#### SQL

CREATE TABLE Patients (

PatientID INT PRIMARY KEY AUTO\_INCREMENT, Name VARCHAR(255) NOT NULL,

Age INT,

Gender VARCHAR(10),

MedicalHistory TEXT

);

CREATE TABLE Appointments (

AppointmentID INT PRIMARY KEY AUTO\_INCREMENT,

PatientID INT, DoctorID INT, Date DATE, Time TIME,

FOREIGN KEY (PatientID) REFERENCES Patients(PatientID), FOREIGN KEY (DoctorID) REFERENCES Doctors(DoctorID)

);

CREATE TABLE Doctors (

DoctorID INT PRIMARY KEY AUTO\_INCREMENT, Name VARCHAR(255) NOT NULL,

Specialty VARCHAR(100)

);

# FULL CODE OF HOSPITAL MANAGEMENT SYSTEM

import java.util.ArrayList; import java.util.Scanner;

// Class to represent a Patient class Patient {

int id;

String name; int age;

String disease;

public Patient(int id, String name, int age, String disease) { this.id = id;

this.name = name; this.age = age; this.disease = disease;

}

@Override

public String toString() {

return "Patient ID: " + id + ", Name: " + name + ", Age: " + age + ", Disease: " + disease;

}

}

// Class to represent a Doctor class Doctor {

int id;

String name;

String specialization;

public Doctor(int id, String name, String specialization) { this.id = id;

this.name = name; this.specialization = specialization;

}

@Override

public String toString() {

return "Doctor ID: " + id + ", Name: " + name + ", Specialization: " + specialization;

}

}

// Class to represent an Appointment class Appointment {

int appointmentId; int patientId;

int doctorId; String date;

public Appointment(int appointmentId, int patientId, int doctorId, String date) { this.appointmentId = appointmentId;

this.patientId = patientId; this.doctorId = doctorId; this.date = date;

}

@Override

public String toString() {

return "Appointment ID: " + appointmentId + ", Patient ID: " + patientId + ", Doctor ID: " + doctorId + ", Date: " + date;

}

}

// Main Class: Hospital Management System public class HospitalManagementSystem {

static ArrayList<Patient> patients = new ArrayList<>(); static ArrayList<Doctor> doctors = new ArrayList<>();

static ArrayList<Appointment> appointments = new ArrayList<>(); static Scanner scanner = new Scanner(System.in);

public static void main(String[] args) { int choice;

do {

System.out.println("\n--- Hospital Management System ---"); System.out.println("1. Add Patient");

System.out.println("2. Add Doctor"); System.out.println("3. Schedule Appointment"); System.out.println("4. View Patients"); System.out.println("5. View Doctors"); System.out.println("6. View Appointments"); System.out.println("7. Exit"); System.out.print("Enter your choice: ");

choice = scanner.nextInt();

switch (choice) { case 1: addPatient(); break;

case 2: addDoctor(); break;

case 3: scheduleAppointment(); break;

case 4: viewPatients(); break;

case 5:

viewDoctors(); break;

case 6:

viewAppointments(); break;

case 7:

System.out.println("Exiting system. Thank you!"); break;

default:

System.out.println("Invalid choice. Please try again.");

}

} while (choice != 7);

}

// Add a new patient static void addPatient() {

System.out.print("Enter Patient ID: "); int id = scanner.nextInt();

scanner.nextLine(); // consume the newline System.out.print("Enter Patient Name: "); String name = scanner.nextLine(); System.out.print("Enter Patient Age: "); int age = scanner.nextInt(); scanner.nextLine(); // consume the newline System.out.print("Enter Patient Disease: "); String disease = scanner.nextLine();

patients.add(new Patient(id, name, age, disease)); System.out.println("Patient added successfully!");

}

// Add a new doctor static void addDoctor() {

System.out.print("Enter Doctor ID: "); int id = scanner.nextInt();

scanner.nextLine(); // consume the newline System.out.print("Enter Doctor Name: "); String name = scanner.nextLine();

System.out.print("Enter Doctor Specialization: "); String specialization = scanner.nextLine();

doctors.add(new Doctor(id, name, specialization)); System.out.println("Doctor added successfully!");

}

// Schedule an appointment

static void scheduleAppointment() { System.out.print("Enter Appointment ID: ");

int appointmentId = scanner.nextInt(); System.out.print("Enter Patient ID: "); int patientId = scanner.nextInt(); System.out.print("Enter Doctor ID: "); int doctorId = scanner.nextInt();

scanner.nextLine(); // consume the newline System.out.print("Enter Appointment Date (YYYY-MM-DD): "); String date = scanner.nextLine();

appointments.add(new Appointment(appointmentId, patientId, doctorId, date)); System.out.println("Appointment scheduled successfully!");

}

// View all patients

static void viewPatients() { System.out.println("\n--- List of Patients ---"); for (Patient patient : patients) { System.out.println(patient);

}

}

// View all doctors

static void viewDoctors() { System.out.println("\n--- List of Doctors ---"); for (Doctor doctor : doctors) { System.out.println(doctor);

}

}

// View all appointments

static void viewAppointments() { System.out.println("\n--- List of Appointments ---"); for (Appointment appointment : appointments) { System.out.println(appointment);

}

}

}