

Alice Yue

Project Demo & Code: E-Med Patient Information Management System

SQL Tables

--Lists

*/*Patient*/*

SELECT * FROM Patient;

DROP TABLE Patient;

CREATE TABLE Patient (

Patient_ID CHAR(5) CONSTRAINT Patient_PK PRIMARY KEY,

First_Name VARCHAR2(20) NOT NULL,

Last_Name VARCHAR2(20) NOT NULL,

DoB DATE,

Sex CHAR(1),

Phone NUMBER(10),

Address VARCHAR2(40)

);

INSERT ALL

INTO Patient VALUES ('P0001', 'Ken', 'Lee', '01-JAN-91', 'M', '6044646464', '101-1001 Finnerty Rd')

INTO Patient VALUES ('P0002', 'Alice', 'Adama', '28-SEP-89', 'M', '2400938591', '102-2204 Cedar Cross Rd')

INTO Patient VALUES ('P0003', 'Barry', 'Baker', '05-MAR-85', 'F', '2385959302', '203-2123 Adelaide St')

INTO Patient VALUES ('P0004', 'Adalbert', 'Thomas', '21-MAR-81', 'M', '5938490234', '204-8443 Central Rd')

INTO Patient VALUES ('P0005', 'Baltazar', 'Pauline', '29-SEP-99', 'M', '5837264847', '298-9543 China St')

INTO Patient VALUES ('P0006', 'Alojzy', 'Harris', '14-NOV-74', 'M', '3948593049', '894-8765 Copper St')

INTO Patient VALUES ('P0007', 'Cecylia', 'Martin', '30-AUG-70', 'F', '9847380596', '283-9843 Corn St')

INTO Patient VALUES ('P0008', 'Edward', 'Clark', '05-JUL-75', 'F', '2857483043', '210-1234 Costume St')

INTO Patient VALUES ('P0009', 'Ben', 'Lewis', '06-MAY-76', 'M', '4583490596', '103-8554 Bay Rd')

INTO Patient VALUES ('P0010', 'Benth', 'Hall', '23-APR-64', 'F', '8545490594', '987-7655 Barn Rd')

INTO Patient VALUES ('P0011', 'Flora', 'Allen', '24-AUG-74', 'M', '1284029384', '123-9870 Eastern St')

INTO Patient VALUES ('P0012', 'Filip', 'Young', '30-DEC-77', 'M', '3848594039', '346-5891 East Hill Avenue')

INTO Patient VALUES ('P0013', 'Ewa', 'King', '04-OCT-97', 'M', '5469302831', '876-2052 Easy St')

INTO Patient VALUES ('P0014', 'Elzbieta', 'Hill', '22-JUN-88', 'F', '6594830293', '345-862 Elisabeth St')

INTO Patient VALUES ('P0015', 'Gabriel', 'Scott', '04-AUG-68', 'F', '7547890293', '202-122 Farmer St')

INTO Patient VALUES ('P0016', 'Helen', 'Green', '17-SEP-77', 'F', '5439685432', '122-333 Federation Rd')

INTO Patient VALUES ('P0017', 'Harry', 'Adams', '01-JUN-78', 'M', '8593321234', '203-4443 Greenpark Rd')

INTO Patient VALUES ('P0018', 'Jack', 'Martin', '31-MAR-69', 'F', '6546789281', '229-9983 Hazlett Avenue')

INTO Patient VALUES ('P0019', 'Jan', 'Taylor', '14-SEP-83', 'F', '1432789586', '234-0003 Gateway St')

INTO Patient VALUES ('P0020', 'Joanna', 'Moore', '20-JUN-93', 'M', '1209890997', '998-5533 Lucy St')

SELECT * FROM DUAL;

INSERT ALL

INTO Patient VALUES ('P0001', 'Ken', 'Lee', '01/01/1981', 'M', '6044646464', '101-1001 Finnerty Rd')

INTO Patient VALUES ('P0002', 'Alice', 'Adama', '01/01/1971', 'M', '2400938591', '102-2204 Cedar Cross Rd')

INTO Patient VALUES ('P0003', 'Barry', 'Baker', '01/01/1961', 'F', '2385959302', '203-2123 Adelaide St')

INTO Patient VALUES ('P0004', 'Adalbert', 'Thomas', '01/01/1951', 'M', '5938490234', '204-8443 Central Rd')

INTO Patient VALUES ('P0005', 'Baltazar', 'Pauline', '01/01/1991', 'M', '5837264847', '298-9543 China St')

INTO Patient VALUES ('P0006', 'Alojzy', 'Harris', '01/01/1981', 'M', '3948593049', '894-8765 Copper St')

INTO Patient VALUES ('P0007', 'Cecylia', 'Martin', '01/01/1971', 'F', '9847380596', '283-9843 Corn St')

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```

INTO Patient VALUES ('P0008', 'Edward', 'Clark', '01/01/1961', 'F', '2857483043', '210-1234 Costume St')
INTO Patient VALUES ('P0009', 'Ben', 'Lewis', '01/01/1951', 'M', '4583490596', '103-8554 Bay Rd')
INTO Patient VALUES ('P0010', 'Benth', 'Hall', '01/01/1941', 'F', '8545490594', '987-7655 Barn Rd')
INTO Patient VALUES ('P0011', 'Flora', 'Allen', '01/01/1991', 'M', '1284029384', '123-9870 Eastern St')
INTO Patient VALUES ('P0012', 'Filip', 'Young', '01/01/1981', 'M', '3848594039', '346-5891 East Hill Avenue')
INTO Patient VALUES ('P0013', 'Ewa', 'King', '01/01/1971', 'M', '5469302831', '876-2052 Easy St')
INTO Patient VALUES ('P0014', 'Elzbieta', 'Hill', '01/01/1961', 'F', '6594830293', '345-862 Elisabeth St')
INTO Patient VALUES ('P0015', 'Gabriel', 'Scott', '01/01/1951', 'F', '7547890293', '202-122 Farmer St')
INTO Patient VALUES ('P0016', 'Helen', 'Green', '01/01/1941', 'F', '5439685432', '122-333 Federation Rd')
INTO Patient VALUES ('P0017', 'Harry', 'Adams', '01/01/1991', 'M', '8593321234', '203-4443 Greenpark Rd')
INTO Patient VALUES ('P0018', 'Jack', 'Martin', '01/01/1981', 'F', '6546789281', '229-9983 Hazlett Avenue')
INTO Patient VALUES ('P0019', 'Jan', 'Taylor', '01/01/1971', 'F', '1432789586', '234-0003 Gateway St')
INTO Patient VALUES ('P0020', 'Joanna', 'Moore', '01/01/1951', 'M', '1209890997', '998-5533 Lucy St')
SELECT * FROM DUAL;

```

*/*Allergy*/*

```
SELECT * FROM Allergy;
```

```
DROP TABLE Allergy;
```

```

CREATE TABLE Allergy (
Allergy_ID      CHAR(5)          CONSTRAINT Allergy_PK PRIMARY KEY,
Allergen        VARCHAR2(20)    NOT NULL,
Type            VARCHAR2(20)
);

```

INSERT ALL

```

INTO Allergy VALUES ('A0001', 'Apple', 'Food')
INTO Allergy VALUES ('A0002', 'Milk', 'Food')
INTO Allergy VALUES ('A0003', 'Mold', 'Other')
INTO Allergy VALUES ('A0004', 'Wheat', 'Food')
INTO Allergy VALUES ('A0005', 'Shellfish', 'Food')
INTO Allergy VALUES ('A0006', 'Dog', 'Animal')
INTO Allergy VALUES ('A0007', 'Gluten', 'Protein')
INTO Allergy VALUES ('A0008', 'Cat', 'Animal')
INTO Allergy VALUES ('A0009', 'Hay Fever', 'Other')
INTO Allergy VALUES ('A0010', 'Pollen', 'Plant')
INTO Allergy VALUES ('A0011', 'UV', 'Other')
INTO Allergy VALUES ('A0012', 'Grass', 'Plant')
INTO Allergy VALUES ('A0013', 'Rat', 'Animal')
INTO Allergy VALUES ('A0014', 'Almond', 'Food')
INTO Allergy VALUES ('A0015', 'Peanut', 'Food')
INTO Allergy VALUES ('A0016', 'Starfish', 'Food')
INTO Allergy VALUES ('A0017', 'Bee Stings', 'Other')
INTO Allergy VALUES ('A0018', 'Soy', 'Food')
INTO Allergy VALUES ('A0019', 'Hives', 'Other')
INTO Allergy VALUES ('A0020', 'Casein', 'Food')
SELECT * FROM DUAL;

```

*/*Disease*/*

```
SELECT * FROM Disease;
```

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DROP TABLE Disease;

```
CREATE TABLE Disease (
Disease_ID      CHAR(5)          CONSTRAINT Disease_PK PRIMARY KEY,
Name            VARCHAR2(20) NOT NULL,
Type            VARCHAR2(20)
);
```

```
INSERT ALL
INTO Disease VALUES ('D0001', 'Bipolar I', 'Mental')
INTO Disease VALUES ('D0002', 'Depression', 'Mental')
INTO Disease VALUES ('D0003', 'Abdominal', 'Pain')
INTO Disease VALUES ('D0004', 'Gestational Diabetes', 'Diabetes')
INTO Disease VALUES ('D0005', 'Back', 'Pain')
INTO Disease VALUES ('D0006', 'Melanoma', 'Cancer')
INTO Disease VALUES ('D0007', 'Lymphoma', 'Cancer')
INTO Disease VALUES ('D0008', 'Chest', 'Pain')
INTO Disease VALUES ('D0009', 'Burns', 'Accidental injury')
INTO Disease VALUES ('D0010', 'Syndrome X', 'Diabetes')
SELECT * FROM DUAL;
```

*/*Medication*/*

```
SELECT * FROM Medication;
DROP TABLE Medication;
```

```
CREATE TABLE Medication (
Medication_ID   CHAR(5)          CONSTRAINT Medication_PK PRIMARY KEY,
Name            VARCHAR2(20) NOT NULL,
Type            VARCHAR2(20)
);
```

```
INSERT ALL
INTO Medication VALUES ('M0001', 'Aspirin', 'Analgesic')
INTO Medication VALUES ('M0002', 'Amphetamines', 'Stimulant')
INTO Medication VALUES ('M0003', 'Methamphetamine', 'Stimulant')
INTO Medication VALUES ('M0004', 'Mushrooms', 'Hallucinogens')
INTO Medication VALUES ('M0005', 'Naproxen', 'Inhalants')
INTO Medication VALUES ('M0006', 'Heroin', 'Opiates')
INTO Medication VALUES ('M0007', 'Steroids', 'Other')
INTO Medication VALUES ('M0008', 'PCP', 'Hallucinogens')
INTO Medication VALUES ('M0009', 'Hash', 'Other')
INTO Medication VALUES ('M0010', 'Amibien', 'Other')
INTO Medication VALUES ('M0011', 'Atenolol', 'Opiates')
INTO Medication VALUES ('M0012', 'Hydrochlorothiazide', 'Inhalants')
INTO Medication VALUES ('M0013', 'Lipitor', 'Opiates')
INTO Medication VALUES ('M0014', 'Lisinopril', 'Inhalants')
INTO Medication VALUES ('M0015', 'Methadone', 'Stimulant')
INTO Medication VALUES ('M0016', 'Oxycodone', 'Hallucinogens')
```

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```

INTO Medication VALUES ('M0017', 'Methocarbamol', 'Opiates')
INTO Medication VALUES ('M0018', 'OxyContin', 'Hallucinogens')
INTO Medication VALUES ('M0019', 'Phentermine', 'Analgesic')
INTO Medication VALUES ('M0020', 'Seroquel', 'Other')
SELECT * FROM DUAL;

/*Therapy*/
SELECT * FROM Therapy;
DROP TABLE Therapy;

CREATE TABLE Therapy (
Therapy_ID      CHAR(5)          CONSTRAINT Therapy_PK PRIMARY KEY,
Name            VARCHAR2(20)    NOT NULL,
Type            VARCHAR2(20)
);

INSERT ALL
INTO Therapy VALUES ('TH001', 'CBT', 'Psychotherapy')
INTO Therapy VALUES ('TH002', 'Oral Administration', 'Osmotherapy')
INTO Therapy VALUES ('TH003', 'Furukawa', 'Pharmacotherapy')
INTO Therapy VALUES ('TH004', 'Family Therapy', 'Psychotherapy')
INTO Therapy VALUES ('TH005', 'Steroids', 'Pharmacotherapy')
INTO Therapy VALUES ('TH006', 'Facial', 'Reflexology')
INTO Therapy VALUES ('TH007', 'DMT', 'Psychotherapy')
INTO Therapy VALUES ('TH008', 'Vertical', 'Reflexology')
INTO Therapy VALUES ('TH009', 'Art Therapy', 'Psychotherapy')
INTO Therapy VALUES ('TH010', 'Intravenous', 'Osmotherapy')
SELECT * FROM DUAL;

/*Hospital*/
SELECT * FROM Hospital;
DROP TABLE Hospital;

CREATE TABLE Hospital (
Hospital_ID     CHAR(5)          CONSTRAINT Hospital_PK PRIMARY KEY,
Name            VARCHAR2(20)    NOT NULL
);

INSERT ALL
INTO Hospital VALUES ('H0001', 'CASA Institute')
SELECT * FROM DUAL;

--Associative Entities

/*Department*/
SELECT * FROM Department;
DROP TABLE Department;

CREATE TABLE Department (
Department_ID   CHAR(5)          CONSTRAINT Department_PK PRIMARY KEY,
Name            VARCHAR2(20)    NOT NULL,
Hospital_ID     CHAR(5)          NOT NULL,

```

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```
CONSTRAINT dept_FK_hospital
FOREIGN KEY (Hospital_ID)
REFERENCES Hospital (Hospital_ID)
ON DELETE CASCADE
);
```

```
INSERT ALL
INTO Department VALUES ('HD001', 'Emergency', 'H0001')
INTO Department VALUES ('HD002', 'Intensive-Care', 'H0001')
INTO Department VALUES ('HD003', 'Coronary-Care', 'H0001')
SELECT * FROM DUAL;

/*Physician*/
SELECT * FROM Physician;
DROP TABLE Physician;
```

```
CREATE TABLE Physician (
Physician_ID CHAR(5) CONSTRAINT Physician_PK PRIMARY KEY,
First_Name VARCHAR2(20) NOT NULL,
Last_Name VARCHAR2(20) NOT NULL,
Department_ID CHAR(5),
CONSTRAINT physician_FK_dept
FOREIGN KEY (Department_ID)
REFERENCES Department (Department_ID)
ON DELETE SET NULL
);
```

```
INSERT ALL
INTO Physician VALUES ('PH001', 'Joy', 'Lee', 'HD001')
INTO Physician VALUES ('PH002', 'Mary', 'George', 'HD002')
INTO Physician VALUES ('PH003', 'Sandy', 'Lee', 'HD003')
INTO Physician VALUES ('PH004', 'Luna', 'Chan', 'HD004')
INTO Physician VALUES ('PH005', 'Jacky', 'Bishop', 'HD005')
INTO Physician VALUES ('PH006', 'Susan', 'Jackson', 'HD006')
INTO Physician VALUES ('PH007', 'Tracy', 'wong', 'HD007')
INTO Physician VALUES ('PH008', 'Tom', 'Beeke', 'HD008')
INTO Physician VALUES ('PH009', 'Robert', 'Lockwood', 'HD009')
INTO Physician VALUES ('PH010', 'Anna', 'Shoemaker', 'HD010')
SELECT * FROM DUAL;

/*Visit*/
SELECT * FROM Visit;
DROP TABLE Visit;
```

```
CREATE TABLE Visit (
Visit_ID CHAR(5) CONSTRAINT Visit_PK PRIMARY KEY,
Visit_date DATE NOT NULL,
Patient_ID CHAR(5) NOT NULL,
Physician_ID CHAR(5),
CONSTRAINT visit_FK_patient
```

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```

FOREIGN KEY (Patient_ID)
REFERENCES Patient (Patient_ID)
ON DELETE CASCADE,
CONSTRAINT visit_FK_physician
FOREIGN KEY (Physician_ID)
REFERENCES Physician (Physician_ID)
ON DELETE SET NULL
);
INSERT ALL
INTO Visit VALUES ('V0001', '31-MAR-08', 'P0001', 'PH001')
INTO Visit VALUES ('V0002', '16-JAN-13', 'P0002', 'PH002')
INTO Visit VALUES ('V0003', '03-JUN-12', 'P0003', 'PH003')
INTO Visit VALUES ('V0004', '07-JUL-11', 'P0004', 'PH004')
INTO Visit VALUES ('V0005', '19-SEP-11', 'P0005', 'PH005')
INTO Visit VALUES ('V0006', '15-NOV-12', 'P0006', 'PH006')
INTO Visit VALUES ('V0007', '11-AUG-12', 'P0007', 'PH007')
INTO Visit VALUES ('V0008', '23-MAY-09', 'P0008', 'PH008')
INTO Visit VALUES ('V0009', '11-APR-11', 'P0009', 'PH009')
INTO Visit VALUES ('V0010', '20-MAY-08', 'P0010', 'PH010')
SELECT * FROM DUAL;

INSERT ALL
INTO Visit VALUES ('V0001', '04/01/2013', 'P0001', 'PH001')
INTO Visit VALUES ('V0002', '04/05/2013', 'P0002', 'PH002')
INTO Visit VALUES ('V0003', '04/04/2013', 'P0003', 'PH003')
INTO Visit VALUES ('V0004', '04/03/2013', 'P0004', 'PH004')
INTO Visit VALUES ('V0005', '03/02/2013', 'P0005', 'PH005')
INTO Visit VALUES ('V0006', '03/28/2013', 'P0006', 'PH006')
INTO Visit VALUES ('V0007', '03/24/2013', 'P0007', 'PH007')
INTO Visit VALUES ('V0008', '03/22/2013', 'P0008', 'PH008')
INTO Visit VALUES ('V0009', '03/21/2013', 'P0009', 'PH009')
INTO Visit VALUES ('V0010', '03/26/2013', 'P0010', 'PH010')
SELECT * FROM DUAL;

/*Test*/
SELECT * FROM Test;
DROP TABLE Test;

CREATE TABLE Test (
Test_ID          CHAR(5)          CONSTRAINT Test_PK PRIMARY KEY,
Visit_ID CHAR(5)          NOT NULL,
Result          VARCHAR2(30),
CONSTRAINT test_FK_visit
FOREIGN KEY (Visit_ID)
REFERENCES Visit (Visit_ID)
ON DELETE CASCADE
);

INSERT ALL

```

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```

INTO Test(Test_ID, Visit_ID) VALUES ('T0001', 'V0001')
INTO Test(Test_ID, Visit_ID) VALUES ('T0002', 'V0002')
INTO Test(Test_ID, Visit_ID) VALUES ('T0003', 'V0003')
INTO Test(Test_ID, Visit_ID) VALUES ('T0004', 'V0004')
INTO Test(Test_ID, Visit_ID) VALUES ('T0005', 'V0005')
INTO Test(Test_ID, Visit_ID) VALUES ('T0006', 'V0006')
INTO Test(Test_ID, Visit_ID) VALUES ('T0007', 'V0007')
INTO Test(Test_ID, Visit_ID) VALUES ('T0008', 'V0008')
INTO Test(Test_ID, Visit_ID) VALUES ('T0009', 'V0009')
INTO Test(Test_ID, Visit_ID) VALUES ('T0010', 'V0010')
SELECT * FROM DUAL;

```

*/*Bed*/*

```

SELECT * FROM Bed;
DROP TABLE Bed;

```

```

CREATE TABLE Bed (
  Bed_ID          CHAR(5)          CONSTRAINT Bed_PK PRIMARY KEY,
  Department_ID   CHAR(5)          NOT NULL,
  CONSTRAINT bed_FK_Department
  FOREIGN KEY (Department_ID)
  REFERENCES Department (Department_ID)
  ON DELETE CASCADE
);

```

```

INSERT ALL
INTO Bed VALUES ('B0001', 'HD001')
INTO Bed VALUES ('B0002', 'HD002')
INTO Bed VALUES ('B0003', 'HD003')
INTO Bed VALUES ('B0004', 'HD004')
INTO Bed VALUES ('B0005', 'HD005')
INTO Bed VALUES ('B0006', 'HD006')
INTO Bed VALUES ('B0007', 'HD007')
INTO Bed VALUES ('B0008', 'HD008')
INTO Bed VALUES ('B0009', 'HD009')
INTO Bed VALUES ('B0010', 'HD010')
SELECT * FROM DUAL;

```

*/*Bed_Registry*/*

```

SELECT * FROM Bed_Registry;
DROP TABLE Bed_Registry;

```

```

CREATE TABLE Bed_Registry (
  Visit_ID CHAR(5),
  Bed_ID    CHAR(5),
  Admission_Date DATE          NOT NULL,
  Discharge_Date DATE,
  CONSTRAINT BR_PK PRIMARY KEY(Visit_ID, Bed_ID),
  CONSTRAINT BR_FK_visit
  FOREIGN KEY (Visit_ID)

```

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```
REFERENCES Visit (Visit_ID)
ON DELETE CASCADE,
CONSTRAINT BR_FK_bed
FOREIGN KEY (Bed_ID)
REFERENCES Bed (Bed_ID)
ON DELETE CASCADE
);
```

```
INSERT ALL
INTO Bed_Registry VALUES ('V0001', 'B0001', '04-JUN-12', '07-JUL-12')
INTO Bed_Registry VALUES ('V0002', 'B0002', '24-APR-10', '07-MAY-11')
INTO Bed_Registry VALUES ('V0003', 'B0003', '08-MAY-10', '13-MAY-10')
INTO Bed_Registry VALUES ('V0004', 'B0004', '09-JUN-12', '04-JUL-12')
INTO Bed_Registry VALUES ('V0005', 'B0005', '09-JUN-09', '05-JUL-09')
INTO Bed_Registry VALUES ('V0006', 'B0006', '02-JAN-13', '04-JAN-13')
INTO Bed_Registry VALUES ('V0007', 'B0007', '14-APR-12', '16-APR-13')
INTO Bed_Registry VALUES ('V0008', 'B0008', '03-AUG-12', '05-SEP-12')
INTO Bed_Registry VALUES ('V0009', 'B0009', '21-DEC-12', '22-DEC-12')
INTO Bed_Registry VALUES ('V0010', 'B0010', '11-OCT-13', '14-OCT-13')
SELECT * FROM DUAL;
```

```
INSERT ALL
INTO Bed_Registry VALUES ('V0001', 'B0001', '06/02/2012', '06/04/2012')
INTO Bed_Registry VALUES ('V0002', 'B0002', '04/10/2010', '04/18/2010')
INTO Bed_Registry VALUES ('V0003', 'B0003', '05/08/2010', '05/10/2010')
INTO Bed_Registry VALUES ('V0004', 'B0004', '06/09/2012', '06/25/2012')
INTO Bed_Registry VALUES ('V0005', 'B0005', '06/05/2009', '06/30/2009')
INTO Bed_Registry VALUES ('V0006', 'B0006', '04/03/2013', '04/04/2013')
INTO Bed_Registry VALUES ('V0007', 'B0007', '03/02/2012', '03/28/2012')
INTO Bed_Registry VALUES ('V0008', 'B0008', '04/02/2013', '04/04/2013')
INTO Bed_Registry VALUES ('V0009', 'B0009', '04/01/2013', '04/02/2013')
INTO Bed_Registry VALUES ('V0010', 'B0010', '03/28/2013', '03/29/2013')
SELECT * FROM DUAL;
```

*/*Med_Allergy*/*

```
SELECT * FROM Med_Allergy;
```

```
DROP TABLE Med_Allergy;
```

```
CREATE TABLE Med_Allergy (
Patient_ID      CHAR(5),
Medication_ID  CHAR(5),
CONSTRAINT MA_PK PRIMARY KEY(Patient_ID, Medication_ID),
CONSTRAINT MA_FK_patient
FOREIGN KEY (Patient_ID)
REFERENCES Patient (Patient_ID)
ON DELETE CASCADE,
CONSTRAINT MA_FK_med
FOREIGN KEY (Medication_ID)
REFERENCES Medication (Medication_ID)
```


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```

    ON DELETE CASCADE
);

INSERT ALL
INTO Med_Allergy VALUES ('P0001', 'M0001')
INTO Med_Allergy VALUES ('P0002', 'M0002')
INTO Med_Allergy VALUES ('P0003', 'M0003')
INTO Med_Allergy VALUES ('P0004', 'M0004')
INTO Med_Allergy VALUES ('P0005', 'M0005')
INTO Med_Allergy VALUES ('P0006', 'M0006')
INTO Med_Allergy VALUES ('P0007', 'M0007')
INTO Med_Allergy VALUES ('P0008', 'M0008')
INTO Med_Allergy VALUES ('P0009', 'M0009')
INTO Med_Allergy VALUES ('P0010', 'M0010')
SELECT * FROM DUAL;
/*Nonmed_Allergy*/
SELECT * FROM Nonmed_Allergy;
DROP TABLE Nonmed_Allergy;

CREATE TABLE Nonmed_Allergy (
Patient_ID      CHAR(5),
Allergy_ID      CHAR(5),
CONSTRAINT NA_PK PRIMARY KEY(Patient_ID, Allergy_ID),
CONSTRAINT NA_FK_patient
FOREIGN KEY (Patient_ID)
REFERENCES Patient (Patient_ID)
ON DELETE CASCADE,
CONSTRAINT NA_FK_allergy
FOREIGN KEY (Allergy_ID)
REFERENCES Allergy (Allergy_ID)
ON DELETE CASCADE
);

INSERT ALL
INTO Nonmed_Allergy VALUES ('P0001', 'A0001')
INTO Nonmed_Allergy VALUES ('P0002', 'A0002')
INTO Nonmed_Allergy VALUES ('P0003', 'A0003')
INTO Nonmed_Allergy VALUES ('P0004', 'A0004')
INTO Nonmed_Allergy VALUES ('P0005', 'A0005')
INTO Nonmed_Allergy VALUES ('P0006', 'A0006')
INTO Nonmed_Allergy VALUES ('P0007', 'A0007')
INTO Nonmed_Allergy VALUES ('P0008', 'A0008')
INTO Nonmed_Allergy VALUES ('P0009', 'A0009')
INTO Nonmed_Allergy VALUES ('P0010', 'A0010')
SELECT * FROM DUAL;
/*Diagnosis*/
SELECT * FROM Diagnosis;
DROP TABLE Diagnosis;
```

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```
CREATE TABLE Diagnosis (
  Visit_ID CHAR(5),
  Disease_ID CHAR(5),
  CONSTRAINT Diagnosis_PK PRIMARY KEY(Visit_ID, Disease_ID),
  CONSTRAINT diagnosis_FK_visit
  FOREIGN KEY (Visit_ID)
  REFERENCES Visit (Visit_ID)
  ON DELETE CASCADE,
  CONSTRAINT diagnosis_FK_disease
  FOREIGN KEY (Disease_ID)
  REFERENCES Disease (Disease_ID)
  ON DELETE CASCADE
);
```

```
INSERT ALL
  INTO Diagnosis VALUES ('V0001', 'D0001')
  INTO Diagnosis VALUES ('V0002', 'D0002')
  INTO Diagnosis VALUES ('V0003', 'D0003')
  INTO Diagnosis VALUES ('V0004', 'D0004')
  INTO Diagnosis VALUES ('V0005', 'D0005')
  INTO Diagnosis VALUES ('V0006', 'D0006')
  INTO Diagnosis VALUES ('V0007', 'D0007')
  INTO Diagnosis VALUES ('V0008', 'D0008')
  INTO Diagnosis VALUES ('V0009', 'D0009')
  INTO Diagnosis VALUES ('V0010', 'D0010')
  SELECT * FROM DUAL;
```

*/*Prescription*/*

```
SELECT * FROM Prescription;
DROP TABLE Prescription;
```

```
CREATE TABLE Prescription (
  Visit_ID CHAR(5),
  Medication_ID CHAR(5),
  Start_Date DATE NOT NULL,
  End_Date DATE,
  CONSTRAINT Prescription_PK PRIMARY KEY(Visit_ID, Medication_ID),
  CONSTRAINT Prescription_FK_visit
  FOREIGN KEY (Visit_ID)
  REFERENCES Visit (Visit_ID)
  ON DELETE CASCADE,
  CONSTRAINT Prescription_FK_medication
  FOREIGN KEY (Medication_ID)
  REFERENCES Medication (Medication_ID)
  ON DELETE CASCADE
);
```

```
INSERT ALL
```

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```

INTO Prescription VALUES ('V0001', 'M0001', '03-JUN-12', '05-JUL-12')
INTO Prescription VALUES ('V0002', 'M0002', '01-MAR-13', '05-MAY-13')
INTO Prescription VALUES ('V0003', 'M0003', '17-APR-13', '11-MAY-13')
INTO Prescription VALUES ('V0004', 'M0004', '11-SEP-11', '22-NOV-11')
INTO Prescription VALUES ('V0005', 'M0005', '03-OCT-10', '20-OCT-10')
INTO Prescription VALUES ('V0006', 'M0006', '02-JAN-09', '18-MAR-10')
INTO Prescription VALUES ('V0007', 'M0007', '03-FEB-13', '05-MAY-13')
INTO Prescription VALUES ('V0008', 'M0008', '02-MAY-09', '05-JAN-09')
INTO Prescription VALUES ('V0009', 'M0009', '24-FEB-10', '09-AUG-10')
INTO Prescription VALUES ('V0010', 'M0010', '25-MAR-10', '28-APR-13')
SELECT * FROM DUAL;

```

INSERT ALL

```

INTO Prescription VALUES ('V0001', 'M0001', '06/02/2012', '06/04/2012')
INTO Prescription VALUES ('V0002', 'M0002', '04/10/2010', '04/18/2010')
INTO Prescription VALUES ('V0003', 'M0003', '05/08/2010', '05/10/2010')
INTO Prescription VALUES ('V0004', 'M0004', '06/09/2012', '06/25/2012')
INTO Prescription VALUES ('V0005', 'M0005', '06/05/2009', '06/30/2009')
INTO Prescription VALUES ('V0006', 'M0006', '04/03/2013', '04/04/2013')
INTO Prescription VALUES ('V0007', 'M0007', '03/02/2012', '03/28/2012')
INTO Prescription VALUES ('V0008', 'M0008', '04/02/2013', '04/04/2013')
INTO Prescription VALUES ('V0009', 'M0009', '04/01/2013', '04/02/2013')
INTO Prescription VALUES ('V0010', 'M0010', '03/28/2013', '03/29/2013')
SELECT * FROM DUAL;

```

*/*Therapy_Assignment*/*

```

SELECT * FROM Therapy_Assignment;
DROP TABLE Therapy_Assignment;

```

```

CREATE TABLE Therapy_Assignment (
  Visit_ID CHAR(5),
  Therapy_ID CHAR(5),
  Start_Date DATE NOT NULL,
  End_Date DATE,
  CONSTRAINT TA_PK PRIMARY KEY(Visit_ID, Therapy_ID),
  CONSTRAINT TA_FK_visit
  FOREIGN KEY (Visit_ID)
  REFERENCES Visit (Visit_ID)
  ON DELETE CASCADE,
  CONSTRAINT TA_FK_Therapy
  FOREIGN KEY (Therapy_ID)
  REFERENCES Therapy (Therapy_ID)
  ON DELETE CASCADE
);

```

INSERT ALL

```

INTO Therapy_Assignment VALUES ('V0001', 'TH001', '03-MAR-13', '05-MAY-13')
INTO Therapy_Assignment VALUES ('V0002', 'TH002', '22-APR-10', '05-MAY-11')
INTO Therapy_Assignment VALUES ('V0003', 'TH003', '06-MAY-10', '12-MAY-10')

```

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```
INTO Therapy_Assignment VALUES ('V0004', 'TH004', '03-JUN-12', '03-JUL-12')
INTO Therapy_Assignment VALUES ('V0005', 'TH005', '07-JUN-09', '05-AUG-09')
INTO Therapy_Assignment VALUES ('V0006', 'TH006', '31-JAN-13', '05-JAN-13')
INTO Therapy_Assignment VALUES ('V0007', 'TH007', '23-APR-13', '05-MAY-13')
INTO Therapy_Assignment VALUES ('V0008', 'TH008', '21-SEP-11', '11-OCT-11')
INTO Therapy_Assignment VALUES ('V0009', 'TH009', '11-AUG-08', '05-SEP-08')
INTO Therapy_Assignment VALUES ('V0010', 'TH010', '04-NOV-07', '22-NOV-07')
SELECT * FROM DUAL;
```

INSERT ALL

```
INTO Therapy_Assignment VALUES ('V0001', 'TH001', '06/02/2012', '06/04/2012')
INTO Therapy_Assignment VALUES ('V0002', 'TH002', '04/10/2010', '04/18/2010')
INTO Therapy_Assignment VALUES ('V0003', 'TH003', '05/08/2010', '05/10/2010')
INTO Therapy_Assignment VALUES ('V0004', 'TH004', '06/09/2012', '06/25/2012')
INTO Therapy_Assignment VALUES ('V0005', 'TH005', '06/05/2009', '06/30/2009')
INTO Therapy_Assignment VALUES ('V0006', 'TH006', '04/03/2013', '04/04/2013')
INTO Therapy_Assignment VALUES ('V0007', 'TH007', '03/02/2012', '03/28/2012')
INTO Therapy_Assignment VALUES ('V0008', 'TH008', '04/02/2013', '04/04/2013')
INTO Therapy_Assignment VALUES ('V0009', 'TH009', '04/01/2013', '04/02/2013')
INTO Therapy_Assignment VALUES ('V0010', 'TH010', '03/28/2013', '03/29/2013')
SELECT * FROM DUAL;
```

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Appendix 2: Trigger (Adverse Drug Reaction)

/*Find_MA Function*/

CREATE OR REPLACE FUNCTION Find_ADR(v_id IN CHAR, m_id IN CHAR)

RETURN CHAR

AS Side_Effect Medication.medication_ID %TYPE;

BEGIN

SELECT m.medication_ID INTO Side_Effect

FROM visit v, med_allergy a, medication m

WHERE v.visit_ID=v_id AND

v.patient_ID=a.patient_ID AND

m.medication_ID=m_id AND

m.medication_ID=a.medication_ID;

return Side_Effect ;

EXCEPTION

WHEN NO_DATA_FOUND THEN return 'GOOOO';

END Find_ADR; /

/*Med_Allergy_Warning Trigger*/

CREATE OR REPLACE TRIGGER Med_Allergy_Warning BEFORE INSERT ON Prescription FOR EACH ROW

BEGIN

IF (Find_ADR(:NEW.Visit_ID, :NEW.Medication_ID) != 'GOOOO') THEN

apex_application.g_print_success_message:= 'Medication ('||:NEW.Medication_ID||')

May cause an allergic reaction... You are warned! However, ';

ELSE apex_application.g_print_success_message:= 'Medication ('||:NEW.Medication_ID||')

was prescribed successfully!';

END IF;

END;/

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Appendix 3: APEX Profile Page Regions with Coding

/*Medical Allergy*/

```
SELECT  ma.Patient_ID,
        ma.Medication_ID || ' - ' || m.Name "Medical Allergen"
FROM      MED_ALLERGY ma, Medication m
WHERE  ma.Patient_ID =:P40_Patient_ID AND ma.medication_ID=m.medication_ID
```

/*Nonmedical Allergy*/

```
SELECT  na.Patient_ID,
        na.Allergy_ID || ' - ' || a.Allergen "Allergen"
FROM      NONMED_ALLERGY na, Allergy a
WHERE  na.Patient_ID =:P40_Patient_ID AND na.allergy_ID=a.allergy_ID
```

/*Diagnostic History*/

```
SELECT  v.visit_Date "Date",
        di.Disease_ID || ' - ' || d.name "Disease",
        d.type "Type"
FROM      Visit v, Diagnosis di, Disease d
WHERE  v.Patient_ID=:P40_Patient_ID AND v.Visit_ID=di.Visit_ID AND di.disease_ID=d.disease_ID
```

/*Medication History*/

```
SELECT  v.visit_Date "Date",
        p.Medication_ID || ' - ' || m.name "Medication",
        m.type "Type"
FROM      Visit v, prescription p, Medication m
WHERE  v.Patient_ID=:P40_Patient_ID AND v.Visit_ID=p.Visit_ID AND p.medication_ID=m.medication_ID
```

/*Therapeutic History*/

```
SELECT  v.visit_Date "Date",
        ta.therapy_ID || ' - ' || t.name "Therapy",
        t.type "Type"
FROM      Visit v, Therapy_Assignment ta, Therapy t
WHERE  v.Patient_ID=:P40_Patient_ID AND v.Visit_ID=ta.Visit_ID AND ta.Therapy_ID=t.Therapy_ID
```

/*Bed Registry*/

```
SELECT  br.Admission_date "Admission Date",
        br.Discharge_Date "Discharge Date",
        b.bed_id "Bed",
        d.department_ID || ' - ' || d.name "Department"
FROM      Bed_registry br, Visit v, Department d, bed b
WHERE  v.Patient_ID=:P40_Patient_ID AND v.Visit_ID=br.Visit_ID AND br.bed_ID=b.bed_ID AND
b.department_ID=d.department_ID
```