Programming Assignment Unit 7

University of the People

CS 2203 Databases 1

Naeem Ahmed, instructor

October 19, 2022

Programming Assignment Unit 7

For this week’s Programming Assignment, we had to use the Specialty, Doctor, Patient, Appointment, Allergy, PatientAllergy, Medicine, and PatientMedicine relations created for the Hospital System Database in the Unit 5 Programming Assignment, populate them with data provided by the assignment instructions.

**Below are the SQL statements for creating and populating the tables.**

USE PA\_Unit\_7;

/\* 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)

);

/\* Populating the SPECIALTY table \*/

INSERT INTO SPECIALTY VALUES ('S1','Dermatology');

INSERT INTO SPECIALTY VALUES ('S2','Psychiatry');

INSERT INTO SPECIALTY VALUES ('S3','Oncology');

INSERT INTO SPECIALTY VALUES ('S4','Cardiology');

INSERT INTO SPECIALTY VALUES ('S5','Urology');

INSERT INTO SPECIALTY VALUES ('S6','Pediatrics');

/\* 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)

);

/\* Populating the DOCTOR table \*/

INSERT INTO DOCTOR VALUES ('D1','Doctor Karen','555-1212','S6','');

INSERT INTO DOCTOR VALUES ('D2','Doctor John','555-2934','S2','D1');

INSERT INTO DOCTOR VALUES ('D3','Doctor Robert','555-6723','S6','D1');

INSERT INTO DOCTOR VALUES ('D4','Doctor David','555-1745','S4','D1');

INSERT INTO DOCTOR VALUES ('D5','Doctor Mary','555-6565','S5','D1');

INSERT INTO DOCTOR VALUES ('D6','Doctor Linda','555-4889','S1','D1');

INSERT INTO DOCTOR VALUES ('D7','Doctor Susan','555-4581','S3','D1');

INSERT INTO DOCTOR VALUES ('D8','Doctor Zeynep','555-7891','S4','D1');

INSERT INTO DOCTOR VALUES ('D9','Doctor Mat','555-7791','S1','D1');

/\* 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)

);

/\* Populating the PATIENT table \*/

INSERT INTO PATIENT VALUES ('P1','Patient Dana','444-1212','P1@email.com','123 Home St.','2019-2-1','D2');

INSERT INTO PATIENT VALUES ('P2','Patient Harry','444-2934','P2@email.com','3435 Main     St.','2011-7-13','D7');

INSERT INTO PATIENT VALUES ('P3','Patient Karl','444-6723','P3@email.com','2176 Baker St.','2009-5-10','D6');

INSERT INTO PATIENT VALUES ('P4','Patient Sid','444-1745','P4@email.com','176   Right St.','2010-6-20','D2');

INSERT INTO PATIENT VALUES ('P5','Patient Marry','444-6565','P5@email.com','435 Main St.','2014-5-18','D8');

INSERT INTO PATIENT VALUES ('P6','Patient Kim','444-4889','P6@email.com','34 Home    St.','2018-3-15','D6');

INSERT INTO PATIENT VALUES ('P7','Patient Susan','444-4581','P7@email.com','65 Water St.','2011-9-7','D4');

INSERT INTO PATIENT VALUES ('P8','Patient Sam','444-7891','P8@email.com','23 Hill    Drive','2010-11-23','D3');

INSERT INTO PATIENT VALUES ('P9','Patient Peter','444-7791','P9@email.com','12 River St.','2008-2-1','D5');

INSERT INTO PATIENT VALUES ('P10','Patien Nick','123-1212','P10@email.com','335 Bay St.','2011-7-13','D7');

INSERT INTO PATIENT VALUES ('P11','Patient Kyle','123-2934','P11@email.com','216 Baker    St.','2016-5-10','D9');

INSERT INTO PATIENT VALUES ('P12','Patient   Garcia','123-6723','P12@email.com','176 Right St.','2010-6-20','D9');

INSERT INTO PATIENT VALUES ('P13','Patient   Alicia','123-1745','P13@email.com','823 Left St.','2015-5-18','D4');

INSERT INTO PATIENT VALUES ('P14','Patient   Dan','123-6565','P14@email.com','534 High St.','2018-3-15','D4');

/\* 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)

);

/\* Populating the ALLERGY table \*/

INSERT INTO ALLERGY VALUES ('AL1','Drug');

INSERT INTO ALLERGY VALUES ('AL2','Food');

INSERT INTO ALLERGY VALUES ('AL3','Skin');

INSERT INTO ALLERGY VALUES ('AL4','Asthma');

INSERT INTO ALLERGY VALUES ('AL5','Rhinitis');

/\* 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)

);

/\* Populating the PATIENT\_ALLERGY table \*/

INSERT INTO PATIENT\_ALLERGY VALUES ('AL4','P1');

INSERT INTO PATIENT\_ALLERGY VALUES ('AL2','P13');

INSERT INTO PATIENT\_ALLERGY VALUES ('AL3','P11');

INSERT INTO PATIENT\_ALLERGY VALUES ('AL4','P7');

INSERT INTO PATIENT\_ALLERGY VALUES ('AL5','P9');

INSERT INTO PATIENT\_ALLERGY VALUES ('AL1','P3');

/\* 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)

);

/\* Populating the APPOINTMENT table \*/

INSERT INTO APPOINTMENT VALUES ('A1','P1','D2','2019-7-1','80','65','Dream to success');

INSERT INTO APPOINTMENT VALUES ('A2','P13','D4','2019-1-4','77','88','Good heart rate');

INSERT INTO APPOINTMENT VALUES ('A3','P11','D9','2019-3-22','82','95','Many spots');

INSERT INTO APPOINTMENT VALUES ('A4','P7','D4','2020-2-1','85','74','Fast heart rate');

INSERT INTO APPOINTMENT VALUES ('A5','P9','D5','2019-4-13','75','56','Reports checked');

INSERT INTO APPOINTMENT VALUES ('A6','P3','D6','2019-11-12','81','96','Sun light spots');

INSERT INTO APPOINTMENT VALUES ('A7','P10','D7','2020-1-29','80','87','Early treatment');

INSERT INTO APPOINTMENT VALUES ('A8','P9','D5','2019-8-12','86','92','Much better');

INSERT INTO APPOINTMENT VALUES ('A9','P14','D4','2019-5-18','75','75','Good heart rate');

INSERT INTO APPOINTMENT VALUES ('A10','P8','D3','2019-11-18','76','79','New teeth');

INSERT INTO APPOINTMENT VALUES ('A11','P11','D9','2019-6-22','78','71','Much better');

INSERT INTO APPOINTMENT VALUES ('A12','P2','D7','2020-2-21','82','86','Early treatment');

INSERT INTO APPOINTMENT VALUES ('A13','P4','D2','2019-8-17','81','101','Bad dreams');

INSERT INTO APPOINTMENT VALUES ('A14','P6','D6','2019-6-27','79','49','Sun light spots');

INSERT INTO APPOINTMENT VALUES ('A15','P10','D7','2020-7-29','80','83','Early treatment');

INSERT INTO APPOINTMENT VALUES ('A16','P7','D4','2020-8-1','78','79','Good heart rate');

/\* 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)

);

/\* Populating the MEDICINE table \*/

INSERT INTO MEDICINE VALUES ('M1','Ativan');

INSERT INTO MEDICINE VALUES ('M2','Ibuprofen');

INSERT INTO MEDICINE VALUES ('M3','Omeprazole');

INSERT INTO MEDICINE VALUES ('M4','Metoprolol');

INSERT INTO MEDICINE VALUES ('M5','Azithromycin');

INSERT INTO MEDICINE VALUES ('M6','Codeine');

/\* 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)

);

/\* Populating the PATIENT\_MEDICINE table \*/

INSERT INTO PATIENT\_MEDICINE VALUES ('A15','M1');

INSERT INTO PATIENT\_MEDICINE VALUES ('A2','M6');

INSERT INTO PATIENT\_MEDICINE VALUES ('A8','M3');

INSERT INTO PATIENT\_MEDICINE VALUES ('A6','M3');

INSERT INTO PATIENT\_MEDICINE VALUES ('A15','M2');

INSERT INTO PATIENT\_MEDICINE VALUES ('A10','M6');

INSERT INTO PATIENT\_MEDICINE VALUES ('A10','M2');

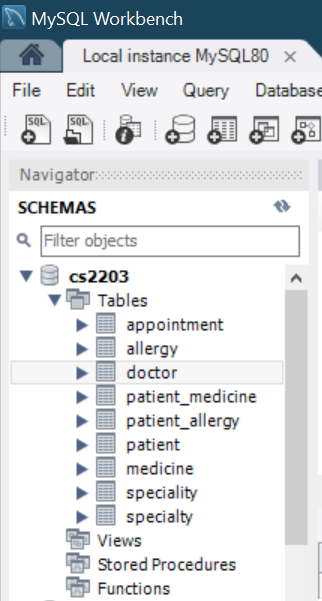
INSERT INTO PATIENT\_MEDICINE VALUES ('A4','M5');

INSERT INTO PATIENT\_MEDICINE VALUES ('A3','M5');

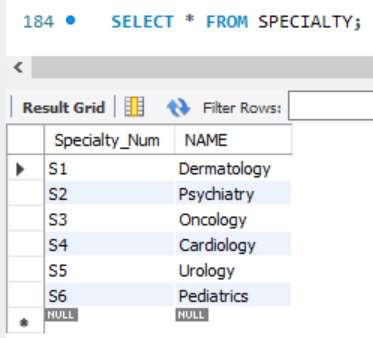
INSERT INTO PATIENT\_MEDICINE VALUES ('A1','M2');

**Below are the SELECT statements and the screenshots that show each relation.**

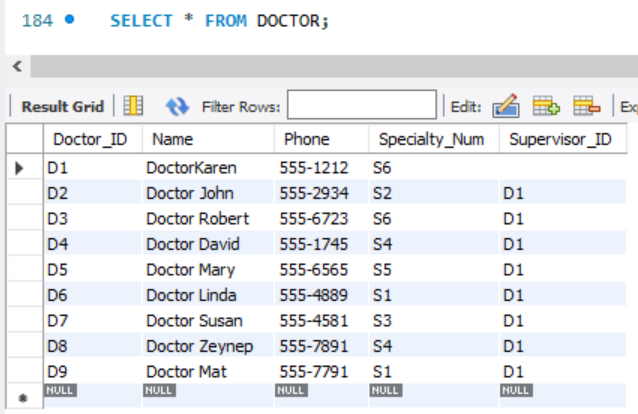
The different tables in the database.



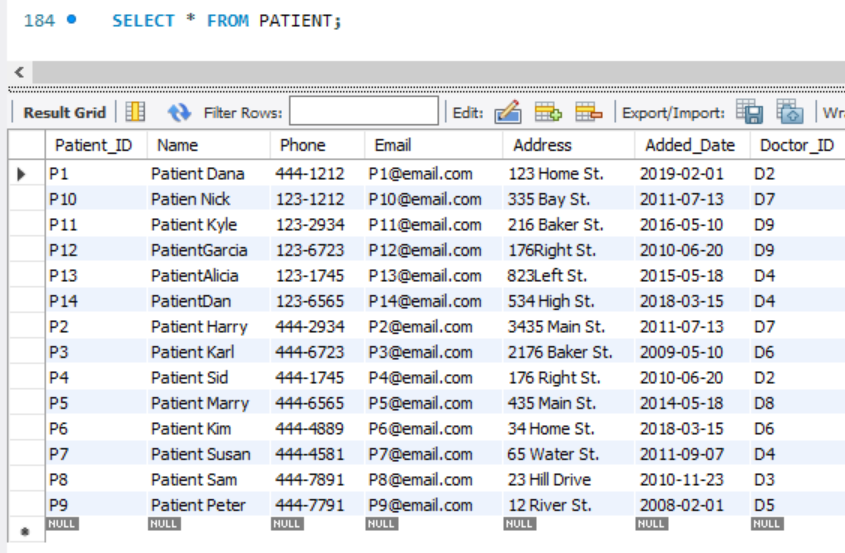
SELECT \* FROM SPECIALTY;



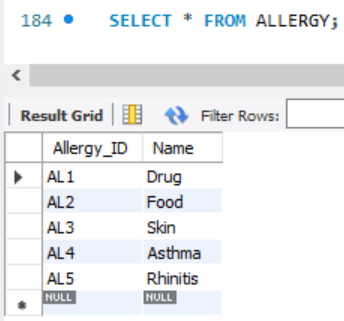
SELECT \* FROM DOCTOR;



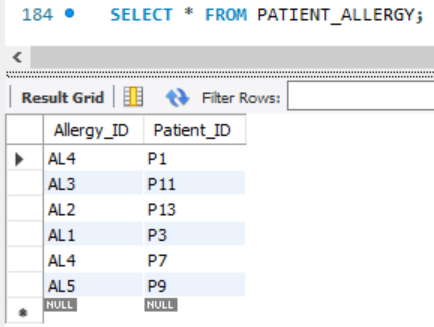
SELECT \* FROM PATIENT;



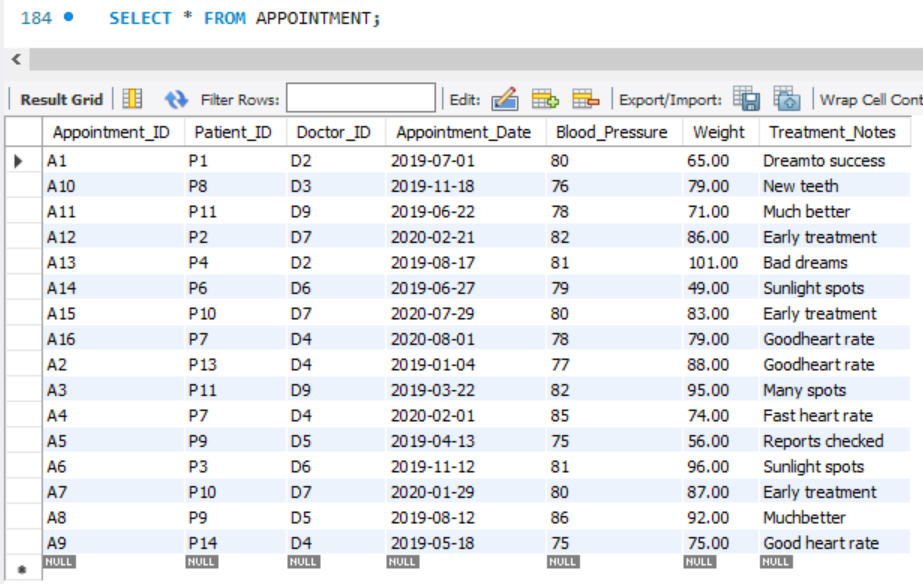
SELECT \* FROM ALLERGY;



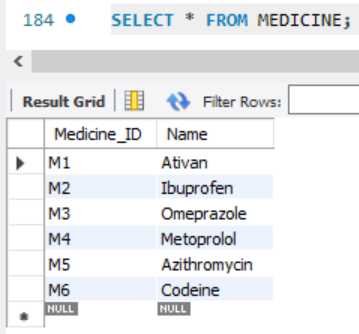
SELECT \* FROM PATIENT\_ALLERGY;



SELECT \* FROM APPOINTMENT;



SELECT \* FROM MEDICINE;



SELECT \* FROM PATIENT\_MEDICINE;

