//Creating table for role of the person in hospital

```
create table Roles
(
        role_id int auto_increment primary key,
        role_name varchar(50) not null,
        check(role_name in('Doctor','Nurse','Receptionist'))
);
```

//creating table for user with credentials that for specific role

```
create table Users
(
        user_id int auto_increment primary key,
        user_name varchar(50) not null,
        pass varchar(50) not null,
        role_id int not null,
        foreign key(role_id) references Roles(role_id)
);
```

// creating table for doctors

```
create table Doctors
(
        doctor_id int auto_increment primary key,
        first_name varchar(50) not null,
        last_name varchar(50) not null,
        speciality varchar(50) not null,
        phone decimal(10) not null,
        user_id int not null,
        foreign key(user_id) references Users(user_id) on delete cascade,
   check(phone>999999999 and phone<10000000000)
)
```

// creating table for receptionist

```
create table Receptionist
(
        receptionist_id int auto_increment primary key,
```

```
        receptionist_name varchar(50) not null,
        user_id int not null,
        foreign key(user_id) references Users(user_id) on delete cascade
);
```

// creating table for nurses

```
create table Nurses
(
        nurse_id int auto_increment primary key,
        nurse_name varchar(50) not null,
        nurse_address varchar(50),
        phone_num decimal(10) not null,
        user_id int not null,
        foreign key(user_id) references Users(user_id) on delete cascade,
        check(phone_num>999999999 and phone_num<10000000000)
);
```

// creating table for patients

```
create table Patients
(
        patient_id int auto_increment primary key,
        first_name varchar(50) not null,
        last_name varchar(50) not null,
        date_of_birth date not null,
        adhar_num decimal(12) unique,
        symptoms varchar(100) not null,
        gender varchar(10) not null,
        phone_number decimal(10) not null,
        insurance_limit int not null,
         total_bill decimal(10,2) default 0.00,
        receptionist_id int not null,
        nurse_id int not null,
        foreign key(nurse_id) references Nurses(nurse_id),
        foreign key(receptionist_id) references Receptionist(receptionist_id),
   check(insurance_limit>=0),
```

```
    check(gender in('male','female','other')),
    check(adhar_num>100000000000 and adhar_num<999999999999),
    check(phone_number>999999999 and phone_number<10000000000)
);
```

// creating table of appointment for patient

```
create table Appointments
(
        appointment_id int auto_increment primary key,
        patient_id int not null,
        doctor_id int not null,
        appointment_date_time datetime not null,
        status varchar(5) not null,
        check(status in('free','busy')),
        foreign key(patient_id) references Patients(patient_id),
        foreign key(doctor_id) references Doctors(doctor_id)
);
```

// creating table of diagnosis

```
create table Diagnosis
(
        diagnosis_id int auto_increment primary key,
        patient_id int not null,
        appointment_id int not null,
        diagnosis_date date not null,
        diagnosis_details text not null,
         prescription varchar(100),
        foreign key(patient_id) references Patients(patient_id),
        foreign key(appointment_id) references Appointments(appointment_id)
);
```

// creating table for bill

```
create table Bill
(
        bill_id int auto_increment primary key,
```

```
        patient_id int not null,
        bill_amount decimal(10,2) not null,
        bill_date date not null,
        foreign key(patient_id) references Patients(patient_id)
);

//creating view for patient info with user
create view PatientInfo as
select
        Patients.patient_id,
        Patients.first_name,
        Patients.last_name,
        Patients.adhar_num,
        Patients.date_of_birth,
        Patients.gender,
        Users.user_name as Registerd_By
from Patients
join Users on Patients.patient_id=Users.user_id;

// creating index for patient table on last-name of patient
create index Index_on_Patient_LastName on Patients(last_name);

// creating index for bill table on patient id
create index Index_on_Bill_Patient_Id on Bill(patient_id);


// creating procedure to generate bill for specific patient

DELIMITER //

create procedure Generate_Bill(in patientID int)
begin
   declare total_bill decimal(10,2);

   select SUM(bill_amount) into total_bill
```

```
    from Bill
    where patient_id = patientID;

    update Patients
    set total_bill = total_bill
    where patient_id = patientID;
end //

DELIMITER ;
```

// creating trigger to check whether the insurance for patient is expired

```
DELIMITER //

create trigger Check_Insurance_Expiry
before insert on Diagnosis
for each row
begin
    if new.diagnosis_date > (select date_add(date_of_birth, interval insurance_limit year) from Patients where patient_id = new.patient_id) then
        signal sqlstate '45000' set message_text = 'Insurance Limit Expired..!';
    end if;
end //

DELIMITER ;
```

//creating trigger to check alredy registerd patient

```
DELIMITER //

create trigger Check_Registered_Patient
before insert on Patients
for each row
begin
    if new.adhar_num = any(select adhar_num from Patients) then
        signal sqlstate '45000' set message_text = 'Patient alredy rgistered..!';
    end if;
```

```
end //

DELIMITER ;



drop table Patients;
drop table Doctors;
drop table Appointments;
drop table Diagnosis;
drop table Nurses;
drop table Receptionist;
drop table Roles;
drop table Users;
drop table Bill;

select *from Doctors;

// inserting data into Roles table
insert into Roles(role_name) values ('Doctor');
insert into Roles(role_name) values ('Nurse');
insert into Roles(role_name) values ('Receptionist');

// inserting data into Users table
insert into Users(user_name,pass,role_id) values('Doc_1','123',1);
insert into Users(user_name,pass,role_id) values('Doc_2','123',1);
insert into Users(user_name,pass,role_id) values('Nur_1','123',2);
insert into Users(user_name,pass,role_id) values('Nur_2','123',2);
insert into Users(user_name,pass,role_id) values('Rec_1','123',3);
insert into Users(user_name,pass,role_id) values('Rec_2','123',3);

// inserting data in Doctors table
insert into Doctors(first_name,last_name,speciality,phone,user_id) values('Sudhir','Desai','Eye
Specialist',7057271796,1);
insert into Doctors(first_name,last_name,speciality,phone,user_id) values('Vikrant','Madkari','Dentist',7020298816,2);
```

//inserting data for Nurses

insert into Nurses(nurse_name,nurse_address,phone_num,user_id) values('Susmita','Gadhinglaj',1203005640,3);

insert into Nurses(nurse_name,nurse_address,phone_num,user_id) values('Asmita','Nool',1020304050,4);

//inserting data into Receptionist table

insert into Receptionist(receptionist_name,user_id) value('Sarang',5);

insert into Receptionist(receptionist_name,user_id) value('Sarada',6);

//inserting data for Patients

insert into Patients(first_name,last_name,date_of_birth,adhar_num,symptoms,gender,phone_number,insurance_limit,nurse_id,receptionist_id) values('Ramesh','Janawade','2002-07-01',583547762003,'cough','male',7276774873,40,1,1);

insert into Patients(first_name,last_name,date_of_birth,adhar_num,symptoms,gender,phone_number,insurance_limit,nurse_id,receptionist_id) values('Shivraj','Kanade','1998-07-21',112233445566,'cold','male',9020298816,30,2,2);

insert into Patients(first_name,last_name,date_of_birth,adhar_num,symptoms,gender,phone_number,insurance_limit,nurse_id,receptionist_id) values('Kiran','Sabale','1981-09-05',102030405060,'headache','female',9730083826,60,1,2);

//inserting data into Appointment table

insert into Appointments(appointment_date_time,status,patient_id,doctor_id) values('2024-01-10 01:10:30','free',5,1);

insert into Appointments(appointment_date_time,status,patient_id,doctor_id) values('2024-02-20 11:20:30','free',6,2);

//Adding diagnosis data for patient

insert into Diagnosis(diagnosis_date,diagnosis_details,prescription,patient_id,appointment_id) value('2024-01-10','Regular checkup','painkiller',5,5);

insert into Diagnosis(diagnosis_date,diagnosis_details,prescription,patient_id,appointment_id) value('2024-02-20','Regular checkup','dolo',6,6);

//inserting data into Bill table

insert into Bill(patient_id, bill_amount, bill_date) values(5, 500,'2024-01-10');

insert into Bill(patient_id, bill_amount, bill_date) values(5, 500,'2024-02-20');

insert into Bill(patient_id, bill_amount, bill_date) values(6, 00,'2024-01-10');

insert into Bill(patient_id, bill_amount, bill_date) values(6, 100,'2024-02-20');