

Hotel Booking Management System

Project Description

This project is a web application designed to manage a hotel's rooms, guests, and bookings. Built using the ASP.NET Core MVC framework, it provides an efficient interface for handling common operations like creating, reading, updating, and deleting (CRUD) room, guest, and booking data. The system is a responsive web application that incorporates modern features such as authentication, search, and filtering.

Project Features

1- Room Management

- Each room has unique details including a unique ID, room number, type (single, double, suite), price, and availability status.
- Full CRUD functionality is included to add new rooms, update existing room details, view a complete list of rooms with their details, and delete rooms.

2- Guest Management

- Each guest has a unique ID, name, and contact information.
- Full CRUD functionality is provided to add new guests, update guest details, view a list of

3- Booking Management

- Bookings link guests and rooms with details such as check-in date, check-out date, and booking status (confirmed, cancelled, completed).
- Full CRUD functionality allows creating new bookings, updating existing ones, viewing current reservations, and deleting bookings.

4- Overbooking Prevention:

Introduce rules preventing double booking of the same room for overlapping dates, with simple validation logic.

5- Guest Receipt:

The receipt can include guest details, booking information (room type, dates, price), The receipt would also display the total amount paid.

Bonus Features

- Multi-language Support: Enable localization of the UI to a second language, enhancing usability for diverse users.
- Generate a report that displays booking history per room for easy reference and improved service. The report should include guests who stayed in the room, along with their check-in and check-out dates, and be exportable as a PDF.
- Send Emails as a method for sending updates, such as booking confirmation.

Technology Stack

- ASP.NET Core MVC: For building the web application and managing views and controllers.
- Entity Framework Core: To interact with the database for CRUD operations.
- AJAX & jQuery: For enhancing user experience with real-time search and filtering.
- ASP.NET Core Identity: For handling user authentication and authorization.
- Bootstrap: For responsive design and user-friendly interfaces.

Summary

This project offers a complete hotel booking management system with a focus on usability, security, and performance. By combining MVC design patterns, dynamic AJAX searches, and Identity-based authentication, this project delivers a professional solution for managing rooms, guests, and bookings efficiently, at the same level of complexity as a Library Management System.