Relational Database: MY-SQL
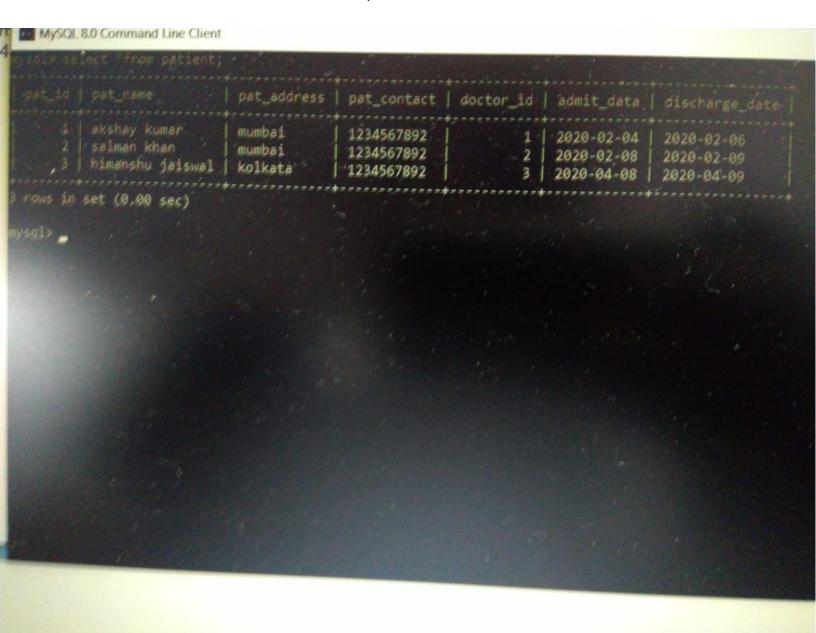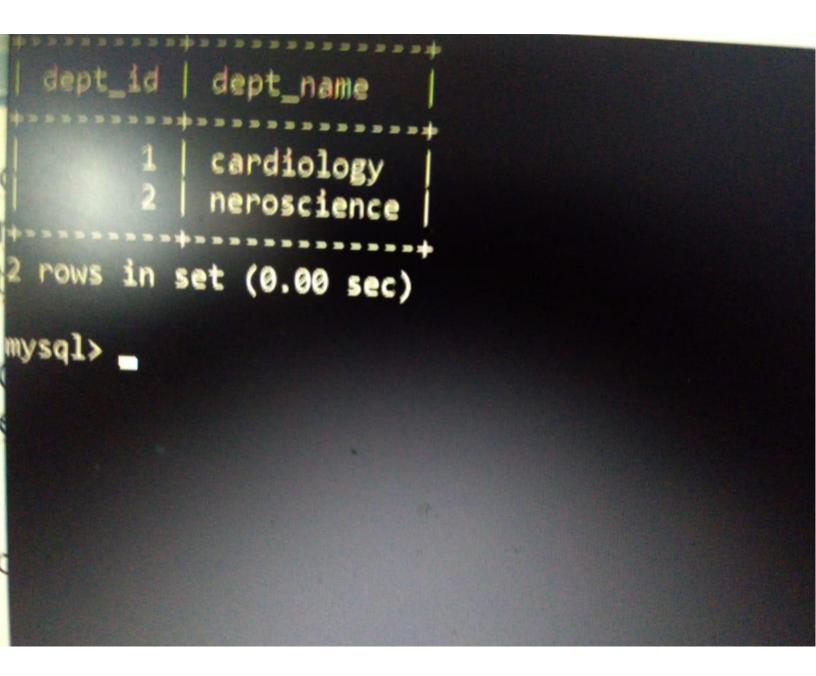
Q-1) Create a database for the Hospital Management System based on your ER. Create appropriate tables & relationships

- create database hospital;
- use hospital;
- create table department (dept_id INT PRIMARY KEY NOT NULL , dept_name VARCHAR(40));
- create table doctor(doctor_id int NOT NULL, doctor_name varchar(40), dept_id int, FOREIGN KEY (dept_id) REFERENCES department(dept_id),PRIMARY KEY(doctor_id));alter table patient add admit_date DATE;
- Create table patient(id INT PRIMARY KEY NOT NULL, name VARCHAR(40), address VARCHAR(100) , contact CHAR(10) , doctor_id int not null,admit_date DATE,discharge_date DATE);

- alter table patient add FOREIGN KEY(doctor_id) REFERENCES doctor(doctor_id);
  Inserting data into tables;

- insert into department values(001, "cardiology");
- insert into department values(002, 'neuroscience');

- insert into doctor values(1, 'sanjeev singh",1);
- insert into doctor values(2, 'rahul singh', 1);
- insert into doctor values(3, 'harshvarshan singh',2);

- Insert into patient values(001, "sanjaeev singh", "Agra", 9876543211, 002, '2020-07-02','2020-07-09');

- Insert into patient values (1 ,"akshay kumar ",   "Mumbai" "1234567892" , 1 , 2020-02-04 , 2020-02-06);
- Insert into patient values (2 ,"salman khan ",   "Mumbai" "1234567892" , 2 , 2020-02-08 , 2020-02-09);
- Insert into patient values (1 ,"akshay kumar ",   "Mumbai" "1234567892" , 3 , 2020-02-04 , 2020-02-10);

MySQL 8.0 Command Line Client

```
mysql> select * from patient;
+--------+------------------+-------------+-------------+-----------+------------+----------------+
| pat_id | pat_name         | pat_address | pat_contact | doctor_id | admit_data | discharge_date |
+--------+------------------+-------------+-------------+-----------+------------+----------------+
|      1 | akshay kumar     | mumbai      | 1234567892  |         1 | 2020-02-04 | 2020-02-06     |
|      2 | salman khan      | mumbai      | 1234567892  |         2 | 2020-02-08 | 2020-02-09     |
|      3 | himanshu jaiswal | kolkata     | 1234567892  |         3 | 2020-04-08 | 2020-04-09     |
+--------+------------------+-------------+-------------+-----------+------------+----------------+
3 rows in set (0.00 sec)

mysql>
```

```
mysql> select * from doctor;
+-----------+--------------------+---------+
| doctor_id | doctor_name        | dept_id |
+-----------+--------------------+---------+
|         1 | sanjeev singh      |       1 |
|         2 | rahul              |       1 |
|         3 | harshvardhan singh |       2 |
+-----------+--------------------+---------+
3 rows in set (0.00 sec)

mysql>
```

```
+>>>>>>>>>>>+>>>>>>>>>>>>>>>>+
| dept_id | dept_name |
+>>>>>>>>>>>+>>>>>>>>>>>>>>>>+
|       1 | cardiology |
|       2 | neroscience |
+>>>>>>>>>>>+>>>>>>>>>>>>>>>>+
2 rows in set (0.00 sec)

mysql> _
```

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

Ans) Select doctor_name, dept.dept_name, pat.pat_name from doctor as doc inner join department as dept on dept.dep_id = doctor.dept_id inner join patient as pat on pat.doc_id = doc.doc_id;

mysql> Select doc_name, dep_dep_name, pat_pat_name from doctor as doc inner join department as dep on dep_dep_id = doc_dep_id inner join patient as pat on pat_doc_id = doc_doc_id;

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

Ans) select count(*) as average from patients where DATE(discharge_date) between "2020-02-06" and "2020-02-10" group by discharge_date;