Assignment SQL
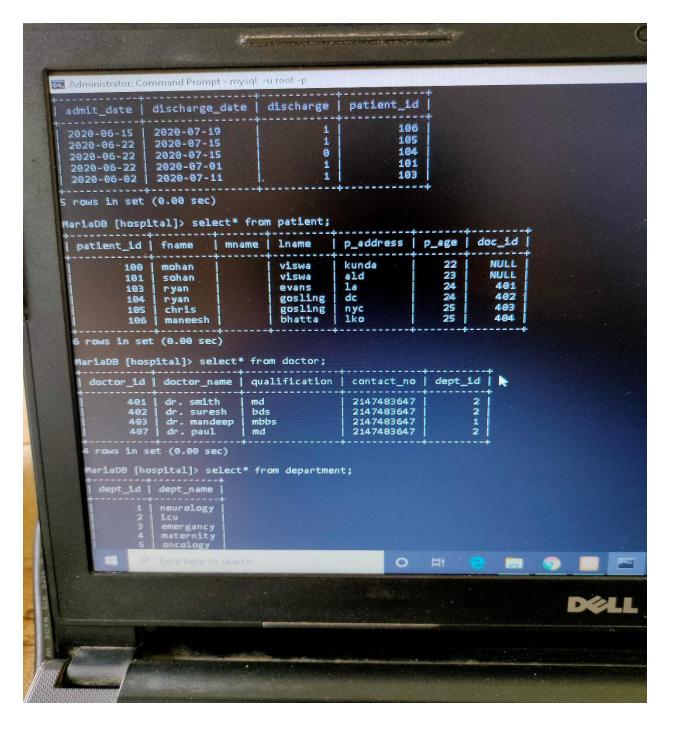
Setup:

C:\WINDOWS\system32>cd C:\xampp\mysql\bin

C:\xampp\mysql\bin>mysql -u root -p

MariaDB [(none)]> create database hospital

   -> ;

Query OK, 1 row affected (0.02 sec)

use hospital

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

create table patient(patient_id int primary key, fname varchar(20), mname varchar(20), lname varchar(20), index p_name(fname,mname,lname), p_address varchar(30), p_age int);

create table doctor(doctor_id int primary key, doctor_name varchar(20), qualification varchar(20),contact_no int, dept_id int , foreign key(dept_id) references department(dept_id));

create table admit(admit_date date, discharge_date date, discharge boolean, patient_id int, foreign key(patient_id) references patient(patient_id));

insert into patient values(100,"mohan","","viswa","kunda",22);

insert into patient values(101,"sohan","","viswa","ald",23);

alter table patient add doc_id int;

update patient set doc_id=410 where patient_id=100

update patient set doc_id=411 where patient_id=101

insert into patient values(104,"ryan","","gosling","dc",24,402);

insert into patient values(105,"chris","","gosling","nyc",25,403);

insert into patient values(106,"maneesh","","bhatta","lko",25,404);

```sql
insert into department values(01,"neurology");

insert into department values(01,"neurology");

insert into department values(02,"icu");

insert into department values(03,"emergancy");

insert into department values(04,"maternity");

insert into department values(05,"oncology");

insert into doctor values(401,"dr. smith", "md",7777777777,2);

insert into doctor values(407,"dr. paul", "md",7777777777,2);

insert into doctor values(403,"dr. mandeep", "mbbs",7777777777,1);

insert into doctor values(402,"dr. suresh", "bds",8295144045,2);

insert into admit values(15-06-2020,18-07-2020,true,106);

update admit set admit_date=2020-06-15 where patient_id=106;

update admit set admit_date='2020-06-15' where patient_id=106;

update admit set discharge_date='2020-07-19' where patient_id=106;

insert into admit values('2020-06-22','2020-07-15',true,105);

insert into admit values('2020-06-22','2020-07-15',false,104);

insert into admit values('2020-06-22','2020-07-01',true,101);

insert into admit values('2020-06-02','2020-07-11',true,103);
```

admit_date	discharge_date	discharge	patient_id
2020-06-15	2020-07-19	1	106
2020-06-22	2020-07-15	1	105
2020-06-22	2020-07-15	0	104
2020-06-22	2020-07-01	1	101
2020-06-02	2020-07-11	1	103

5 rows in set (0.00 sec)

MariaDB [hospital]> select* from patient;

patient_id	fname	mname	lname	p_address	p_age	doc_id
100	mohan		viswa	kunda	22	NULL
101	sohan		viswa	ald	23	NULL
103	ryan		evans	la	24	401
104	ryan		gosling	dc	24	402
105	chris		gosling	nyc	25	403
106	maneesh		bhatta	lko	25	404

6 rows in set (0.00 sec)

MariaDB [hospital]> select* from doctor;

doctor_id	doctor_name	qualification	contact_no	dept_id
401	dr. smith	md	2147483647	2
402	dr. suresh	bds	2147483647	2
403	dr. mandeep	mbbs	2147483647	1
407	dr. paul	md	2147483647	2

4 rows in set (0.00 sec)

MariaDB [hospital]> select* from department;

dept_id	dept_name
1	neurology
2	icu
3	emergancy
4	maternity
5	oncology

```
MariaDB [hospital]> update patient set doc_id=411 where patient_id=101;
Query OK, 1 row affected (0.28 sec)
Rows matched: 1  Changed: 1  Warnings: 0

MariaDB [hospital]> select* from patient;
+------------+---------+-------+---------+-----------+-------+--------+
| patient_id | fname   | mname | lname   | p_address | p_age | doc_id |
+------------+---------+-------+---------+-----------+-------+--------+
|        100 | mohan   |       | viswa   | kunda     |    22 |    410 |
|        101 | sohan   |       | viswa   | ald       |    23 |    411 |
|        103 | ryan    |       | evans   | la        |    24 |    401 |
|        104 | ryan    |       | gosling | dc        |    24 |    402 |
|        105 | chris   |       | gosling | nyc       |    25 |    403 |
|        106 | maneesh |       | bhatta  | lko       |    25 |    404 |
+------------+---------+-------+---------+-----------+-------+--------+
6 rows in set (0.00 sec)

MariaDB [hospital]> select* from admit;
+------------+----------------+-----------+------------+
| admit_date | discharge_date | discharge | patient_id |
+------------+----------------+-----------+------------+
| 2020-06-15 | 2020-07-19     |         1 |        106 |
| 2020-06-22 | 2020-07-15     |         1 |        105 |
| 2020-06-22 | 2020-07-15     |         0 |        104 |
| 2020-06-22 | 2020-07-01     |         1 |        101 |
| 2020-06-02 | 2020-07-11     |         1 |        103 |
+------------+----------------+-----------+------------+
5 rows in set (0.00 sec)

MariaDB [hospital]> select discharge_date, count(patient_id) as DisPatient from ad
;
```

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

MariaDB [hospital]> select doctor.doctor_name, doctor.doctor_id,department.dept_name,department.dept_id, patient.patient_id,patient.fname

  -> from doctor

  -> join department on doctor.dept_id=department.dept_id

  -> join patient on patient.doc_id=doctor.doctor_id;

```
MariaDB [hospital]> select doctor.doctor_name, doctor.doctor_id,department.dept_name,department.dept_id, patient.patient_id,patient.fname
    -> from doctor
    -> join department on doctor.dept_id=department.dept_id
    -> join patient on patient.doc_id=doctor.doctor_id;
+-------------+-----------+-----------+---------+------------+-------+
| doctor_name | doctor_id | dept_name | dept_id | patient_id | fname |
+-------------+-----------+-----------+---------+------------+-------+
| dr. smith   |       401 | icu       |       2 |        103 | ryan  |
| dr. suresh  |       402 | icu       |       2 |        104 | ryan  |
| dr. mandeep |       403 | neurology |       1 |        105 | chris |
+-------------+-----------+-----------+---------+------------+-------+
3 rows in set (0.00 sec)

MariaDB [hospital]> select* from patient;
```

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

MariaDB [hospital]> select discharge_date, count(patient_id) as DisPatient from admit where discharge_date between '2020-07-11' and '2020-07-19' group by discharge_date;

```
Empty set (0.07 sec)

MariaDB [hospital]> select discharge_date, count(patient_id) as DisPatient from admit where discharge_date between '2020-07-11' and '2020-07-19' group by discharge_date
;
+----------------+------------+
| discharge_date | DisPatient |
+----------------+------------+
| 2020-07-11     |          1 |
| 2020-07-15     |          2 |
| 2020-07-19     |          1 |
+----------------+------------+
3 rows in set (0.00 sec)

MariaDB [hospital]>
```