

Final Year Project Report

Project Title: Luxury Hotel Booking System

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Date: 24/02/2026

1. Introduction

The **Luxury Hotel Booking System** is a web-based application designed to simplify hotel room bookings. The system provides users with a seamless experience to:

- View available rooms with images and pricing.
- Make bookings online by filling out a simple form.
- Calculate total cost based on the number of days and room type.
- Store booking data in the browser (localStorage) for demo purposes.

The system is built using **HTML, inline CSS, and JavaScript**. It demonstrates the application of front-end technologies in real-world hotel management scenarios.

2. Objectives

The main objectives of this project are:

1. To create an interactive website for hotel room booking.
2. To allow users to select room types and check availability.
3. To calculate the total cost of the booking automatically.
4. To provide form validation for email, phone number, and dates.
5. To store booking data temporarily using localStorage.

3. System Features

3.1 Home Page

- Displays a welcome message and hotel introduction.
- Shows room images with prices.
- Includes “**Book Now**” buttons to directly navigate to the booking page.

3.2 Booking Page

- Contains a form with fields:
 - Full Name
 - Email
 - Phone Number
 - Room Type (dropdown)
 - Check-in and Check-out Dates
- Performs validation on all fields.
- Automatically calculates total booking price based on room type and duration.
- Confirms booking via a popup message.

3.3 Contact Page

- Displays contact information of the hotel: email, phone, and address.

4. Technologies Used

Technology	Purpose
HTML	Structure of the web pages
Inline CSS	Styling the elements directly in HTML
JavaScript	Handling navigation, form validation, price calculation, and booking functionality
localStorage	Storing booking details in the browser

5. System Architecture

1. Single Page Application (SPA) Approach:

- Different sections (Home, Booking, Contact) are shown or hidden dynamically using JavaScript.

2. JavaScript Booking Logic:

- Validates user input (empty fields, email format, phone number, and dates).
- Calculates the number of days and total amount based on room type.
- Stores booking information in localStorage.
- Displays a confirmation alert with booking details.

6. Implementation

6.1 Code Overview

HTML and Inline CSS

- Provides structure and styling for all pages.
- Example: Home page rooms with images and prices:

```
<div style="background:#fff; padding:10px; margin-bottom:15px; border-radius:8px;">
  
```

```

<h4>Single Room</h4>
<p>Price: $50 per night</p>
<button onclick="showPage('booking');  

document.getElementById('roomType').value='Single  

Room';">Book Now</button>  

</div>

```

JavaScript Functionality

- **Page Switching:**

```

function showPage(pageId) {
    let sections = document.querySelectorAll("section");
    sections.forEach(sec => sec.style.display = "none");
    document.getElementById(pageId).style.display =
    "block";
}

```

- **Booking Function:**

```

function bookHotel() {
    let name =
document.getElementById("name").value.trim();
    let email =
document.getElementById("email").value.trim();
    let roomType =
document.getElementById("roomType").value;
    let checkin = new
Date(document.getElementById("checkin").value);
    let checkout = new
Date(document.getElementById("checkout").value);

    let days = (checkout - checkin) / (1000 * 3600 * 24);
    let totalAmount = days * roomPrices[roomType];

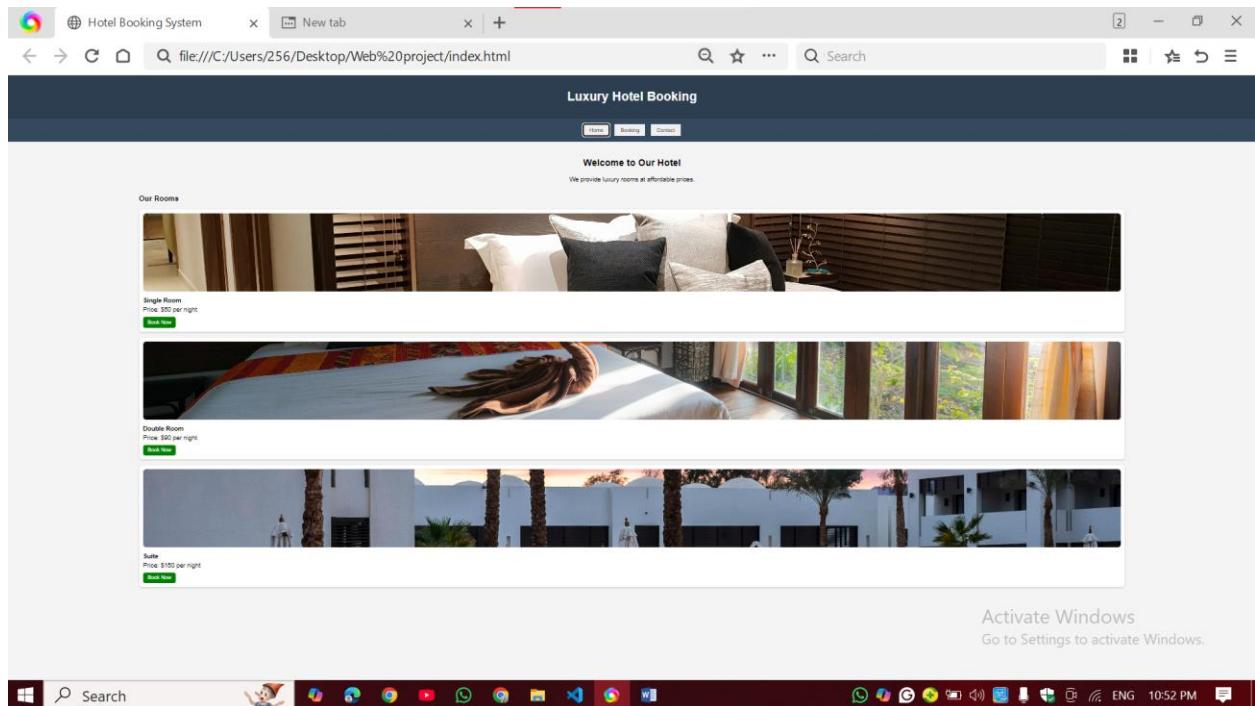
    alert("Booking Confirmed! \nName: "+name+"\nRoom:
"+roomType+"\nDays: "+days+"\nTotal: $" +totalAmount);

    document.querySelector("form").reset();
    return false;
}

```

7. Screenshots

HomePage



Booking Page:

The screenshot shows a web browser window titled "Hotel Booking System" with the URL "file:///C:/Users/256/Desktop/Web%20project/index.html". The page has a dark header with the title "Luxury Hotel Booking" and navigation buttons for "Home", "Booking" (which is highlighted), and "Contact". The main content area is titled "Book Your Room" and contains fields for "Full Name", "Email", "Phone", "Room Type" (a dropdown menu), "Check-in Date" (a date input field), "Check-out Date" (another date input field), and a "Confirm Booking" button. A watermark for "Activate Windows" is visible in the bottom right corner.

Contact Page:

The screenshot shows a web browser window titled "Hotel Booking System" with the URL "file:///C:/Users/256/Desktop/Web%20project/index.html". The page has a dark header with the title "Luxury Hotel Booking" and navigation buttons for "Home", "Booking", and "Contact". The main content area is titled "Contact Us" and lists "Email: info@luxuryhotel.com", "Phone: +1 234 567 890", and "Address: Main Street, City Center". A watermark for "Activate Windows" is visible in the bottom right corner.

8. Challenges Faced

1. Validating date input to ensure check-out is after check-in.
2. Handling form validation for different user input errors.
3. Dynamically calculating total booking price based on days and room type.

9. Conclusion

The **Luxury Hotel Booking System** successfully demonstrates a simple, interactive web application for booking hotel rooms.

- Users can view room details, select rooms, and book easily.
- The system validates input and calculates pricing automatically.
- This project enhances understanding of HTML, CSS, and JavaScript integration.

10. Future Enhancements

1. Integrate a backend database to store multiple bookings.
2. Add a **login and registration system** for users.
3. Create an **admin panel** to manage rooms and bookings.
4. Allow users to view **booking history**.