Programming Assignment Unit 5

University of the People

CS 2203 Databases 1

Naeem Ahmed, instructor

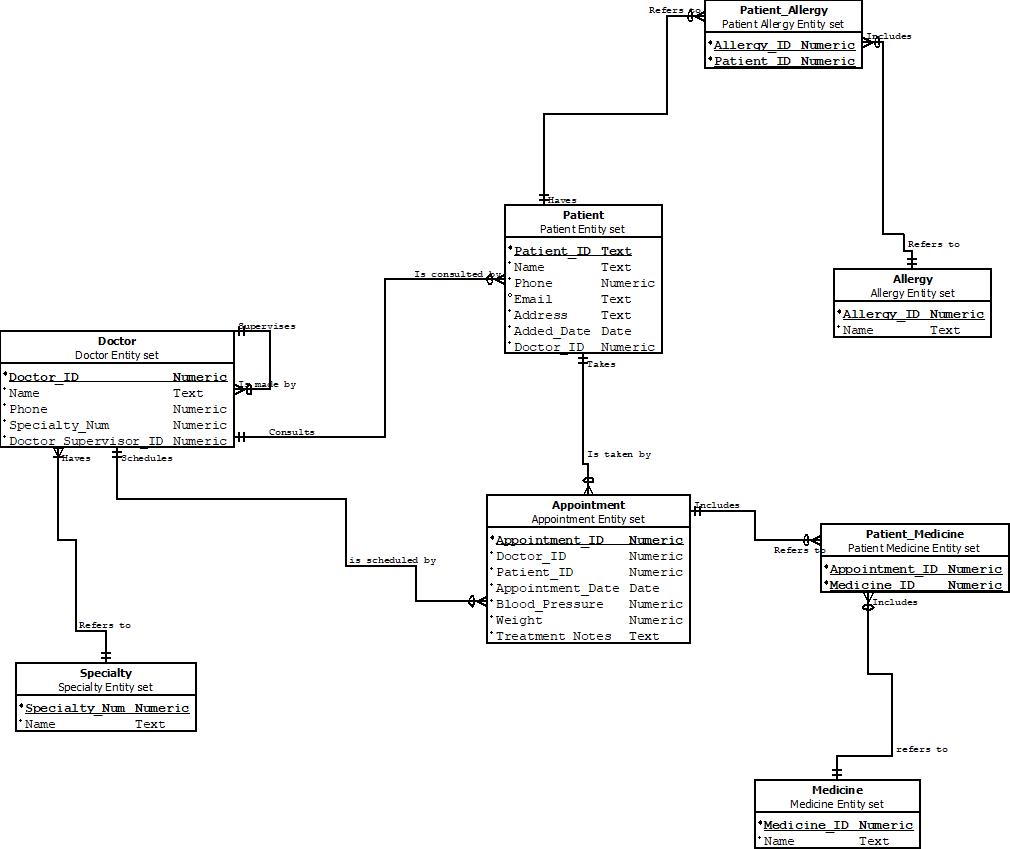
October 05, 2022

Programming Assignment Unit 5

For this week’s Programming Assignment, we have to create SQL DLL statements to implement the database schema in MySQL, IBM DB2, SQL Server…

As for me, I use MySQL as can be seen in the screenshots below.

Below is the E-R diagram I defined and normalized as part of Unit 4 Programming Assignment.



As required the assignment, it must include the SQL DDL statements required to implement at least the following relations:  
- Doctor  
- Patient  
- Appointment  
- Specialty  
- PatientMedicine  
- Medicine  
- PatientAllergy  
- Allergy

Therefore, let us create the tables for the database.

/\* Create Doctor table \*/

CREATE TABLE DOCTOR(

Doctor\_ID CHAR(10) NOT NULL,

Name VARCHAR(30) NOT NULL,

Phone CHAR(25) NOT NULL,

Specialty\_Num CHAR(10) NOT NULL,

Supervisor\_ID CHAR(10) NOT NULL,

CONSTRAINT PK\_DR PRIMARY KEY (Doctor\_ID),

CONSTRAINT UQ\_DR UNIQUE (Doctor\_ID),

CONSTRAINT FK\_SPLTY FOREIGN KEY (Specialty\_Num)

REFERENCES SPECIALTY(Specialty\_Num)

);

/\* Create Patient table \*/

CREATE TABLE PATIENT(

Patient\_ID CHAR(10) NOT NULL,

Name VARCHAR(30) NOT NULL,

Phone CHAR(25) NOT NULL,

Email CHAR(50),

Address CHAR(120) NOT NULL,

Added\_Date DATE NOT NULL,

Doctor\_ID CHAR(10) NOT NULL,

CONSTRAINT PK\_PATNT PRIMARY KEY (Patient\_ID),

CONSTRAINT UQ\_PATNT UNIQUE (Patient\_ID),

CONSTRAINT FK\_D FOREIGN KEY (Doctor\_ID) REFERENCES DOCTOR(Doctor\_ID)

);

/\* Create Appointment table \*/

CREATE TABLE APPOINTMENT(

Appointment\_ID CHAR(10) NOT NULL,

Patient\_ID CHAR(10) NOT NULL,

Doctor\_ID CHAR(10) NOT NULL,

Appointment\_Date DATE NOT NULL,

Blood\_Pressure INT NOT NULL,

Weight DECIMAL(5, 2) NOT NULL,

Treatment\_Notes CHAR(230) NOT NULL,

CONSTRAINT PK\_APP PRIMARY KEY (Appointment\_ID),

CONSTRAINT UQ\_APP UNIQUE (Appointment\_ID),

CONSTRAINT FK\_D\_APP FOREIGN KEY (Doctor\_ID) REFERENCES DOCTOR(Doctor\_ID),

CONSTRAINT FK\_PATNT\_APP FOREIGN KEY (Patient\_ID) REFERENCES PATIENT(Patient\_ID)

);

/\* Create Specialty table \*/

CREATE TABLE SPECIALTY(

Specialty\_Num CHAR(10) NOT NULL,

NAME VARCHAR(30),

CONSTRAINT PK\_SPLTY\_N PRIMARY KEY (Specialty\_Num),

CONSTRAINT UQ\_SPLTY\_N UNIQUE (Specialty\_Num)

);

/\* Create Patient\_Medicine table \*/

CREATE TABLE PATIENT\_MEDICINE(

Appointment\_ID CHAR(10) NOT NULL,

Medicine\_ID CHAR(10) NOT NULL,

CONSTRAINT PK\_APP\_M PRIMARY KEY (Appointment\_ID, Medicine\_ID),

CONSTRAINT UQ\_APP\_M UNIQUE (Appointment\_ID, Medicine\_ID),

CONSTRAINT FK\_APP FOREIGN KEY (Appointment\_ID) REFERENCES APPOINTMENT(Appointment\_ID),

CONSTRAINT FK\_M FOREIGN KEY (Medicine\_ID) REFERENCES MEDICINE(Medicine\_ID)

);

/\* Create Medicine table \*/

CREATE TABLE MEDICINE(

Medicine\_ID CHAR(10) NOT NULL,

Name VARCHAR (50) NOT NULL,

CONSTRAINT PK\_M PRIMARY KEY (Medicine\_ID),

CONSTRAINT UQ\_M UNIQUE (Medicine\_ID)

);

/\* Create Patient\_Allergy table \*/

CREATE TABLE PATIENT\_ALLERGY(

Allergy\_ID CHAR(10) NOT NULL,

Patient\_ID CHAR(10) NOT NULL,

CONSTRAINT PK\_A\_PATNT PRIMARY KEY (Allergy\_ID, Patient\_ID),

CONSTRAINT UQ\_A\_PATNT UNIQUE (Allergy\_ID, Patient\_ID),

CONSTRAINT FK\_A FOREIGN KEY (Allergy\_ID) REFERENCES ALLERGY(Allergy\_ID),

CONSTRAINT FK\_PATNT FOREIGN KEY (Patient\_ID) REFERENCES PATIENT(Patient\_ID)

);

/\* Create Allergy table \*/

CREATE TABLE ALLERGY(

Allergy\_ID CHAR(10) NOT NULL,

Name VARCHAR(35) NOT NULL,

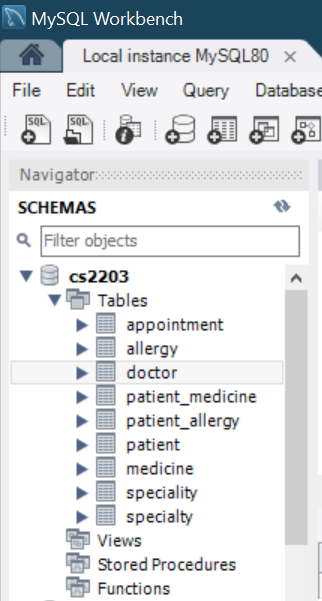
CONSTRAINT PK\_A PRIMARY KEY (Allergy\_ID),

CONSTRAINT UQ\_A UNIQUE (Allergy\_ID)

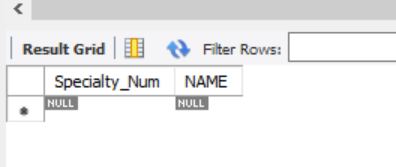
);

**Pictures**

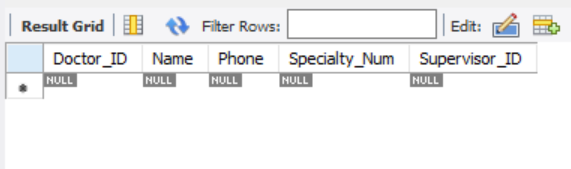
The different tables in the database.



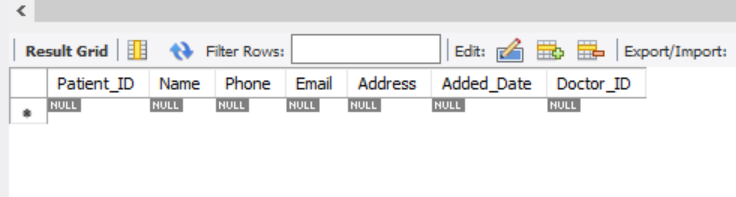
SELECT \* FROM SPECIALTY;



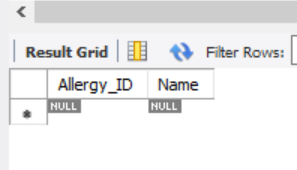
SELECT \* FROM DOCTOR;



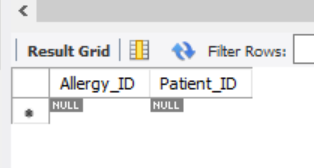
SELECT \* FROM PATIENT;



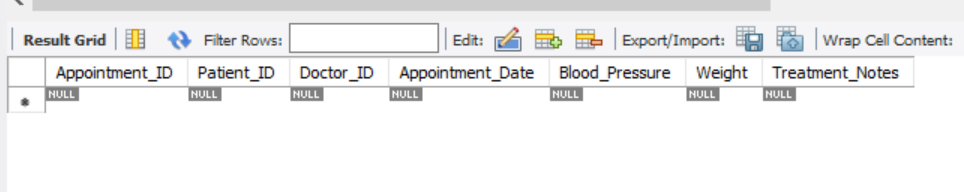
SELECT \* FROM ALLERGY;



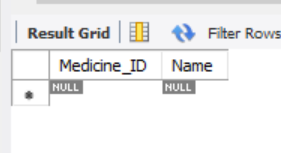
SELECT \* FROM PATIENT\_ALLERGY;



SELECT \* FROM APPOINTMENT;



SELECT \* FROM MEDICINE;



SELECT \* FROM PATIENT\_MEDICINE;

