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CIS 344 – Group Project
November 24, 2024

Explanation of Each File in the Hotel Reservation System

index.html
The login page for the hotel reservation system. It includes a form where users enter their username and password to log in.

register.html
The registration page for new users to create an account. It includes fields for username, password, email, and phone number, and a back button to return to the login page.

db.php
Handles the database connection by establishing a secure link to the MySQL database using mysqli.

login.php
Processes user login by validating the entered credentials. It uses prepared statements to protect against SQL injection attacks. The title "Bookmystay - Your Dream Stay Awaits!" is set inside the <head> section, which will display on the browser tab. Catchphrase (<div class="catchphrase">): I've added a div element with a class of catchphrase and a catchy phrase ("Escape to Your Perfect Getaway – Book Your Stay Now!"). You can change this text to whatever fits your brand and what might motivate users to book with you. Styling for Catchphrase**:** I added some CSS styling to make the catchphrase stand out. You can adjust the color, size, and positioning based on your design.

register.php
Processes new user registrations. It securely hashes passwords before storing them in the database and validates inputs to prevent SQL injection.

rooms.php
Displays available rooms and their details such as each room's ID, type, price per night, and availability. It provides a separate form for each room where users can select how many rooms they want to book and select their stay dates. It also ensures that only available rooms are shown, and that the user can select the valid quantity within the remaining rooms.

reservation.php
Handles the entire process of booking a room. It checks if the user is logged in, ensures that the start date is earlier than the end date, checks the room availability in quantity desired, calculates the total cost if the room is available, updates the database with the new reservation, and handles potential errors, such as invalid dates, database issues, or unavailable rooms.

view_bookings.php
Displays a list of the user's bookings, including details like room type, start and end dates, quantity, and total cost. It also provides a cancel button for each booking.

cancel_booking.php
Allows users to cancel their bookings. It updates the room availability in the database and removes the booking record.

styles.css
Defines the styles for the system's pages, including fonts, button designs, and table formatting.

scripts.js
Contains JavaScript code for validating booking dates and dynamically updating room availability on the client side. Before the form submission, it checks if the start date is earlier than the end date. In case it isn't the user gets an alert, and the form is not submitted.

table_creation.sql
SQL script that creates and initializes the database. It defines tables for users, rooms, and reservations, and inserts initial data for rooms.

Overall Functionality of the Hotel Reservation System
The hotel reservation system is a web-based application designed to manage user registrations, room bookings, cancellations, and availability tracking efficiently. The system is built using PHP for backend processing, MySQL for database management, HTML/CSS for the frontend interface, and JavaScript for validation and interactivity. Below is a summary of its functionalities:

1. User Management

The system allows users to register an account by providing a username, password, email, and phone number. User credentials are securely stored in the database using hashed passwords. The login system validates user credentials and ensures only registered users can access booking functionalities.

2. Room Management

The system maintains a list of available rooms with their types, prices, and availability status. Users can view room details and select rooms to book. Room availability is dynamically updated based on bookings and cancellations.

3. Booking System

Users can book rooms by selecting the desired quantity, start date, and end date. The system validates availability and calculates the total cost based on the room price and the number of days. Bookings are stored in the database, linking users and room details.

4. Cancellation System

Users can cancel their bookings, which updates the room availability accordingly. The system ensures that cancelled bookings are accurately removed from the database.

5. Security Measures

The system implements several security features, including input validation, SQL injection prevention through prepared statements, and secure session management. These measures ensure the integrity and security of user data.

6. User Interface

The frontend of the system provides a simple and user-friendly interface for registration, login, room browsing, booking, and cancellation. Navigation is intuitive, with clear links and buttons for each functionality.