### ****Title****: SQL Scripts for Database Schema, Sample Data, and Analysis Queries

**Schema Creation**:

* **Hospitals Table**:

CREATE TABLE Hospitals (

HospitalID INT PRIMARY KEY,

Name VARCHAR(255),

Location VARCHAR(255),

Capacity INT

);

* Patients Table:

CREATE TABLE Patients (

PatientID INT PRIMARY KEY,

Name VARCHAR(255),

Age INT,

Address VARCHAR(255)

);

* Appointments Table:

CREATE TABLE Appointments (

AppointmentID INT PRIMARY KEY,

PatientID INT,

HospitalID INT,

AppointmentDate DATE,

FOREIGN KEY (PatientID) REFERENCES Patients(PatientID),

FOREIGN KEY (HospitalID) REFERENCES Hospitals(HospitalID)

);

**Sample Data Insertion**:

* Hospitals;

INSERT INTO Hospitals (HospitalID, Name, Location, Capacity)

VALUES

(1, 'City Hospital', 'New York', 500),

(2, 'Greenwood Clinic', 'San Francisco', 150),

(3, 'Broadway Health Center', 'Los Angeles', 200);

* Patients;

INSERT INTO Patients (PatientID, Name, Age, Address)

VALUES

(1, 'Alice Smith', 30, '123 Elm Street'),

(2, 'Bob Johnson', 45, '456 Maple Avenue'),

(3, 'Carol White', 29, '789 Oak Drive'),

(4, 'David Brown', 50, '101 Pine Lane');

* **Appointments**:

INSERT INTO Appointments (AppointmentID, PatientID, HospitalID, AppointmentDate)

VALUES

(1, 1, 1, '2024-08-15'),

(2, 2, 2, '2024-08-16'),

(3, 3, 1, '2024-08-17'),

(4, 4, 3, '2024-08-18'),

(5, 1, 2, '2024-08-19');

**Analysis Queries**:

* **Query to Count Number of Patients per Hospital**:

SELECT HospitalID, COUNT(\*) AS NumberOfPatients

FROM Appointments

GROUP BY HospitalID;

* Query to Find Average Hospital Capacity

SELECT AVG(Capacity) AS AverageCapacity

FROM Hospitals;

* Query to List Patients and Their Appointments;

SELECT p.Name AS PatientName, h.Name AS HospitalName, a.AppointmentDate

FROM Appointments a

JOIN Patients p ON a.PatientID = p.PatientID

JOIN Hospitals h ON a.HospitalID = h.HospitalID;