LAB 3

Setting environment for using XAMPP for Windows.

user@gaurav c:\xampp

cd C:\xampp\mysql\bin

user@gaurav C:\xampp\mysql\bin

mysql -u root -p

Enter password:

Welcome to the MariaDB monitor. Commands end with ; or \g.

Your MariaDB connection id is 11

Server version: 10.4.32-MariaDB mariadb.org binary distribution

Copyright (c) 2000, 2018, Oracle, MariaDB Corporation Ab and others.

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

MariaDB [(none)]> drop database gaurav;

Query OK, 4 rows affected (0.042 sec)

MariaDB [(none)]> create database gaurav;

Query OK, 1 row affected (0.010 sec)

MariaDB [(none)]> use gaurav;

Database changed

MariaDB [gaurav]> create table emp(empno int,ename nvarchar(20),job nvarchar(10),deptname nvarchar(10),sal int,address nvarchar(30));

Query OK, 0 rows affected (0.011 sec)

MariaDB [gaurav]> desc emp;

```
+----------+-------------+------+-----+---------+-------+
| Field    | Type        | Null | Key | Default | Extra |
+----------+-------------+------+-----+---------+-------+
| empno    | int(11)     | YES  |     | NULL    |       |
| ename    | varchar(20) | YES  |     | NULL    |       |
| job      | varchar(10) | YES  |     | NULL    |       |
| deptname | varchar(10) | YES  |     | NULL    |       |
| sal      | int(11)     | YES  |     | NULL    |       |
| address  | varchar(30) | YES  |     | NULL    |       |
+----------+-------------+------+-----+---------+-------+
6 rows in set (0.014 sec)
```

MariaDB [gaurav]> create table product(pid int,pname nvarchar(20),price int,
description nvarchar(100));
Query OK, 0 rows affected (0.007 sec)

MariaDB [gaurav]> desc product;
```
+-------------+--------------+------+-----+---------+-------+
| Field       | Type         | Null | Key | Default | Extra |
+-------------+--------------+------+-----+---------+-------+
| pid         | int(11)      | YES  |     | NULL    |       |
| pname       | varchar(20)  | YES  |     | NULL    |       |
| price       | int(11)      | YES  |     | NULL    |       |
| description | varchar(100) | YES  |     | NULL    |       |
+-------------+--------------+------+-----+---------+-------+
4 rows in set (0.010 sec)
```

MariaDB [gaurav]> create table customer(cid int,cname nvarchar(30),address n
varchar(100));
Query OK, 0 rows affected (0.007 sec)

MariaDB [gaurav]> desc customer;

```
+---------+--------------+------+-----+---------+-------+
| Field   | Type         | Null | Key | Default | Extra |
+---------+--------------+------+-----+---------+-------+
| cid     | int(11)      | YES  |     | NULL    |       |
| cname   | varchar(30)  | YES  |     | NULL    |       |
| address | varchar(100) | YES  |     | NULL    |       |
+---------+--------------+------+-----+---------+-------+
```

3 rows in set (0.005 sec)

MariaDB [gaurav]> create table sells(pid int,cid int,quantity int);
Query OK, 0 rows affected (0.012 sec)

MariaDB [gaurav]> desc sells;

```
+----------+---------+------+-----+---------+-------+
| Field    | Type    | Null | Key | Default | Extra |
+----------+---------+------+-----+---------+-------+
| pid      | int(11) | YES  |     | NULL    |       |
| cid      | int(11) | YES  |     | NULL    |       |
| quantity | int(11) | YES  |     | NULL    |       |
+----------+---------+------+-----+---------+-------+
```

3 rows in set (0.010 sec)

MariaDB [gaurav]> INSERT INTO EMP(EMPNO,ENAME,JOB,DEPTName,SAL,ADDRESS)
    -> VALUES
    -> (1,'Ram','Manager','HR',50000,'123 Ram bazar'),
    -> (2,'Hari','Developer','IT',60000,'456 Mahendrapool'),
    -> (3,'David','Salesperson','Sales',40000,'789 Chauthe'),
    -> (4,'Sarah','Analyst','Finance',55000,'321 Amarsingh'),
    -> (5,'Sagun','Designer','Marketing',45000,'987 Lamachaur');
Query OK, 5 rows affected, 1 warning (0.002 sec)

Records: 5 Duplicates: 0 Warnings: 1

MariaDB [gaurav]> select * from emp;

```
+-------+-------+------------+-----------+-------+------------------+
| empno | ename | job        | deptname  | sal   | address          |
+-------+-------+------------+-----------+-------+------------------+
|     1 | Ram   | Manager    | HR        | 50000 | 123 Ram bazar    |
|     2 | Hari  | Developer  | IT        | 60000 | 456 Mahendrapool |
|     3 | David | Salesperso | Sales     | 40000 | 789 Chauthe      |
|     4 | Sarah | Analyst    | Finance   | 55000 | 321 Amarsingh    |
|     5 | Sagun | Designer   | Marketing | 45000 | 987 Lamachaur    |
+-------+-------+------------+-----------+-------+------------------+
```
5 rows in set (0.000 sec)

MariaDB [gaurav]> INSERT INTO Product(Pid,Pname,Price,description)
    -> VALUES
    -> (1,'Product A',100.00,'Description A'),
    -> (2,'Product B',200.00,'Description B'),
    -> (3,'Product C',300.00,'Description C'),
    -> (4,'Product D',400.00,'Description D'),
    -> (5,'Product E',500.00,'Descrition E');
Query OK, 5 rows affected (0.007 sec)
Records: 5 Duplicates: 0 Warnings: 0

MariaDB [gaurav]> select * from product;

```
+------+-----------+-------+---------------+
| pid  | pname     | price | description   |
+------+-----------+-------+---------------+
|    1 | Product A |   100 | Description A |
|    2 | Product B |   200 | Description B |
|    3 | Product C |   300 | Description C |
```

```
|    4 | Product D |   400 | Description D |
|    5 | Product E |   500 | Descrition E  |
+------+-----------+-------+---------------+
5 rows in set (0.001 sec)


MariaDB [gaurav]> INSERT INTO Customer(Cid,Cname,Address)
    -> VALUES
    -> (1,'Ram','123 Ram bazar'),
    -> (2,'Hari','456 Mahendrapool'),
    -> (3,'David','789 Chauthe'),
    -> (4,'Sarah','321 Amarsingh'),
    -> (5,'Sagun','987 Lamachaur');
Query OK, 5 rows affected (0.008 sec)
Records: 5  Duplicates: 0  Warnings: 0


MariaDB [gaurav]> select * from customer;
+------+-------+------------------+
| cid  | cname | address          |
+------+-------+------------------+
|    1 | Ram   | 123 Ram bazar    |
|    2 | Hari  | 456 Mahendrapool |
|    3 | David | 789 Chauthe      |
|    4 | Sarah | 321 Amarsingh    |
|    5 | Sagun | 987 Lamachaur    |
+------+-------+------------------+
5 rows in set (0.000 sec)


MariaDB [gaurav]> INSERT INTO Sells(Pid,Cid,quantity)
    -> VALUES
    -> (1,1,10),
    -> (2,2,5),
```

-> (3,3,8),

    -> (4,4,3),

    -> (5,5,2);

Query OK, 5 rows affected (0.008 sec)

Records: 5 Duplicates: 0 Warnings: 0

MariaDB [gaurav]> select * from sells;

```
+------+------+----------+
| pid  | cid  | quantity |
+------+------+----------+
|    1 |    1 |       10 |
|    2 |    2 |        5 |
|    3 |    3 |        8 |
|    4 |    4 |        3 |
|    5 |    5 |        2 |
+------+------+----------+
```

5 rows in set (0.000 sec)

MariaDB [gaurav]> SELECT * FROM EMP WHERE SAL>25000;

```
+-------+-------+------------+-----------+-------+------------------+
| empno | ename | job        | deptname  | sal   | address          |
+-------+-------+------------+-----------+-------+------------------+
|     1 | Ram   | Manager    | HR        | 50000 | 123 Ram bazar    |
|     2 | Hari  | Developer  | IT        | 60000 | 456 Mahendrapool |
|     3 | David | Salesperso | Sales     | 40000 | 789 Chauthe      |
|     4 | Sarah | Analyst    | Finance   | 55000 | 321 Amarsingh    |
|     5 | Sagun | Designer   | Marketing | 45000 | 987 Lamachaur    |
+-------+-------+------------+-----------+-------+------------------+
```

5 rows in set (0.003 sec)

MariaDB [gaurav]> SELECT * FROM Product WHERE Price>500.00;

Empty set (0.000 sec)

MariaDB [gaurav]> select * from product;

```
+------+-----------+-------+--------------+
| pid  | pname     | price | description  |
+------+-----------+-------+--------------+
|    1 | Product A |   100 | Description A |
|    2 | Product B |   200 | Description B |
|    3 | Product C |   300 | Description C |
|    4 | Product D |   400 | Description D |
|    5 | Product E |   500 | Descrition E  |
+------+-----------+-------+--------------+
```

5 rows in set (0.000 sec)

MariaDB [gaurav]> SELECT * FROM Product WHERE Price > 500.00;

Empty set (0.000 sec)

MariaDB [gaurav]> SELECT * FROM Customer WHERE Address LIKE '%Pokhara%';

Empty set (0.001 sec)

MariaDB [gaurav]> SELECT * FROM Customer WHERE Address LIKE '%Lamachaur%';

```
+------+-------+--------------+
| cid  | cname | address      |
+------+-------+--------------+
|    5 | Sagun | 987 Lamachaur |
+------+-------+--------------+
```

1 row in set (0.001 sec)

MariaDB [gaurav]> SELECT * FROM EMP WHERE JOB='HR' AND ADDRESS LIKE '%Chauth

e%';

Empty set (0.007 sec)

MariaDB [gaurav]> SELECT * FROM EMP WHERE JOB='Manager';

```
+-------+-------+---------+----------+-------+--------------+
| empno | ename | job     | deptname | sal   | address      |
+-------+-------+---------+----------+-------+--------------+
|     1 | Ram   | Manager | HR       | 50000 | 123 Ram bazar |
+-------+-------+---------+----------+-------+--------------+
```
1 row in set (0.000 sec)

MariaDB [gaurav]> SELECT * FROM EMP WHERE ADDRESS LIKE '%Chauthe%';

```
+-------+-------+------------+----------+-------+-------------+
| empno | ename | job        | deptname | sal   | address     |
+-------+-------+------------+----------+-------+-------------+
|     3 | David | Salesperso | Sales    | 40000 | 789 Chauthe |
+-------+-------+------------+----------+-------+-------------+
```
1 row in set (0.000 sec)

MariaDB [gaurav]> SELECT COUNT(*) AS TotalEmployees FROM EMP;

```
+----------------+
| TotalEmployees |
+----------------+
|              5 |
+----------------+
```
1 row in set (0.007 sec)

MariaDB [gaurav]> SELECT COUNT(DISTINCT JOB) AS TotalPosts FROM EMP;

```
+------------+
| TotalPosts |
+------------+
|          5 |
+------------+
```

1 row in set (0.002 sec)

MariaDB [gaurav]> UPDATE EMP SET SAL=SAL*1.15 WHERE DEPTName='1' AND JOB='Ma nager';

Query OK, 0 rows affected (0.007 sec)

Rows matched: 0 Changed: 0 Warnings: 0

MariaDB [gaurav]> DESC EMP;

```
+----------+-------------+------+-----+---------+-------+
| Field    | Type        | Null | Key | Default | Extra |
+----------+-------------+------+-----+---------+-------+
| empno    | int(11)     | YES  |     | NULL    |       |
| ename    | varchar(20) | YES  |     | NULL    |       |
| job      | varchar(10) | YES  |     | NULL    |       |
| deptname | varchar(10) | YES  |     | NULL    |       |
| sal      | int(11)     | YES  |     | NULL    |       |
| address  | varchar(30) | YES  |     | NULL    |       |
+----------+-------------+------+-----+---------+-------+
```

6 rows in set (0.004 sec)

MariaDB [gaurav]> select * from emp;

```
+-------+-------+------------+-----------+-------+-----------------+
| empno | ename | job        | deptname  | sal   | address         |
+-------+-------+------------+-----------+-------+-----------------+
|     1 | Ram   | Manager    | HR        | 50000 | 123 Ram bazar   |
|     2 | Hari  | Developer  | IT        | 60000 | 456 Mahendrapool|
|     3 | David | Salesperso | Sales     | 40000 | 789 Chauthe     |
|     4 | Sarah | Analyst    | Finance   | 55000 | 321 Amarsingh   |
|     5 | Sagun | Designer   | Marketing | 45000 | 987 Lamachaur   |
+-------+-------+------------+-----------+-------+-----------------+
```

5 rows in set (0.000 sec)

MariaDB [gaurav]> SELECT * FROM EMP WHERE SAL>(SELECT AVG(SAL) FROM EMP);

```
+-------+-------+-----------+----------+-------+-----------------+
| empno | ename | job       | deptname | sal   | address         |
+-------+-------+-----------+----------+-------+-----------------+
|     2 | Hari  | Developer | IT       | 60000 | 456 Mahendrapool |
|     4 | Sarah | Analyst   | Finance  | 55000 | 321 Amarsingh   |
+-------+-------+-----------+----------+-------+-----------------+
```

2 rows in set (0.001 sec)

MariaDB [gaurav]> SELECT * FROM Product WHERE Pid IN (SELECT Pid FROM Sells

WHERE Cid=5);

```
+------+-----------+-------+-------------+
| pid  | pname     | price | description |
+------+-----------+-------+-------------+
|    5 | Product E |   500 | Descrition E |
+------+-----------+-------+-------------+
```

1 row in set (0.007 sec)

MariaDB [gaurav]> SELECT * FROM Customer WHERE Cid IN (SELECT Cid FROM Sells WHERE Pid=3);

```
+------+-------+-------------+
| cid  | cname | address     |
+------+-------+-------------+
|    3 | David | 789 Chauthe |
+------+-------+-------------+
```

1 row in set (0.000 sec)

MariaDB [gaurav]> SELECT * FROM Product WHERE Pid=(SELECT Pid FROM Sells GRO

UP BY Pid ORDER BY SUM(quantity) DESC LIMIT 1);

```
+------+-----------+-------+--------------+
| pid  | pname     | price | description  |
```

```
+------+-----------+-------+---------------+
|    1 | Product A |   100 | Description A |
+------+-----------+-------+---------------+
1 row in set (0.008 sec)
```

MariaDB [gaurav]> SELECT SUM(SAL) AS TotalAmount FROM EMP WHERE DEPTName='HR';

```
+-------------+
| TotalAmount |
+-------------+
|       50000 |
+-------------+
1 row in set (0.000 sec)
```

MariaDB [gaurav]> SELECT * FROM EMP WHERE SAL=(SELECT MAX(SAL) FROM EMP);

```
+-------+-------+-----------+----------+-------+-----------------+
| empno | ename | job       | deptname | sal   | address         |
+-------+-------+-----------+----------+-------+-----------------+
|     2 | Hari  | Developer | IT       | 60000 | 456 Mahendrapool |
+-------+-------+-----------+----------+-------+-----------------+
1 row in set (0.001 sec)
```

MariaDB [gaurav]> SELECT COUNT(*) AS NumEmployees FROM EMP WHERE SAL<(SELECT AVG(SAL) FROM EMP);

```
+--------------+
| NumEmployees |
+--------------+
|            2 |
+--------------+
1 row in set (0.001 sec)
```

MariaDB [gaurav]> SELECT * FROM EMP WHERE SAL=(SELECT MIN(SAL) FROM EMP WHER

E DEPTName='Sales');

```
+-------+-------+------------+----------+-------+-------------+
| empno | ename | job        | deptname | sal   | address     |
+-------+-------+------------+----------+-------+-------------+
|     3 | David | Salesperso | Sales    | 40000 | 789 Chauthe |
+-------+-------+------------+----------+-------+-------------+
```

1 row in set (0.000 sec)

MariaDB [gaurav]> UPDATE EMP SET SAL=SAL+1000 WHERE SAL<(SELECT AVG(SAL) FRO

M EMP);

Query OK, 2 rows affected (0.008 sec)

Rows matched: 2 Changed: 2 Warnings: 0

MariaDB [gaurav]> SELECT * FROM EMP;

```
+-------+-------+------------+-----------+-------+-----------------+
| empno | ename | job        | deptname  | sal   | address         |
+-------+-------+------------+-----------+-------+-----------------+
|     1 | Ram   | Manager    | HR        | 50000 | 123 Ram bazar   |
|     2 | Hari  | Developer  | IT        | 60000 | 456 Mahendrapool |
|     3 | David | Salesperso | Sales     | 41000 | 789 Chauthe     |
|     4 | Sarah | Analyst    | Finance   | 55000 | 321 Amarsingh   |
|     5 | Sagun | Designer   | Marketing | 46000 | 987 Lamachaur   |
+-------+-------+------------+-----------+-------+-----------------+
```

5 rows in set (0.000 sec)

MariaDB [gaurav]> UPDATE EMP SET DEPTName='Sales',ADDRESS='Pokhara' WHERE EN

AME='Sita';

Query OK, 0 rows affected (0.000 sec)

Rows matched: 0 Changed: 0 Warnings: 0

MariaDB [gaurav]> SELECT * FROM EMP;

```
+-------+-------+------------+-----------+-------+------------------+
| empno | ename | job        | deptname  | sal   | address          |
+-------+-------+------------+-----------+-------+------------------+
|    1 | Ram   | Manager    | HR        | 50000 | 123 Ram bazar    |
|    2 | Hari  | Developer  | IT        | 60000 | 456 Mahendrapool |
|    3 | David | Salesperso | Sales     | 41000 | 789 Chauthe      |
|    4 | Sarah | Analyst    | Finance   | 55000 | 321 Amarsingh    |
|    5 | Sagun | Designer   | Marketing | 46000 | 987 Lamachaur    |
+-------+-------+------------+-----------+-------+------------------+
5 rows in set (0.000 sec)
```

MariaDB [gaurav]> UPDATE EMP SET DEPTName='Sales',ADDRESS='Pokhara' WHERE ENAME='David';
Query OK, 1 row affected (0.007 sec)
Rows matched: 1 Changed: 1 Warnings: 0

MariaDB [gaurav]> SELECT * FROM EMP;
```
+-------+-------+------------+-----------+-------+------------------+
| empno | ename | job        | deptname  | sal   | address          |
+-------+-------+------------+-----------+-------+------------------+
|    1 | Ram   | Manager    | HR        | 50000 | 123 Ram bazar    |
|    2 | Hari  | Developer  | IT        | 60000 | 456 Mahendrapool |
|    3 | David | Salesperso | Sales     | 41000 | Pokhara          |
|    4 | Sarah | Analyst    | Finance   | 55000 | 321 Amarsingh    |
|    5 | Sagun | Designer   | Marketing | 46000 | 987 Lamachaur    |
+-------+-------+------------+-----------+-------+------------------+
5 rows in set (0.000 sec)
```

MariaDB [gaurav]>