

Hospital Management System

Course: Database Management System

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Business Proposal:

Hospitals face real-time issues with mismanagement of scheduling and retrieving patient information on time. A Hospital Management System (HMS) is an integrated software that handles different directions of clinic workflows. It manages the smooth healthcare performance along with administrative, medical, and financial control. The HMS is designed to help manage and keep all information records from patients and hospitals in one well-designed database system.

This HMS will have several features, making it an essential tool for hospitals. Some of these features include:

- **Optimization of processes:** The HMS includes several automation modules, a hospital protocol and standards database, dashboards, and reporting tools.
- **Digitalization of medical records:** The HMS enables the digitalization of medical records, which makes it easier to access patient information quickly and efficiently.
- **Patient care:** HMS substantially improves patient care by providing doctors quick access to patient information.
- **Insured events accounting:** The HMS helps to manage insured events accounting by keeping track of insurance policies and claims.

Hospitals can streamline the quality of care they provide patients and their workflow by implementing an HMS.

Informational Needs:

We need the following information to achieve the project's objective of building a robust health management system.

- **Market Research:** Conduct market research to identify the target audience's needs.
- **Data:** Collect data from various sources such as patients, doctors, and other healthcare providers. This data can include patient demographics, medical history, and billing information.
- **Database Design:** conceptualize the way to store data securely and efficiently. This includes ensuring data is backed up regularly and easily accessible to authorized personnel.
- **UI Design:** Gather UI Design ideas to make the HMS have a user-friendly interface that allows healthcare providers to access and use the system efficiently.

Initial List of Entities:

In-Patient
Name
Patient's ID(PK)
Age
Gender
Enthnicity
Address
SSN
Insurance Policy
Visit
RoomNumner(FK)
DoctorID(FK)
Contact

Out-Patient
Name
Patient's ID(PK)
Age
Gender
Enthnicity
Address
SSN
Insurance Policy
Visit
DoctorID(FK)
Contact

Lab Screenings
LabID
Patient'sID(FK)
Doctor'sID(FK)

Medical History
Patient's ID(PK)
Insurance Policy
Allergies
Pre-Existing Health Conditions

Doctor
Name
Doctor's ID(PK)
Age
SSN
Address
Appointment Date

Nurse
Name
NurseID(PK)
Age
SSN
Address

Department
DepartmentID (PK)
DoctorID (FK)
Patient's ID (FK)

Operating Room
RoomID(PK)
Available Dates

Hospital Room
RoomID (PK)
Availablity
Patient's ID (FK)
NurseID(FK)

Member Roles:

Apoorv Chowdhry: Database Administrator
Bella Kang: Database Programmer
Aye Chan Moe: Data Administrator
Hina Aafreeen Mujeebuddin: Database Architect
Priya Nandkishor Nagori: Database Programmer
Meet Pramod Saraswat: Database Administrator