

Spring2025/SE133/Project Details

Section	G1
Title	Healthcare Management System

Member's List		
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Project Summary
<p>The Healthcare Management System is a console-based application developed using C programming, designed to streamline and simplify hospital operations. It consists of six core modules: User Registration, Doctor Appointment Scheduling, Treatment Management, Blood Bank Inventory, Medical Store Management, and the Billing/Payment System. Each module serves a critical function in the day-to-day management of healthcare processes.</p> <p>The system utilizes file handling to ensure data persistence, making it reliable for long-term use. It incorporates modular programming for easy scalability and maintenance, allowing the system to grow or be modified as needed. Data structures like arrays and linked lists are used for efficient data management, enabling quick access to patient records, appointments, treatments, and inventory.</p> <p>The system is built with simplicity in mind, allowing users to easily add, view, update, or delete records. Data integrity is maintained throughout the application. This project demonstrates core C concepts such as pointers, structures, and functions, providing a practical, hands-on implementation of these theoretical principles.</p>

Feature List of the Project		
Feature Name	Description	Reg. ID
User Registration	This feature allows patients to register by providing their personal details such as name, age, gender, and contact information. The system uses data structures to store this information and saves it in a file named patients.txt for easy access and management.	241-35-002
Doctor Appointment Scheduling	This feature helps manage patient appointments with doctors. It allows users to schedule new appointments, view existing ones, and cancel appointments if needed, making the process of booking and managing appointments easy and efficient.	232-35-665
Treatment Management	This feature keeps track of patient treatments, surgeries, and diagnostic tests. It stores important details like the patient's ID, the type of treatment, the date, and the results, ensuring all medical information is organized and easily accessible.	241-35-121
Blood Bank Inventory	This feature manages the blood inventory, keeping track of blood types, quantities, and expiry dates. It also supports updating the stock and sends alerts when blood levels are low, ensuring there is always enough supply when needed.	241-35-202
Medical Store Management	This feature manages the stock of medicines, including details like name, quantity, and price. It also allows for easy updates to the inventory, ensuring that the stock is always accurate and up to date.	241-35-102
Billing/Payment System	This feature generates bills for treatments, tests, and medicines. It calculates the total charges and stores the transaction history, making it easy to track payments and maintain accurate financial records.	241-35-025