**Semester Project Proposal**

**Comsats University Islamabad,**

**Wah Campus**

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**Course:** Programming Fundamentals (CSC103)

**Project:** Hospital Appointment System

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**Introduction**

The Hospital Appointment System simplifies appointment scheduling for patients, doctors, and administrators. Patients can easily book, view, and cancel appointments, while doctors can manage their schedules more efficiently. The admin oversees the system to ensure smooth operations. This project aims to provide a user-friendly solution for better healthcare management.

**Objectives:**

* Provide a clean and simple interface for patients to book, view, or cancel appointments.
* Ensure privacy and security through dedicated login portals for patients, doctors, and admin.
* Allow the admin to manage doctor profiles, including availability and specialties.
* Facilitate remote appointment booking for hospital branches across different cities.

**Modules:**

1. **User Interface Module (Text-Based)**

**Description:** Provides a simple, text-based interface for user interaction, focusing on basic input and output operations.

**Key Features:**

* Text-based menu navigation.
* Basic input/output operations for system interactions.

1. **Admin Module**

**Description:** Allows the admin to oversee and manage the system after logging in.

**Key Features:**

* Add, edit, delete, and list patients, doctors, hospitals, and cities.
* Send reminder emails for upcoming appointments.
* Receive and review feedback from users.
* Manage doctor profiles, including adding, deleting, and editing details.

1. **Patient Management Module**

**Description:** Manages patient-related operations, including records and appointments.

**Key Features:**

* Create a Patient class with attributes like name, age, ID, and disease.
* Functions to add, delete, and modify patient data.
* Book and cancel appointments.
* View lists of hospitals and doctors.
* Select hospital branches for appointments.

1. **Doctor Management Module**

**Description:** Manages doctor details and their appointment schedules.

**Key Features:**

* Create a doctor class with attributes like name, specialization, and ID.
* Functions to add, view, update, and delete doctor details.
* Confirm patient illness, accept or cancel appointments, and reschedule as needed.

1. **Appointment Scheduling Module**

**Description:** Facilitates the scheduling of appointments between patients and doctors based on availability.

**Key Features:**

* Schedule and view appointments.
* Manage basic date and time information (using integers or strings).
* Ensure appointment availability is checked before booking.

1. **Email Notifications**

**Description:** Manages email communications related to appointments.

**Key Features:**

* Notify both doctor and patient when an appointment is canceled.
* Send confirmation and "Thank You" emails upon successful appointment bookings.

1. **Feedback** **Form**

**Description:** Allows patients to submit feedback and suggestions about the system.

**Key Features:**

* Collect feedback on system performance and user experience.
* Store feedback for future improvements.
* Only admin has access to view and analyze feedback.

**Project Scope**

The Hospital Appointment System aims to streamline the appointment scheduling process by providing a user-friendly text-based interface for patients, doctors, and administrators. It encompasses features for managing patient and doctor profiles, scheduling and canceling appointments, and handling email notifications. The system includes feedback functionality to continuously improve user experience. It is designed to operate across multiple cities, allowing remote appointment booking and management.

**Conclusion**

The Hospital Appointment System enhances appointment management with a text-based interface. Integrating patient and doctor management, scheduling, email notifications, and feedback collection, it addresses key needs in handling and communication. This approach aims to improve efficiency and satisfaction for all users.