Hospital Management System (HMS)

DBMS Project

Objective:-

A Hospital Management System (HMS) database is a sophisticated and all-encompassing database system created to handle the several facets of a hospital's operations effectively. It usually consists of numerous interconnected tables that hold various forms of information about the employees, patients, and other parties involved in the hospital's various departments.

It supports the efficient execution of the jobs of healthcare workers and helps manage the information relevant to healthcare. They oversee the data for all healthcare departments, including clinical and Financial.

Description:-

Hospitals play a crucial role in our lives, working to offer the best medical care to those who are ill with a variety of illnesses brought on by, among other things, changes in climatic conditions, increasing workloads, emotional trauma, and stress. The hospital finds it exceedingly challenging to manually keep all of its daily activities and records. Because of this, a database is necessary to keep track of all hospital activities.

Here are some of the key components (tentative) that we will add to our Hospital Management System database:

1. Patient Information Management: This component of the database stores patient demographic and medical information, such as name, age, sex, medical history, diagnostic reports, treatment plans, medications prescribed, and more.
2. Appointment Scheduling: This component allows hospital staff to schedule appointments for patients, view appointment history, and manage waiting lists.
3. Staff Management: This component manages information related to hospital staff, such as doctors, nurses, administrative staff, and others. It includes details such as staff schedules, contact information, job roles, qualifications, and more.
4. Inventory Management: This component tracks the inventory of medical supplies, equipment, and other hospital resources.

5. Financial Management: This component manages the financial aspects of the hospital, such as billing patients, generating invoices, and tracking payments.
6. Clinical Management: This module includes features for managing clinical workflows, such as orders, results, prescriptions, and treatment plans.
7. Reports and Analytics: This component provides a comprehensive overview of the hospital's performance and helps in identifying areas that require improvement. It may include reports related to patient outcomes, staff productivity, financial performance, and more.

Tentative list of Queries for information and reporting:-

1. Query to retrieve the details of a specific patient using their patient ID.
2. Query to retrieve the details of all the doctors in the hospital.
3. Query to retrieve the details of all the appointments of a specific patient.
4. Query to retrieve the details of all the appointments for a specific doctor.
5. Query to retrieve the details of all the appointments on a specific date.
6. Query to retrieve the total number of patients registered in the hospital.
7. Query to retrieve the average age of all the patients in the hospital.
8. Query to retrieve the number of patients for a specific blood group.
9. Query to retrieve the details of all the patients who are admitted.
10. Query to retrieve the details of all the patients who have been discharged.
11. Query to retrieve the details of all the patients who have a particular medical condition.
12. Query to retrieve the total number of appointments for each doctor.
13. Query to retrieve the details of all the staff members in the hospital.
14. Query to retrieve the total revenue generated by the hospital.
15. Query to retrieve the number of patients in each age group.

Group Information:-

Group ID: G1_15
Jenil Patel: 202101074 (Phone no. 6354269449) (Group Representative)
Samarth Langalia : 202101021
Vraj Thakkar : 202101090
Raj Lutya : 202101032