DBMS – LAB -02

NAME :   RAHUL VARMA

ROLL NO: S20200010212

SECTION: C

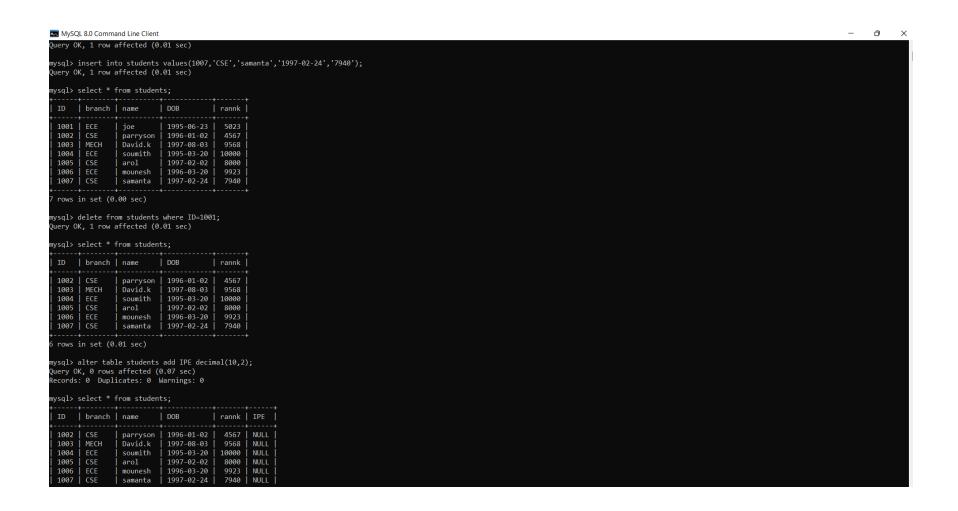**TASK:** (LAB EXERCISES)

SQL COMMANDS

1. DDL COMMANDS

2. DML COMMANDS

1. Delete a row with ID 1001
2. Add column "IPE"
3. Delete the column "IPE"
4. Modify the table to insert a row with Name 'John harryson'

5. Insert   values in the table for columns (ID,NAME,DOB,RANK) only
6. Print the students whose rank is less than 6000
7. Print the names of students from ECE and CSE branches
8. Print the details of students from CSE who secured less than 9000 rank
9. Print the students whose DOB is between January 1996 and January 1997
10. Print the details of students who are not from MECH and ECE branches
11. Print the students' names starting with "s"
12. Print the names of students which have length=4
13. Update the branch value MCH as 'Mec'
14. Delete all contents of the table
15. Display the structure of the table

Table insertion(given table):


```
MySQL 8.0 Command Line Client                                                    —  □  ×
Enter password: ****
Welcome to the MySQL monitor.  Commands end with ; or \g.
Your MySQL connection id is 11
Server version: 8.0.26 MySQL Community Server - GPL

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Type 'help;' or '\h' for help. Type '\c' to clear the current input statement.

mysql> create database college;
Query OK, 1 row affected (0.02 sec)

mysql> use college;
Database changed
mysql> create table students(ID int not null,branch char(3),name varchar(10),DOB date,rannk int,unique(ID));
Query OK, 0 rows affected (0.08 sec)

mysql> insert into students values(1001,'ECE','joe','1995-06-23','5023');
Query OK, 1 row affected (0.02 sec)

mysql> insert into students values(1002,'CSE','parryson','1996-01-2','4567');
Query OK, 1 row affected (0.01 sec)

mysql> insert into students values(1003,'MECH','David.k','1997-08-3','9568');
ERROR 1406 (22001): Data too long for column 'branch' at row 1
mysql> alter table students modify column branch char(4);
Query OK, 2 rows affected (0.18 sec)
Records: 2  Duplicates: 0  Warnings: 0

mysql> insert into students values(1003,'MECH','David.k','1997-08-3','9568');
Query OK, 1 row affected (0.01 sec)

mysql> insert into students values(1004,'ECE','soumith','1995-03-20','10000');
Query OK, 1 row affected (0.01 sec)

mysql> insert into students values(1005,'CSE','arol','1997-2-2','8000');
Query OK, 1 row affected (0.01 sec)

mysql> insert into students values(1006,'ECE','mounesh','1996-03-20','9923');
Query OK, 1 row affected (0.01 sec)

mysql> insert into students values(1007,'CSE','samanta','1997-02-24','7940');
Query OK, 1 row affected (0.01 sec)

mysql> select * from students;
```

Question 1 and 2:

```
MySQL 8.0 Command Line Client                                                    —   □   ×
Query OK, 1 row affected (0.01 sec)

mysql> insert into students values(1007,'CSE','samanta','1997-02-24','7940');
Query OK, 1 row affected (0.01 sec)

mysql> select * from students;
+------+--------+----------+------------+-------+
| ID   | branch | name     | DOB        | rannk |
+------+--------+----------+------------+-------+
| 1001 | ECE    | joe      | 1995-06-23 |  5023 |
| 1002 | CSE    | parryson | 1996-01-02 |  4567 |
| 1003 | MECH   | David.k  | 1997-08-03 |  9568 |
| 1004 | ECE    | soumith  | 1995-03-20 | 10000 |
| 1005 | CSE    | arol     | 1997-02-02 |  8000 |
| 1006 | ECE    | mounesh  | 1996-03-20 |  9923 |
| 1007 | CSE    | samanta  | 1997-02-24 |  7940 |
+------+--------+----------+------------+-------+
7 rows in set (0.00 sec)

mysql> delete from students where ID=1001;
Query OK, 1 row affected (0.01 sec)

mysql> select * from students;
+------+--------+----------+------------+-------+
| ID   | branch | name     | DOB        | rannk |
+------+--------+----------+------------+-------+
| 1002 | CSE    | parryson | 1996-01-02 |  4567 |
| 1003 | MECH   | David.k  | 1997-08-03 |  9568 |
| 1004 | ECE    | soumith  | 1995-03-20 | 10000 |
| 1005 | CSE    | arol     | 1997-02-02 |  8000 |
| 1006 | ECE    | mounesh  | 1996-03-20 |  9923 |
| 1007 | CSE    | samanta  | 1997-02-24 |  7940 |
+------+--------+----------+------------+-------+
6 rows in set (0.01 sec)

mysql> alter table students add IPE decimal(10,2);
Query OK, 0 rows affected (0.07 sec)
Records: 0  Duplicates: 0  Warnings: 0

mysql> select * from students;
+------+--------+----------+------------+-------+------+
| ID   | branch | name     | DOB        | rannk | IPE  |
+------+--------+----------+------------+-------+------+
| 1002 | CSE    | parryson | 1996-01-02 |  4567 | NULL |
| 1003 | MECH   | David.k  | 1997-08-03 |  9568 | NULL |
| 1004 | ECE    | soumith  | 1995-03-20 | 10000 | NULL |
| 1005 | CSE    | arol     | 1997-02-02 |  8000 | NULL |
| 1006 | ECE    | mounesh  | 1996-03-20 |  9923 | NULL |
| 1007 | CSE    | samanta  | 1997-02-24 |  7940 | NULL |
+------+--------+----------+------------+-------+------+
```

Question 3 to 7:

```
+------+--------+----------+------------+--------+------+
| ID   | branch | name     | DOB        | rannk  | IPE  |
+------+--------+----------+------------+--------+------+
| 1002 | CSE    | parryson | 1996-01-02 |  4567  | NULL |
| 1003 | MECH   | David.k  | 1997-08-03 |  9568  | NULL |
| 1004 | ECE    | soumith  | 1995-03-20 | 10000  | NULL |
| 1005 | CSE    | arol     | 1997-02-02 |  8000  | NULL |
| 1006 | ECE    | mounesh  | 1996-03-20 |  9923  | NULL |
| 1007 | CSE    | samanta  | 1997-02-24 |  7940  | NULL |
+------+--------+----------+------------+--------+------+
6 rows in set (0.00 sec)

mysql> alter table students drop column IPE
    -> ;
Query OK, 0 rows affected (0.18 sec)
Records: 0  Duplicates: 0  Warnings: 0

mysql> alter table students modify column name varchar(30);
Query OK, 0 rows affected (0.04 sec)
Records: 0  Duplicates: 0  Warnings: 0

mysql> insert into students values(1001,'ECE','john harryson','1995-06-23','5023');
Query OK, 1 row affected (0.01 sec)

mysql> insert into students(ID,name,DOB,rannk) values(1001,'john harryson','1995-06-23','5023');
ERROR 1062 (23000): Duplicate entry '1001' for key 'students.ID'
mysql> insert into students(ID,name,DOB,rannk) values(1008,'john harryson','1995-06-23','5023');
Query OK, 1 row affected (0.01 sec)

mysql> select * from students where rannk<'6000';
+------+--------+---------------+------------+-------+
| ID   | branch | name          | DOB        | rannk |
+------+--------+---------------+------------+-------+
| 1001 | ECE    | john harryson | 1995-06-23 |  5023 |
| 1002 | CSE    | parryson      | 1996-01-02 |  4567 |
| 1008 | NULL   | john harryson | 1995-06-23 |  5023 |
+------+--------+---------------+------------+-------+
3 rows in set (0.01 sec)

mysql> select * from students where branch in ('CSE','ECE');
+------+--------+---------------+------------+-------+
| ID   | branch | name          | DOB        | rannk |
+------+--------+---------------+------------+-------+
| 1001 | ECE    | john harryson | 1995-06-23 |  5023 |
| 1002 | CSE    | parryson      | 1996-01-02 |  4567 |
| 1004 | ECE    | soumith       | 1995-03-20 | 10000 |
| 1005 | CSE    | arol          | 1997-02-02 |  8000 |
| 1006 | ECE    | mounesh       | 1996-03-20 |  9923 |
| 1007 | CSE    | samanta       | 1997-02-24 |  7940 |
```

Question 8 to 10:

```
6 rows in set (0.01 sec)

mysql> select * from students where branch ='CSE' and rannk<'9000';
+------+--------+----------+------------+-------+
| ID   | branch | name     | DOB        | rannk |
+------+--------+----------+------------+-------+
| 1002 | CSE    | parryson | 1996-01-02 |  4567 |
| 1005 | CSE    | arol     | 1997-02-02 |  8000 |
| 1007 | CSE    | samanta  | 1997-02-24 |  7940 |
+------+--------+----------+------------+-------+
3 rows in set (0.00 sec)

mysql> select * from students where DOB between '1996-01-01' and '1997-01-01';
+------+--------+----------+------------+-------+
| ID   | branch | name     | DOB        | rannk |
+------+--------+----------+------------+-------+
| 1002 | CSE    | parryson | 1996-01-02 |  4567 |
| 1006 | ECE    | mounesh  | 1996-03-20 |  9923 |
+------+--------+----------+------------+-------+
2 rows in set (0.00 sec)

mysql> select * from students where branch not in ('MECH','ECE');
+------+--------+----------+------------+-------+
| ID   | branch | name     | DOB        | rannk |
+------+--------+----------+------------+-------+
| 1002 | CSE    | parryson | 1996-01-02 |  4567 |
| 1005 | CSE    | arol     | 1997-02-02 |  8000 |
| 1007 | CSE    | samanta  | 1997-02-24 |  7940 |
+------+--------+----------+------------+-------+
3 rows in set (0.00 sec)

mysql> select * from students where name like '%s%';
+------+--------+---------------+------------+-------+
| ID   | branch | name          | DOB        | rannk |
+------+--------+---------------+------------+-------+
| 1001 | ECE    | john harryson | 1995-06-23 |  5023 |
| 1002 | CSE    | parryson      | 1996-01-02 |  4567 |
| 1004 | ECE    | soumith       | 1995-03-20 | 10000 |
| 1006 | ECE    | mounesh       | 1996-03-20 |  9923 |
| 1007 | CSE    | samanta       | 1997-02-24 |  7940 |
| 1008 | NULL   | john harryson | 1995-06-23 |  5023 |
+------+--------+---------------+------------+-------+
6 rows in set (0.01 sec)

mysql> select * from students where name like '_s%';
Empty set (0.00 sec)

mysql> select * from students where name like '%s_';
+------+--------+---------+------------+-------+
```

Question 11 to 13:

```
mysql> select * from students where name like '_s%';
Empty set (0.00 sec)

mysql> select * from students where name like '%s_';
+------+--------+---------+------------+-------+
| ID   | branch | name    | DOB        | rannk |
+------+--------+---------+------------+-------+
| 1006 | ECE    | mounesh | 1996-03-20 |  9923 |
+------+--------+---------+------------+-------+
1 row in set (0.00 sec)

mysql> select * from students where name like 's%';
+------+--------+---------+------------+-------+
| ID   | branch | name    | DOB        | rannk |
+------+--------+---------+------------+-------+
| 1004 | ECE    | soumith | 1995-03-20 | 10000 |
| 1007 | CSE    | samanta | 1997-02-24 |  7940 |
+------+--------+---------+------------+-------+
2 rows in set (0.00 sec)

mysql> select name from students where length(name)=4;
+------+
| name |
+------+
| arol |
+------+
1 row in set (0.01 sec)

mysql> update students set branch ='Mec' where branch ='MECH';
Query OK, 1 row affected (0.01 sec)
Rows matched: 1  Changed: 1  Warnings: 0

mysql> select * from students;
+------+--------+---------------+------------+-------+
| ID   | branch | name          | DOB        | rannk |
+------+--------+---------------+------------+-------+
| 1001 | ECE    | john harryson | 1995-06-23 |  5023 |
| 1002 | CSE    | parryson      | 1996-01-02 |  4567 |
| 1003 | Mec    | David.k       | 1997-08-03 |  9568 |
| 1004 | ECE    | soumith       | 1995-03-20 | 10000 |
| 1005 | CSE    | arol          | 1997-02-02 |  8000 |
| 1006 | ECE    | mounesh       | 1996-03-20 |  9923 |
| 1007 | CSE    | samanta       | 1997-02-24 |  7940 |
| 1008 | NULL   | john harryson | 1995-06-23 |  5023 |
+------+--------+---------------+------------+-------+
8 rows in set (0.01 sec)

mysql> delete from students;
Query OK, 8 rows affected (0.01 sec)
```

Question 14 and 15:

```
| 1004 | ECE     | soumith      | 1995-03-20 | 10000 |
| 1007 | CSE     | samanta      | 1997-02-24 |  7940 |
+------+---------+-----------+------------+-------+
2 rows in set (0.00 sec)

mysql> select name from students where length(name)=4;
+------+
| name |
+------+
| arol |
+------+
1 row in set (0.01 sec)

mysql> update students set branch ='Mec' where branch ='MECH';
Query OK, 1 row affected (0.01 sec)
Rows matched: 1  Changed: 1  Warnings: 0

mysql> select * from students;
+------+---------+---------------+------------+-------+
| ID   | branch  | name          | DOB        | rannk |
+------+---------+---------------+------------+-------+
| 1001 | ECE     | john harryson | 1995-06-23 |  5023 |
| 1002 | CSE     | parryson      | 1996-01-02 |  4567 |
| 1003 | Mec     | David.k       | 1997-08-03 |  9568 |
| 1004 | ECE     | soumith       | 1995-03-20 | 10000 |
| 1005 | CSE     | arol          | 1997-02-02 |  8000 |
| 1006 | ECE     | mounesh       | 1996-03-20 |  9923 |
| 1007 | CSE     | samanta       | 1997-02-24 |  7940 |
| 1008 | NULL    | john harryson | 1995-06-23 |  5023 |
+------+---------+---------------+------------+-------+
8 rows in set (0.01 sec)

mysql> delete from students;
Query OK, 8 rows affected (0.01 sec)

mysql> describe students;
+--------+-------------+------+-----+---------+-------+
| Field  | Type        | Null | Key | Default | Extra |
+--------+-------------+------+-----+---------+-------+
| ID     | int         | NO   | PRI | NULL    |       |
| branch | char(4)     | YES  |     | NULL    |       |
| name   | varchar(30) | YES  |     | NULL    |       |
| DOB    | date        | YES  |     | NULL    |       |
| rannk  | int         | YES  |     | NULL    |       |
+--------+-------------+------+-----+---------+-------+
5 rows in set (0.03 sec)

mysql> _
```

Exercise 2:

EXERCISE 2:

Q1. Create the following table: Customer

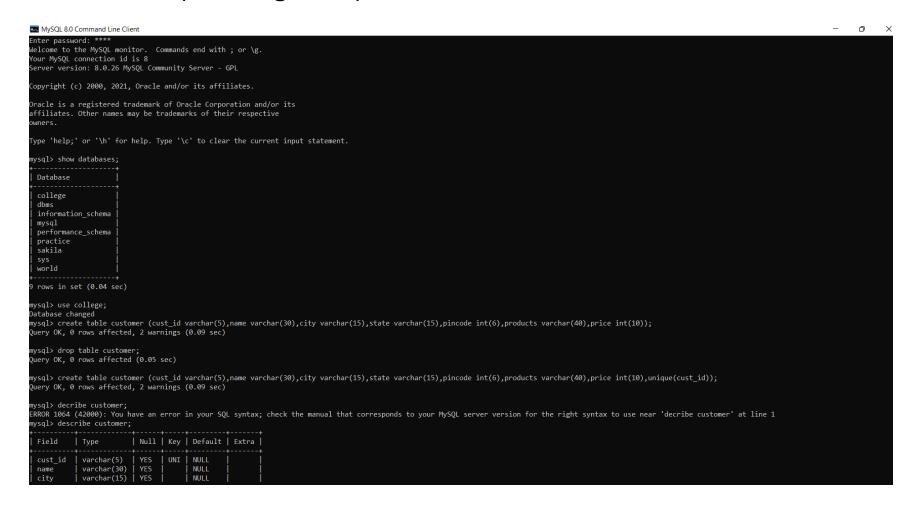| columnname	datatype	size
Cust_ID	varchar2	5
name	varchar2	30
city	varchar2	15
state	varchar2	15
pincode	number	6
products	varchar2	40
price	number	10

Note: ID must be unique, names and products can be repeated.

Q2- Insert the data into the table.

Q3:- On the basis of above two tables answer the following Questionnaires:
1. Find out the names of all the clients(without duplicates).
2. Retrieve the list of names and cities of all the customers.
3. List the available products whose name begin with 't'.
4. List all the clients who are located in Chennai.
5. Display the information for clients with ID C109 and C105 (Assume Ids are present in the table).
6. Find all the products whose sell price is greater than 4000.
7. Find the list of all customer IDs who stay in city 'Hyderabad' or city 'pune' or 'Delhi'.
8. Find the product whose selling price is greater than 2000 and less than or equal to 5000.
9. List the name, city and state of clients not in the state of 'Maharashtra'.
10. Modify customer name "John" as "Johney".

Question 1: (Creating table)


```
MySQL 8.0 Command Line Client                                                                                    —   ⊡   ✕

Enter password: ****
Welcome to the MySQL monitor.  Commands end with ; or \g.
Your MySQL connection id is 8
Server version: 8.0.26 MySQL Community Server - GPL

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affiliates. Other names may be trademarks of their respective
owners.

Type 'help;' or '\h' for help. Type '\c' to clear the current input statement.

mysql> show databases;
+--------------------+
| Database           |
+--------------------+
| college            |
| dbms               |
| information_schema |
| mysql              |
| performance_schema |
| practice           |
| sakila             |
| sys                |
| world              |
+--------------------+
9 rows in set (0.04 sec)

mysql> use college;
Database changed
mysql> create table customer (cust_id varchar(5),name varchar(30),city varchar(15),state varchar(15),pincode int(6),products varchar(40),price int(10));
Query OK, 0 rows affected, 2 warnings (0.09 sec)

mysql> drop table customer;
Query OK, 0 rows affected (0.05 sec)

mysql> create table customer (cust_id varchar(5),name varchar(30),city varchar(15),state varchar(15),pincode int(6),products varchar(40),price int(10),unique(cust_id));
Query OK, 0 rows affected, 2 warnings (0.09 sec)

mysql> decribe customer;
ERROR 1064 (42000): You have an error in your SQL syntax; check the manual that corresponds to your MySQL server version for the right syntax to use near 'decribe customer' at line 1
mysql> describe customer;
+----------+-------------+------+-----+---------+-------+
| Field    | Type        | Null | Key | Default | Extra |
+----------+-------------+------+-----+---------+-------+
| cust_id  | varchar(5)  | YES  | UNI | NULL    |       |
| name     | varchar(30) | YES  |     | NULL    |       |
| city     | varchar(15) | YES  |     | NULL    |       |
```

Question 2 : (inserting into table) and

Q3: (q1)

```
MySQL 8.0 Command Line Client                                                                                    —    ◻    ✕
mysql> decribe customer;
ERROR 1064 (42000): You have an error in your SQL syntax; check the manual that corresponds to your MySQL server version for the right syntax to use near 'decribe customer' at line 1
mysql> describe customer;
+----------+-------------+------+-----+---------+-------+
| Field    | Type        | Null | Key | Default | Extra |
+----------+-------------+------+-----+---------+-------+
| cust_id  | varchar(5)  | YES  | UNI | NULL    |       |
| name     | varchar(30) | YES  |     | NULL    |       |
| city     | varchar(15) | YES  |     | NULL    |       |
| state    | varchar(15) | YES  |     | NULL    |       |
| pincode  | int         | YES  |     | NULL    |       |
| products | varchar(40) | YES  |     | NULL    |       |
| price    | int         | YES  |     | NULL    |       |
+----------+-------------+------+-----+---------+-------+
7 rows in set (0.02 sec)

mysql> insert into customer values('C101','rahul','anna nagar','chennai',534567,'airpods',20000);
Query OK, 1 row affected (0.02 sec)

mysql> insert into customer values('C105','nikhil','hyderabad','telangana',345765,'shoes',1000);
Query OK, 1 row affected (0.01 sec)

mysql> insert into customer values('C109','harsh','pune','maharashtra',453278,'fridge',10000);
Query OK, 1 row affected (0.01 sec)

mysql> insert into customer values('C121','harsh','delhi','delhi',453278,'woven',4500);
Query OK, 1 row affected (0.01 sec)

mysql> insert into customer values('C131','john','vishakapatnam','andra apradesh',531116,'towels',2000);
Query OK, 1 row affected (0.02 sec)

mysql> select distinct name from customer;
+--------+
| name   |
+--------+
| rahul  |
| nikhil |
| harsh  |
| john   |
+--------+
4 rows in set (0.01 sec)

mysql> select name,city from customer;
+--------+---------------+
| name   | city          |
+--------+---------------+
| rahul  | anna nagar    |
| nikhil | hyderabad     |
| harsh  | pune          |
```

Q3: (q2 to q4)

```
mysql> select name,city from customer;
+--------+---------------+
| name   | city          |
+--------+---------------+
| rahul  | anna nagar    |
| nikhil | hyderabad     |
| harsh  | pune          |
| harsh  | delhi         |
| john   | vishakapatnam |
+--------+---------------+
5 rows in set (0.00 sec)

mysql> select products from customers where products like 's%';
ERROR 1146 (42S02): Table 'college.customers' doesn't exist
mysql> select products from customer where products like 's%';
+----------+
| products |
+----------+
| shoes    |
+----------+
1 row in set (0.00 sec)

mysql> select products from customer where products like 't%';
+----------+
| products |
+----------+
| towels   |
+----------+
1 row in set (0.00 sec)

mysql> select * from customer where products like 't%';
+---------+------+---------------+----------------+---------+----------+-------+
| cust_id | name | city          | state          | pincode | products | price |
+---------+------+---------------+----------------+---------+----------+-------+
| C131    | john | vishakapatnam | andra apradesh | 531116  | towels   | 2000  |
+---------+------+---------------+----------------+---------+----------+-------+
1 row in set (0.00 sec)

mysql> select * from customer where state ='chennai';
+---------+-------+------------+---------+---------+----------+-------+
| cust_id | name  | city       | state   | pincode | products | price |
+---------+-------+------------+---------+---------+----------+-------+
| C101    | rahul | anna nagar | chennai | 534567  | airpods  | 20000 |
+---------+-------+------------+---------+---------+----------+-------+
1 row in set (0.00 sec)

mysql> select * from customer where cust_id ='' and '^C
mysql> select * from customer where cust_id ='C109' and cust_id='C105';
Empty set (0.00 sec)
```

Q3: (q5 to q7)

MySQL 8.0 Command Line Client — □ ×

```
mysql> select * from customer;
+---------+--------+--------------+----------------+---------+----------+-------+
| cust_id | name   | city         | state          | pincode | products | price |
+---------+--------+--------------+----------------+---------+----------+-------+
| C101    | rahul  | anna nagar   | chennai        |  534567 | airpods  | 20000 |
| C105    | nikhil | hyderabad    | telangana      |  345765 | shoes    |  1000 |
| C109    | harsh  | pune         | maharashtra    |  453278 | fridge   | 10000 |
| C121    | harsh  | delhi        | delhi          |  453278 | woven    |  4500 |
| C131    | john   | vishakapatnam| andra apradesh |  531116 | towels   |  2000 |
+---------+--------+--------------+----------------+---------+----------+-------+
5 rows in set (0.00 sec)

mysql> select * from customer where cust_id in('C109','C105');
+---------+--------+-----------+-------------+---------+----------+-------+
| cust_id | name   | city      | state       | pincode | products | price |
+---------+--------+-----------+-------------+---------+----------+-------+
| C105    | nikhil | hyderabad | telangana   |  345765 | shoes    |  1000 |
| C109    | harsh  | pune      | maharashtra |  453278 | fridge   | 10000 |
+---------+--------+-----------+-------------+---------+----------+-------+
2 rows in set (0.00 sec)

mysql> select * from customer where price>4000;
+---------+--------+------------+-------------+---------+----------+-------+
| cust_id | name   | city       | state       | pincode | products | price |
+---------+--------+------------+-------------+---------+----------+-------+
| C101    | rahul  | anna nagar | chennai     |  534567 | airpods  | 20000 |
| C109    | harsh  | pune       | maharashtra |  453278 | fridge   | 10000 |
| C121    | harsh  | delhi      | delhi       |  453278 | woven    |  4500 |
+---------+--------+------------+-------------+---------+----------+-------+
3 rows in set (0.01 sec)

mysql> select cust_id from customer where city in ('hyderabad','pune','delhi');
+---------+
| cust_id |
+---------+
| C105    |
| C109    |
| C121    |
+---------+
3 rows in set (0.00 sec)

mysql> select * from customer where city in ('hyderabad','pune','delhi');
+---------+--------+-----------+-------------+---------+----------+-------+
| cust_id | name   | city      | state       | pincode | products | price |
+---------+--------+-----------+-------------+---------+----------+-------+
| C105    | nikhil | hyderabad | telangana   |  345765 | shoes    |  1000 |
| C109    | harsh  | pune      | maharashtra |  453278 | fridge   | 10000 |
| C121    | harsh  | delhi     | delhi       |  453278 | woven    |  4500 |
```

Q3 : (q7 to q10)

```
mysql> select * from customer where city in ('hyderabad','pune','delhi');
+---------+--------+-----------+-------------+---------+----------+-------+
| cust_id | name   | city      | state       | pincode | products | price |
+---------+--------+-----------+-------------+---------+----------+-------+
| C105    | nikhil | hyderabad | telangana   |  345765 | shoes    |  1000 |
| C109    | harsh  | pune      | maharashtra |  453278 | fridge   | 10000 |
| C121    | harsh  | delhi     | delhi       |  453278 | woven    |  4500 |
+---------+--------+-----------+-------------+---------+----------+-------+
3 rows in set (0.00 sec)

mysql> select * from customer where price between 2000 and 5000;
+---------+-------+--------------+---------------+---------+----------+-------+
| cust_id | name  | city         | state         | pincode | products | price |
+---------+-------+--------------+---------------+---------+----------+-------+
| C121    | harsh | delhi        | delhi         |  453278 | woven    |  4500 |
| C131    | john  | vishakapatnam | andra apradesh |  531116 | towels   |  2000 |
+---------+-------+--------------+---------------+---------+----------+-------+
2 rows in set (0.00 sec)

mysql> select name,city,state from customer where state not in ('maharshtra');
+--------+--------------+----------------+
| name   | city         | state          |
+--------+--------------+----------------+
| rahul  | anna nagar   | chennai        |
| nikhil | hyderabad    | telangana      |
| harsh  | delhi        | delhi          |
| john   | vishakapatnam | andra apradesh |
+--------+--------------+----------------+
4 rows in set (0.01 sec)

mysql> update customer set name ='johney' where name ='john';
Query OK, 1 row affected (0.01 sec)
Rows matched: 1  Changed: 1  Warnings: 0

mysql> select * from customer;
+---------+--------+--------------+----------------+---------+----------+-------+
| cust_id | name   | city         | state          | pincode | products | price |
+---------+--------+--------------+----------------+---------+----------+-------+
| C101    | rahul  | anna nagar   | chennai        |  534567 | airpods  | 20000 |
| C105    | nikhil | hyderabad    | telangana      |  345765 | shoes    |  1000 |
| C109    | harsh  | pune         | maharashtra    |  453278 | fridge   | 10000 |
| C121    | harsh  | delhi        | delhi          |  453278 | woven    |  4500 |
| C131    | johney | vishakapatnam | andra apradesh |  531116 | towels   |  2000 |
+---------+--------+--------------+----------------+---------+----------+-------+
5 rows in set (0.00 sec)

mysql>
```

Exercise 3:

EXERCISE 3:

1. Create following table in the database 'business'
   1. employee (emp_no,emp_name, doj, ph_no, dept_name, designation,salary)
2. Load data from the text file
3. Add 3 to 5 rows in the employee,following below conditions
   a. Dept_names:'sales' ,'HR','Marketing','Accounts'
   b. Designation: 'Sales manager','HR','sales representative', 'CA', 'Typist', 'Receptionist'
4. Display all the records from the above table
5. Display the empno and name of all the employees from department name ending with 's'
6. Display the empno and name of all employees whose salary is between 2000 and 5000
7. Display all designations starting with 'sales'
8. Change the salary of employees to 25000 whose designation is 'Typist'
9. Change the mobile no of employee named 'john'
10. Give all the receptionists 10% hike
11. Find the employees whose mobile number is not mentioned
12. Delete all employees whose salaries are greater than Rs.7000
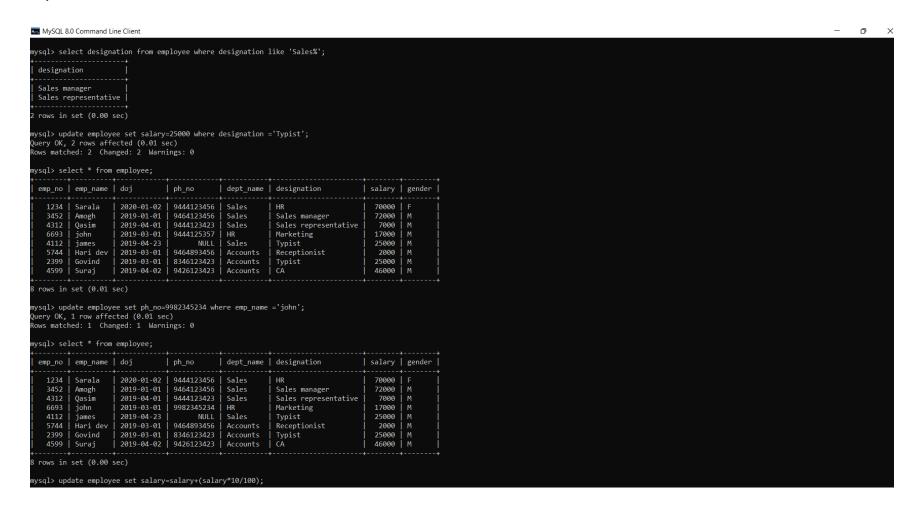13. Truncate the table
14. Display the table structure

Question 1 to 3:

```
MySQL 8.0 Command Line Client                                                                                    —    ☐    ✕

Enter password: ****
Welcome to the MySQL monitor.  Commands end with ; or \g.
Your MySQL connection id is 11
Server version: 8.0.26 MySQL Community Server - GPL

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affiliates. Other names may be trademarks of their respective
owners.

Type 'help;' or '\h' for help. Type '\c' to clear the current input statement.

mysql> create database business;
Query OK, 1 row affected (0.02 sec)

mysql> use business;
Database changed
mysql> create table employee(emp_no int,emp_name varchar(30),doj date,ph_no bigint,dept_name varchar(30),designation varchar(30),salary int,gender char(2));
Query OK, 0 rows affected (0.05 sec)

mysql> insert into employee values(1234,'Sarala','2020-01-02',9444123456,'Sales','HR',70000,'F');
Query OK, 1 row affected (0.01 sec)

mysql> insert into employee values(3452,'Amogh','2019-01-01',9464123456,'Sales','Sales manager',72000,'M');
Query OK, 1 row affected (0.01 sec)

mysql> insert into employee values(4312,'Qasim','2019-04-01',9444123423,'Sales','Sales representative',7000,'M');
Query OK, 1 row affected (0.01 sec)

mysql> insert into employee values(6693,'john','2019-03-01',9444125357,'HR','Marketing',17000,'M');
Query OK, 1 row affected (0.01 sec)

mysql> insert into employee values(4112,'james','2019-04-23',\N,'Sales','Typist',3300,'M');
ERROR 1064 (42000): You have an error in your SQL syntax; check the manual that corresponds to your MySQL server version for the right syntax to use near '\N,'Sales','Typist',3300,'M')' at line 1
mysql> insert into employee(emp_no,emp_name, doj, dept_name, designation,salary, gender) values(4112,'james','2019-04-23','Sales','Typist',3300,'M');
Query OK, 1 row affected (0.02 sec)

mysql> insert into employee values(5744,'Hari dev','2019-03-01',9464893456,'Accounts','Receptionist',2000,'M');
Query OK, 1 row affected (0.01 sec)

mysql> insert into employee values(2399,'Govind','2019-3-1',8346123423,'Accounts','Typist',4500,'M');
Query OK, 1 row affected (0.01 sec)

mysql> insert into employee values(4599,'Suraj','2019-04-2',9426123423,'Accounts','CA',46000,'M');
Query OK, 1 row affected (0.01 sec)

mysql> select * from table employee;
ERROR 1064 (42000): You have an error in your SQL syntax; check the manual that corresponds to your MySQL server version for the right syntax to use near 'table employee' at line 1
```

Question 4 to 6:

```
MySQL 8.0 Command Line Client                                                                                    —    □

mysql> select * from table employee;
ERROR 1064 (42000): You have an error in your SQL syntax; check the manual that corresponds to your MySQL server version for the right syntax to use near 'table employee' at line 1
mysql> select * from employee;
+--------+----------+------------+------------+-----------+---------------------+--------+--------+
| emp_no | emp_name | doj        | ph_no      | dept_name | designation         | salary | gender |
+--------+----------+------------+------------+-----------+---------------------+--------+--------+
|   1234 | Sarala   | 2020-01-02 | 9444123456 | Sales     | HR                  |  70000 | F      |
|   3452 | Amogh    | 2019-01-01 | 9464123456 | Sales     | Sales manager       |  72000 | M      |
|   4312 | Qasim    | 2019-04-01 | 9444123423 | Sales     | Sales representative |  7000 | M      |
|   6693 | john     | 2019-03-01 | 9444125357 | HR        | Marketing           |  17000 | M      |
|   4112 | james    | 2019-04-23 |       NULL | Sales     | Typist              |   3300 | M      |
|   5744 | Hari dev | 2019-03-01 | 9464893456 | Accounts  | Receptionist        |   2000 | M      |
|   2399 | Govind   | 2019-03-01 | 8346123423 | Accounts  | Typist              |   4500 | M      |
|   4599 | Suraj    | 2019-04-02 | 9426123423 | Accounts  | CA                  |  46000 | M      |
+--------+----------+------------+------------+-----------+---------------------+--------+--------+
8 rows in set (0.01 sec)

mysql> select emp_no,emp_name from employee where name like 's%';
ERROR 1054 (42S22): Unknown column 'name' in 'where clause'
mysql> select emp_no,emp_name from employee where emp_name like 's%';
+--------+----------+
| emp_no | emp_name |
+--------+----------+
|   1234 | Sarala   |
|   4599 | Suraj    |
+--------+----------+
2 rows in set (0.01 sec)

mysql> select emp_no,emp_name from employee where emp_name like '%s';
+--------+----------+
| emp_no | emp_name |
+--------+----------+
|   4112 | james    |
+--------+----------+
1 row in set (0.01 sec)

mysql> select emp_no,emp_name from employee where salary between 2000 and 5000;
+--------+----------+
| emp_no | emp_name |
+--------+----------+
|   4112 | james    |
|   5744 | Hari dev |
|   2399 | Govind   |
+--------+----------+
3 rows in set (0.00 sec)

mysql> select designation from employee where designation like 'Sales%';
+---------------------+
| designation         |
+---------------------+
```

Question 7 and 8:

```
MySQL 8.0 Command Line Client                                                             —    □    ×

mysql> select designation from employee where designation like 'Sales%';
+----------------------+
| designation          |
+----------------------+
| Sales manager        |
| Sales representative |
+----------------------+
2 rows in set (0.00 sec)

mysql> update employee set salary=25000 where designation ='Typist';
Query OK, 2 rows affected (0.01 sec)
Rows matched: 2  Changed: 2  Warnings: 0

mysql> select * from employee;
+--------+----------+------------+------------+-----------+----------------------+--------+--------+
| emp_no | emp_name | doj        | ph_no      | dept_name | designation          | salary | gender |
+--------+----------+------------+------------+-----------+----------------------+--------+--------+
|   1234 | Sarala   | 2020-01-02 | 9444123456 | Sales     | HR                   |  70000 | F      |
|   3452 | Amogh    | 2019-01-01 | 9464123456 | Sales     | Sales manager        |  72000 | M      |
|   4312 | Qasim    | 2019-04-01 | 9444123423 | Sales     | Sales representative |   7000 | M      |
|   6693 | john     | 2019-03-01 | 9444125357 | HR        | Marketing            |  17000 | M      |
|   4112 | james    | 2019-04-23 |       NULL | Sales     | Typist               |  25000 | M      |
|   5744 | Hari dev | 2019-03-01 | 9464893456 | Accounts  | Receptionist         |   2000 | M      |
|   2399 | Govind   | 2019-03-01 | 8346123423 | Accounts  | Typist               |  25000 | M      |
|   4599 | Suraj    | 2019-04-02 | 9426123423 | Accounts  | CA                   |  46000 | M      |
+--------+----------+------------+------------+-----------+----------------------+--------+--------+
8 rows in set (0.01 sec)

mysql> update employee set ph_no=9982345234 where emp_name ='john';
Query OK, 1 row affected (0.01 sec)
Rows matched: 1  Changed: 1  Warnings: 0

mysql> select * from employee;
+--------+----------+------------+------------+-----------+----------------------+--------+--------+
| emp_no | emp_name | doj        | ph_no      | dept_name | designation          | salary | gender |
+--------+----------+------------+------------+-----------+----------------------+--------+--------+
|   1234 | Sarala   | 2020-01-02 | 9444123456 | Sales     | HR                   |  70000 | F      |
|   3452 | Amogh    | 2019-01-01 | 9464123456 | Sales     | Sales manager        |  72000 | M      |
|   4312 | Qasim    | 2019-04-01 | 9444123423 | Sales     | Sales representative |   7000 | M      |
|   6693 | john     | 2019-03-01 | 9982345234 | HR        | Marketing            |  17000 | M      |
|   4112 | james    | 2019-04-23 |       NULL | Sales     | Typist               |  25000 | M      |
|   5744 | Hari dev | 2019-03-01 | 9464893456 | Accounts  | Receptionist         |   2000 | M      |
|   2399 | Govind   | 2019-03-01 | 8346123423 | Accounts  | Typist               |  25000 | M      |
|   4599 | Suraj    | 2019-04-02 | 9426123423 | Accounts  | CA                   |  46000 | M      |
+--------+----------+------------+------------+-----------+----------------------+--------+--------+
8 rows in set (0.00 sec)

mysql> update employee set salary=salary+(salary*10/100);
```

Question 9 to 12:

```
mysql> update employee set salary=salary+(salary*10/100);
Query OK, 8 rows affected (0.01 sec)
Rows matched: 8  Changed: 8  Warnings: 0

mysql> select * from employee;
+--------+----------+------------+------------+-----------+---------------------+--------+--------+
| emp_no | emp_name | doj        | ph_no      | dept_name | designation         | salary | gender |
+--------+----------+------------+------------+-----------+---------------------+--------+--------+
|   1234 | Sarala   | 2020-01-02 | 9444123456 | Sales     | HR                  |  77000 | F      |
|   3452 | Amogh    | 2019-01-01 | 9464123456 | Sales     | Sales manager       |  79200 | M      |
|   4312 | Qasim    | 2019-04-01 | 9444123423 | Sales     | Sales representative |  7700 | M      |
|   6693 | john     | 2019-03-01 | 9982345234 | HR        | Marketing           |  18700 | M      |
|   4112 | james    | 2019-04-23 |       NULL | Sales     | Typist              |  27500 | M      |
|   5744 | Hari dev | 2019-03-01 | 9464893456 | Accounts  | Receptionist        |   2200 | M      |
|   2399 | Govind   | 2019-03-01 | 8346123423 | Accounts  | Typist              |  27500 | M      |
|   4599 | Suraj    | 2019-04-02 | 9426123423 | Accounts  | CA                  |  50600 | M      |
+--------+----------+------------+------------+-----------+---------------------+--------+--------+
8 rows in set (0.01 sec)

mysql> select * from employee where ph_no is NULL;
+--------+----------+------------+-------+-----------+-------------+--------+--------+
| emp_no | emp_name | doj        | ph_no | dept_name | designation | salary | gender |
+--------+----------+------------+-------+-----------+-------------+--------+--------+
|   4112 | james    | 2019-04-23 |  NULL | Sales     | Typist      |  27500 | M      |
+--------+----------+------------+-------+-----------+-------------+--------+--------+
1 row in set (0.00 sec)

mysql> select emp_name from employee where ph_no is NULL;
+----------+
| emp_name |
+----------+
| james    |
+----------+
1 row in set (0.00 sec)

mysql> delete from employee where salary>7000;
Query OK, 7 rows affected (0.02 sec)

mysql> select * from employee;
+--------+----------+------------+------------+-----------+--------------+--------+--------+
| emp_no | emp_name | doj        | ph_no      | dept_name | designation  | salary | gender |
+--------+----------+------------+------------+-----------+--------------+--------+--------+
|   5744 | Hari dev | 2019-03-01 | 9464893456 | Accounts  | Receptionist |   2200 | M      |
+--------+----------+------------+------------+-----------+--------------+--------+--------+
1 row in set (0.01 sec)

mysql> truncate table employee;
Query OK, 0 rows affected (0.07 sec)
```

Question 13 and 14:

```
MySQL 8.0 Command Line Client                                                                        —    □    ×
+--------+----------+------------+------------+-----------+-------------+--------+--------+
8 rows in set (0.01 sec)

mysql> select * from employee where ph_no is NULL;
+--------+----------+------------+--------+-----------+-------------+--------+--------+
| emp_no | emp_name | doj        | ph_no  | dept_name | designation | salary | gender |
+--------+----------+------------+--------+-----------+-------------+--------+--------+
|   4112 | james    | 2019-04-23 |  NULL  | Sales     | Typist      |  27500 | M      |
+--------+----------+------------+--------+-----------+-------------+--------+--------+
1 row in set (0.00 sec)

mysql> select emp_name from employee where ph_no is NULL;
+----------+
| emp_name |
+----------+
| james    |
+----------+
1 row in set (0.00 sec)

mysql> delete from employee where salary>7000;
Query OK, 7 rows affected (0.02 sec)

mysql> select * from employee;
+--------+----------+------------+------------+-----------+-------------+--------+--------+
| emp_no | emp_name | doj        | ph_no      | dept_name | designation | salary | gender |
+--------+----------+------------+------------+-----------+-------------+--------+--------+
|   5744 | Hari dev | 2019-03-01 | 9464893456 | Accounts  | Receptionist|   2200 | M      |
+--------+----------+------------+------------+-----------+-------------+--------+--------+
1 row in set (0.01 sec)

mysql> truncate table employee;
Query OK, 0 rows affected (0.07 sec)

mysql> describe employee;
+-------------+-------------+------+-----+---------+-------+
| Field       | Type        | Null | Key | Default | Extra |
+-------------+-------------+------+-----+---------+-------+
| emp_no      | int         | YES  |     | NULL    |       |
| emp_name    | varchar(30) | YES  |     | NULL    |       |
| doj         | date        | YES  |     | NULL    |       |
| ph_no       | bigint      | YES  |     | NULL    |       |
| dept_name   | varchar(30) | YES  |     | NULL    |       |
| designation | varchar(30) | YES  |     | NULL    |       |
| salary      | int         | YES  |     | NULL    |       |
| gender      | char(2)     | YES  |     | NULL    |       |
+-------------+-------------+------+-----+---------+-------+
8 rows in set (0.05 sec)

mysql>
```

THANK YOU