



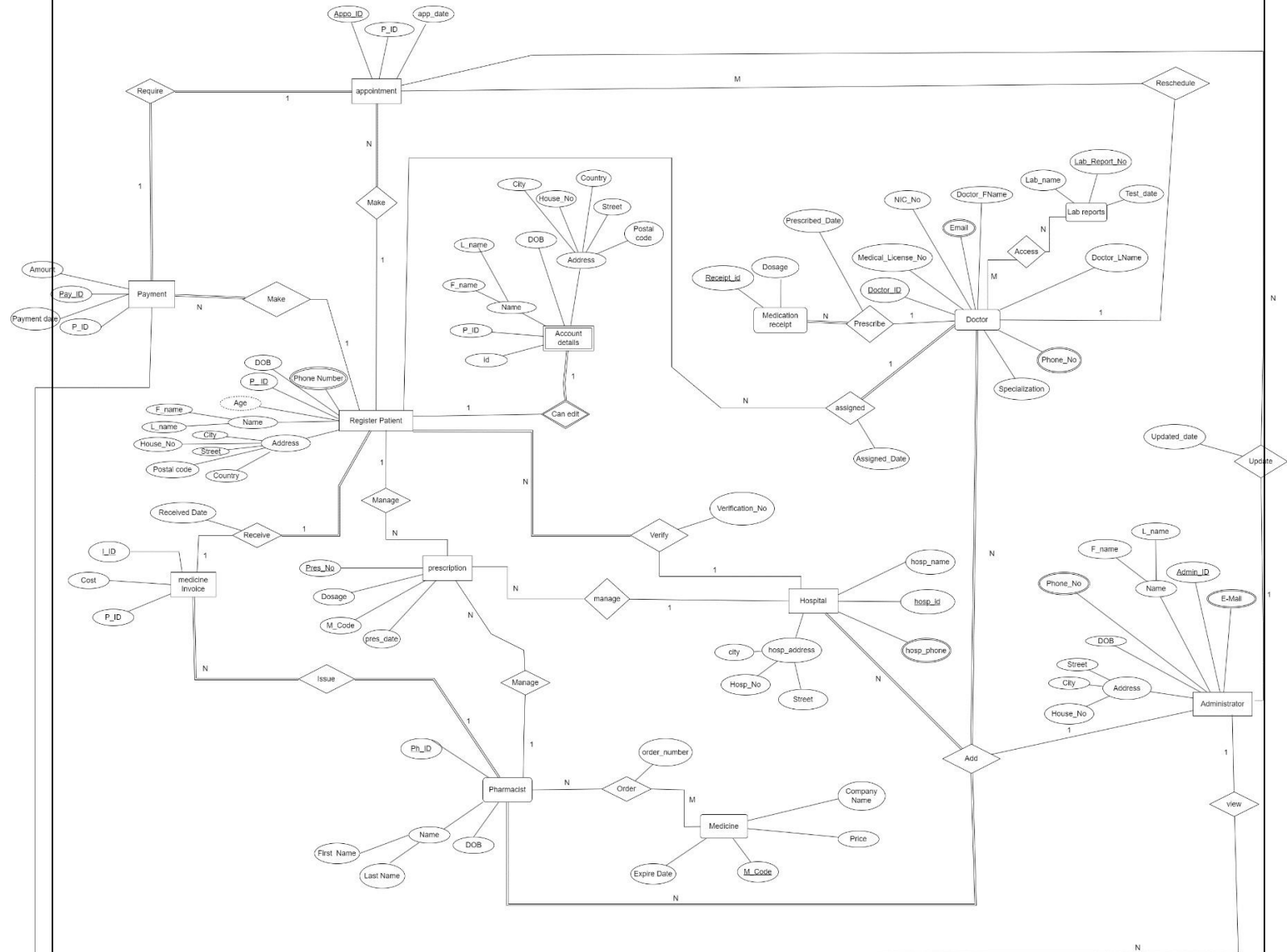
# Institute of Computer Engineering Technology



# ASSIGNMENT

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Assignment	Database Management Systems
Batch No	ICM104/ICM105
Name	Final coursework
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# 1.Entity Relationship (ER Diagram)



## 2.SQL Queries

--create administrator table

```
CREATE TABLE administrator(  
    Admin_ID VARCHAR(5),  
    F_name VARCHAR(50),  
    L_name VARCHAR(50),  
    House_No VARCHAR(20),  
    Street VARCHAR(50),  
    City VARCHAR(50),  
    DOB DATE,  
  
    CONSTRAINT pk_admin PRIMARY KEY(Admin_ID)  
);
```

--inserting values to administrator table

```
INSERT INTO administrator VALUES ('0001','jayathilaka','abegunawardana','No:90/2','colombo  
road','colombo','2000-04-23');  
INSERT INTO administrator VALUES ('0002','swarna','karunanayeke','No:15/2','galle  
road','galle','2002-05-12');  
INSERT INTO administrator VALUES ('0003','sitha','perera','No:34/2','kandy  
road','kandy','2001-06-19');  
INSERT INTO administrator VALUES ('0004','supun','silva','No:97/2','high level  
road','colombo','2003-09-20');  
INSERT INTO administrator VALUES ('0005','supun','silva','No:95/2','high level  
road','colombo','2003-09-20');
```

---

--create admin\_contact table

```
CREATE TABLE admin_contact(  
    Phone_no VARCHAR(12),  
    Admin_ID VARCHAR(5),  
  
    CONSTRAINT admin_contact_pk PRIMARY KEY(Admin_ID),  
    CONSTRAINT admin_contact_fk FOREIGN KEY(Admin_ID) REFERENCES administrator(Admin_ID)  
  
);
```

--inserting values to admin\_contact table

```
INSERT INTO admin_contact VALUES ('+94779456345' , '0004');  
INSERT INTO admin_contact VALUES ('+94784867987' , '0001');  
INSERT INTO admin_contact VALUES ('+94723456756' , '0005');  
INSERT INTO admin_contact VALUES ('+94778964567' , '0002');  
INSERT INTO admin_contact VALUES ('+94719456345' , '0003');
```

---

```

--create admin_email table

CREATE TABLE Admin_email(
    Email VARCHAR(40),
    Admin_ID VARCHAR(5),

    CONSTRAINT admin_email_pk PRIMARY KEY(Admin_ID),
    CONSTRAINT chak_email CHECK (Email LIKE '%_@_%._%'),
    CONSTRAINT admin_email_fk FOREIGN KEY(Admin_ID) REFERENCES administrator(Admin_ID)

);

--inserting values to Admin_email table

INSERT INTO Admin_email VALUES ('amal@gmail.com','0002');
INSERT INTO Admin_email VALUES ('kamal@gmail.com','0003');
INSERT INTO Admin_email VALUES ('luis@gmail.com','0001');
INSERT INTO Admin_email VALUES ('sunil@gmail.com','0005');
INSERT INTO Admin_email VALUES ('perera@gmail.com','0004');

-----

--creating table doctor

CREATE TABLE Doctor(
    Doctor_ID CHAR(4),
    Doctor_FName VARCHAR(20),
    Doctor_LName VARCHAR(20),
    NIC INT,
    Medical_License_No VARCHAR(20),
    Specialization VARCHAR(20),

    CONSTRAINT doctor_pk PRIMARY KEY(Doctor_ID),

);

--inserting values to Doctor table

INSERT INTO Doctor VALUES ('0001','Sunil','soisa','2132111','#26354876','Dentist');
INSERT INTO Doctor VALUES ('0002','Kasun','perera','200017688','#23558678','Cardiologist');
INSERT INTO Doctor VALUES
('0003','Kamal','warnakulasooriya','200017688','#34583589','Urology');
INSERT INTO Doctor VALUES
('0004','Sameera','kalansooriya','200017688','#29860876','Dermatology');
INSERT INTO Doctor VALUES ('0005','Nihal','amarasinghe','200017688','#34260089','Neurology');

-----

--creating table doctor_phone

CREATE TABLE Doctor_phone(
    Phone_no VARCHAR(12),
    Doctor_ID CHAR(4),

    CONSTRAINT Doctor_phone_pk PRIMARY KEY(Doctor_ID),

);

```

--inserting values to doctor\_phone table

```
INSERT INTO Doctor_phone VALUES ('+94779676345' , '0001');
INSERT INTO Doctor_phone VALUES ('0779676345' , '0005');
INSERT INTO Doctor_phone VALUES ('0719676345' , '0003');
INSERT INTO Doctor_phone VALUES ('07479356345' , '0004');
INSERT INTO Doctor_phone VALUES ('+94779675845' , '0002');
```

---

--create Doctor\_email table

```
CREATE TABLE Doctor_email(
    Email VARCHAR(40),
    Doctor_ID CHAR(4),

    CONSTRAINT Doctor_email_pk PRIMARY KEY(Doctor_ID),
    CONSTRAINT chk_docemail CHECK (Email LIKE '%_@%._%'),
    CONSTRAINT Doctor_email_fk FOREIGN KEY(Doctor_ID) REFERENCES Doctor(Doctor_ID)
);
```

--inserting values to Doctor\_email table

```
INSERT INTO Doctor_email VALUES ('dr.amal@gmail.com', '0002');
INSERT INTO Doctor_email VALUES ('dr.kamal@gmail.com', '0003');
INSERT INTO Doctor_email VALUES ('dr.luis@gmail.com', '0001');
INSERT INTO Doctor_email VALUES ('dr.sunil@gmail.com', '0005');
INSERT INTO Doctor_email VALUES ('dr.perera@gmail.com', '0004');
```

---

--create Lab\_reports table

```
CREATE TABLE Lab_reports(
    Lab_name VARCHAR(40),
    Test_date DATE,
    Lab_report_No VARCHAR(5),

    CONSTRAINT Lab_reports_pk PRIMARY KEY(Lab_report_No),
);
```

--inserting values to Lab\_reports table

```
INSERT INTO Lab_reports VALUES ('AURA laboratories', '2021.02.03', '11111');
INSERT INTO Lab_reports VALUES ('KALANI laboratories', '2023.08.30', '22222');
INSERT INTO Lab_reports VALUES ('SUPIPI laboratories', '2020.11.23', '33333');
INSERT INTO Lab_reports VALUES ('DEEGAYU laboratories', '2022.04.17', '44444');
INSERT INTO Lab_reports VALUES ('DOC laboratories', '2022.07.14', '55555');
```

---

--create Doctor\_Lab\_reports table

```
CREATE TABLE Doctor_Lab_reports(
    Doctor_ID CHAR(4),
```

```

        Lab_report_No VARCHAR(5),

        CONSTRAINT Doctor_Lab_reports_pk PRIMARY KEY(Lab_report_No),
        CONSTRAINT Doctor_Lab_reports_doctor_fk FOREIGN KEY(Doctor_ID) REFERENCES
Doctor(Doctor_ID),
        CONSTRAINT Doctor_Lab_reports_Lab_reports_fk FOREIGN KEY(Lab_report_No) REFERENCES
Lab_reports(Lab_report_No)

);

```

--inserting values to Doctor\_Lab\_reports table

```

INSERT INTO Doctor_Lab_reports VALUES ('0003','11111');
INSERT INTO Doctor_Lab_reports VALUES ('0002','22222');
INSERT INTO Doctor_Lab_reports VALUES ('0001','44444');
INSERT INTO Doctor_Lab_reports VALUES ('0004','55555');
INSERT INTO Doctor_Lab_reports VALUES ('0005','33333');

```

--create Pharmacist table

```

CREATE TABLE Pharmacist(
    Ph_ID CHAR(2),
    F_Name VARCHAR(20),
    L_Name VARCHAR (20),
    DOB DATE,

    CONSTRAINT Pharmacist_pk PRIMARY KEY(Ph_ID),

);

```

--inserting values to Pharmacist table

```

INSERT INTO Pharmacist VALUES ('03','Blozzom','Buzz','2000-07-12' );
INSERT INTO Pharmacist VALUES ('04','Mercy ','Mojo','2001-02-19' );
INSERT INTO Pharmacist VALUES ('01','Dixie ','Twinkle ','2002-07-23' );
INSERT INTO Pharmacist VALUES ('02','Sober ','Tyrant','2003-07-14' );
INSERT INTO Pharmacist VALUES ('05','Angel ','Berry','2000-03-12' );

```

--create Hospital table

```

CREATE TABLE Hospital(
    Hosp_ID CHAR(3),
    Admin_ID VARCHAR(5),
    Hosp_Name VARCHAR(20),
    Hosp_No VARCHAR (20),
    Street VARCHAR(30),
    City VARCHAR(20),

    CONSTRAINT Hospital_pk PRIMARY KEY(Hosp_ID),

);

```

--inserting values to Hospital table

```

INSERT INTO Hospital VALUES ('001','0002','Viveka','No:21','kalagedihena
road','Veyangoda');
INSERT INTO Hospital VALUES ('002','0001','Nawaloka','No:12/b','dharmaloka
road','colombo');
INSERT INTO Hospital VALUES ('003','0003','general hospital','No:23','Gampaha
road','Gampaha');
INSERT INTO Hospital VALUES ('004','0004','Asiri','No:50','kandy road','Colombo');
INSERT INTO Hospital VALUES ('005','0005','Wimalasooriya','No:97/5','negambo
road','Nittambuwa');

```

---

```

--create Administrator_Doctor_Pharmacy_hospital table

```

```

CREATE TABLE Administrator_Doctor_Pharmacy_hospital(
    Hosp_ID CHAR(3),
    Admin_ID VARCHAR(5),
    Ph_ID CHAR(2),
    Doctor_ID CHAR(4),

);

```

```

--inserting values to Administrator_Doctor_Pharmacy_hospital table

```

```

INSERT INTO Administrator_Doctor_Pharmacy_hospital VALUES ('002','0001','05','0004');
INSERT INTO Administrator_Doctor_Pharmacy_hospital VALUES ('001','0003','04','0002');
INSERT INTO Administrator_Doctor_Pharmacy_hospital VALUES ('003','0005','01','0001');
INSERT INTO Administrator_Doctor_Pharmacy_hospital VALUES ('004','0004','02','0003');
INSERT INTO Administrator_Doctor_Pharmacy_hospital VALUES ('005','0002','03','0005');

```

---

```

--create Medication_receipt table

```

```

CREATE TABLE Medication_receipt(
    Doctor_ID CHAR(4),
    Dosage VARCHAR(50),
    Prescribed_Date DATE,
    Receipt_id CHAR(3),

    CONSTRAINT Medication_receipt_pk PRIMARY KEY(Receipt_id),
    CONSTRAINT Medication_receipt_fk FOREIGN KEY(Doctor_ID) REFERENCES Doctor(Doctor_ID),

);

```

```

--inserting values to Medication_receipt table

```

```

INSERT INTO Medication_receipt VALUES ('0002','100mg','2020.06.23','001');
INSERT INTO Medication_receipt VALUES ('0001','50mg','2022.12.11','003');
INSERT INTO Medication_receipt VALUES ('0005','300mg','2021.08.13','005');
INSERT INTO Medication_receipt VALUES ('0003','200mg','2019.02.28','002');
INSERT INTO Medication_receipt VALUES ('0004','10mg','2021.03.17','006');

```

---

```

--create Medicine table

```

```

CREATE TABLE Medicine(
    M_Code CHAR(5),
    Company_name VARCHAR(40),
    Expire_date DATE,
    Price INT,

    CONSTRAINT Medicine_pk PRIMARY KEY(M_Code),

);

--inserting values to Medicine table

INSERT INTO Medicine VALUES ('00111','Best Medicine company','2028.06.28','1000');
INSERT INTO Medicine VALUES ('00222','Best Pharma ','2029.09.11','1500');
INSERT INTO Medicine VALUES ('00333','ABC company','2038.11.17','2000');
INSERT INTO Medicine VALUES ('00444','Publix company','2030.05.19','3000');
INSERT INTO Medicine VALUES ('00555','Health Warehouse','2027.02.10','3500');

-----

--create Hospital_phone table

CREATE TABLE Hospital_Phone(
Hosp_ID CHAR(3),
Hosp_phone VARCHAR(12),

CONSTRAINT Hospital_phone_fk PRIMARY KEY(Hosp_ID),

);

--inserting values to Hospital_phone table

INSERT INTO Hospital_Phone VALUES('001','+94452256890');
INSERT INTO Hospital_Phone VALUES('002','+94651232121');
INSERT INTO Hospital_Phone VALUES('003','+94412232301');
INSERT INTO Hospital_Phone VALUES('004','+94421654541');
INSERT INTO Hospital_Phone VALUES('005','+94456985265');

-----

--create Medicine_Pharmacist table

CREATE TABLE Medicine_Pharmacist(

M_Code CHAR(5),
Ph_ID CHAR(2),
Order_number VARCHAR(10),

CONSTRAINT Medicine_Pharmacist_pk PRIMARY KEY(Order_number),
CONSTRAINT Medicine_Pharmacist_fk1 FOREIGN KEY(Ph_ID)REFERENCES Pharmacist(Ph_ID),
CONSTRAINT Medicine_Pharmacist_fk2 FOREIGN KEY(M_Code)REFERENCES Medicine(M_Code),

);

--inserting values to Medicine_Pharmacist table

INSERT INTO Medicine_Pharmacist VALUES('00111','01','#1000');

```



```

INSERT INTO Medicine_Pharmacist VALUES('00222','02','#1001');
INSERT INTO Medicine_Pharmacist VALUES('00333','03','#1002');
INSERT INTO Medicine_Pharmacist VALUES('00444','04','#1005');
INSERT INTO Medicine_Pharmacist VALUES('00555','05','#1010');

```

---

```

--create Medicine_invoice table

```

```

CREATE TABLE Medicine_invoice(
Dosage VARCHAR(50),
Ph_ID CHAR(2),
Invoice_ID CHAR(6),

CONSTRAINT Medicine_invoice_pk PRIMARY KEY(Invoice_ID),
CONSTRAINT Medicine_invoice_fk FOREIGN KEY(Ph_ID)REFERENCES Pharmacist(Ph_ID),

);

```

```

--inserting values to Medicine_invoice table

```

```

INSERT INTO Medicine_invoice VALUES('1000mg','01','123111');
INSERT INTO Medicine_invoice VALUES('2000mg','03','123333');
INSERT INTO Medicine_invoice VALUES('500mg','04','123444');
INSERT INTO Medicine_invoice VALUES('520mg','02','123222');
INSERT INTO Medicine_invoice VALUES('50mg','05','123555');

```

---

```

--create Account_details table

```

```

CREATE TABLE Account_details(
id CHAR(6),
F_Name VARCHAR(50),
L_Name VARCHAR(50),
House_No VARCHAR(50),
City VARCHAR(50),
Street VARCHAR(50),
Postal_code INT,
country VARCHAR(50),
DOB DATE,

CONSTRAINT Account_details_pk PRIMARY KEY(id),

);

```

```

--inserting values to Account_details table

```

```

INSERT INTO Account_details
VALUES('A00111','Uthuwankande','Saradiyel','17/A','Mavanella','Gampola Road','171745','Sri Lanka','2001.05.26');
INSERT INTO Account_details VALUES('A00222','Saumya','Rathnayaka','320','Colombo 07','Sithawaka Road','024565','Sri Lanka','2005.07.06');
INSERT INTO Account_details
VALUES('A00333','Gimasha','Perera','452/B','Wellampitiya','Purahala Road','154562','Sri Lanka','1991.12.16');
INSERT INTO Account_details VALUES('A00444','Sachin','Dilshan','189/A2','Hanvella','Ranala Road','155262','Sri Lanka','1989.05.05');

```

```
INSERT INTO Account_details
VALUES('A00555','Thimira','Pieris','458/A7','Kaduwela','Pahalabomiriya','161615','Sri
Lanka','2006.08.12');
```

---

--create Registered\_patient table

```
CREATE TABLE Registered_patient(
P_ID CHAR(5),
F_Name VARCHAR(50),
L_Name VARCHAR(50),
House_No VARCHAR(50),
City VARCHAR(50),
Street VARCHAR(50),
Postal_code INT,
country VARCHAR(50),
DOB DATE,
Verification_No VARCHAR(20),
Assigned_Date DATE,
id CHAR(6),
Recieved_date DATE,
Hosp_ID CHAR(3),
Doctor_ID CHAR(4),
Invoice_ID CHAR(6),

CONSTRAINT Registered_patient_pk PRIMARY KEY(P_ID),
CONSTRAINT Registered_patient_fk1 FOREIGN KEY(id)REFERENCES Account_details(id),
CONSTRAINT Registered_patient_fk2 FOREIGN KEY(Hosp_ID)REFERENCES Hospital(Hosp_ID),
CONSTRAINT Registered_patient_fk3 FOREIGN KEY(Doctor_ID)REFERENCES Doctor(Doctor_ID),
CONSTRAINT Registered_patient_fk4 FOREIGN KEY(Invoice_ID)REFERENCES
Medicine_invoice(Invoice_ID),

);
```

--inserting values to Registered\_patient table

```
INSERT INTO Registered_patient VALUES('P1000','Hemal','Perera','145/A3','Colombo
05','Gemunupura Street','145658','Sri
Lanka','2001.05.30','V10001','2023.05.26','A00111','2023.05.27','001','0001','123111');
INSERT INTO Registered_patient
VALUES('P1001','Asela','Mallikarathna','177','Angoda','Pethiyagoda Street','236541','Sri
Lanka','2004.05.05','V10002','2022.04.04','A00222','2022.04.05','002','0002','123222');
INSERT INTO Registered_patient
VALUES('P1002','Charaka','Dhananjaya','143','Kotikawaththa','Kings Cort Street','478522','Sri
Lanka','2020.07.31','V10003','2022.01.05','A00333','2022.02.10','003','0003','123333');
INSERT INTO Registered_patient
VALUES('P1003','Hirumi','Praneethya','17/2','Wellampitiya','Nugawela Street','524562','Sri
Lanka','2012.04.10','V10005','2021.03.16','A00444','2021.03.27','004','0004','123444');
INSERT INTO Registered_patient
VALUES('P1004','Eshini','Gomez','25/1','Townhall','Viharamahadevi Street','215451','Sri
Lanka','1999.11.01','V10007','2023.02.06','A00555','2023.04.17','005','0005','123555');
```

---

--create Registered\_patient\_phone table

```

CREATE TABLE Registered_patient_phone(
P_ID CHAR(5),
Phone_no VARCHAR(12),

CONSTRAINT Registered_patient_phone_fk FOREIGN KEY(P_ID)REFERENCES Registered_patient(P_ID),

);

```

--inserting values to Registered\_patient\_phone table

```

INSERT INTO Registered_patient_phone VALUES('P1000', '+94741156540');
INSERT INTO Registered_patient_phone VALUES('P1001', '+94455411551');
INSERT INTO Registered_patient_phone VALUES('P1002', '+94145256215');
INSERT INTO Registered_patient_phone VALUES('P1003', '+94741425221');
INSERT INTO Registered_patient_phone VALUES('P1004', '+94475221020');

```

--create Payment table

```

CREATE TABLE Payment(
Admin_ID VARCHAR(5),
P_ID CHAR(5),
Pay_ID CHAR(5),
Amount INT,
Payment_date DATE,

CONSTRAINT Payment_pk PRIMARY KEY(Pay_ID),
CONSTRAINT Payment_fk1 FOREIGN KEY(Admin_ID)REFERENCES administrator(Admin_ID),
CONSTRAINT Payment_fk2 FOREIGN KEY(P_ID)REFERENCES Registered_patient(P_ID),

);

```

--inserting values to Payment table

```

INSERT INTO Payment VALUES('0001', 'P1000', 'PA001', '10000', '2023.05.24');
INSERT INTO Payment VALUES('0002', 'P1001', 'PA002', '40000', '2022.06.22');
INSERT INTO Payment VALUES('0003', 'P1002', 'PA003', '1000', '2023.12.04');
INSERT INTO Payment VALUES('0004', 'P1003', 'PA004', '15000', '2020.04.24');
INSERT INTO Payment VALUES('0005', 'P1004', 'PA005', '20000', '2023.10.20');

```

--create Appointment table

```

CREATE TABLE Appointment(
P_ID CHAR(5),
Appo_ID CHAR(6),
App_date DATE,
Updated_date DATE,
Doctor_ID CHAR(4),
Admin_ID VARCHAR(5),

CONSTRAINT Appointment_pk PRIMARY KEY(Appo_ID),
CONSTRAINT Appointment_fk1 FOREIGN KEY(P_ID)REFERENCES Registered_patient(P_ID),
CONSTRAINT Appointment_fk2 FOREIGN KEY(Doctor_ID)REFERENCES Doctor(Doctor_ID),
CONSTRAINT Appointment_fk3 FOREIGN KEY(Admin_ID)REFERENCES administrator(Admin_ID),

);

```

```
);

--inserting values to Appointment table

INSERT INTO Appointment VALUES('P1000','AP0011','2023.05.26','2023.05.27','0002','0005');
INSERT INTO Appointment VALUES('P1002','AP0022','2023.04.16','2023.04.18','0004','0004');
INSERT INTO Appointment VALUES('P1003','AP0033','2022.03.06','2022.03.06','0003','0003');
INSERT INTO Appointment VALUES('P1001','AP0044','2023.01.22','2023.01.22','0005','0002');
INSERT INTO Appointment VALUES('P1004','AP0055','2023.07.11','2023.07.12','0001','0001');
```

---

```
--create Prescription table
```

```
CREATE TABLE Prescription(
P_ID CHAR(5),
Hosp_ID CHAR(3),
M_Code CHAR(5),
Prescription_date DATE,
Pres_No CHAR(5),
Dosage VARCHAR(20),
Ph_ID CHAR(2),

CONSTRAINT Prescription_pk PRIMARY KEY(Pres_No),
CONSTRAINT Prescription_fk1 FOREIGN KEY(P_ID)REFERENCES Registered_patient(P_ID),
CONSTRAINT Prescription_fk2 FOREIGN KEY(Hosp_ID)REFERENCES Hospital(Hosp_ID),
CONSTRAINT Prescription_fk3 FOREIGN KEY(Ph_ID)REFERENCES Pharmacist(Ph_ID),

);
```

```
--inserting values to Prescription table
```

```
INSERT INTO Prescription VALUES('P1000','001','00111','2023.05.21','Pr001','100mg','01');
INSERT INTO Prescription VALUES('P1001','003','00333','2021.03.04','Pr002','120mg','03');
INSERT INTO Prescription VALUES('P1002','002','00222','2023.06.12','Pr003','300mg','02');
INSERT INTO Prescription VALUES('P1003','005','00444','2023.07.14','Pr004','150mg','05');
INSERT INTO Prescription VALUES('P1004','004','00555','2022.01.02','Pr005','200mg','04');
```

