

SQL Assignment

1) Create a database for the Hospital Management System based on your ER. Create appropriate tables & relationships.

```
create table Department(id integer PRIMARY KEY AUTO_INCREMENT, name varchar(100));

create table Doctor(id integer PRIMARY KEY AUTO_INCREMENT, name varchar(100),age int,gender varchar(10),
                    address varchar(100),contact varchar(100),
                    dept_id integer,FOREIGN KEY (dept_id) REFERENCES Department(dept_id));

create table Patient(id integer PRIMARY KEY AUTO_INCREMENT, name varchar(100),age int,
                    gender varchar(10),address varchar(100),contact varchar(100));

create table MedicalRecord(id integer PRIMARY KEY AUTO_INCREMENT, patient_id integer,
                           doctor_id integer,admit_date DATETIME DEFAULT CURRENT_TIMESTAMP,discharge_date DATETIME ,note text,
                           FOREIGN KEY (patient_id) REFERENCES Patient(id),FOREIGN KEY (doctor_id) REFERENCES Doctor(id));
```

```
insert into Department(name) values('Neurology');
insert into Department(name) values('Oncology');
insert into Department(name) values('Emergency');

insert into Doctor(name,age,gender,address,contact,dept_id) values('Dr. Anchal Raj',28,'female','qwe gkm sdfasdas','9988888821',1);
insert into Doctor(name,age,gender,address,contact,dept_id) values('Dr. Nitin Garaga',32,'male','sdfsd sdfs df','9784388828',1);
insert into Doctor(name,age,gender,address,contact,dept_id) values('Dr. Rajat Singh',46,'male','zxczx xcxc df','8784365800',3);

insert into Patient(name,age,gender,address,contact) values('Ankita Jain',27,'female','qwe gkm sdfasdas','7777888821');
insert into Patient(name,age,gender,address,contact) values('Raj Patel',33,'male','sdfsd sdfs df','8384388545');
insert into Patient(name,age,gender,address,contact) values('Deep Shah',46,'male','zxczx xcxc df','9784365891');
insert into Patient(name,age,gender,address,contact) values('Ekta Maheshwari',40,'female','zasdxczx xcxc df','8114365822');

insert into MedicalRecord(patient_id ,doctor_id,note,discharge_date) values(1,1,'sdf sdf sd f sdf sa sd','2020-07-14');
insert into MedicalRecord(patient_id ,doctor_id,note,discharge_date) values(2,1,'zxc xzc zxc xzcxczxc','2020-07-20');
insert into MedicalRecord(patient_id ,doctor_id,note,discharge_date) values(3,3,'kljk po ippo op','2020-07-15');
insert into MedicalRecord(patient_id ,doctor_id,note,discharge_date) values(4,3,'xcvxc xcvxcv','2020-07-14');
```

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```

2) Design a query to provide a list of doctors, which department they belong to and patients treated by them (if any).

```
select Doc.name, Dep.name, PT.name from  
Doctor Doc  
LEFT JOIN Department Dep ON Dep.id=Doc.dept_id  
LEFT JOIN MedicalRecord MR ON Doc.id = MR.doctor_id  
LEFT JOIN Patient PT ON PT.id=MR.patient_id;
```

```
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Doctor Doc  
LEFT JOIN Department Dep ON Dep.id=Doc.dept_id  
LEFT JOIN MedicalRecord MR ON Doc.id = MR.doctor_id  
LEFT JOIN Patient PT ON PT.id=MR.patient_id;
```

Dr. Anchal Raj	Neurology	Ankita Jain
Dr. Anchal Raj	Neurology	Raj Patel
Dr. Rajat Singh	Emergency	Deep Shah
Dr. Rajat Singh	Emergency	Ekta Maheshwari
Dr. Nitin Garaga	Neurology	NULL

3) Query to provide the count of patients discharged per day in the last week.

select count(patient_id),discharge_date from MedicalRecord group by discharge_date having discharge_date>'2020-07-12' and discharge_date <= '2020-07-19';

```
select count(patient_id),discharge_date
from MedicalRecord
group by discharge_date
having discharge_date>'2020-07-12' and discharge_date <= '2020-07-19';
```

2	2020-07-14 00:00:00
1	2020-07-15 00:00:00