

IST 659 Fall 2019

Project Proposal: Hospital Management System

1. Business Description

The main idea of the project is to create a database for hospital administration to manage its records of the doctors, patients and the medicines prescribed in its clinics situated in various regions, allowing the doctors to efficiently keep track of their patients. This system will be helpful in the following ways:

- It will be feasible to patients to reach out to hospitals and access their facilities
- It will be easier for the Doctors to keep a track of the patients and their progress
- The Database that is to be created will contain records of the doctors employed, patients registered in the hospital, the details of the various departments and clinics, the medicine inventory.
- It will ensure Data security

We have assumed the following:

- All the medicines are always readily available and fully stocked at any clinical store
- All the clinics have a Medical store in it

2. Problem Statement

All the records of the administration of a hospital are present in a physical form. These records prove to be extremely difficult to manage, maintain and access. As they are on-paper records, they are prone to wear and tear and eventually loss of valuable data. Furthermore, due to many records, space issues arise.

Physical records also restrict the doctor from effectively keeping track of their patients which may result in dire consequences for the patients. The Doctors

also find it extremely difficult to keep track of the drugs prescribed to the patients.

This archaic system also makes it difficult for the patient to find availability in a hospital and find nearby clinics with a Doctor of their preference. Furthermore, the patients also find it difficult to look for the drug prescribed at a clinical store. They must personally go and look for the medicines which results in a waste of time. This results in a need for an effective and efficient Management system that can solve all the issues mentioned above.

3. Proposed Solution

With the use of this Hospital Management system we can ensure improved User experience between all the users of this system as they can interact online and exchange information.

This system will help solve all the issues faced by the administration as it will make the data records easier to store, maintain and access. It will also solve the problem of the wastage of space caused in the case of having physical records. The admin will also be able to check the number of times the patients have used the hospital premises.

It will help the Doctors access the records of the patients as well as the hospital inventory. They will be able to keep track of all the patients, follow up on them and keep track of all the drugs prescribed to them.

The patients can query the system and find the clinics according to their region, city and the department. They can also check the availability of the rooms, a Doctor of a specific specialization and the availability of a specific drug at a clinical store.

4. Users

The primary end consumers of this product are the patients who'll be using it for easier access to the doctors, their patient ratings, clinical information, medicines available in hospital pharmacy, amenities provided by the hospital departments. Doctors come at the other end, who use it to check patients contact records to efficiently reach out to them and they can also see the past

records of patient's medical history, to discover any ailments or allergies to ensure future safety. The administrative team can use this database management system to investigate the transactional records between doctors and patients and ensure no dues are remaining.

5. Potential Entities and Attributes

DOCTOR

- Doctor ID
- Doctor license numer
- Name
- Experience
- Designation
- Department
- Email id
- Phone number

PATIENT

- Patient ID
- Name
- Age
- Address
- City
- Zip code
- Email
- Phone number
- Patient Issue
- Existing medical condition
- Admission date
- Discharge Date

CLINIC

- Clinic ID
- Name
- Region

- City
- Zip
- Patient capacity
- URL

DEPARTMENT

- Department ID
- Name
- Dept. head
- Email
- Phone number

MEDICINES

- Medicine ID
- Name
- Quantity
- Medicine Type
- Medicine department