

Programming Assignment Unit 5

University of the People

CS 2203 Databases 1

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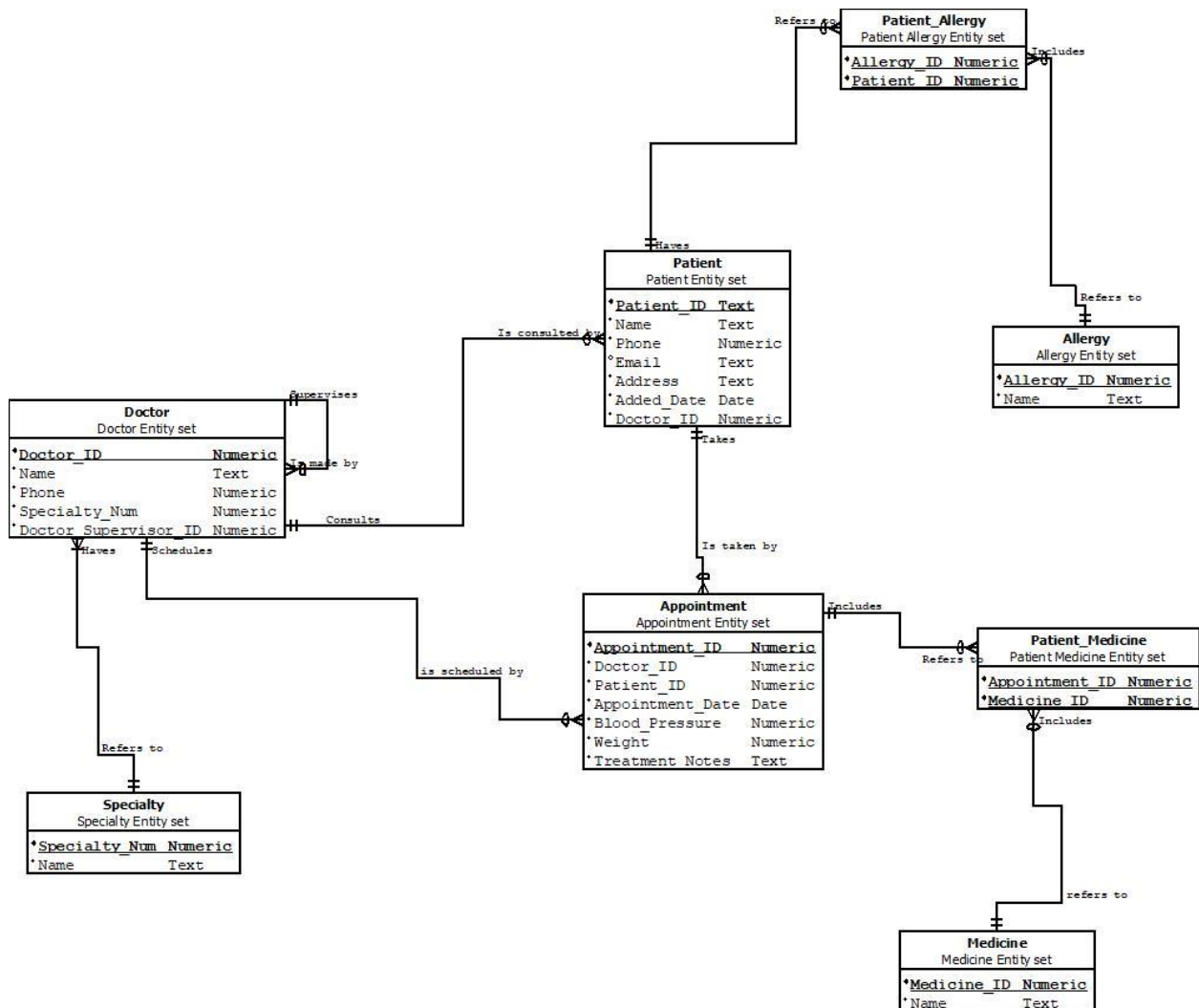
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Programming Assignment Unit 5

For this week's Programming Assignment, we have to create SQL DDL 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)
);

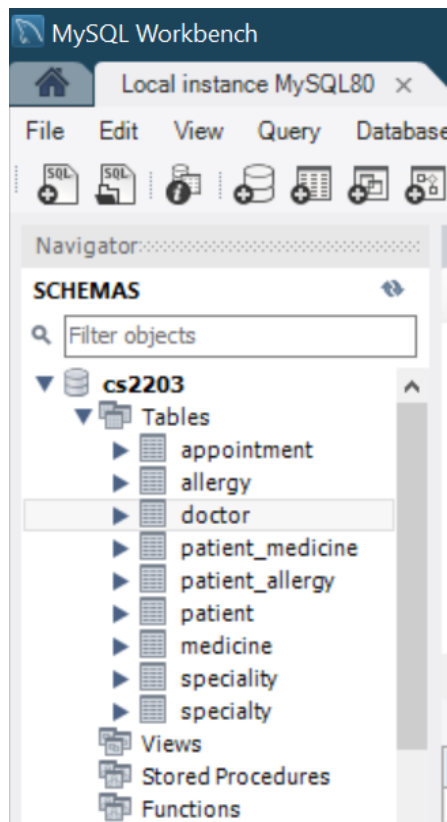
```

```
/* 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)
);
```

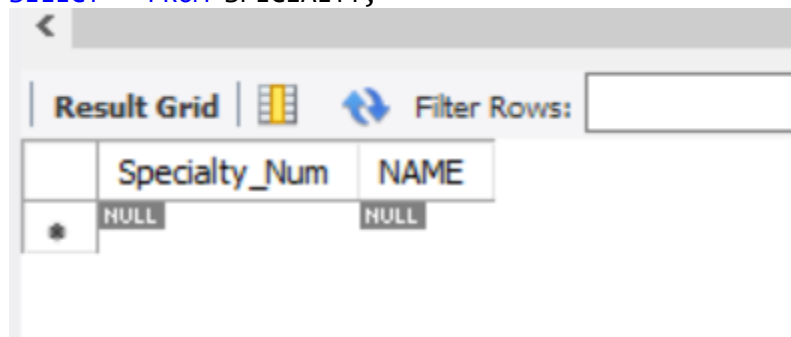
```
/* Create Allergy table */
CREATE TABLE ALLERGY(
Allergy_ID CHAR(10) NOT NULL,
Name VARCHAR(35) NOT NULL,
CONSTRAINT PK_A PRIMARY KEY (Allergy_ID),
CONSTRAINT UQ_A UNIQUE (Allergy_ID)
);
```

Pictures

The different tables in the database.



```
SELECT * FROM SPECIALTY;
```



```
SELECT * FROM DOCTOR;
```

Result Grid | Filter Rows: | Edit:

	Doctor_ID	Name	Phone	Specialty_Num	Supervisor_ID
*	NULL	NULL	NULL	NULL	NULL

```
SELECT * FROM PATIENT;
```

<

Result Grid | Filter Rows: | Edit: | Export/Import:

	Patient_ID	Name	Phone	Email	Address	Added_Date	Doctor_ID
*	NULL	NULL	NULL	NULL	NULL	NULL	NULL

```
SELECT * FROM ALLERGY;
```

<

Result Grid | Filter Rows:

	Allergy_ID	Name
*	NULL	NULL

```
SELECT * FROM PATIENT_ALLERGY;
```

<

Result Grid | Filter Rows:

	Allergy_ID	Patient_ID
*	NULL	NULL

```
SELECT * FROM APPOINTMENT;
```

Result Grid							
		Filter Rows:		Edit:		Export/Import:	
	Appointment_ID	Patient_ID	Doctor_ID	Appointment_Date	Blood_Pressure	Weight	Treatment_Notes
*	NULL	NULL	NULL	NULL	NULL	NULL	NULL

```
SELECT * FROM MEDICINE;
```

Result Grid		
		Filter Rows:
	Medicine_ID	Name
*	NULL	NULL

```
SELECT * FROM PATIENT_MEDICINE;
```

Result Grid		
		Filter Rows:
	Appointment_ID	Medicine_ID
*	NULL	NULL