**1.Find Employee details and Department details using NATURAL JOIN.**

MariaDB [te31252\_db]> select \* from Dept natural join Employee;

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

| Dept\_id | Dept\_name | Dept\_location | Emp\_id | Emp\_fname | Emp\_lname | Emp\_position | Emp\_salary | Emp\_date |

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

| 1 | computer | pune | 1 | Amit | Verma | Sales | 50000 | 1984 |

| 1 | computer | pune | 2 | Aditya | Sharma | CTO | 90000 | 1985 |

| 2 | IT | mumbai | 3 | Neha | Patil | CFO | 85000 | 1983 |

| 3 | ENTC | delhi | 4 | Rahul | Gupta | Manager | 70000 | 1987 |

| 1 | computer | pune | 5 | Ananya | Joshi | HR | 65000 | 1990 |

| 2 | IT | mumbai | 6 | Vivek | Singh | Soft Eng | 60000 | 1995 |

| 3 | ENTC | delhi | 7 | Pooja | Malhotra | Marketing | 55000 | 1992 |

| 1 | computer | pune | 8 | Kiran | Desai | Manager | 75000 | 1988 |

| 2 | IT | mumbai | 9 | Rajesh | Kumar | Data | 60000 | 1993 |

| 3 | ENTC | delhi | 10 | Shreya | Shah | Manager | 70000 | 1997 |

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

**2. Find the emp\_fname,Emp\_position,location,Emp\_JoinDate who have same Dept id.**

MariaDB [te31252\_db]> select Employee.Emp\_fname,Employee.Emp\_position,Dept.Dept\_location,Employee.Emp\_date from Employee left join Dept on Dept.Dept\_id=Employee.Emp\_id;

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

| Emp\_fname | Emp\_position | Dept\_location | Emp\_date |

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

| Amit | Sales | pune | 1984 |

| Aditya | CTO | mumbai | 1985 |

| Neha | CFO | delhi | 1983 |

| Rahul | Manager | nagpur | 1987 |

| Ananya | HR | pune | 1990 |

| Vivek | Soft Eng | mumbai | 1995 |

| Pooja | Marketing | delhi | 1992 |

| Kiran | Manager | nagpur | 1988 |

| Rajesh | Data | pune | 1993 |

| Shreya | Manager | mumbai | 1997 |

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

**3.Find the Employee details ,Proj\_id,Project cost who does not have Project** location as ‘Hyderabad’.

MariaDB [te31252\_db]> select Employee.\*,Proj.Proj\_id,Proj.Proj\_cost from Employee join Proj on Proj.Dept\_id=Employee.Emp\_id where Proj\_location!="hydrabad";

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

| Emp\_id | Dept\_id | Emp\_fname | Emp\_lname | Emp\_position | Emp\_salary | Emp\_date | Proj\_id | Proj\_cost |

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

| 2 | 1 | Aditya | Sharma | CTO | 90000 | 1985 | 2 | 25000 |

| 3 | 2 | Neha | Patil | CFO | 85000 | 1983 | 3 | 200000 |

| 4 | 3 | Rahul | Gupta | Manager | 70000 | 1987 | 4 | 300000 |

| 2 | 1 | Aditya | Sharma | CTO | 90000 | 1985 | 6 | 25000 |

| 3 | 2 | Neha | Patil | CFO | 85000 | 1983 | 7 | 450000 |

| 4 | 3 | Rahul | Gupta | Manager | 70000 | 1987 | 8 | 500000 |

| 2 | 1 | Aditya | Sharma | CTO | 90000 | 1985 | 10 | 25000 |

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

**4.Find Department Name ,employee name, Emp\_position for which project year is 2020**

MariaDB [te31252\_db]> select distinct Dept.Dept\_name, Employee.Emp\_lname, Employee.Emp\_position

from Employee join Dept on Dept.Dept\_id = Employee.Dept\_id join Proj on Proj.Dept\_id = Employee.Dept\_id where Proj.Proj\_year = 2020;

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

| Dept\_name | Emp\_lname | Emp\_position |

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

| IT | Patil | CFO |

| IT | Singh | Soft Eng |

| IT | Kumar | Data |

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

**5.Display emp\_position,D\_name who have Project cost >30000**

MariaDB [te31252\_db]> select distinct Dept.Dept\_name, Employee.Emp\_position from Employee join Dept on Dept.Dept\_id = Employee.Dept\_id join Proj on Proj.Dept\_id = Employee.Dept\_id where Proj.Proj\_cost > 30000;

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

| Dept\_name | Emp\_position |

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

| ENTC | Manager |

| ENTC | Marketing |

| computer | Sales |

| computer | CTO |

| computer | HR |

| computer | Manager |

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

**6.Find the names of all the Projects that started in the year 2015.**

MariaDB [te31252\_db]> select Proj\_name from Proj where Proj\_year=2015;

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

| Proj\_name |

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

| Web dev |

| Cloud |

| Blockchain |

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

**7. List the Dept\_name having no\_of\_emp=4**

select d.Dept\_name from Dept d right join Employee e on d.Dept\_id = e.Dept\_id group by d.Dept\_name having count(e.Emp\_id) = 4;

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

| Dept\_name |

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

| Computer |

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

**8.Display the total number of employee who have joined any project before 2009**

MariaDB [te31252\_db]> select count(Employee.Emp\_id) from Employee join Proj on Proj.Dept\_id = Employee.Dept\_id where Proj.Proj\_year < 2009;

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

| count(Employee.Emp\_id) |

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

| 6 |

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

**9.Create a view showing the employee and Department details.**

MariaDB [te31252\_db]> create or replace view DeptEmp as select Employee.\* , Dept.Dept\_name,Dept.Dept\_location from Employee join Dept on Employee.Dept\_id=Dept.Dept\_id;

Query OK, 0 rows affected (0.030 sec)

MariaDB [te31252\_db]> select \* from DeptEmp;

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

| Emp\_id | Dept\_id | Emp\_fname | Emp\_lname | Emp\_position | Emp\_salary | Emp\_date | Dept\_name | Dept\_location |

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

| 1 | 1 | Amit | Verma | Sales | 50000 | 1984 | computer | pune |

| 2 | 1 | Aditya | Sharma | CTO | 90000 | 1985 | computer | pune |

| 3 | 2 | Neha | Patil | CFO | 85000 | 1983 | IT | mumbai |

| 4 | 3 | Rahul | Gupta | Manager | 70000 | 1987 | ENTC | delhi |

| 5 | 1 | Ananya | Joshi | HR | 65000 | 1990 | computer | pune |

| 6 | 2 | Vivek | Singh | Soft Eng | 60000 | 1995 | IT | mumbai |

| 7 | 3 | Pooja | Malhotra | Marketing | 55000 | 1992 | ENTC | delhi |

| 8 | 1 | Kiran | Desai | Manager | 75000 | 1988 | computer | pune |

| 9 | 2 | Rajesh | Kumar | Data | 60000 | 1993 | IT | mumbai |

| 10 | 3 | Shreya | Shah | Manager | 70000 | 1997 | ENTC | delhi |

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

**10.Perform Manipulation on simple view-Insert, update, delete, drop view.**

MariaDB [te31252\_db]> create view EmployeeView as select Emp\_id, Emp\_fname, Emp\_lname, Emp\_position from Employee;

MariaDB [te31252\_db]> select \* from EmployeeView;

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

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

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

| 1 | Amit | Verma | Sales |

| 2 | Aditya | Sharma | CTO |

| 3 | Neha | Patil | CFO |

| 4 | Rahul | Gupta | Manager |

| 5 | Ananya | Joshi | HR |

| 6 | Vivek | Singh | Soft Eng |

| 7 | Pooja | Malhotra | Marketing |

| 8 | Kiran | Desai | Manager |

| 9 | Rajesh | Kumar | Data |

| 10 | Shreya | Shah | Manager |

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

10 rows in set (0.002 sec)

**Simple view-Insert.**

MariaDB [te31252\_db]> insert into EmployeeView values(11,'Rahul','Pavar','dso');

Query OK, 1 row affected (0.024 sec)

MariaDB [te31252\_db]> select \* from EmployeeView;

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

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

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

| 1 | Amit | Verma | Sales |

| 2 | Aditya | Sharma | CTO |

| 3 | Neha | Patil | CFO |

| 4 | Rahul | Gupta | Manager |

| 5 | Ananya | Joshi | HR |

| 6 | Vivek | Singh | Soft Eng |

| 7 | Pooja | Malhotra | Marketing |

| 8 | Kiran | Desai | Manager |

| 9 | Rajesh | Kumar | Data |

| 10 | Shreya | Shah | Manager |

| 11 | Rahul | Pavar | dso |

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

**Simple view-Update.**

MariaDB [te31252\_db]> update EmployeeView set Emp\_fname='Prajwal' where Emp\_fname='Rahul';

Query OK, 2 rows affected (0.038 sec)

Rows matched: 2 Changed: 2 Warnings: 0

MariaDB [te31252\_db]> select \* from EmployeeView;

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

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

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

| 1 | Amit | Verma | Sales |

| 2 | Aditya | Sharma | CTO |

| 3 | Neha | Patil | CFO |

| 4 | Prajwal | Gupta | Manager |

| 5 | Ananya | Joshi | HR |

| 6 | Vivek | Singh | Soft Eng |

| 7 | Pooja | Malhotra | Marketing |

| 8 | Kiran | Desai | Manager |

| 9 | Rajesh | Kumar | Data |

| 10 | Shreya | Shah | Manager |

| 11 | Prajwal | Pavar | dso |

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

**Simple view-delete.**

MariaDB [te31252\_db]> delete from EmployeeView where Emp\_position='HR';

Query OK, 1 row affected (0.031 sec)

MariaDB [te31252\_db]> select \* from EmployeeView;

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

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

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

| 1 | Amit | Verma | Sales |

| 2 | Aditya | Sharma | CTO |

| 3 | Neha | Patil | CFO |

| 4 | Prajwal | Gupta | Manager |

| 6 | Vivek | Singh | Soft Eng |

| 7 | Pooja | Malhotra | Marketing |

| 8 | Kiran | Desai | Manager |

| 9 | Rajesh | Kumar | Data |

| 10 | Shreya | Shah | Manager |

| 11 | Prajwal | Pavar | dso |

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

**Simple view-drop.**

MariaDB [te31252\_db]> drop view EmployeeView;

Query OK, 0 rows affected (0.001 sec)

MariaDB [te31252\_db]> select \* from EmployeeView;3

ERROR 1146 (42S02): Table 'te31252\_db.EmployeeView' doesn't exist