CREATE DATABASE your\_database\_name;

USE your\_database\_name;

CREATE TABLE HealthcareFacility (

FacilityID INT PRIMARY KEY,

Name VARCHAR(100) NOT NULL,

Location VARCHAR(100) NOT NULL,

Type VARCHAR(50) NOT NULL,

Capacity INT NOT NULL

);

CREATE TABLE Patient (

PatientID INT PRIMARY KEY,

Name VARCHAR(100) NOT NULL,

Age INT NOT NULL,

Gender VARCHAR(10) NOT NULL,

Address VARCHAR(150) NOT NULL,

ContactInfo VARCHAR(50) NOT NULL

);

CREATE TABLE Visit (

VisitID INT PRIMARY KEY,

PatientID INT,

FacilityID INT,

VisitDate DATE NOT NULL,

Diagnosis VARCHAR(255) NOT NULL,

Treatment VARCHAR(255) NOT NULL,

FOREIGN KEY (PatientID) REFERENCES Patient(PatientID),

FOREIGN KEY (FacilityID) REFERENCES HealthcareFacility(FacilityID)

);

CREATE TABLE Staff (

StaffID INT PRIMARY KEY,

Name VARCHAR(100) NOT NULL,

Role VARCHAR(50) NOT NULL,

FacilityID INT,

ContactInfo VARCHAR(50) NOT NULL,

FOREIGN KEY (FacilityID) REFERENCES HealthcareFacility(FacilityID)

);

-- Sample data for HealthcareFacility

INSERT INTO HealthcareFacility (FacilityID, Name, Location, Type, Capacity) VALUES

(1, 'Rural Clinic A', 'Village X', 'Clinic', 20),

(2, 'Rural Hospital B', 'Town Y', 'Hospital', 50);

-- Sample data for Patient

INSERT INTO Patient (PatientID, Name, Age, Gender, Address, ContactInfo) VALUES

(1, 'John Doe', 45, 'Male', 'Village X', '555-1234'),

(2, 'Jane Smith', 32, 'Female', 'Town Y', '555-5678');

-- Sample data for Visit

INSERT INTO Visit (VisitID, PatientID, FacilityID, VisitDate, Diagnosis, Treatment) VALUES

(1, 1, 1, '2024-08-01', 'Flu', 'Rest and hydration'),

(2, 2, 2, '2024-08-05', 'Injury', 'Surgery');

-- Sample data for Staff

INSERT INTO Staff (StaffID, Name, Role, FacilityID, ContactInfo) VALUES

(1, 'Dr. Alice', 'Doctor', 1, '555-1111'),

(2, 'Nurse Bob', 'Nurse', 2, '555-2222');

-- Retrieve all healthcare facilities and their details

SELECT \* FROM HealthcareFacility;

-- Retrieve all visits by a specific patient

SELECT \* FROM Visit WHERE PatientID = 1;

-- Retrieve the number of patients visiting each facility

SELECT FacilityID, COUNT(\*) AS NumberOfVisits

FROM Visit

GROUP BY FacilityID;

-- Average capacity of healthcare facilities

SELECT AVG(Capacity) AS AverageCapacity FROM HealthcareFacility;

-- Most common diagnosis

SELECT Diagnosis, COUNT(\*) AS Frequency

FROM Visit

GROUP BY Diagnosis

ORDER BY Frequency DESC;