

Project Topic- Hospital Management System

Project Overview

The primary objective of this project is to develop a comprehensive system for efficiently managing and organising diverse data associated with patients, staff members (including nurses, ward attendants, cleaners, and clerks), medications, and various other hospital-related information. This database system is intended to facilitate the hospital's oversight of all transactions and empower informed decision-making in alignment with the organisation's ambient vision.

Background:

Hospitals and medical facilities play an important role in safeguarding the well-being of people and their communities in today's evolving healthcare landscape. The healthcare business is distinguished by its level of complexity, which includes multiple clinical and administrative processes, a large number of healthcare experts, and a continual requirement for correct data management. Hospital efficiency and effectiveness are critical not just for providing high-quality patient care, but also for maximising resource use and adhering to severe regulatory standards.

For patient data, appointment scheduling, billing, inventory management, and overall administration, hospitals and healthcare organisations have traditionally depended on manual and paper-based systems. These antiquated practices, however, have proven to be exceedingly insufficient in fulfilling the needs of cutting-edge healthcare. There is a dire need for an extensive and streamlined Hospital Management System (HMS) with growing numbers of patients, developments in medical technology, and the necessity for decision-making based on data.

The Hospital Management System project arose from the understanding of these difficulties and the need to successfully solve them via the use of technology. By installing a comprehensive and user-friendly software solution adapted to the specific needs of our hospital or healthcare institution, we want to bring in a fresh phase of healthcare administration.

Purpose

A hospital management system is a computer-based platform designed to enhance the efficient performance of healthcare professionals' tasks while effectively managing healthcare-related information.

They oversee the data for all healthcare departments:

- Doctor
- Patient
- Laboratory
- Financial
- Equipments
- Inventory

HMS entered the field of hospital management in 1960 and has since modernized healthcare facilities while advancing and keeping up with technological advancements. The management of healthcare in today's society begins in the patient's hands via their mobile phones and facilitates the patient's demands.

Scope:

For this project, we will be focusing more on patient records, employee data and pharmaceutical logistics. The DBMS only tracks patients that were admitted into the hospital (IPD) and does not consider OPD cases.

We will have below mentioned tables or more in total covering one or more sub-sections. The tables are as follows:

1. Patient:- (Fields: Patient_ID, Patient_Name, Patient_Address, Patient_Phone)
2. Patient History:- (Fields: Patient_ID, Record Number (A patient could have been admitted more than once), Admission Reason, Admission Date, Primary Doctor Name, Discharge Date).
3. Doctor:- (Fields: Doctor_ID, Doctor_Name, Doctor_Specialty, Admission_Date, Doctor_Type)
4. Room:- (Fields: Patient_ID, Room_ID, Room_Type, Bed_Number, Floor_Number)
5. Inventory:- (Fields: Item_ID, Item_Name, Department_ID, Last Stock-up Date, Quantity)
6. Appointment:- Fields: (Appointment_ID, Patient_ID, Doctor_ID, start_date_time, End_date_time)
7. Payroll:- Fields: (Payroll_ID, Net Salary, Employee_ID, Account_Number)
8. Employee:- Fields: (Employee_ID, Employee_FirstName, Employee_LastName, Employee_Phone, Employee_Email, Employee_Type)
9. Department:- Fields: (Department_ID, Department_Name)
10. Disease:- Fields: (Disease_ID, Disease_Name)

Group Members:

- 1) Sahil Ajay Ruparelia - 002271996
- 2) Mohammed Anzal Zafar Shaikh - 002815597
- 3) Yashraj Kadam - 002853503
- 4) Sohni Rais - 002830773
- 5) Shushil Girish - 002817666