

Carmen Municipal College

A.Y. 2024-2025

HEALTH CARE SYSTEM

CC105 – Information Management

Midterm Project

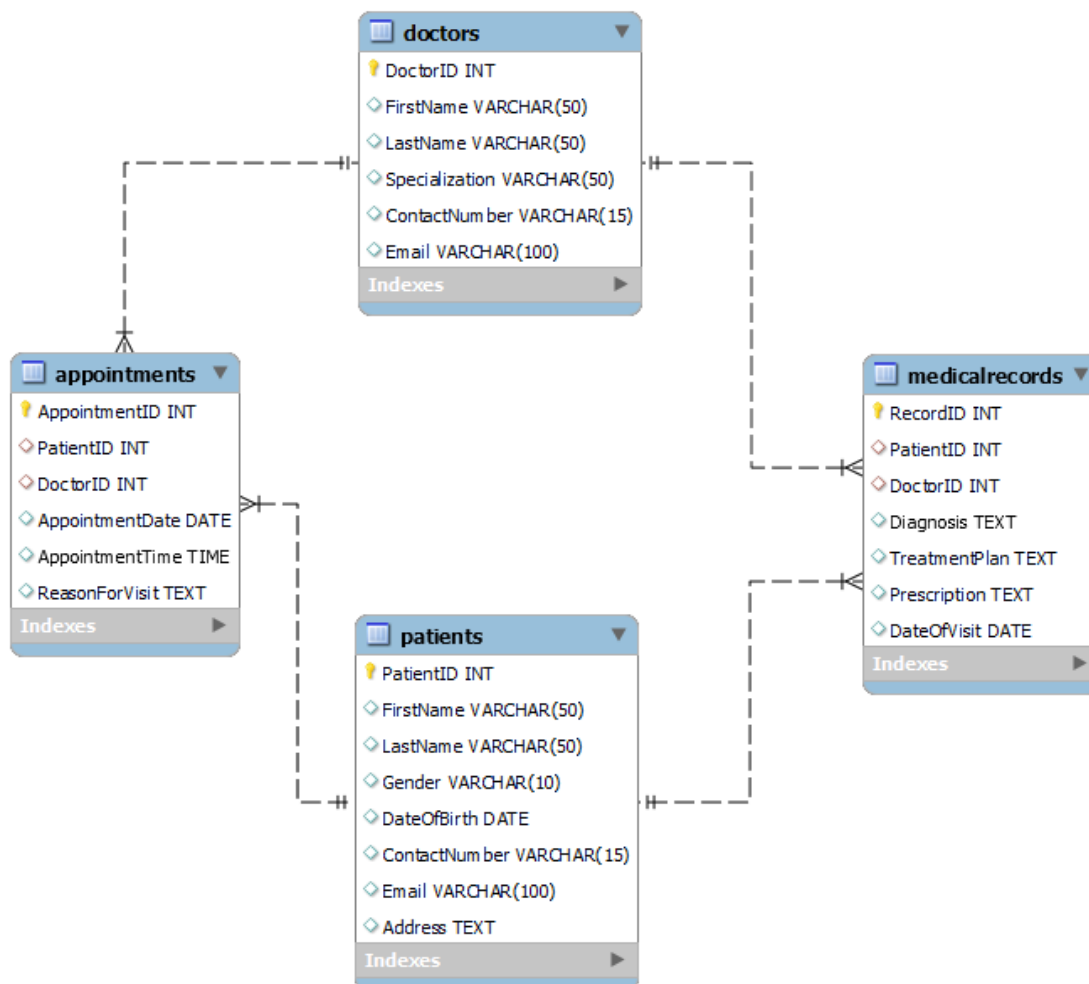
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I. Introduction

A healthcare system refers to the organized network of institutions, professionals, policies, and services that work together to deliver medical care and promote health in a society. Healthcare systems are designed to provide individuals with the necessary medical treatment, preventive care, and health education to improve overall well-being and quality of life. It encompasses a wide range of services, from emergency care and hospital treatments to primary care, mental health services, and public health initiatives.

II. Entity Relationship Diagram



III. Database

Table Name: **PATIENT**

This table contains the personal information of the patient.

[illegible]Table Name: **DOCTOR**

This table contains the information of the doctor

	DoctorID	FirstName	LastName	Specialization	ContactNumber	Email
▶	1	Dr. Alice	Johnson	Cardiologist	555-8765	alice.johnson@hospital.com
	2	Dr. Bob	Williams	Neurologist	555-4321	bob.williams@hospital.com
✱	NULL	NULL	NULL	NULL	NULL	NULL

Table Name: **APPOINTMENT**

This table contains the daily appointment

	AppointmentID	PatientID	DoctorID	AppointmentDate	AppointmentTime	ReasonForVisit
▶	1	1	1	2025-03-15	09:00:00	Routine Checkup
	2	2	2	2025-03-16	10:30:00	Headache and Dizziness
*	NULL	NULL	NULL	NULL	NULL	NULL

Table Name: **MEDICAL RECORDS**

This table contains the medical record

[illegible]

IV. Functionalities

Creating Table: This code shows the creating of the tables

```
CREATE DATABASE HealthcareSystemDB;
```

```
USE HealthcareSystemDB;
```

```
CREATE TABLE Patients (
```

```
    PatientID INT AUTO_INCREMENT PRIMARY KEY,
```

```
    FirstName VARCHAR(50),
```

```
    LastName VARCHAR(50),
```

```
    Gender VARCHAR(10),
```

```
    DateOfBirth DATE,
```

```
    ContactNumber VARCHAR(15),
```

```
    Email VARCHAR(100),
```

```
    Address TEXT
```

```
)engine=InnoDB;
```

```
CREATE TABLE Doctors (
```

```
    DoctorID INT AUTO_INCREMENT PRIMARY KEY,
```

```
    FirstName VARCHAR(50),
```

```
    LastName VARCHAR(50),
```

```
    Specialization VARCHAR(50),
```

```
    ContactNumber VARCHAR(15),
```

```
    Email VARCHAR(100)
```

```
)engine=InnoDB;
```

```
CREATE TABLE Appointments (
```

```
    AppointmentID INT AUTO_INCREMENT PRIMARY KEY,
```

```
    PatientID INT,
```

```
    DoctorID INT,
```

```

AppointmentDate DATE,
AppointmentTime TIME,
ReasonForVisit TEXT,
FOREIGN KEY (PatientID) REFERENCES Patients(PatientID),
FOREIGN KEY (DoctorID) REFERENCES Doctors(DoctorID)
)engine=InnoDB;

CREATE TABLE MedicalRecords (
    RecordID INT AUTO_INCREMENT PRIMARY KEY,
    PatientID INT,
    DoctorID INT,
    Diagnosis TEXT,
    TreatmentPlan TEXT,
    Prescription TEXT,
    DateOfVisit DATE,
    FOREIGN KEY (PatientID) REFERENCES Patients(PatientID)on delete cascade,
    FOREIGN KEY (DoctorID) REFERENCES Doctors(DoctorID)on delete cascade
)engine=InnoDB;

```

Inserting Users Information: This code represent the user's information input

Inserting Patient

```

INSERT INTO Patients (FirstName, LastName, Gender, DateOfBirth, ContactNumber, Email, Address)
VALUES
('John', 'Doe', 'Male', '1985-03-25', '555-1234', 'john.doe@email.com', '123 Main St'),
('Jane', 'Smith', 'Female', '1990-07-15', '555-5678', 'jane.smith@email.com', '456 Oak St');

```

Inserting Doctors

```

INSERT INTO Doctors (FirstName, LastName, Specialization, ContactNumber, Email)
VALUES
('Dr. Alice', 'Johnson', 'Cardiologist', '555-8765', 'alice.johnson@hospital.com'),
('Dr. Bob', 'Williams', 'Neurologist', '555-4321', 'bob.williams@hospital.com');

```

Inserting Appointment

```
INSERT INTO Appointments (PatientID, DoctorID, AppointmentDate, AppointmentTime, ReasonForVisit)
VALUES
```

```
(1, 1, '2025-03-15', '09:00:00', 'Routine Checkup'),
(2, 2, '2025-03-16', '10:30:00', 'Headache and Dizziness');
```

Inserting Medical Records

```
INSERT INTO MedicalRecords (PatientID, DoctorID, Diagnosis, TreatmentPlan, Prescription, DateOfVisit)
VALUES
```

```
(1, 1, 'Normal Health', 'Continue with healthy lifestyle', 'N/A', '2025-03-15'),
(2, 2, 'Migraine', 'Rest and pain relief', 'Ibuprofen 200mg', '2025-03-16');
```

```
SELECT * FROM Patients;
```

```
SELECT FirstName, LastName, DateOfBirth FROM Patients;
```

```
SELECT * FROM Appointments;
```

```
SELECT
```

```
    Appointments.AppointmentID,
```

```
    Patients.FirstName,
```

```
    Patients.LastName
```

```
FROM Appointments
```

```
JOIN Patients ON Appointments.PatientID = Patients.PatientID;
```