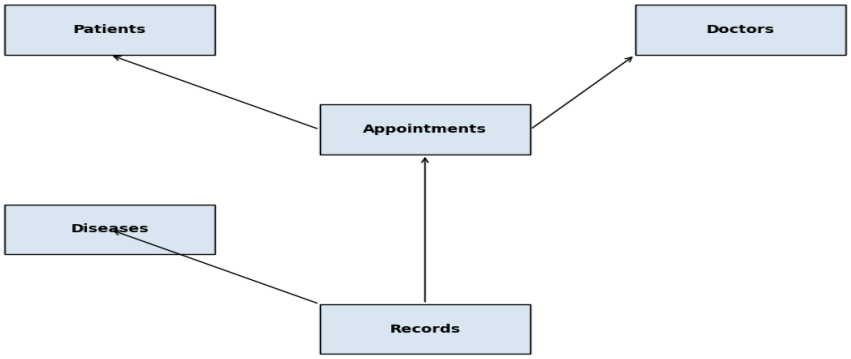
Hospital & Health Analytics System - SQL

Database Schema

This document contains the SQL schema, records, queries, stored procedures, and triggers for the Hospital & Health Analytics System.

ER Diagram



Patients Table

PatientID INT PRIMARY KEY
Name VARCHAR(100)
Age INT
Gender VARCHAR(10)
Location VARCHAR(100)
Phone VARCHAR(15)

Doctors Table

DoctorID INT PRIMARY KEY
Name VARCHAR(100)
Specialty VARCHAR(100)
Phone VARCHAR(20)

Appointments Table

AppointmentID INT PRIMARY KEY
PatientID INT FOREIGN KEY REFERENCES Patients(PatientID)
DoctorID INT FOREIGN KEY REFERENCES Doctors(DoctorID)
AppointmentDate DATE
Status VARCHAR(20) -- Scheduled / Completed / Cancelled

Hospital & Health Analytics System - SQL

Diseases Table

DiseaseID INT PRIMARY KEY
DiseaseName VARCHAR(100)
Category VARCHAR(50)

Records Table

RecordID INT PRIMARY KEY
PatientID INT FOREIGN KEY REFERENCES Patients(PatientID)
DiseaseID INT FOREIGN KEY REFERENCES Diseases(DiseaseID)
VisitDate DATE
Treatment VARCHAR(200)
Cost DECIMAL(10,2)

Sample Queries

1. ALTER TABLE Patients ADD Email VARCHAR(100);
2. UPDATE Appointments SET Status = 'Rescheduled' WHERE Status = 'Cancelled';
3. DELETE FROM appointments WHERE appointmentID = 10;
4. SELECT * FROM Patients WHERE Gender = 'Female' AND Location = 'Delhi';
5. SELECT * FROM Doctors WHERE Name LIKE 'Dr. S%';
6. SELECT SUM(Cost) AS TotalTreatmentCost FROM Records;
7. SELECT DiseaseID, SUM(Cost) AS TotalCost FROM Records GROUP BY DiseaseID;
8. SELECT DiseaseID, SUM(Cost) AS TotalCost FROM Records GROUP BY DiseaseID HAVING SUM(Cost) > 3000;
9. SELECT MAX(cost) from records where cost < (select MAX(cost) from records);

Stored Procedures

1. GetPatientsByCity(cityName VARCHAR(100))
2. GetTotalCostByPatientID(pid INT, OUT totalCost DECIMAL(10,2))
3. IncreasePatientAge(pid INT)

Trigger

AfterAppointmentInsert – Logs inserted appointments into AppointmentLog table.