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Course Name and Code:

CSC241 Object Oriented Programming

Semester project

Hotel Management System (HMS)

The Hotel Management System (HMS) is designed to streamline and automate key operations in a hotel environment. It enables efficient management of customer bookings, room availability, staff management, payments, notifications, and loyalty programs. The system is divided into various components, each responsible for managing specific tasks essential to the hotel's operation.

Key Features and Functionalities

Customer Management:

- Allows customers to search for available rooms, book or cancel reservations, and manage their profiles.
- Includes loyalty programs for customers to view and redeem points, providing benefits for frequent stays.

Room Management:

- Manages room details such as room type, availability status, cleanliness, and smoking preference.
- Tracks extra facilities associated with each room and updates the status to ensure seamless operations.

Staff Management:

- The system allows the manager to add, remove, and update staff information, such as cleaners, drivers, and chefs.
- Tracks the staff's responsibilities to ensure that rooms are cleaned and maintained regularly.

Check-in and Check-out:

- Manages the check-in and check-out process, sending necessary notifications to customers.
- Ensures customers receive reminders for check-in/check-out times through automated notifications.

Payments and Invoices:

- Processes customer payments securely and allows the generation of invoices.
- Customers can view and download transaction history as a PDF for their records.

Report Generation:

- Generates various reports for the manager, including room availability, expenditure, and profits.
- Provides insights for better decision-making and helps optimize hotel operations

Notification System:

- Sends email notifications to customers for booking confirmations, check-in reminders, and loyalty offers.
- Ensures effective communication between the hotel and its customers.

Project Objectives

- To develop an intuitive, user-friendly interface for both customers and managers.
- To enhance operational efficiency and reduce manual errors in booking, check-in, and check-out processes.
- To improve customer experience through personalized services, loyalty programs, and timely notifications.
- To enable comprehensive reporting and data analysis for informed decision-making.

CLASS DIAGRAM

