SAVEETHA INSTITUTE OF MEDICAL AND TECHNICAL SCIENCES SAVEETHA SCHOOL OF ENGINEERING CHENNAI-602105

HOTEL ROOM BOOKING SYSTEM

A CAPSTONE PROJECT REPORT

Submitted in the partial fulfillment for the award of the degree of

BACHELOR OF ENGINEERING

IN

COMPUTER SCIENCE

Submitted by G. Dilli Sireesha (192210552) N.Vyshnavi(192210613)

Under the Supervision of Ms. B. Jeevashri

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DECLARATION

We, G.DILLI SIREESHA(192210552) &N.VYSHNAVI (192210613) students

of Bachelor of Engineering in Computer Science, Department of Computer

Science and Engineering, Saveetha Institute of Medical and Technical Sciences,

Saveetha University, Chennai, hereby declare that the work presented in this

Capstone Project Work entitled Hotel Room Booking System is the outcome of

our own bonafide work and is correct to the best of our knowledge and this work

has been undertaken taking care of Engineering Ethics.

1.G.DilliSireesha(192210552)

2.N. Vyshnavi (122210613)

Date:04/01/2025

Place:Chennai

CERTIFICATE

This is to certify that the project entitled "Hotel Room Booking System" submitted by G. Dilli Sireesha (192210552) &N. Vyshnavi (192210613) has been carried out under my supervision. The project has been submitted as per the requirements in the current semester of B.E. Computer Science Engineering.

Teacher-in-charge

Ms.B. Jeevashri

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Abstract

The Hotel Room Booking System is a comprehensive, automated platform designed to simplify and streamline hotel reservation processes. It caters to the needs of both guests and hotel staff, replacing traditional manual methods with a digital solution that ensures efficiency, accuracy, and convenience. Guests can effortlessly browse room options, check availability, and make bookings in real-time, while hotel staff benefit from tools to manage reservations, monitor room inventory, and handle customer data efficiently.

Key features of the system include real-time room availability tracking, secure payment gateways, and a centralized database for storing guest profiles and booking histories. The platform also provides administrators with powerful tools for generating reports, managing operational workflows, and monitoring business performance. These functionalities reduce human errors, save time, and help optimize hotel operations, ensuring a seamless experience for both users and staff.

The system enhances guest satisfaction by integrating advanced features such as automated notifications, loyalty programs, and personalized services. It also supports additional services like room upgrades, special requests, and activity booking, offering an all-in-one solution for managing the guest experience. Hotel managers can leverage data analytics and insights from the system to refine strategies, improve services, and adapt to changing customer demands.

With robust security measures to protect sensitive customer data and a scalable design that accommodates the needs of hotels of all sizes, the Hotel Room Booking System stands out as an indispensable tool in the hospitality industry. By digitizing and centralizing core operations, it enables hotels to maintain a competitive edge while delivering exceptional service quality to their guests. Overall, the Hotel Room Booking System aims to provide a user-friendly interface and a reliable backend to support the smooth operation of e-commerce activities, enhance customer experience, and drive business growth.

1.Introduction

The Hotel Room Booking System is a modern, technology-driven solution developed to simplify and streamline the process of reserving hotel rooms. In today's fast-paced world, both travelers and hoteliers require efficient systems that can handle the complexities of booking management, customer data, and payment processing. This system addresses these needs by providing an automated platform that is user-friendly, reliable, and scalable. For customers, the system offers a seamless experience, allowing them to explore available rooms, compare amenities, and secure bookings instantly. For hotel management, it reduces operational overhead by automating tasks such as inventory updates, reservation tracking, and generating insightful reports.

The Hotel Room Booking System incorporates essential features to enhance efficiency and user satisfaction. It ensures real-time room availability, allowing customers to view up-to-date information and make reservations without the risk of double-booking, maintaining transparency and accuracy throughout the process. The system also includes robust customer data management, securely collecting and organizing customer details to streamline record-keeping and personalize services. Through integrated payment systems, it supports multiple secure payment methods, offering convenience and reliability for transactions. Additionally, the platform equips hotel staff with advanced administrative tools to monitor bookings, manage room inventory, and generate performance analytics, enabling informed decision-making and seamless operations.

With its emphasis on efficiency, accuracy, and user satisfaction, the Hotel Room Booking System bridges the gap between customer expectations and hotel operations, making it an indispensable tool for the hospitality industry. Secure and efficient payment processing is essential for smooth e-commerce operations. The Hotel Room Booking system supports multiple payment methods, including credit cards, digital wallets, and bank transfers. It ensures secure transactions through encryption and compliance with financial regulations. The system also handles billing, invoicing, and financial reporting, providing a clear overview of the Room Booking financial status.

2.Project Description

Our" **Hotel room booking system**" is a comprehensive web application developed to streamline hotel management. The application includes:

Proposed Method

- **Frontend Development**: Utilizing Visual Studio for designing responsive and intuitive user interfaces.
- **Backend Development**: Using XAMPP stack (Apache, MySQL, PHP) to handle server-side scripting, database management via phpMyAdmin, and ensuring secure data storage and retrieval.

2.1 About My Project

Purpose and Scope

The purpose of the Hotel Room Booking System is to streamline the reservation process, improve operational efficiency, and enhance guest satisfaction. It automates room availability tracking, reservation handling, and secure payment processing while maintaining accurate customer data. The system caters to both guests and hotel administrators, offering tools for seamless bookings and efficient management. It supports hotels of all sizes, providing features like account creation, booking modifications, and financial reporting. By integrating these functionalities, the system ensures a smooth, reliable, and user-friendly experience for all stakeholders.

1. Customer Management

- o Add, update, and delete customer profiles.
- o Store customer contact details, preferences, and booking history.
- o Provide personalized services based on customer preferences.

2. Hotel Management

- o Manage room availability, types, and amenities.
- o Update room details, including pricing, features, and categories.
- o Monitor room inventory and ensure real-time updates.

3. Booking and Cancellation Management

- o Allow customers to place, modify, and cancel bookings.
- o Provide real-time room availability for hassle-free reservations.
- Maintain detailed records of booking statuses and cancellations.

4. Place Selection Management

- Enable customers to browse and select rooms based on location, views, or features.
- Offer filters for room type, pricing, and special amenities.
- o Highlight nearby attractions and services for informed decision-making.

5. Payment Management

- Process secure payments through various methods (credit cards, digital wallets, etc.).
- Manage billing and generate detailed invoices for guests.
- o Track transaction histories and ensure compliance with financial regulations.

3. Problem Description

Existing Method

In traditional hotel room booking processes, operations often rely on manual workflows and disconnected systems, leading to inefficiencies and a higher potential for errors. The existing methods typically involve separate processes or systems for handling reservations, room availability, customer information, and payment processing. This overview examines the common methods currently in use and their limitations, highlighting the need for a more integrated solution like a Hotel Room Booking System (HRBS).

Hotel room booking practices often incorporate a mix of manual and semi-automated processes aimed at managing reservations. However, these practices frequently fall short in terms of efficiency and accuracy. The reliance on fragmented systems and labour-intensive procedures impacts operational productivity, booking accuracy, and guest satisfaction. This theoretical overview explores the traditional methods used in hotel room booking and management, identifying their limitations and providing context for the need for modern solutions like an HRBS.

Traditional hotel room booking methods, characterized by manual processes and disconnected systems, present significant challenges that affect overall efficiency, data accuracy, and service quality. These limitations emphasize the need for an integrated Hotel Room Booking System that unifies essential functions into a cohesive platform. Such a system enhances operational efficiency, improves accuracy in managing reservations and guest data, and optimizes the overall guest experience.

By addressing the shortcomings of existing methods, a modern Hotel Room Booking System provides a comprehensive and effective solution for managing hotel operations in a competitive and dynamic industry. It enables seamless integration of core functionalities, such as real-time booking management, secure payment processing, and guest profile tracking, ensuring a smooth and efficient experience for both guests and hotel staff.

4.Tool Description

Hardware and Software Tools

To develop and deploy the hotel management web application, the following hardware and software tools were utilized:

4.1 Hardware Specifications

• Laptop Model: LAPTOP-SKUR1EFC

• Storage: 1TB SSD

• **RAM**: 8GB

• **Processor**: 11th Gen Intel(R) Core(TM) i3-1115G4 @ 3.00GHz 2.90 GHz

• **System type**: 64-bit operating system, x64-based processor

The laptop with the model LAPTOP-SKUR1EFC proved to be a reliable and efficient tool for developing and testing the application. Equipped with a 1TB SSD, it ensured quick data access, minimizing delays in loading development tools and files, thus improving overall workflow efficiency. With 8GB of RAM, the laptop provided sufficient memory to handle basic development tasks, allowing multiple applications to run simultaneously without significant slowdowns. Powered by the 11th Gen Intel Core i3-1115G4 processor with speeds up to 3.00GHz, the system delivered decent performance for compiling code and running applications, ensuring smooth execution of lightweight development environments. The 64-bit operating system with an x64-based processor supported compatibility with modern development tools, enabling seamless integration and enhanced productivity for development tasks. Overall, this laptop offered a balanced performance suitable for general application development needs.

4.2 Software Tools

- **Visual Studio Code**: An integrated development environment (IDE) used for writing and debugging code. Its extensions and integrated terminal enhanced the coding experience.
- **XAMPP**: A free and open-source cross-platform web server solution stack package developed by Apache Friends. It provided the necessary Apache, MySQL, PHP, and Perl support for local development and testing.
- **phpMyAdmin**: A free software tool written in PHP, intended to handle the administration of MySQL over the web. phpMyAdmin was used for database management, allowing for easy handling of the MySQL database used in the application.
- **GitHub**: Used for version control and collaborative development. The repository hosted the project's source code, enabling team collaboration and version tracking.
- Google Chrome: The primary web browser used for testing and debugging the web application. Developer tools in Chrome facilitated real-time inspection and modification of the front-end code.

The combination of powerful hardware and a robust set of development tools provided a conducive environment for the efficient development, testing, and deployment of the hotel management web application.

5. Operations

The Hotel Room Booking System offers various functionalities for both guests and hotel administrators to manage reservations, room availability, and customer service effectively. Below are the detailed operations based on the key modules and features of the system:

5.1 User Management

- Registration and Login
- User Registration: Guests can create an account by providing details such as name, email, phone number, and password.
- Login: Registered users can log in using their email and password.
- Forgot Password: Users can reset their password via a secure email link.

5.2 Room Booking Operations

• Room Listings

Room Search: Guests can search and filter rooms based on availability, type, price. Room Details: Display comprehensive room details, room price.

• Booking Placement

Room Selection: Users can choose their desired room(s) and view pricing. Booking Form: Collect necessary guest details, check-in/check-out dates.

5.3 Place Selection

Destination Selection: Guests can choose their preferred city, area, or specific property.

5.4 Payment Management

- Multiple Payment Options: Support credit cards, digital wallets, and bank transfers.
- Secure Transactions: Ensure payment processing with SSL encryption and PCI compliance.

These operations work together to streamline hotel management, improve guest experiences, and ensure efficient handling of room bookings, payments, and customer service.

6.Approach / Module Description / Functionalities

The Hotel Room Booking System provides a comprehensive solution for managing hotel operations efficiently. It integrates various functions into a single platform, simplifying room management, booking processes, customer interactions, and financial transactions.

Module Description and Functionalities

6.1 User Management

Description: Manages guest information and interactions.

Functionalities:

- o **Customer Profiles**: Create, update, and store guest details.
- o **Booking History**: Track guest booking history and preferences.
- Account Management: Handle customer registrations, logins, and account settings.

6.2 Room Management

Description: Oversees room listings and availability.

Functionalities:

- o **Room Listings**: Add, update, and remove room details, including type, price, and amenities.
- **Category Management**: Organize rooms by type or features for easy navigation.

6.3 Booking Management

Description: Handles reservation processing and fulfilment.

Functionalities:

- o **Booking Placement**: Process customer reservations.
- Booking Tracking: Update reservation status and track guest check-in and check-out.
- Cancellations and Modifications: Manage changes to reservations or cancellations efficiently.

6.4 Payment Processing

Description: Manages secure financial transactions.

Functionalities:

- o **Payment Gateway Integration**: Process payments through various methods (credit card, PayPal, digital wallets, etc.).
- o **Billing**: Generate detailed invoices for guests.
- Transaction History: Track and report all financial transactions for transparency and accuracy.

By combining these modules into an integrated system, the Hotel Room Booking System ensures seamless operations, enhances guest satisfaction, and optimizes hotel management efficiency.

7.Implementation/Coding

```
Index code:
```

```
<!DOCTYPE html>
<html lang="en">
<head>
  <meta charset="UTF-8">
  <meta name="viewport" content="width=device-width, initial-scale=1.0">
  <title>Hotel Room Booking System</title>
  <style>
    /* Reset some default browser styles */
       margin: 0;
       padding: 0;
       box-sizing: border-box;
    body {
       font-family: Arial, sans-serif;
       color: #333;
       display: flex;
       flex-direction: column;
       height: 100vh;
       background-image: url('home.jpg'); /* Replace with your image path */
       background-size: cover;
       background-position: center;
       background-attachment: fixed;
       background-color: rgba(0, 0, 0, 0.5); /* Fallback color */
     }
    /* Header styling */
    header {
       background-color: rgba(76, 175, 80, 0.8); /* Semi-transparent */
       color: black;
       text-align: center;
       padding: 1.5rem;
       font-size: 2rem;
    /* Main content styling */
    main {
       flex-grow: 1;
       display: flex;
       align-items: center;
       justify-content: center;
    .welcome-section {
       text-align: center;
       background-color: white;
       padding: 2rem;
```

```
border-radius: 10px;
       box-shadow: 0 4px 6px rgba(0, 0, 0, 0.1);
       max-width: 500px;
       margin: 0 1rem;
     }
     .welcome-section p {
       margin-bottom: 2rem;
       font-size: 1.2rem;
     }
     /* Anchor link for registration and login buttons */
     .auth-buttons {
       display: flex;
       flex-direction: column;
       gap: 1rem;
       justify-content: center;
       align-items: center;
     .auth-buttons a {
       padding: 0.75rem 2rem;
       font-size: 1rem;
       color: white;
       background-color: #4CAF50;
       border-radius: 5px;
       text-decoration: none;
       transition: background-color 0.3s;
       width: 200px;
       text-align: center;
     }
     .auth-buttons a:hover {
       background-color: #45a049;
     /* Footer styling */
     footer {
       background-color: rgba(76, 175, 80, 0.8); /* Semi-transparent */
       color: white;
       text-align: center;
       padding: 1rem;
       font-size: 0.9rem;
       position: absolute;
       bottom: 0;
       width: 100%;
  </style>
</head>
<body>
```

```
<header>
    <h1>Welcome to the Hotel Room Booking System</h1>
  </header>
  <main>
    <section class="welcome-section">
       Enjoy a safe and secure stay with us! Register to start booking your
perfect room.
       <div class="auth-buttons">
         <a href="register.html">Register</a>
         <a href="login.html">Login</a>
       </div>
    </section>
  </main>
  <footer>
    © 2024 Hotel Room Booking System. All rights reserved.
  </footer>
</body>
</html>
Registration code:
<!DOCTYPE html>
<html lang="en">
<head>
  <meta charset="UTF-8">
  <meta name="viewport" content="width=device-width, initial-scale=1.0">
  <title>Register - Hotel Room Booking</title>
  <style>
    /* Basic Reset */
      margin: 0;
      padding: 0;
      box-sizing: border-box;
     }
    body {
      font-family: Arial, sans-serif;
      background-image: url('register.jpeg'); /* Replace with your image path */
      background-size: cover;
      background-position: center;
      background-attachment: fixed;
      color: #333;
      display: flex;
      flex-direction: column;
      align-items: center;
      justify-content: center;
      height: 100vh;
     }
```

```
h2 {
       margin-bottom: 20px;
       color: #4CAF50;
       font-weight: bold;
     }
     .registration-form {
       background-color: transparent(255, 255, 255, 0.9); /* Slight transparency for
readability */
       padding: 2rem;
       border-radius: 30px;
       box-shadow: 0 4px 6px rgba(0, 0, 0, 0.1);
       max-width: 400px;
       width: 100%;
     }
    .registration-form label {
       font-size: 1rem;
       display: block;
       margin-bottom: 0.5rem;
       font-weight: bold;
    .registration-form input {
       width: 100%;
       padding: 0.75rem;
       margin-bottom: 1.25rem;
       border: 1px solid #ccc;
       border-radius: 5px;
       font-weight: bold;
     }
    .registration-form input::placeholder {
       font-weight: bold;
    .registration-form button {
       width: 100%;
       padding: 0.75rem;
       background-color: #4CAF50;
       color: white;
       border: none;
       border-radius: 5px;
       font-size: 1rem;
       cursor: pointer;
       font-weight: bold;
       margin-bottom: 10px; /* Add space between buttons */
    .registration-form button:hover {
```

```
background-color: #45a049;
    }
    .error-message {
      color: red;
      font-size: 0.9rem;
      display: none;
      font-weight: bold;
    .go-back-button {
      background-color: #f44336;
    .go-back-button:hover {
      background-color: #d32f2f;
  </style>
</head>
<body>
  <h2>Create an Account</h2>
  <form class="registration-form" id="registrationForm" action="success.html">
    <label for="firstName">First Name:</label>
    <input type="text" id="firstName" name="firstName" required>
    <label for="lastName">Last Name:</label>
    <input type="text" id="lastName" name="lastName" required>
    <label for="email">Email ID:</label>
    <input type="email" id="email" name="email" required
placeholder="example@gmail.com">
    <label for="contact">Contact Number:</label>
    <input type="tel" id="contact" name="contact" required
placeholder="9876543210">
    <label for="username">Username:</label>
    <input type="text" id="username" name="username" required
placeholder="Enter your username">
    <label for="password">Password:</label>
    <input type="password" id="password" name="password" required
placeholder="Enter your password">
    <label for="confirmPassword">Confirm Password:</label>
    <input type="password" id="confirmPassword" name="confirmPassword"</pre>
required placeholder="Re-enter your password">
```

```
<button type="submit">Register</button>
    <!-- Go Back Button -->
    <button type="button" class="go-back-button"
onclick="window.location.href='index.html"">Go Back</button>
  </form>
  <script>
    const registrationForm = document.getElementById('registrationForm');
    const errorMessage = document.getElementById('errorMessage');
    registrationForm.addEventListener('submit', function(e) {
       const email = document.getElementById('email').value;
       const contact = document.getElementById('contact').value;
       const username = document.getElementById('username').value;
       const password = document.getElementById('password').value;
       const confirmPassword =
document.getElementById('confirmPassword').value;
       let errorMessages = [];
       // Email Validation (must end with @gmail.com)
       const emailPattern = /^[a-zA-Z0-9._\%+-]+@gmail\cdot.com\$/;
       if (!emailPattern.test(email)) {
         errorMessages.push("Email must be a valid @gmail.com address.");
       }
       // Contact Number Validation (must start with 6, 7, 8, or 9 and be exactly 10
digits)
       const contactPattern = /^[6789]\d{9}$/;
       if (!contactPattern.test(contact)) {
         errorMessages.push("Contact number must start with 6, 7, 8, or 9 and be
exactly 10 digits.");
       // Username Validation (must be more than 7 characters)
       if (username.length < 7) {
         errorMessages.push("Username must be more than 7 characters.");
       }
       // Password Validation (must be more than 8 characters and include at least
one special character)
       const passwordPattern = /^{?=.[!@\#\%^{*}]}[A-Za-z\d!@\#\%^{*}]{8,};
       if (!passwordPattern.test(password)) {
         errorMessages.push("Password must be at least 8 characters long and
include at least one special character.");
       }
       // Confirm Password Validation
       if (password !== confirmPassword) {
```

```
errorMessages.push("Passwords do not match.");
       }
       // Display errors if any exist
       if (errorMessages.length > 0) {
         e.preventDefault(); // Stop form submission
         errorMessage.textContent = errorMessages.join(" ");
         errorMessage.style.display = 'block'; // Show error message
       } else {
         errorMessage.style.display = 'none'; // Hide error message
     });
  </script>
</body>
</html>
Login code:
<!DOCTYPE html>
<html lang="en">
<head>
  <meta charset="UTF-8">
  <meta name="viewport" content="width=device-width, initial-scale=1.0">
  <title>Login - Hotel Room Booking</title>
  <style>
    /* Basic Reset */
    * {
       margin: 0;
       padding: 0;
       box-sizing: border-box;
     }
    body {
       font-family: Arial, sans-serif;
       background-image: url('login.jpg'); /* Replace 'yourimage.jpg' with the path to
your background image */
       background-size: cover;
       background-position: center;
       background-attachment: fixed;
       color: transparency;
       display: flex;
       flex-direction: column;
       align-items: center;
       justify-content: center;
       height: 100vh;
     }
    h2 {
       margin-bottom: 20px;
       color: black; /* Changed the color to black */
     }
```

```
.login-form {
       background-color: rgba(255, 255, 255, 0.9); /* Slight transparency for
readability */
       padding: 2rem;
       border-radius: 10px;
       box-shadow: 0 4px 6px rgba(0, 0, 0, 0.1);
       max-width: 400px;
       width: 100%;
     }
    .login-form label {
       font-size: 1rem;
       display: block;
       margin-bottom: 0.5rem;
       font-weight: bold; /* Added bold for labels */
    .login-form input {
       width: 100%;
       padding: 0.75rem;
       margin-bottom: 1.25rem;
       border: 1px solid #ccc;
       border-radius: 5px;
    .login-form button {
       width: 100%;
       padding: 0.75rem;
       background-color: #4CAF50;
       color: white;
       border: none;
       border-radius: 5px;
       font-size: 1rem;
       cursor: pointer;
    .login-form button:hover {
       background-color: #45a049;
    .forgot-password {
       text-align: center;
       margin-top: 1rem;
     }
    .forgot-password a {
       color: #4CAF50;
       text-decoration: none;
       font-size: 0.9rem;
     }
```

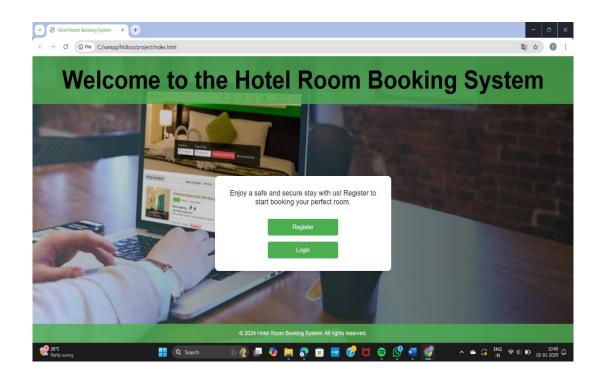
```
.forgot-password a:hover {
      text-decoration: underline;
    /* Back button styling */
    .back-button {
       display: inline-block;
       width: 100%;
      text-align: center;
      padding: 0.75rem;
      margin-top: 1rem;
      background-color: #007bff;
      color: white;
      border-radius: 5px;
      text-decoration: none;
      font-size: 1rem;
     }
    .back-button:hover {
       background-color: #0056b3;
  </style>
</head>
<body>
  <h2>Login to Your Account</h2>
  <form class="login-form" id="loginForm" action="homepage.html"</pre>
method="GET">
    <label for="username">Username:</label>
    <input type="text" id="username" name="username" required>
    <label for="password">Password:</label>
    <input type="password" id="password" name="password" required>
    <button type="submit">Login</button>
    <div class="forgot-password">
       <a href="forgot.html">Forgot Password?</a>
    </div>
    <!-- Back Button -->
    <a href="index.html" class="back-button">Back to Home</a>
  </form>
</body>
</html>
Hotel Room booking code:
<!DOCTYPE html>
<html lang="en">
<head>
  <meta charset="UTF-8">
```

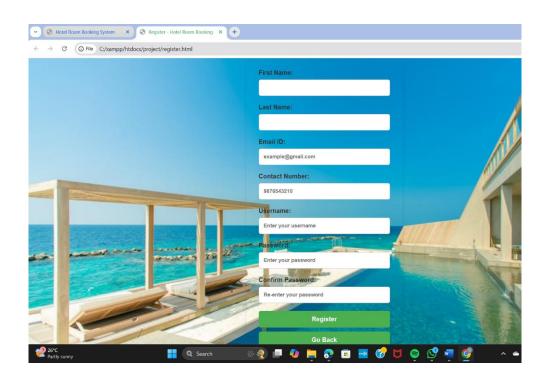
```
<meta name="viewport" content="width=device-width, initial-scale=1.0">
  <title>Hotel Booking</title>
  <style>
    body {
       font-family: Arial, sans-serif;
       background: url('booking.jpeg') no-repeat center center fixed; /* Add the
background image */
       background-size: cover; /* Ensure the image covers the entire screen */
       color: #333;
       display: flex;
       flex-direction: column;
       align-items: center;
       justify-content: center;
       height: 100vh;
       margin: 0;
     }
    .booking-form {
       background-color: rgba(255, 255, 255, 0.9); /* Add transparency to the form
background */
       padding: 2rem;
       border-radius: 10px;
       box-shadow: 0 4px 6px rgba(0, 0, 0, 0.1);
       max-width: 500px;
       width: 100%;
     }
    h2 {
       margin-bottom: 20px;
       text-align: center;
       color: #4CAF50;
     }
    label {
       display: block;
       margin-bottom: 5px;
       font-weight: bold;
     }
    input, select {
       width: 100%;
       padding: 0.75rem;
       margin-bottom: 15px;
       border: 1px solid #ccc;
       border-radius: 5px;
     }
    .submit-button {
       background-color: #4CAF50;
       color: white;
```

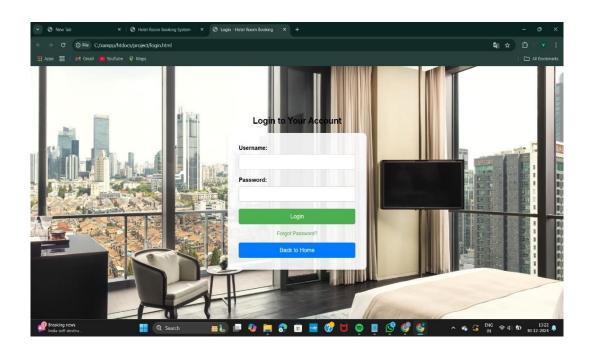
```
padding: 0.75rem;
      border: none;
      border-radius: 5px;
      cursor: pointer;
      width: 100%;
      font-size: 1rem;
    .submit-button:hover {
      background-color: #45a049;
    }
    .back-button {
      background-color: #f44336;
      color: white;
      padding: 0.75rem;
      border: none;
      border-radius: 5px;
      cursor: pointer;
      width: 100%;
      font-size: 1rem;
      margin-top: 10px;
    }
    .back-button:hover {
      background-color: #d32f2f;
  </style>
</head>
<body>
  <div class="booking-form">
    <h2>Hotel Booking</h2>
    <form action="payment.html" method="GET">
       <input type="hidden" id="hotelName" name="hotelName">
      <input type="hidden" id="hotelCost" name="hotelCost">
      <label for="fullName">Full Name</label>
      <input type="text" id="fullName" name="fullName" required>
       <label for="email">Email Address</label>
       <input type="email" id="email" name="email" required>
      <label for="phone">Phone Number</label>
      <input type="tel" id="phone" name="phone" required>
      <label for="checkIn">Check-In Date
       <input type="date" id="checkIn" name="checkIn" required>
      <label for="checkOut">Check-Out Date</label>
       <input type="date" id="checkOut" name="checkOut" required>
```

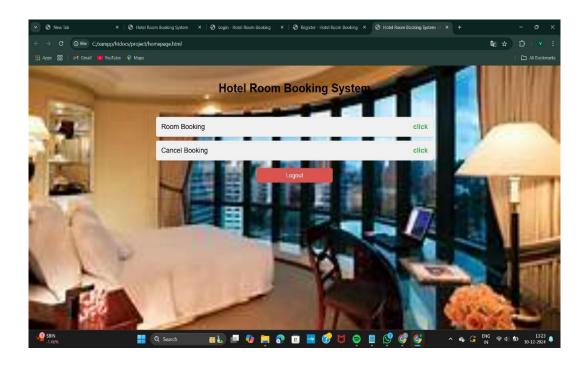
```
<label for="guests">Number of Guests</label>
       <select id="guests" name="guests">
         <option value="1">1</option>
         <option value="2">2</option>
         <option value="3">3</option>
         <option value="4">4</option>
       </select>
      <button type="submit" class="submit-button">Proceed to Payment</button>
    </form>
    <button class="back-button" onclick="goBack()">Back to Hotels</button>
  </div>
  <script>
    // Populate hidden inputs with URL parameters
    const urlParams = new URLSearchParams(window.location.search);
    document.getElementById('hotelName').value = urlParams.get('hotelName');
    document.getElementById('hotelCost').value = urlParams.get('hotelCost');
    // Function for back button
    function goBack() {
       window.location.href = "hotel.html"; // Replace with your hotels page URL
  </script>
</body>
</htmll>
```

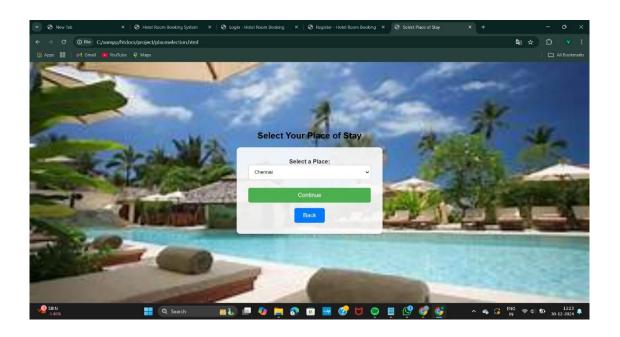
8.Results

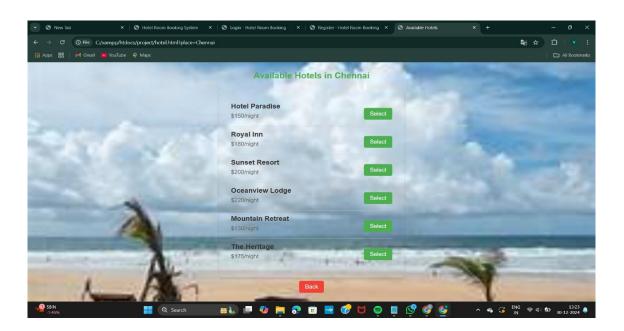


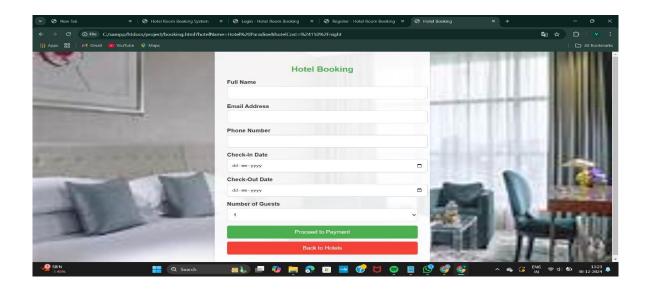


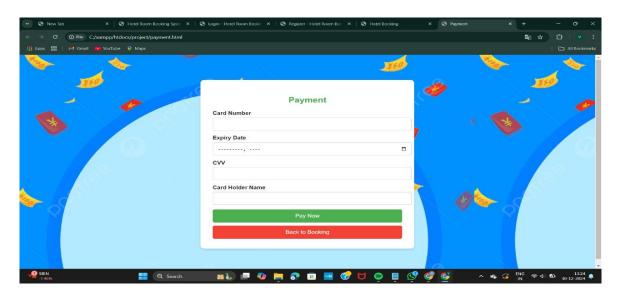


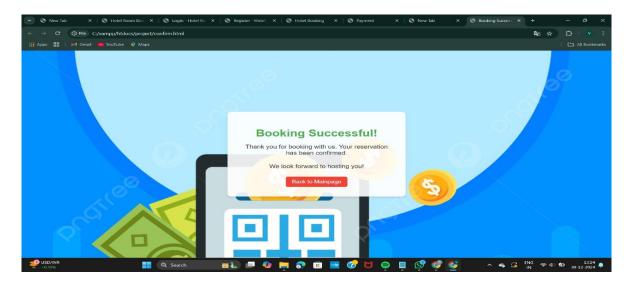












9. Conclusion

The Hotel Room Booking System offers a comprehensive and efficient solution to manage hotel reservations, room availability, customer data, and payments seamlessly. By automating key processes such as booking management, payment processing, and customer support, the system reduces operational inefficiencies and enhances the overall guest experience. It provides guests with a convenient, user-friendly platform for making and modifying reservations while allowing hotel administrators to efficiently manage room inventory, track financial transactions, and offer personalized services. Overall, the system optimizes hotel operations, ensuring a smooth and efficient workflow for both guests and hotel staff, while maintaining a high standard of service and guest satisfaction.

9.1 Future Enhancements

Future enhancements for the Hotel Room Booking System can significantly improve both guest experiences and operational efficiency. One key enhancement is the integration of AI-powered personalization, which can tailor recommendations and offers based on guest preferences and booking history, creating a more individualized experience. Additionally, developing a mobile app would allow guests to manage bookings, check in, and select rooms on the go, while receiving real-time updates. The system could also incorporate dynamic pricing algorithms that adjust rates based on demand, seasonality, and booking patterns, optimizing revenue while maintaining competitive pricing. Integrating smart hotel technologies like voice-activated services and keyless entry would offer modern, seamless experiences for guests, enhancing convenience and satisfaction.

Further improvements could include expanding the system with multi-language and multi-currency support to cater to international guests, ensuring greater accessibility. Incorporating advanced analytics and reporting would provide hotel administrators with valuable insights into booking trends and guest demographics, allowing for more informed decision-making. Integration with third-party services, such as local tours and transport, could provide guests with a one-stop platform for their entire stay. Finally, adding sustainability features, such as eco-friendly room options or carbon footprint tracking, would attract environmentally conscious travelers, improving the hotel's appeal and reputation. These enhancements would keep the system at the forefront of industry trends, offering guests a superior, modern experience while improving overall hotel operations.

References

- 1.Kalkanis, K., 2023. Design and implementation of a Hotel Reservation Back-end application with customized Web Service support.
- 2.Koh, W.S. and Hassim, Y.M.M., 2021. Hotel reservation management system. Applied Information Technology And Computer Science, 2(2), pp.973-992.
- 3.Khan, M.S.M., Kashem, S. and Khan, M.M., 2021. Development of A Comparison Based Hotel and Resort Booking System in Bangladesh. Journal of Software Engineering and Applications, 14(5), pp.133-149.
- 4.Diyaolu, A.M., Abodunrin, O.B., Adedamola, A.A., Ogunode, R.S. and Omoloba, O., Development of an E-Based Hostel Management System.
- 5.Li, D.C., Ngoc, P.T.T.M., Rengulbai, T., Zolzaya, T. and Lu, A.Y.C., 2023, October.
- MyStay: An Enhanced AI Hotel Reservation System for Seamless Post-Epidemic Hospitality Experience. In 2023 IEEE 5th Eurasia Conference on IOT, Communication and Engineering (ECICE) (pp. 646-651). IEEE.
- 6.Madhura, D., Prajakta, M., Tanaya, Z., Vijaya, N., Ashish, K., Bhakti, T. and Neha, P., 2023. An AI Integrated Online Hotel Management System. Journal of Web Engineering & Technology, 9(1), pp.1-18.
- 7. Weerasinghe, W.P.S.W., Jayathilaka, K.D.M.I., Prasadi, W.V.C., Goonetilleke, M.D.K.M., De Silva, D.I. and Samarasekara, P., 2022. Research on Hotel Management System.

 International Journal of Engineering and Management Research, 12(5), pp.218-226.
- 8.Priya, A.K., Krishna, N.V. and Singh, A., 2023. Online Hotel Reservation with High Efficiency. Available at SSRN 4490241.