

HealthLine App

Problem Statement

Many hospitals struggle with long patient waiting times, disorganized appointment systems, and inefficient resource allocation, which leads to frustrated patients and overworked staff. Current solutions often rely on manual registration or simple spreadsheets, making it difficult to track appointments, manage patient queues, and prioritize urgent cases effectively.

You are tasked with developing a console-based Hospital Appointment & Queue Management System that efficiently manages patient appointments, doctor registration, and queue management, while providing hospital staff with real-time insights into patient flow, doctor availability, and waiting times.

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HealthLine App

Project Description

Doctor Management:

1. Register new doctors with details such as name, department, and contact information.
2. View all registered doctors.
3. Track which doctors are available for appointments.

Patient Management:

1. Register new patients with details such as name, age, contact information, and reason for visit.
2. Schedule appointments for specific doctors.
3. Check for scheduling conflicts to prevent double-booking.

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Project Description

Queue Management:

1. Maintain a queue of patients waiting to see doctors.
2. Call the next patient in line based on appointment time or priority (e.g., emergencies first).
3. Mark patients as “seen,” “no-show,” or “rescheduled.”

Note:

Class diagram and TDD is compulsory.

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