****

19ELC312 Database Systems and Programming

**Team Number:** 01

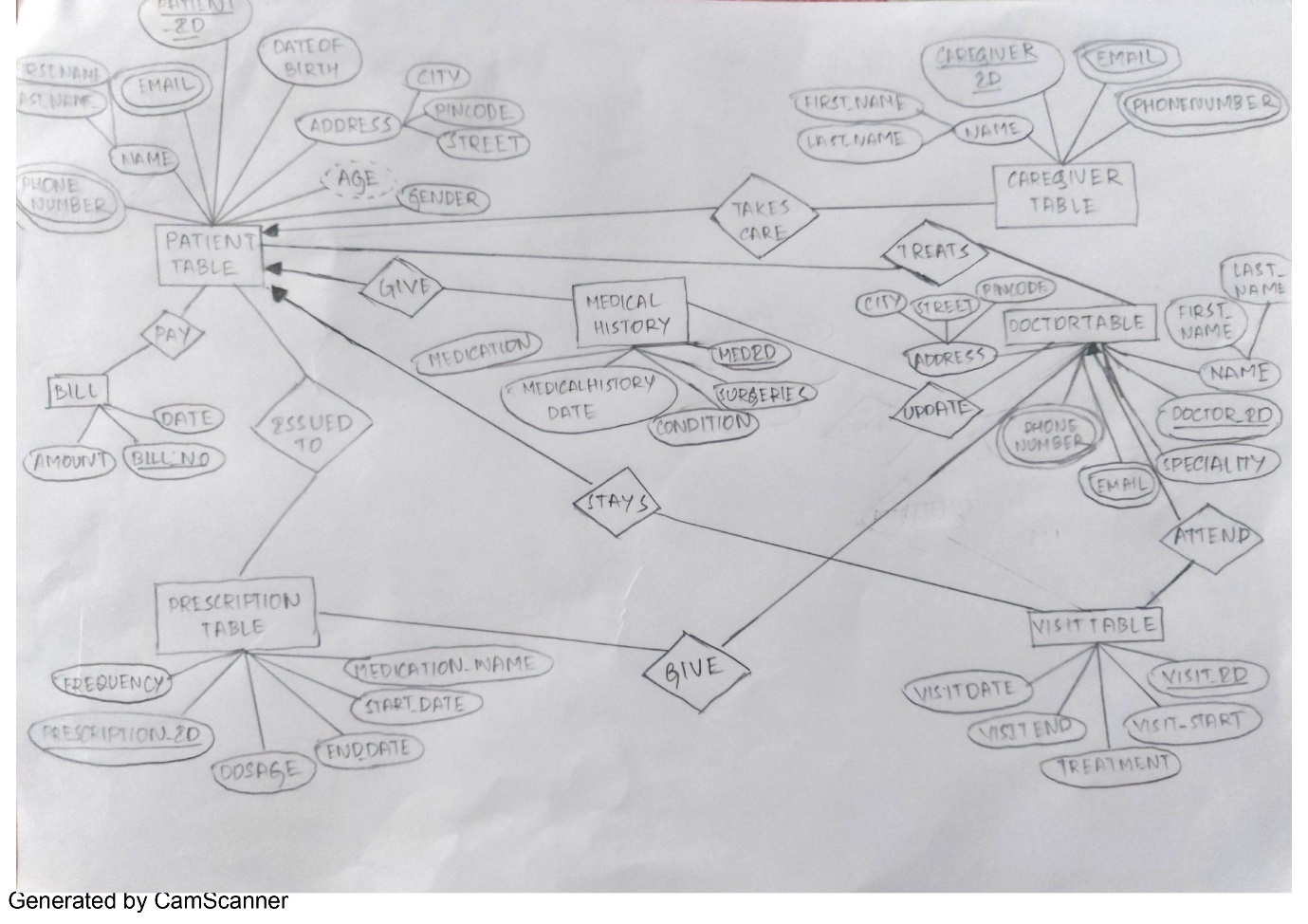
**Title:** Medical Record maintenance

**Group Members:**

AATHITHYA – CB.EN.U4ELC20001

SAI KRISHNA ACHANTA – CB.EN.U4ELC20004 VIMAL DHARSHAN – CB.EN.U4ELC20081

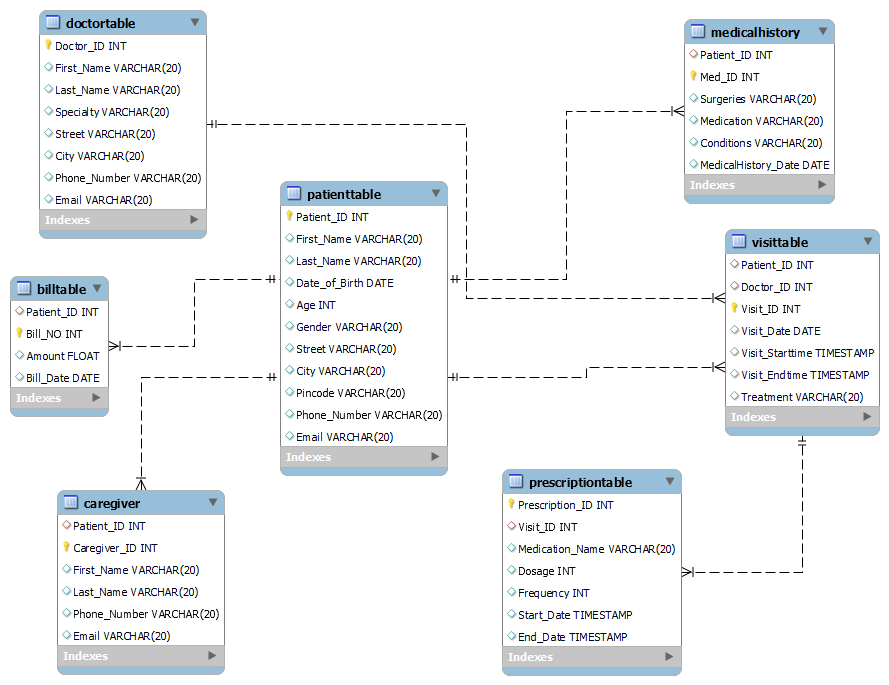
**ER DIAGRAM:**



LIST OF ENTITIES = 7

* Patient table
* Caregiver table
* Prescription table
* Bill
* Visit table
* Doctor table
* Medical table

**RELATIONAL SCHEMA:**



**LEGEND:**

Yellow Bulb – Primary Key

Faint Red Diamond – Foreign Key

Faint Blue Diamond – Attributes

* PatientTable(Patient\_ID (primary key),First\_Name,Last\_Name,Date\_of\_Birth,Age,Gender,Street,City,Pincode,Phone\_Number,Email)
* Caregiver Table (Patient\_ID(foreign key referencing from patient table),Caregiver\_ID(Primary key),First\_Name,Last\_Name,Phone\_Number,Email)
* Medical History(Patient\_ID(foreign key referencing from patient table),Med\_ID(Primary key),Surgeries ,Medication, Conditions,Date.)
* Doctor Table(Doctor\_ID (primary key),First\_Name,Last\_Name,Specialty,Address,Street,City,Phone\_Number,Email)
* Visit Table(Visit\_ID (primary key),Patient\_ID (foreign key referencing Patient table),Doctor\_ID (foreign key referencing Doctor table),Visit\_Date,Visit\_End time,Visit\_Start time,Treatment)
* Prescription Table(Prescription\_ID (primary key),Visit\_ID (foreign key referencing Visit table),Medication\_Name,Dosage,Frequency,Start\_Date,End\_Date)
* Bill(Patient\_ID(foreign key referencing from patient table),Bill\_NO(primary key),Amount,Bill\_Date)

**SQL CODE:**

CREATE TABLE PatientTable (

Patient\_ID INT PRIMARY KEY,

First\_Name VARCHAR(20),

Last\_Name VARCHAR(20),

Date\_of\_Birth DATE,

Age INT,

Gender VARCHAR(20),

Street VARCHAR(20),

City VARCHAR(20),

Pincode VARCHAR(20),

Phone\_Number VARCHAR(20),

Email VARCHAR(20)

);

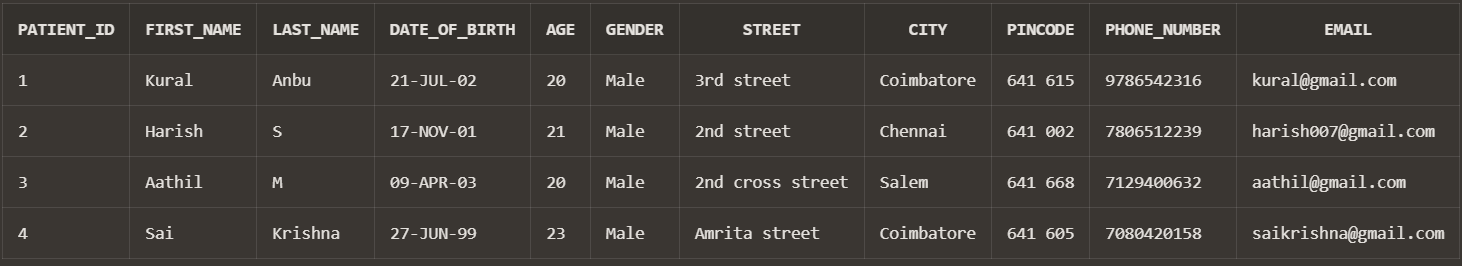
INSERT INTO PatientTable values(01,'Kural','Anbu',date '2002-07-21',20,'Male','3rd street','Coimbatore','641 615','9786542316','kural@gmail.com')

INSERT INTO PatientTable values(02,'Harish','S',date '2001-11-17',21,'Male','2nd street','Chennai','641 002','7806512239','harish007@gmail.com')

INSERT INTO PatientTable values(03,'Aathil','M',date '2003-04-09',20,'Male','2nd cross street','Salem','641 668','7129400632','aathil@gmail.com')

INSERT INTO PatientTable values(04,'Sai','Krishna',date '1999-06-27',23,'Male','Amrita street','Coimbatore','641 605','7080420158','saikrishna@gmail.com')

**RESULT:**



CREATE TABLE Caregiver (

Patient\_ID INT,

Caregiver\_ID INT PRIMARY KEY,

First\_Name VARCHAR(20),

Last\_Name VARCHAR(20),

Phone\_Number VARCHAR(20),

Email VARCHAR(20),

FOREIGN KEY (Patient\_ID) REFERENCES PatientTable(Patient\_ID)

);

INSERT INTO Caregiver values(03,21,'Kavi','KP','9766818526','kavi@gamil.com')

INSERT INTO Caregiver values(01,22,'Sudarshan','S','9557102807','sudarshan@gamil.com')

INSERT INTO Caregiver values(02,23,'Nerik','S','7991460406','nerik@gamil.com')

INSERT INTO Caregiver values(04,24,'Anish','Krishna','9687933225','anish@gamil.com')

**RESULT:**



CREATE TABLE MedicalHistory (

Patient\_ID INT,

Med\_ID INT PRIMARY KEY,

Surgeries VARCHAR(20),

Medication VARCHAR(20),

Conditions VARCHAR(20),

MedicalHistory\_Date DATE,

FOREIGN KEY (Patient\_ID) REFERENCES PatientTable(Patient\_ID)

);

INSERT INTO MedicalHistory VALUES(01,31, 'Bypass surgery', 'Metoprolol', 'Angina',date '2023-05-02');

INSERT INTO MedicalHistory VALUES(02,33,'Thyroidectomy', 'Levothyroxine', 'Thyroid disorder',date '2023-04-30');

INSERT INTO MedicalHistory VALUES(03,32, 'Chemotherapy', 'Tamoxifen', 'Breast cancer',date '2023-04-27');

INSERT INTO MedicalHistory VALUES(04,34,'Knee replacement', 'Ibuprofen', 'Joint pain',date '2023-04-29');

**RESULT:**



CREATE TABLE DoctorTable (

Doctor\_ID INT PRIMARY KEY,

First\_Name VARCHAR(20),

Last\_Name VARCHAR(20),

Specialty VARCHAR(20),

Street VARCHAR(20),

City VARCHAR(20),

Phone\_Number VARCHAR(20),

Email VARCHAR(20)

);

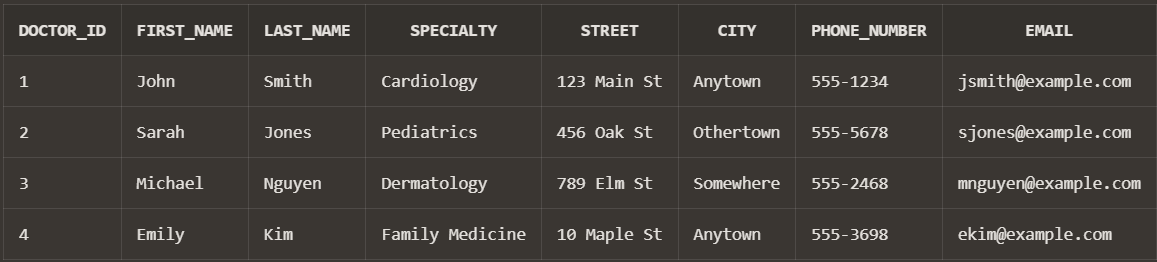
INSERT INTO DoctorTable VALUES (01, 'John', 'Smith', 'Cardiology', '123 Main St', 'Anytown', '555-1234', 'jsmith@example.com');

INSERT INTO DoctorTable VALUES (02, 'Sarah', 'Jones', 'Pediatrics', '456 Oak St', 'Othertown', '555-5678', 'sjones@example.com');

INSERT INTO DoctorTable VALUES (03, 'Michael', 'Nguyen', 'Dermatology', '789 Elm St', 'Somewhere', '555-2468', 'mnguyen@example.com');

INSERT INTO DoctorTable VALUES (04, 'Emily', 'Kim', 'Family Medicine', '10 Maple St', 'Anytown', '555-3698', 'ekim@example.com');

**RESULT:**



CREATE TABLE VisitTable (

Patient\_ID INT,

Doctor\_ID INT,

Visit\_ID INT PRIMARY KEY,

Visit\_Date DATE,

Visit\_Starttime TIMESTAMP,

Visit\_Endtime TIMESTAMP,

Treatment VARCHAR(20),

FOREIGN KEY (Patient\_ID) REFERENCES PatientTable(Patient\_ID),

FOREIGN KEY (Doctor\_ID) REFERENCES DoctorTable(Doctor\_ID)

);

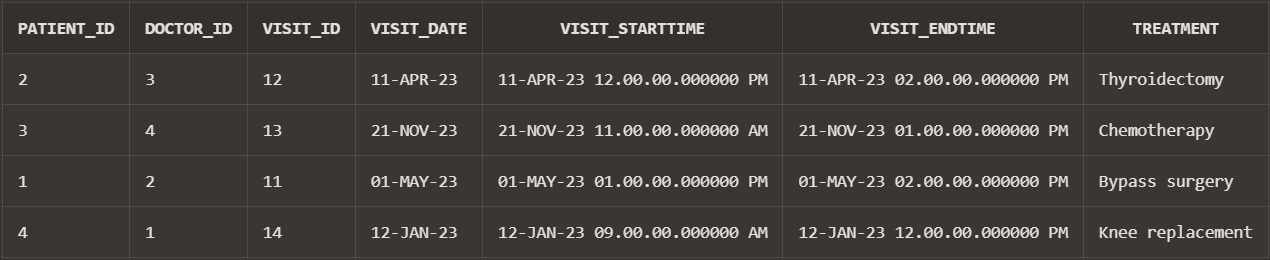
INSERT INTO VisitTable VALUES(01,02,11,date '2023-05-01',TIMESTAMP'2023-05-01 13:00:00',TIMESTAMP'2023-05-01 14:00:00','Bypass surgery')

INSERT INTO VisitTable VALUES(02,03,12,date '2023-04-11',TIMESTAMP'2023-04-11 12:00:00',TIMESTAMP'2023-04-11 14:00:00','Thyroidectomy')

INSERT INTO VisitTable VALUES(03,04,13,date '2023-11-21',TIMESTAMP'2023-11-21 11:00:00',TIMESTAMP'2023-11-21 13:00:00','Chemotherapy')

INSERT INTO VisitTable VALUES(04,01,14,date '2023-01-12',TIMESTAMP'2023-01-12 09:00:00',TIMESTAMP'2023-01-12 12:00:00','Knee replacement')

**RESULT:**



CREATE TABLE PrescriptionTable (

Prescription\_ID INT PRIMARY KEY,

Visit\_ID INT,

Medication\_Name VARCHAR(20),

Dosage INT,

Frequency INT,

Start\_Date TIMESTAMP,

End\_Date TIMESTAMP,

FOREIGN KEY (Visit\_ID) REFERENCES VisitTable(Visit\_ID)

);

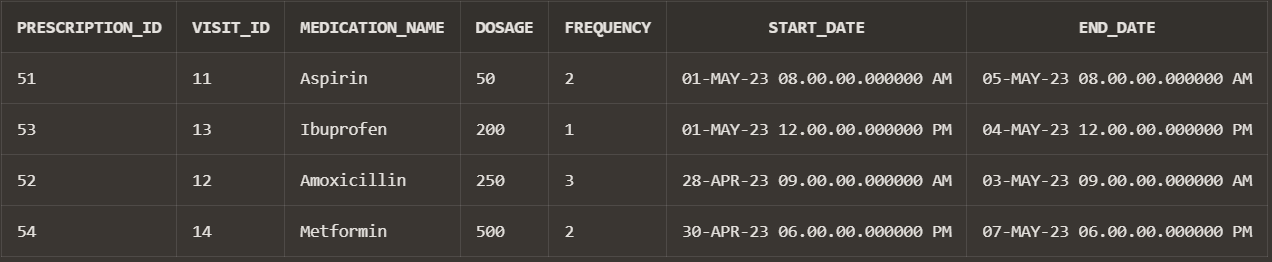
INSERT INTO PrescriptionTable VALUES (51, 11, 'Aspirin', 50, 2,TIMESTAMP '2023-05-01 08:00:00',TIMESTAMP '2023-05-05 08:00:00')

INSERT INTO PrescriptionTable VALUES (52, 12, 'Amoxicillin', 250, 3,TIMESTAMP '2023-04-28 09:00:00',TIMESTAMP '2023-05-03 09:00:00')

INSERT INTO PrescriptionTable VALUES (53, 13, 'Ibuprofen', 200, 1,TIMESTAMP '2023-05-01 12:00:00',TIMESTAMP '2023-05-04 12:00:00')

INSERT INTO PrescriptionTable VALUES (54, 14, 'Metformin', 500, 2,TIMESTAMP '2023-04-30 18:00:00',TIMESTAMP '2023-05-07 18:00:00')

**RESULT:**



CREATE TABLE BillTable(

Patient\_ID INT,

Bill\_NO INT PRIMARY KEY,

Amount FLOAT,

Bill\_Date DATE,

FOREIGN KEY (Patient\_ID) REFERENCES PatientTable(Patient\_ID)

);

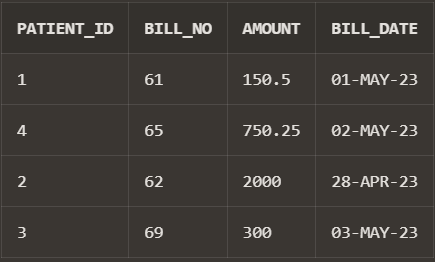
INSERT INTO BillTable VALUES (01, 61, 150.50,date '2023-05-01')

INSERT INTO BillTable VALUES (04, 65, 750.25,date '2023-05-02')

INSERT INTO BillTable VALUES (02, 62, 2000.00,date '2023-04-28')

INSERT INTO BillTable VALUES (03, 69, 300.00,date '2023-05-03')

**RESULT:**



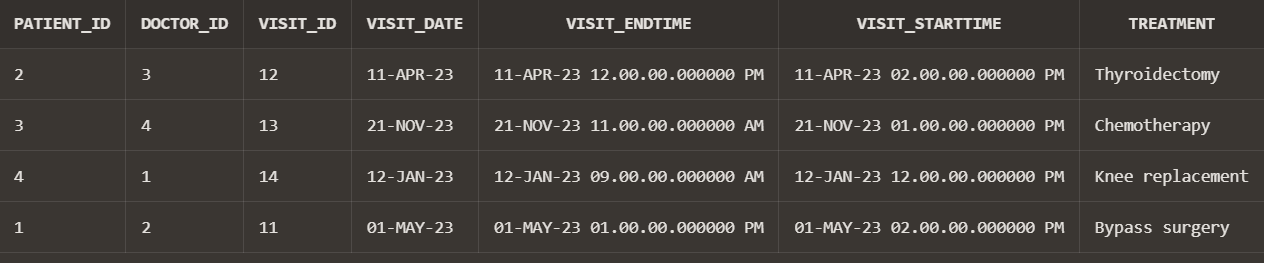
**SAMPLE QUERIES:**

**--TO PRINT VISIT TABLE:**

**QUERY:**

select \*from VisitTable;

**RESULT:**

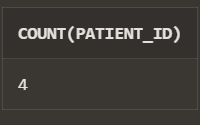


**--TO DISPLAY COUNT OF NUMBER OF PATIENTS:**

**QUERY:**

select COUNT(Patient\_ID)from Patienttable;

**RESULT:**



**--TO DISPLAY DETAILS OF PATIENTS AND DOCTOR:**

**QUERY:**

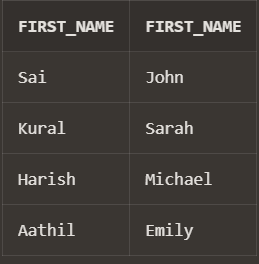
SELECT p.First\_Name,d.First\_Name

FROM PatientTable p

JOIN VisitTable v ON p.Patient\_ID = v.Patient\_ID

JOIN DoctorTable d ON v.Doctor\_ID = d.Doctor\_ID;

**RESULT:**

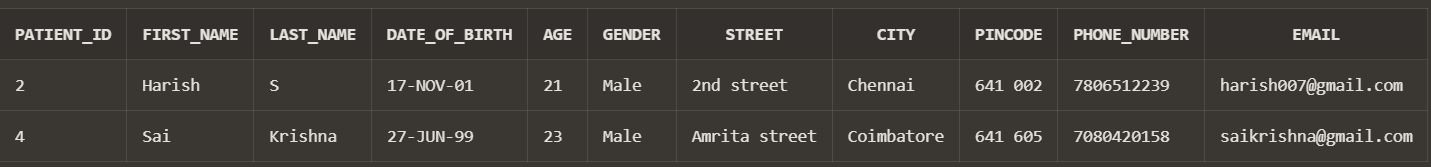


**--TO DISPLAY PATIENT DETAILS WHERE AGE GREATER THAN 20:**

**QUERY:**

SELECT \* from PatientTable where Age>20;

**RESULT:**



**--TO DISPLAY BILL DETAILS WHERE AMOUNT GREATER 500 AND BILL DATE LESS THAN 2023-05-01:**

**QUERY:**

SELECT \*FROM BillTable WHERE Amount > 500 AND Bill\_Date < DATE '2023-05-01';

**RESULT:**

