



North East University Bangladesh

Department of Computer Science and Engineering

Project Proposal

Course code: CSE-06132212

Course title: Introduction To Database System Lab

Project title: Hospital Management System

Submitted to

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Project Name:

Hospital Management System

Project Objective :

The objective of the Hospital Management System is to enhance hospital operations by automating and streamlining key processes such as patient registration, appointment scheduling, and medical record management. This system is designed to improve patient care by providing quick access to accurate medical information, optimize administrative tasks to reduce errors and administrative burdens, and ensure secure, organized data management. By offering a scalable and user-friendly platform, the system supports future growth and integration with other healthcare systems, leading to more efficient management and informed decision-making within the hospital.

1. Frontend:

Description: The frontend of the Hospital Management System will handle user interactions and present data to the users. It will be responsible for the user interface, allowing users to navigate through different functionalities of the system such as patient registration, appointment scheduling, and viewing medical records.

Language/Technology Used:

JavaSwing for creating the graphical user interface (GUI) .Alternatively, HTML, CSS, and JavaScript with a framework like React.js are open to using web technologies for the frontend.

2. Backend:

Description: The backend will manage the application logic, database interactions, and processing of data. It will handle requests from the frontend, execute the necessary operations, and send responses back to the frontend.

Language/Technology Used:

Java for writing the server-side code and business logic.

Spring Boot for creating RESTful APIs and managing dependencies and configurations. MySQL as the database management system to store and manage hospital data, including patient information, appointment details, and medical records.

3. Database:

Description: The database component will store and manage all the data required for the hospital management system. It will include tables for database will ensure data integrity and support efficient querying.

Language/Technology Used:

MySQL for designing and managing the relational database. SQL for writing queries to interact with the database, including CRUD (Create, Read, Update , Delete) operations and complex queries for reporting and analytics. This division clearly separate concerns and use each technology for its most appropriate role, ensuring a modular and maintainable system.