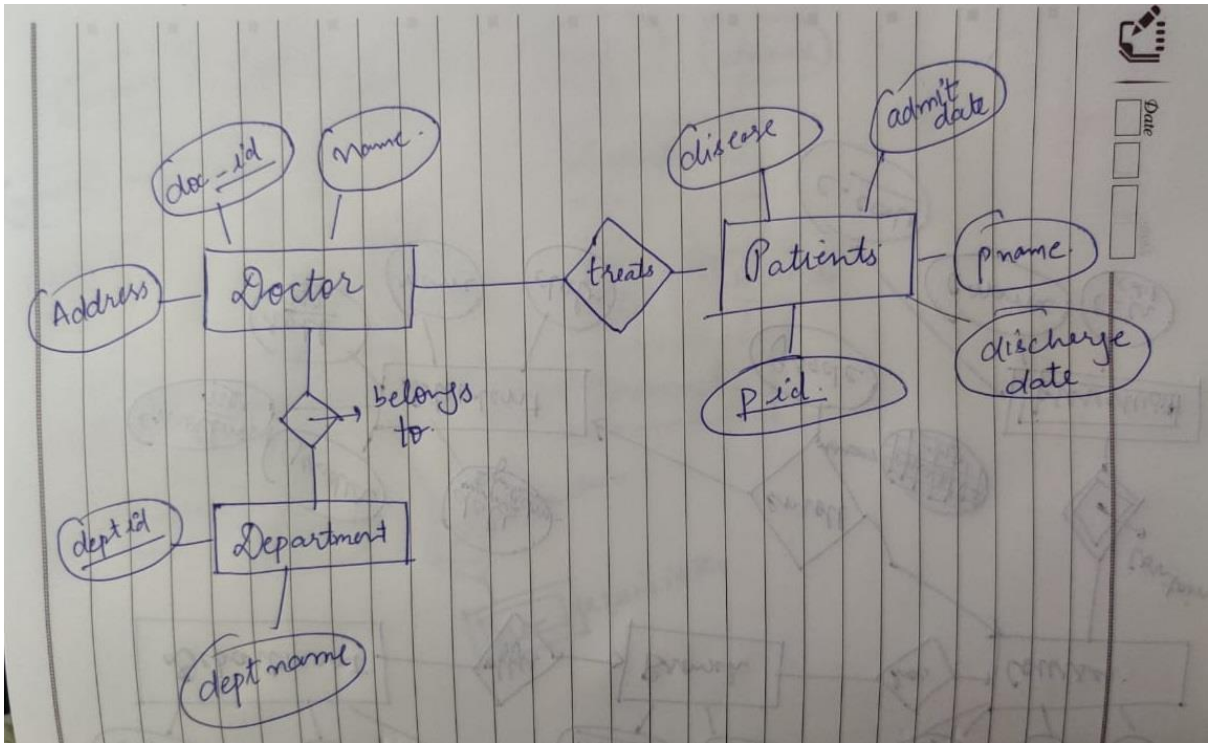
Assignment-SQL

ER Diagram



Values in Tables

```
mysql> select * from doctor;
+--------+--------+------------+
| DOC_ID | NAME   | Address    |
+--------+--------+------------+
|      1 | Raman  | California |
|      2 | Rohit  | Amsterdam  |
|      3 | Falak  | Delhi      |
|      4 | Vidyut | Brussels   |
|      5 | Rudar  | Panipat    |
+--------+--------+------------+
5 rows in set (0.00 sec)
```

```
mysql> select * from doc_dept;
+--------+------+
| DOC_ID | D_ID |
+--------+------+
|      1 |    2 |
|      2 |    3 |
|      3 |    4 |
|      4 |    5 |
|      5 |    1 |
+--------+------+
5 rows in set (0.00 sec)
```

```
mysql> select * from patient;
+------+----------+--------------------+------------+----------------+
| P_ID | P_NAME   | DISEASE            | ADMIT_DATE | DISCHARGE_DATE |
+------+----------+--------------------+------------+----------------+
|    1 | Sudhir   | HyperTension       | 2004-06-29 | NULL           |
|    2 | Sid      | Coma               | 2019-08-29 | 2020-08-20     |
|    3 | Sam      | Multiple Fractures | 2012-12-12 | NULL           |
|    4 | Shashwat | Fever              | 2019-08-01 | 2020-08-14     |
|    5 | Sanyam   | Allergy            | 2019-08-01 | 2020-08-09     |
+------+----------+--------------------+------------+----------------+
5 rows in set (0.01 sec)
```

```
mysql> select * from treatment;
+--------+------+
| DOC_ID | P_ID |
+--------+------+
|      1 |    4 |
|      2 |    3 |
|      3 |    2 |
|      4 |    1 |
|      1 |    5 |
+--------+------+
5 rows in set (0.01 sec)
```

```
mysql> select * from department;
+------+----------+
| D_ID | D_NAME   |
+------+----------+
|    1 | Cardio   |
|    2 | Neuro    |
|    3 | Medicine |
|    4 | Gastro   |
|    5 | Gyno     |
+------+----------+
5 rows in set (0.00 sec)
```

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

Solution:-

create table doctor(DOC_ID integer PRIMARY KEY,NAME varchar(30),Address varchar(50));

insert into doctor values(1,"Raman","California");

insert into doctor values(2,"Rohit","Amsterdam");

insert into doctor values(3,"Falak","Delhi");

insert into doctor values(4,"Vidyut","Brussels");

insert into doctor values(5,"Rudar","Panipat");

select * from doctor;

create table patient(P_ID number PRIMARY KEY,P_NAME varchar(30),DISEASE varchar(50),ADMIT_DATE date,DISCHARGE_DATE date);

insert into patient(P_ID,P_NAME,DISEASE,ADMIT_DATE) values(1,"Sudhir","HyperTension","04-06-29");

insert into patient(P_ID,P_NAME,DISEASE,ADMIT_DATE,DISCHARGE_DATE) values(2,"Sid","Coma","19-08-29","20-08-20");

insert into patient(P_ID,P_NAME,DISEASE,ADMIT_DATE) values(3,"Sam","Multiple Fractures","12-12-12");

```
insert into patient(P_ID,P_NAME,DISEASE,ADMIT_DATE,DISCHARGE_DATE)
values(4,"Shashwat","Fever","19-08-01","20-08-14");

insert into patient(P_ID,P_NAME,DISEASE,ADMIT_DATE,DISCHARGE_DATE)
values(5,"Sanyam","Allergy","19-08-01","20-08-09");


select * from patient;


create table treatment(DOC_ID number ,P_ID number,Foreign Key(DOC_ID) references
doctor(DOC_ID),Foreign Key(P_ID) references Patient(P_ID));


insert into treatment values(1,5);

insert into treatment values(1,4);

insert into treatment values(2,3);

insert into treatment values(3,2);

insert into treatment values(4,1);


create table department(D_ID Integer primary key,D_NAME varchar(50));


insert into department values(1,"Cardio");

insert into department values(2,"Neuro");

insert into department values(3,"Medicine");

insert into department values(4,"Gastro");

insert into department values(5,"Gyno");


create table doc_dept(DOC_ID integer,D_ID integer,foreign key(doc_id) references
doctor(DOC_ID),foreign key(D_ID) references department(D_ID));


insert into doc_dept values(1,2);

insert into doc_dept values(2,3);

insert into doc_dept values(3,4);
```

insert into doc_dept values(4,5);

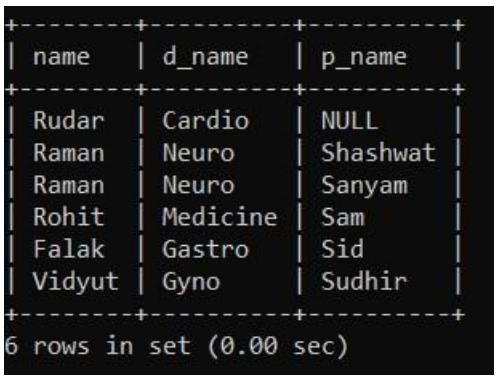
insert into doc_dept values(5,1);

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

Solution:

```
select doc.name,dept.d_name,p.p_name
from doctor doc
inner join doc_dept d
on doc.doc_id=d.doc_id
inner join department dept
on d.d_id=dept.d_id
left join treatment t
on t.doc_id=doc.doc_id
left join patient p
on p.p_id=t.p_id;
```

Output:-



name	d_name	p_name
Rudar	Cardio	NULL
Raman	Neuro	Shashwat
Raman	Neuro	Sanyam
Rohit	Medicine	Sam
Falak	Gastro	Sid
Vidyut	Gyno	Sudhir

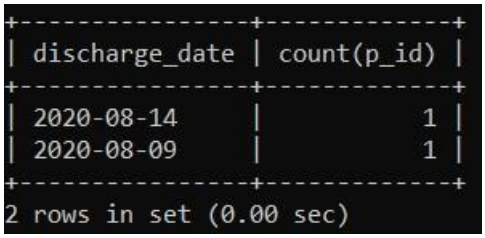
6 rows in set (0.00 sec)

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

Solution:-

```
select discharge_date,count(p_id)
from patient
where
discharge_date>DATE_SUB( CURDATE(), INTERVAL 1 Week)
and
discharge_date< curdate()
group by
discharge_date;
```

Output:



```
+----------------+-------------+
| discharge_date | count(p_id) |
+----------------+-------------+
| 2020-08-14     |           1 |
| 2020-08-09     |           1 |
+----------------+-------------+
2 rows in set (0.00 sec)
```

I could not understand how to put all days from the previous week.