



**KARACHI INSTITUTE OF ECONOMICS & TECHNOLOGY**  
**College of Engineering**  
(Software Engineering)

## **Project Proposal**

**Course: Software Development & Construction**

**Semester: FALL – 2024**

**Project Title:** “Hospital Management System”

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**Engineering Program:** BE (SE)

**Submitted to:** Sir Fayaz

**Date:** 25/11/2024

**Teacher Name:** Sir Fayaz

### **Project Team Members**

<b>S#</b>	<b>Reg#</b>	<b>Name</b>	<b>Role</b>
1.	14394	Muhammad Hamza	Leader/Developer
2.	14230	Asad Rasheed	Developer/Tester

**Project Name:** Hospital Management System

### **Problem Statement:**

The current hospitals run on manual data entries for both patients and doctors which creates errors in managing patient data and appointments, medical records, billing and other operational tasks. Due to the lack of a management system, it affects the quality of patient care, increases burdens for the administrations and can lead to losing revenue opportunities. This problem causes harm to the centralize hospital operations which can lead to poor communication between departments and it will increase the risk of human errors which can limit our access to important information we need to take care of staff and patients effectively.

## **Hospital Management System**

25<sup>th</sup> Nov 2024

### **Overview**

Our hospital management system is implemented in C# language utilizing the windows forms for the application logic and SQL Server Management as the database backend. The system manages patients by adding, editing, deleting and updating their information. We can check the room information and can assign them to a patient. The admin can also add staff members and assign their jobs respectively. Finally, the system handles the checkouts for the patients who will be discharged by the hospital. Some additional features may include like reporting and appointments between doctors and patients.

## Goals

Following are the goals for our hospital management system:

1. Reduce administration overhead
2. Improve the accessibility and accuracy for the patient records
3. Hospital operations have enhanced overall accuracy
4. Staff and management have real-time access to medical and financial data
5. Ensure security of data with healthcare regulations
6. Faster service delivery for the patient through easy appointment scheduling

## Specifications

Following are the specifications for our hospital management system which defines the technical and functional requirements of the system:

### 1. User Interface

We have a web-form based interface which is easy to use and easy to navigate for operations and functions.

### 2. Database

We are using a secure database of SQL Server Management Studio to store the records for doctors, staff and patients and other records like patient records, appointments, billing details etc.

### 3. Modules

Some of our system modules include patient management, staff management, appointments management, billing and medical records, inventory management of human resources and reporting.

### 4. Performance

Our system should handle large data requests with larger volumes of data for the system users without any interrupts and should be able to integrate with current and existing hospital systems.

## **Milestones**

The key stages for implementation and development include:

- 1.** Gather the requirements from the user needs and then define the system behavior based on the information gathered.
- 2.** Design the system by creating the system architecture which includes the frontend designing (UI/UX) and backend designing (DB, tables and relationships).
- 3.** Build the systems core functionality and modules based on the requirements.
- 4.** Conduct the testing of the system modules which includes the unit testing, integration testing and user acceptance testing.
- 5.** Deploy the system and monitor/support based on user feedback.