[TE@fedora ~]$ mysql -h 10.10.14.184 -u te31260 -p

Enter password:

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

Your MariaDB connection id is 260

Server version: 10.4.19-MariaDB MariaDB Server

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

MariaDB [(none)]> use te31260\_db;

Reading table information for completion of table and column names

You can turn off this feature to get a quicker startup with -A

Database changed

MariaDB [te31260\_db]> show tables;

+----------------------+

| Tables\_in\_te31260\_db |

+----------------------+

| Dept |

| Employee |

| Project |

+----------------------+

3 rows in set (0.001 sec)

MariaDB [te31260\_db]> create table Dept(Dept\_id integer,Dept\_name varchar(10),Dept\_location varchar(10),primary key(Dept\_id));

Query OK, 0 rows affected (0.155 sec)

MariaDB [te31260\_db]> create table Employee(Emp\_id integer,Dept\_id integer,Emp\_fname varchar(10),Emp\_lname varchar(10),Emp\_Position varchar(10),Emp\_salary integer,Emp\_JoinDate varchar(10),primary key(Emp\_id),foreign key(Dept\_id) references Dept (Dept\_id) on delete cascade);

Query OK, 0 rows affected (0.190 sec)

MariaDB [te31260\_db]> create table Project(Proj\_id integer,Dept\_id integer,Proj\_name varchar(20),Proj\_location varchar(10),Proj\_cost integer,Proj\_year integer,primary key(Proj\_id),foreign key(Dept\_id) references Dept(Dept\_id) on delete cascade);

Query OK, 0 rows affected (0.166 sec)

MariaDB [te31260\_db]> desc Dept;

+---------------+-------------+------+-----+---------+-------+

| Field | Type | Null | Key | Default | Extra |

+---------------+-------------+------+-----+---------+-------+

| Dept\_id | int(11) | NO | PRI | NULL | |

| Dept\_name | varchar(10) | YES | | NULL | |

| Dept\_location | varchar(10) | YES | | NULL | |

+---------------+-------------+------+-----+---------+-------+

3 rows in set (0.058 sec)

MariaDB [te31260\_db]> desc Employee;

+--------------+-------------+------+-----+---------+-------+

| Field | Type | Null | Key | Default | Extra |

+--------------+-------------+------+-----+---------+-------+

| Emp\_id | int(11) | NO | PRI | NULL | |

| Dept\_id | int(11) | YES | MUL | NULL | |

| Emp\_fname | varchar(10) | YES | | NULL | |

| Emp\_lname | varchar(10) | YES | | NULL | |

| Emp\_Position | varchar(10) | YES | | NULL | |

| Emp\_salary | int(11) | YES | | NULL | |

| Emp\_JoinDate | varchar(10) | YES | | NULL | |

+--------------+-------------+------+-----+---------+-------+

7 rows in set (0.003 sec)

MariaDB [te31260\_db]> desc Project;

+---------------+-------------+------+-----+---------+-------+

| Field | Type | Null | Key | Default | Extra |

+---------------+-------------+------+-----+---------+-------+

| Proj\_id | int(11) | NO | PRI | NULL | |

| Dept\_id | int(11) | YES | MUL | NULL | |

| Proj\_name | varchar(20) | YES | | NULL | |

| Proj\_location | varchar(10) | YES | | NULL | |

| Proj\_cost | int(11) | YES | | NULL | |

| Proj\_year | int(11) | YES | | NULL | |

+---------------+-------------+------+-----+---------+-------+

6 rows in set (0.003 sec)

**Query 1: Insert at least 10 records in the Employee Table and insert in other tables accordingly.**

MariaDB [te31260\_db]> insert into Dept values(1011,'Computer','Pune');

Query OK, 1 row affected (0.033 sec)

MariaDB [te31260\_db]> insert into Dept values(1012,'IT','Mumbai');

Query OK, 1 row affected (0.037 sec)

MariaDB [te31260\_db]> insert into Dept values(1013,'ECE','Banglore');

Query OK, 1 row affected (0.032 sec)

MariaDB [te31260\_db]> select \* from Dept;

+---------+-----------+---------------+

| Dept\_id | Dept\_name | Dept\_location |

+---------+-----------+---------------+

| 1011 | Computer | Pune |

| 1012 | IT | Mumbai |

| 1013 | ECE | Banglore |

+---------+-----------+---------------+

3 rows in set (0.001 sec)

MariaDB [te31260\_db]> alter table Employee modify Emp\_JoinDate integer;

Query OK, 0 rows affected (0.498 sec)

Records: 0 Duplicates: 0 Warnings: 0

MariaDB [te31260\_db]> insert into Employee values(101,1011,'Gayatri','Pillai','GM',10000,2000);

Query OK, 1 row affected (0.031 sec)

MariaDB [te31260\_db]> insert into Employee values(102,1011,'Hans','Mittal','VP',100000,1980);

Query OK, 1 row affected (0.041 sec)

MariaDB [te31260\_db]> insert into Employee values(103,1012,'Sakshi','Marbahl','GM',10000,2002);

Query OK, 1 row affected (0.030 sec)

MariaDB [te31260\_db]> insert into Employee values(104,1012,'Parth','Joshi','VP',200000,1984);

Query OK, 1 row affected (0.030 sec)

MariaDB [te31260\_db]> insert into Employee values(105,1013,'Keshini','Jain','GM',10000,1986);

Query OK, 1 row affected (0.037 sec)

MariaDB [te31260\_db]> insert into Employee values(106,1013,'Prajwal','Padole','GM',10000,1980);

Query OK, 1 row affected (0.037 sec)

MariaDB [te31260\_db]> insert into Employee values(107,1011,'Sharon','Grace','Analyst',10000,2000);

Query OK, 1 row affected (0.031 sec)

MariaDB [te31260\_db]> insert into Employee values(108,1011,'Soumya','Aachari','Engineer',1000,2004);

Query OK, 1 row affected (0.025 sec)

MariaDB [te31260\_db]> insert into Employee values(109,1012,'Mihika','Joshi','Engineer',1000,2005);

Query OK, 1 row affected (0.030 sec)

MariaDB [te31260\_db]> insert into Employee values(110,1013,'Shreeya','Kalbhor','Engineer',1000,2005);

Query OK, 1 row affected (0.025 sec)

MariaDB [te31260\_db]> select \* from Employee;

+--------+---------+-----------+-----------+--------------+------------+--------------+

| Emp\_id | Dept\_id | Emp\_fname | Emp\_lname | Emp\_Position | Emp\_salary | Emp\_JoinDate |

+--------+---------+-----------+-----------+--------------+------------+--------------+

| 101 | 1011 | Gayatri | Pillai | GM | 10000 | 2000 |

| 102 | 1011 | Hans | Mittal | VP | 100000 | 1980 |

| 103 | 1012 | Sakshi | Marbahl | GM | 10000 | 2002 |

| 104 | 1012 | Parth | Joshi | VP | 200000 | 1984 |

| 105 | 1013 | Keshini | Jain | GM | 10000 | 1986 |

| 106 | 1013 | Prajwal | Padole | GM | 10000 | 1980 |

| 107 | 1011 | Sharon | Grace | Analyst | 10000 | 2000 |

| 108 | 1011 | Soumya | Aachari | Engineer | 1000 | 2004 |

| 109 | 1012 | Mihika | Joshi | Engineer | 1000 | 2005 |

| 110 | 1013 | Shreeya | Kalbhor | Engineer | 1000 | 2005 |

+--------+---------+-----------+-----------+--------------+------------+--------------+

10 rows in set (0.001 sec)

MariaDB [te31260\_db]> insert into Project values(1,1011,'Analytics','Pune',200000,2004);

Query OK, 1 row affected (0.035 sec)

MariaDB [te31260\_db]> insert into Project values(2,1012,'Landmark Detection','Mumbai',300000,2005);

Query OK, 1 row affected (0.033 sec)

MariaDB [te31260\_db]> insert into Project values(3,1011,'Chatbot','Banglore',600000,2006);

Query OK, 1 row affected (0.027 sec)

MariaDB [te31260\_db]> insert into Project values(4,1013,'GenAI','Pune',500000,2007);

Query OK, 1 row affected (0.075 sec)

MariaDB [te31260\_db]> insert into Project values(5,1012,'Anomaly Detection','Mumbai',300000,2003);

Query OK, 1 row affected (0.111 sec)

MariaDB [te31260\_db]> insert into Project values(6,1013,'Disease Prediction','Banglore',500000,2004);

Query OK, 1 row affected (0.025 sec)

MariaDB [te31260\_db]> select \* from Project;

+---------+---------+--------------------+---------------+-----------+-----------+

| Proj\_id | Dept\_id | Proj\_name | Proj\_location | Proj\_cost | Proj\_year |

+---------+---------+--------------------+---------------+-----------+-----------+

| 1 | 1011 | Analytics | Pune | 200000 | 2004 |

| 2 | 1012 | Landmark Detection | Mumbai | 300000 | 2005 |

| 3 | 1011 | Chatbot | Banglore | 600000 | 2006 |

| 4 | 1013 | GenAI | Pune | 500000 | 2007 |

| 5 | 1012 | Anomaly Detection | Mumbai | 300000 | 2003 |

| 6 | 1013 | Disease Prediction | Banglore | 500000 | 2004 |

+---------+---------+--------------------+---------------+-----------+-----------+

6 rows in set (0.001 sec)

**Query 2: Display all Employee details with Department ‘Computer’ and ‘IT’ and Employee**

**first name starting with 'p' or 'h'.**

MariaDB [te31260\_db]> SELECT Employee.\* from Employee join Dept on Employee.Dept\_id = Dept.Dept\_id where

(Dept.Dept\_name = 'Computer' or Dept.Dept\_name = 'IT') and (Employee.Emp\_fname like 'p%' or Employee.Emp\_fname like 'h%');

+--------+---------+-----------+-----------+--------------+------------+--------------+

| Emp\_id | Dept\_id | Emp\_fname | Emp\_lname | Emp\_Position | Emp\_salary | Emp\_JoinDate |

+--------+---------+-----------+-----------+--------------+------------+--------------+

| 102 | 1011 | Hans | Mittal | VP | 100000 | 1980 |

| 104 | 1012 | Parth | Joshi | VP | 200000 | 1984 |

+--------+---------+-----------+-----------+--------------+------------+--------------+

2 rows in set (0.001 sec)

**Query 3: List the number of different Employee Positions.**

MariaDB [te31260\_db]> select distinct Emp\_Position from Employee;

+--------------+

| Emp\_Position |

+--------------+

| GM |

| VP |

| Analyst |

| Engineer |

+--------------+

4 rows in set (0.001 sec)

**Query 4: Give 10% increase in Salary of the Employee whose joining year is before 1985.**

MariaDB [te31260\_db]> update Employee set Emp\_salary = Emp\_salary\*1.1 where Emp\_JoinDate <1985;

Query OK, 3 rows affected (0.081 sec)

Rows matched: 3 Changed: 3 Warnings: 0

MariaDB [te31260\_db]> select \* from Employee;

+--------+---------+-----------+-----------+--------------+------------+--------------+

| Emp\_id | Dept\_id | Emp\_fname | Emp\_lname | Emp\_Position | Emp\_salary | Emp\_JoinDate |

+--------+---------+-----------+-----------+--------------+------------+--------------+

| 101 | 1011 | Gayatri | Pillai | GM | 10000 | 2000 |

| 102 | 1011 | Hans | Mittal | VP | 110000 | 1980 |

| 103 | 1012 | Sakshi | Marbahl | GM | 10000 | 2002 |

| 104 | 1012 | Parth | Joshi | VP | 220000 | 1984 |

| 105 | 1013 | Keshini | Jain | GM | 10000 | 1986 |

| 106 | 1013 | Prajwal | Padole | GM | 11000 | 1980 |

| 107 | 1011 | Sharon | Grace | Analyst | 10000 | 2000 |

| 108 | 1011 | Soumya | Aachari | Engineer | 1000 | 2004 |

| 109 | 1012 | Mihika | Joshi | Engineer | 1000 | 2005 |

| 110 | 1013 | Shreeya | Kalbhor | Engineer | 1000 | 2005 |

+--------+---------+-----------+-----------+--------------+------------+--------------+

10 rows in set (0.001 sec)

**Query 5: Delete Department details which location is ‘Mumbai’.**

MariaDB [te31260\_db]> delete from Dept where Dept\_location = 'Mumbai';

Query OK, 1 row affected (0.036 sec)

MariaDB [te31260\_db]> select \* from Dept;

+---------+-----------+---------------+

| Dept\_id | Dept\_name | Dept\_location |

+---------+-----------+---------------+

| 1011 | Computer | Pune |

| 1013 | ECE | Banglore |

+---------+-----------+---------------+

2 rows in set (0.001 sec)

**Query 6: Find the names of Projects with location ‘pune’ .**

MariaDB [te31260\_db]> select \* from Project where Proj\_location = 'Pune';

+---------+---------+-----------+---------------+-----------+-----------+

| Proj\_id | Dept\_id | Proj\_name | Proj\_location | Proj\_cost | Proj\_year |

+---------+---------+-----------+---------------+-----------+-----------+

| 1 | 1011 | Analytics | Pune | 200000 | 2004 |

| 4 | 1013 | GenAI | Pune | 500000 | 2007 |

+---------+---------+-----------+---------------+-----------+-----------+

2 rows in set (0.001 sec)

**Query 7: Find the project having cost in between 100000 to 500000.**

MariaDB [te31260\_db]> select \* from Project where Proj\_cost between 100000 and 500000;

+---------+---------+--------------------+---------------+-----------+-----------+

| Proj\_id | Dept\_id | Proj\_name | Proj\_location | Proj\_cost | Proj\_year |

+---------+---------+--------------------+---------------+-----------+-----------+

| 1 | 1011 | Analytics | Pune | 200000 | 2004 |

| 4 | 1013 | GenAI | Pune | 500000 | 2007 |

| 6 | 1013 | Disease Prediction | Banglore | 500000 | 2004 |

+---------+---------+--------------------+---------------+-----------+-----------+

**Query 8: Find the project having maximum price and find average of Project cost.**

MariaDB [te31260\_db]> select all \* from Project where Proj\_cost = (select max(Proj\_cost) from Project);

+---------+---------+-----------+---------------+-----------+-----------+

| Proj\_id | Dept\_id | Proj\_name | Proj\_location | Proj\_cost | Proj\_year |

+---------+---------+-----------+---------------+-----------+-----------+

| 3 | 1011 | Chatbot | Banglore | 600000 | 2006 |

+---------+---------+-----------+---------------+-----------+-----------+

1 row in set (0.001 sec)

MariaDB [te31260\_db]> select avg(Proj\_cost) from Project;

+----------------+

| avg(Proj\_cost) |

+----------------+

| 450000.0000 |

+----------------+

1 row in set (0.001 sec)

**Query 9: Display all employees with Emp \_id and Emp name in decreasing order of**

**Emp\_lname.**

MariaDB [te31260\_db]> select Emp\_id ,Emp\_fname, Emp\_lname from Employee order by Emp\_lname desc;

+--------+-----------+-----------+

| Emp\_id | Emp\_fname | Emp\_lname |

+--------+-----------+-----------+

| 101 | Gayatri | Pillai |

| 106 | Prajwal | Padole |

| 102 | Hans | Mittal |

| 110 | Shreeya | Kalbhor |

| 105 | Keshini | Jain |

| 107 | Sharon | Grace |

| 108 | Soumya | Aachari |

+--------+-----------+-----------+

7 rows in set (0.001 sec)

**Query 10: Display Proj\_name,Proj\_location ,Proj\_cost of all project started in 2004,2005,2007.**

MariaDB [te31260\_db]> select Proj\_name,Proj\_location,Proj\_cost from Project where Proj\_year = 2004 or Proj\_year = 2005 or Proj\_year = 2007;

+--------------------+---------------+-----------+

| Proj\_name | Proj\_location | Proj\_cost |

+--------------------+---------------+-----------+

| Analytics | Pune | 200000 |

| GenAI | Pune | 500000 |

| Disease Prediction | Banglore | 500000 |

+--------------------+---------------+-----------+

3 rows in set (0.001 sec)

**Create View:**

MariaDB [te31260\_db]> create or replace view empview as select Emp\_fname,Emp\_lname,Emp\_position from Employee where Emp\_position = 'GM';

Query OK, 0 rows affected (0.030 sec)

MariaDB [te31260\_db]> show tables;

+----------------------+

| Tables\_in\_te31260\_db |

+----------------------+

| Dept |

| Employee |

| Project |

| empview |

+----------------------+

4 rows in set (0.001 sec)

MariaDB [te31260\_db]> select \* from empview;

+-----------+-----------+--------------+

| Emp\_fname | Emp\_lname | Emp\_position |

+-----------+-----------+--------------+

| Gayatri | Pillai | GM |

| Keshini | Jain | GM |

| Prajwal | Padole | GM |

+-----------+-----------+--------------+

3 rows in set (0.001 sec)

MariaDB [te31260\_db]> create or replace view Emp\_view as select Emp\_id,Emp\_fname,Emp\_lname,Emp\_position from Employee;

Query OK, 0 rows affected (0.033 sec)

MariaDB [te31260\_db]> select \* from Emp\_view;

+--------+-----------+-----------+--------------+

| Emp\_id | Emp\_fname | Emp\_lname | Emp\_position |

+--------+-----------+-----------+--------------+

| 101 | Gayatri | Pillai | GM |

| 102 | Hans | Mittal | VP |

| 105 | Keshini | Jain | GM |

| 106 | Prajwal | Padole | GM |

| 107 | Sharon | Grace | Analyst |

| 108 | Soumya | Aachari | Engineer |

| 110 | Shreeya | Kalbhor | Engineer |

+--------+-----------+-----------+--------------+

7 rows in set (0.001 sec)

**Create Index:**

MariaDB [te31260\_db]> create index EMPindx on Employee(Emp\_position);

Query OK, 0 rows affected (0.221 sec)

Records: 0 Duplicates: 0 Warnings: 0

MariaDB [te31260\_db]> create index emp\_idx on Employee(Emp\_fname,Emp\_position);

Query OK, 0 rows affected (0.156 sec)

Records: 0 Duplicates: 0 Warnings: 0

MariaDB [te31260\_db]> create unique index EMP\_IDX1 on Employee(Emp\_id);

Query OK, 0 rows affected (0.168 sec)

Records: 0 Duplicates: 0 Warnings: 0

MariaDB [te31260\_db]> show index from Employee;

+----------+------------+----------+--------------+--------------+-----------+-------------+----------+--------+------+------------+---------+---------------+

| Table | Non\_unique | Key\_name | Seq\_in\_index | Column\_name | Collation | Cardinality | Sub\_part | Packed | Null | Index\_type | Comment | Index\_comment |

+----------+------------+----------+--------------+--------------+-----------+-------------+----------+--------+------+------------+---------+---------------+

| Employee | 0 | PRIMARY | 1 | Emp\_id | A | 7 | NULL | NULL | | BTREE | | |

| Employee | 0 | EMP\_IDX1 | 1 | Emp\_id | A | 7 | NULL | NULL | | BTREE | | |

| Employee | 1 | Dept\_id | 1 | Dept\_id | A | 7 | NULL | NULL | YES | BTREE | | |

| Employee | 1 | emp\_idx | 1 | Emp\_fname | A | 7 | NULL | NULL | YES | BTREE | | |

| Employee | 1 | emp\_idx | 2 | Emp\_Position | A | 7 | NULL | NULL | YES | BTREE | | |

| Employee | 1 | EMPindx | 1 | Emp\_Position | A | 7 | NULL | NULL | YES | BTREE | | |

+----------+------------+----------+--------------+--------------+-----------+-------------+----------+--------+------+------------+---------+---------------+

6 rows in set (0.002 sec)