# CS355 Databases

# Fall 2019

# Project Proposal

**[Habib Hospital Management System]**

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# *Submitted to*

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**Introduction**

Hospital Management System is online management system which is used to management the hospital. It contains all the data regarding the patients, doctors, admin staff, facilities being provided, and the pharmacy and manages it in an organized manner. It also has a front-end interface to input and display appropriate information. The system is a general purpose Management System which can be used by any hospital to store their information.

**Modules of the System**

### **1-Patient Record Management System:**

In the module of the patient management system, we will be storing all the records pertaining to the patients of the hospital. The records include their name, address, contacts, relatives and their contacts, their status (private or corporate), their illness type and details and relevant departments of the hospital attending them, the doctors attending them, their medical history and reports, their medication, past visits, bills etc.

### **2- Doctor Records Management System:**

Doctor Management System will keep the record of the doctors working in the hospital. It will store their names, addresses, contacts, speciality in a certain field, salary, their educational records, their experience, names of current patients they are tending to etc. It will also keep record of their private clinic timings to help in assignment of time of duties and calling for an emergency.

### **3- Pharmacy Management System:**

### **Pharmacy Management System** manages the data (names, prices, manufacturer etc) of drugs, medicine etc. available or to be ordered in the pharmacy and the stock currently being provided to patients. Any stock which needs to be ordered can automatically be ordered.

### **4- Staff Management System:**

Staff Management System includes all records of management and staff including their positions (from nurses/ ward boys to higher management). This helps in storing records of the employees, their addresses/contacts etc., their salaries paid/to be paid, their dependants.

### **5- Online Appointment Management System:**

[Online Appointment Management System](https://solutiondots.com/medicalfusion/) will allow patients to register for an appointment online and provide their details beforehand. This will reduce waiting time and waiting area needed in the hospital. This system will also send a notification to patients and doctors for confirmation of appointments.

### **6- Invoice System:**

Invoice system keeps track of all the bills generated against a patient and keeps record of all the payments due and received from the patient. The invoice system also keeps records of the charges due on a patient according to his duration of stay, type of treatment provided etc.

The database maintains the record of a hospital. It stores the records of all patients (their names, addresses, contact numbers etc.). One patient can have multiple escorts/ guardians/ contact persons (who take care of things on behalf of patient), all information regarding those guardians/ contact persons is also stored. A patient can be private or sponsored by a corporation/ company. Information regarding the corporation (if any) is stored. A description of illness is stored. A patient may also be tended to by various departments of a hospital (cardio/ ortho etc). The records of a patient's medical history, the medications required, and dates of visits are also stored. The invoice system also keeps records of the charges due on a patient according to his duration of stay, type of treatment provided etc. A patient may be attended by one or multiple doctors. Information regarding all the doctors and their timings is stored. The management system also has an inventory system for its pharmacy. The system also provides the patients a facility to book an appointment online and get their time of appointment etc.

**Instructor's Comments: In addition to the problem statement and objectives of the project, you were also required to write the business scenario that can be used to draw the system's ERD and design the interfaces. So, you should include the complete business scenario with details of entities and its attributes, business processes, relationships, and constraints.**

**Above text is directly copied from internet. You should write it in your own words.**

**Front-end Development**

**1: Patient Record Management System: This will help in registering a new patient or accessing information related to a patient. This can be linked to the invoice system to charge the patient online according to his appointment and collect the payment through credit card if patient wants.**

**2: Online Appointment Management System: This will help patients register online for an appointment and get their appointment details. This may be connected to the Doctor’s Record Management system to help patients choose a specific doctor for appointment.**

**3: Doctor’s Record Management system: This will help registering a new doctor (permanent employee or on contract) and also to fetch information regarding a particular doctor, or search for doctors specializing in a certain field.**

**Focus on points 2 and 3 only, in addition to that the system should also maintain the doctors’ details.**

**List down the user interfaces that will be required to implement the system with brief description of the usage of each interface.**

**Tools & Technologies**

Back-end: SQL Server

Front-end: C#

*Note: [List the modules that will be addressed for front-end development. Front-end can be a desktop based/web-based/app based application developed in any language/platform. If your system is detailed enough, you do not have to build the front-end of complete system. You can choose some module(s) and implement them completely from front-end to back-end. Discuss this with your instructor/RA and get their approval before finalizing the scope. ]*

*Note: [Mention different functionalities/modules that you will address to develop ERD of your system. Give detailed description of each module.]*

*Note: [An introduction of the system under development to be written here. You should also mention that if the system targets the needs of a real business/organization OR it is a hypothetical scenario].*