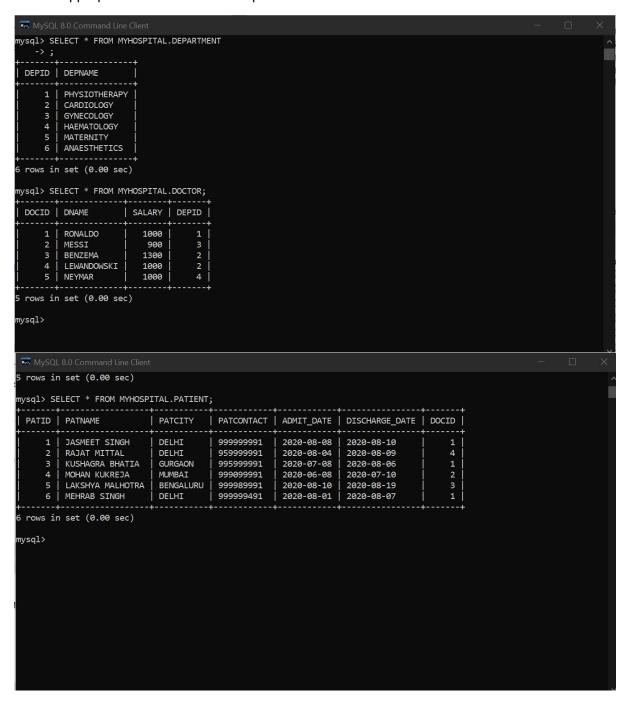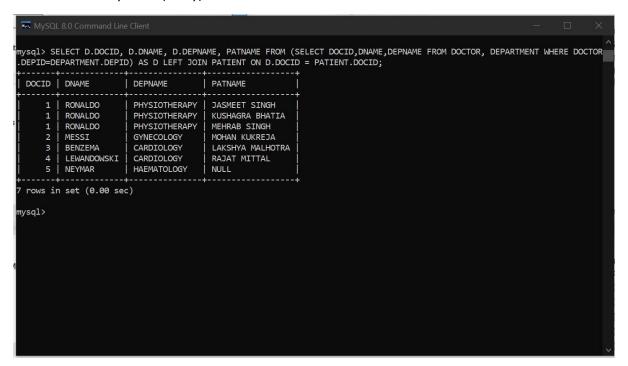# SQL Concepts & Fundamentals (13/08/2020)

Tasks :

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

```
MySQL 8.0 Command Line Client                                          —    □    ×

mysql> SELECT * FROM MYHOSPITAL.DEPARTMENT
    -> ;
+-------+---------------+
| DEPID | DEPNAME       |
+-------+---------------+
|     1 | PHYSIOTHERAPY |
|     2 | CARDIOLOGY    |
|     3 | GYNECOLOGY    |
|     4 | HAEMATOLOGY   |
|     5 | MATERNITY     |
|     6 | ANAESTHETICS  |
+-------+---------------+
6 rows in set (0.00 sec)

mysql> SELECT * FROM MYHOSPITAL.DOCTOR;
+-------+-------------+--------+-------+
| DOCID | DNAME       | SALARY | DEPID |
+-------+-------------+--------+-------+
|     1 | RONALDO     |   1000 |     1 |
|     2 | MESSI       |    900 |     3 |
|     3 | BENZEMA     |   1300 |     2 |
|     4 | LEWANDOWSKI |   1000 |     2 |
|     5 | NEYMAR      |   1000 |     4 |
+-------+-------------+--------+-------+
5 rows in set (0.00 sec)

mysql>
```

```
MySQL 8.0 Command Line Client                                          —    □    ×

5 rows in set (0.00 sec)

mysql> SELECT * FROM MYHOSPITAL.PATIENT;
+-------+------------------+-----------+------------+------------+----------------+-------+
| PATID | PATNAME          | PATCITY   | PATCONTACT | ADMIT_DATE | DISCHARGE_DATE | DOCID |
+-------+------------------+-----------+------------+------------+----------------+-------+
|     1 | JASMEET SINGH    | DELHI     | 999999991  | 2020-08-08 | 2020-08-10     |     1 |
|     2 | RAJAT MITTAL     | DELHI     | 959999991  | 2020-08-04 | 2020-08-09     |     4 |
|     3 | KUSHAGRA BHATIA  | GURGAON   | 995999991  | 2020-07-08 | 2020-08-06     |     1 |
|     4 | MOHAN KUKREJA    | MUMBAI    | 999099991  | 2020-06-08 | 2020-07-10     |     2 |
|     5 | LAKSHYA MALHOTRA | BENGALURU | 999989991  | 2020-08-10 | 2020-08-19     |     3 |
|     6 | MEHRAB SINGH     | DELHI     | 999999491  | 2020-08-01 | 2020-08-07     |     1 |
+-------+------------------+-----------+------------+------------+----------------+-------+
6 rows in set (0.00 sec)

mysql>
```

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

```
MySQL 8.0 Command Line Client                                                                    —   □   ×

mysql> SELECT D.DOCID, D.DNAME, D.DEPNAME, PATNAME FROM (SELECT DOCID,DNAME,DEPNAME FROM DOCTOR, DEPARTMENT WHERE DOCTOR
.DEPID=DEPARTMENT.DEPID) AS D LEFT JOIN PATIENT ON D.DOCID = PATIENT.DOCID;
+-------+-------------+---------------+------------------+
| DOCID | DNAME       | DEPNAME       | PATNAME          |
+-------+-------------+---------------+------------------+
|     1 | RONALDO     | PHYSIOTHERAPY | JASMEET SINGH    |
|     1 | RONALDO     | PHYSIOTHERAPY | KUSHAGRA BHATIA  |
|     1 | RONALDO     | PHYSIOTHERAPY | MEHRAB SINGH     |
|     2 | MESSI       | GYNECOLOGY    | MOHAN KUKREJA    |
|     3 | BENZEMA     | CARDIOLOGY    | LAKSHYA MALHOTRA |
|     4 | LEWANDOWSKI | CARDIOLOGY    | RAJAT MITTAL     |
|     5 | NEYMAR      | HAEMATOLOGY   | NULL             |
+-------+-------------+---------------+------------------+
7 rows in set (0.00 sec)

mysql>
```

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

```
MySQL 8.0 Command Line Client                                                                    —   □   ×

mysql> SELECT DISCHARGE_DATE, COUNT(PATNAME) AS CURED FROM PATIENT WHERE DATE(DISCHARGE_DATE) BETWEEN '2020-08-06' AND '
2020-08-13' GROUP BY DISCHARGE_DATE;
+----------------+-------+
| DISCHARGE_DATE | CURED |
+----------------+-------+
| 2020-08-10     |     1 |
| 2020-08-09     |     1 |
| 2020-08-06     |     1 |
| 2020-08-07     |     1 |
+----------------+-------+
4 rows in set (0.00 sec)

mysql>
```