalty programs and discount systems to incentivize repeat bookings and reward loyal customers, thereby fostering customer retention and engagement.

Social Media Integration: Integrating social media platforms to enable users to share their bookings, reviews, and experiences, expanding the website's reach and user engagement.

Chatbot Assistance: Implementing a chatbot or virtual assistant to provide instant customer support, answer queries, and assist with the booking process, enhancing user satisfaction and reducing the need for manual customer service.

Analytics and Reporting: Incorporating analytics tools to gather insights on user behavior, popular destinations, and booking trends, allowing for data-driven decision-making and targeted marketing strategies.

Multilingual Support: Adding multilingual support to cater to a global user base and provide a personalized experience for users from different regions and language preferences.

Continuous Testing and Optimization: Conduct regular testing and optimization to identify and resolve any bugs, performance issues, or user experience bottlenecks, ensuring the website remains reliable and user-friendly.

By addressing these areas of future work, the Hotel Booking Website can continue to evolve, offering an enhanced user experience, expanding its customer base, and remaining competitive in the online hotel booking industry.

References

1. W3Schools - HTML Tutorial: <https://www.w3schools.com/html/>
2. W3Schools - CSS Tutorial: <https://www.w3schools.com/css/>
3. W3Schools - PHP Tutorial: <https://www.w3schools.com/php/>
4. W3Schools - JavaScript Tutorial: <https://www.w3schools.com/js/>
5. PHP.net - Official PHP Documentation: <https://www.php.net/manual/en/>
6. MDN Web Docs - JavaScript Guide: <https://developer.mozilla.org/en-US/docs/Web/JavaScript/Guide>
7. MySQL Documentation: <https://dev.mysql.com/doc/>
8. Bootstrap Documentation: <https://getbootstrap.com/docs/5.0/getting-started/introduction/>
9. jQuery Documentation: <https://api.jquery.com/>
10. Codecademy - Learn HTML: <https://www.codecademy.com/learn/learn-html>
11. Codecademy - Learn CSS: <https://www.codecademy.com/learn/learn-css>
12. Codecademy - Learn PHP: <https://www.codecademy.com/learn/learn-php>
13. Codecademy - Learn JavaScript: <https://www.codecademy.com/learn/introduction-to-javascript>
14. Codecademy - Learn MySQL: <https://www.codecademy.com/learn/learn-sql>
15. PHP: The Right Way: <https://phptherightway.com/>
16. PHP Best Practices: <https://phpbestpractices.org/>
17. JavaScript Best Practices: <https://www.toptal.com/javascript/tips-and-practices>
18. Responsive Web Design - A List Apart: <https://alistapart.com/article/responsive-web-design/>
19. Google Developers - Web Fundamentals: <https://developers.google.com/web/fundamentals>
20. SSLCommerz Official Website: <https://www.sslcommerz.com/>
21. SSLCommerz Developer Zone: <https://developer.sslcommerz.com/>
22. SSLCommerz API Documentation: <https://developer.sslcommerz.com/doc/v4/#introduction>
23. SSLCommerz GitHub Repository: <https://github.com/sslcommerz>
24. SSLCommerz Integration Guide: <https://developer.sslcommerz.com/doc/v4/#integrate>
25. Swiper.js (JavaScript touch slider library):
 - Official Website: <https://swiperjs.com/>
 - GitHub Repository: <https://github.com/nolimits4web/swiper>
26. mPDF (PHP library for generating PDF files):
 - Official Website: <https://mpdf.github.io/>
 - GitHub Repository: <https://github.com/mpdf/mpdf>
27. PHPMailer (PHP library for sending email):
 - Official Website: <https://github.com/PHPMailer/PHPMailer>
 - GitHub Repository: <https://github.com/PHPMailer/PHPMailer>
28. Font Awesome (Icon library):
 - Official Website: <https://fontawesome.com/>
 - Icon Gallery and Documentation: <https://fontawesome.com/icons>