SQL Fundamentals and Concepts – Afternoon Session

MySQL

Tasks:

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

- create database Hospital;
- use Hospital;
- create table patient(p_id INT PRIMARY KEY NOT NULL, p_name VARCHAR(40),p_address VARCHAR(100) , p_contact CHAR(10), p_gender CHAR(10));
- create table department (dep_id INT PRIMARY KEY NOT NULL , dep_name VARCHAR(40));
- create table doctor(doc_id INT PRIMARY KEY NOT NULL, doc_name VARCHAR(40), dep_id INT, FOREIGN KEY (dep_id) REFERENCES department(dep_id));
- alter table patient add admit_date DATE;
- alter table patient add discharge_date DATE;
- alter table patient add doc_id INT;
- alter table patient add FOREIGN KEY(doc_id) REFERENCES doctor(doc_id);
- create table medicine(m_id INT PRIMARY KEY NOT NULL, m_name VARCHAR(15), m_quant INT);
- create table room(r_id INT PRIMARY KEY NOT NULL, r_type VARCHAR(10));
- alter table room add p_id INT;
- alter table room add FOREIGN KEY(p_id) REFERENCES patient(p_id);
- insert into department(dep_id, dep_name) values(01, 'oncology');
- insert into department values(02, 'cardiology');
- insert into doctor values(001, "Vishnu Kumar", 01);
- insert into doctor values(002, "Preeti Goyal", 01);
- insert into doctor values(003, "Ram Kapoor", 02);
- insert into patient values(001, "Chitraksh Grover", "Pune", "9876543211", 'M' , '2020-07-02','2020-07-09', 01);
- insert into patient values(002, "Ayush Tanwar", "Bangalore", '9876543411', 'M','2020-07-03','2020-07-08', 02);
- insert into patient values(003, "Bramhdeep Singh", "Delhi", '9875543411', 'M','2020-07-01','2020-07-09', 02);
- insert into patient values(004, "Anshika Singh", "Moradabad", '9975543411', 'F', '2020-07-08','2020-07-11', 02);
- insert into patient values(005, "Sahil Bhasin", "Delhi", '9975543411', 'M', '2020-07-08','2020-07-15', 01);

select * from patient;

select * from doctor;

select * from department;

```
1       Chitraksh Grover        Pune    9876543211      M       2020-07-02      2020-07-09      1
2       Ayush Tanwar    Bangalore       9876543411      M       2020-07-03      2020-07-08      2
3       Bramhdeep Singh Delhi   9875543411      M       2020-07-01      2020-07-09      2
4       Anshika Singh   Moradabad       9975543411      F       2020-07-08      2020-07-11      2
5       Sahil Bhasin    Delhi   9975543411      M       2020-07-08      2020-07-15      1
1       Vishnu Kumar    1
2       Preeti Goyal    1
3       Ram Kapoor      2
1       oncology
2       cardiology
```

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.dep_name, p.p_name from doctor as doc inner join department as dep on dep.dep_id = doc.dep_id inner join patient as p on p.doc_id = doc.doc_id;

```
select doc_name, dep.dep_name, p.p_name from doctor as doc inner join department
as dep on dep.dep_id = doc.dep_id inner join patient as p on p.doc_id = doc.doc_id;
```

```
Vishnu Kumar    oncology        Chitraksh Grover
Preeti Goyal    oncology        Ayush Tanwar
Preeti Goyal    oncology        Bramhdeep Singh
Preeti Goyal    oncology        Anshika Singh
Vishnu Kumar    oncology        Sahil Bhasin
```

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

select count(*) as average, discharge_date from patient where DATE(discharge_date) between '2020-07-07' and '2020-07-14' group by discharge_date;

```
select count(*) as average, discharge_date from patient where DATE(discharge_date) between
'2020-07-07' and '2020-07-14' group by discharge_date;
```

```
1       2020-07-08
2       2020-07-09
1       2020-07-11
```