Institute of Engineering & Technology

Devi Ahilya Vishwavidyalaya, Indore (M.P)

Department of Computer Science & Engineering

DATABASE MANAGEMENT SYSTEM(CER4C4)

Lab Assignment-2

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Lab Assignment-2

Create EMPLOYEE TABLE, PROJECT TABLE and ADD ROWS shown below:

```
mysql> CREATE TABLE EMPLOYEE
    -> (
    -> Eid int NOT NULL PRIMARY KEY AUTO_INCREMENT,
    -> EName varchar(255) NOT NULL,
    -> Address varchar(255) NOT NULL,
    -> Salary int,
    -> Commision int
    -> );
Query OK, 0 rows affected (0.03 sec)

mysql> DESC EMPLOYEE;
+-----------+--------------+------+-----+---------+----------------+
| Field     | Type         | Null | Key | Default | Extra          |
+-----------+--------------+------+-----+---------+----------------+
| Eid       | int          | NO   | PRI | NULL    | auto_increment |
| EName     | varchar(255) | NO   |     | NULL    |                |
| Address   | varchar(255) | NO   |     | NULL    |                |
| Salary    | int          | YES  |     | NULL    |                |
| Commision | int          | YES  |     | NULL    |                |
+-----------+--------------+------+-----+---------+----------------+
5 rows in set (0.01 sec)

mysql> INSERT INTO EMPLOYEE(EName, Address, Salary, Commision)
    -> VALUES ('Amit', 'Pune', 35000, 5000),
    -> ('Sneha', 'Pune', 25000, NULL),
    -> ('Savita', 'Nasik', 28000, 2000),
    -> ('Pooja', 'Mumbai', 19000, NULL),
    -> ('Sagar', 'Mumbai', 25000, 3000);
Query OK, 5 rows affected (0.01 sec)
Records: 5  Duplicates: 0  Warnings: 0

mysql> SELECT * FROM EMPLOYEE;
+-----+--------+---------+--------+-----------+
| Eid | EName  | Address | Salary | Commision |
+-----+--------+---------+--------+-----------+
|   1 | Amit   | Pune    |  35000 |      5000 |
|   2 | Sneha  | Pune    |  25000 |      NULL |
|   3 | Savita | Nasik   |  28000 |      2000 |
|   4 | Pooja  | Mumbai  |  19000 |      NULL |
|   5 | Sagar  | Mumbai  |  25000 |      3000 |
+-----+--------+---------+--------+-----------+
5 rows in set (0.00 sec)
```

```
mysql> CREATE TABLE PROJECT
    -> (
    -> PrNo int NOT NULL,
    -> Addr varchar(255) NOT NULL
    -> );
Query OK, 0 rows affected (0.03 sec)

mysql> DESC PROJECT;
+-------+--------------+------+-----+---------+-------+
| Field | Type         | Null | Key | Default | Extra |
+-------+--------------+------+-----+---------+-------+
| PrNo  | int          | NO   |     | NULL    |       |
| Addr  | varchar(255) | NO   |     | NULL    |       |
+-------+--------------+------+-----+---------+-------+
2 rows in set (0.01 sec)

mysql> INSERT INTO PROJECT(PrNo, Addr)
    -> VALUES (10, 'Mumbai'),
    -> (20, 'Pune'),
    -> (30, 'Jalgoan');
Query OK, 3 rows affected (0.01 sec)
Records: 3  Duplicates: 0  Warnings: 0

mysql> SELECT * FROM PROJECT;
+------+---------+
| PrNo | Addr    |
+------+---------+
|   10 | Mumbai  |
|   20 | Pune    |
|   30 | Jalgoan |
+------+---------+
3 rows in set (0.00 sec)
```

Lab Assignment-2

1. **Find different locations from where employees belong to?**

Query:- SELECT DISTINCT Address AS Locations FROM EMPLOYEE;

```
mysql> SELECT DISTINCT Address AS Locations FROM EMPLOYEE;
+-----------+
| Locations |
+-----------+
| Pune      |
| Nasik     |
| Mumbai    |
+-----------+
3 rows in set (0.00 sec)
```

2. What is maximum and minimum salary?

Query:- SELECT

➔MAX(Salary) AS MAXIMUM_SALARY,
➔MIN(Salary) AS MINIMUM_SALARY
➔FROM EMPLOYEE;

```
mysql> SELECT MAX(Salary) AS MAXIMUM_SALARY, MIN(Salary) AS MINIMUM_SALARY FROM EMPLOYEE;
+---------------+---------------+
| MAXIMUM_SALARY | MINIMUM_SALARY |
+---------------+---------------+
|         35000 |         19000 |
+---------------+---------------+
1 row in set (0.00 sec)
```

3. Display the content of employee table according to the ascending order of salary amount.

Query:- SELECT * FROM EMPLOYEE

➔ORDER BY Salary;

```
mysql> SELECT * FROM EMPLOYEE
    -> ORDER BY Salary;
+-----+--------+---------+--------+-----------+
| Eid | EName  | Address | Salary | Commision |
+-----+--------+---------+--------+-----------+
|   4 | Pooja  | Mumbai  |  19000 |      NULL |
|   2 | Sneha  | Pune    |  25000 |      NULL |
|   5 | Sagar  | Mumbai  |  25000 |      3000 |
|   3 | Savita | Nasik   |  28000 |      2000 |
|   1 | Amit   | Pune    |  35000 |      5000 |
+-----+--------+---------+--------+-----------+
5 rows in set (0.00 sec)
```

4. **Find the name of employee who lived in Nasik or Pune city.**

Query:- SELECT EName, Address

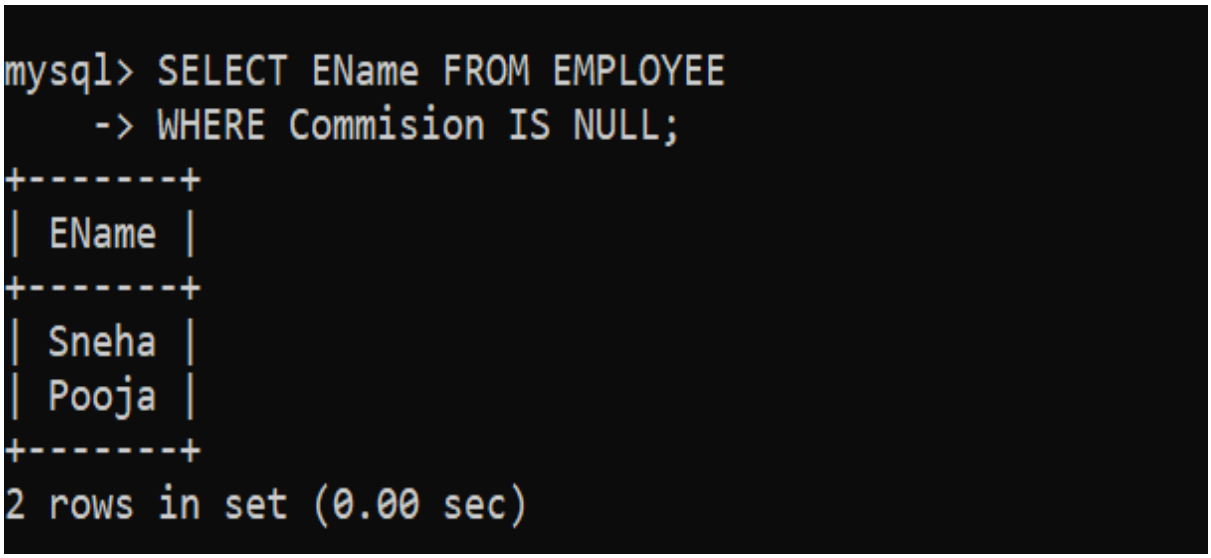
➔FROM EMPLOYEE
➔WHERE Address = ‘Nasik’
➔OR Address = ‘Pune’;

```
mysql> SELECT EName, Address FROM EMPLOYEE
    -> WHERE Address='Nasik' OR Address='Pune';
+--------+---------+
| EName  | Address |
+--------+---------+
| Amit   | Pune    |
| Sneha  | Pune    |
| Savita | Nasik   |
+--------+---------+
3 rows in set (0.00 sec)
```

5. **Find the name of employees who does not get commission.**

Query:- SELECT EName FROM EMPLOYEE

➔WHERE Commision IS NULL;



6. Change the city of Amit to Nashik.

Query:- UPDATE EMPLOYEE

➔SET Address = ‘Nasik’
➔WHERE EName = ‘Amit’;

```
mysql> UPDATE EMPLOYEE
    -> SET Address = 'Nasik'
    -> WHERE EName = 'Amit';
Query OK, 1 row affected (0.01 sec)
Rows matched: 1  Changed: 1  Warnings: 0

mysql> SELECT * FROM EMPLOYEE;
+-----+--------+---------+--------+-----------+
| Eid | EName  | Address | Salary | Commision |
+-----+--------+---------+--------+-----------+
|   1 | Amit   | Nasik   |  35000 |      5000 |
|   2 | Sneha  | Pune    |  25000 |      NULL |
|   3 | Savita | Nasik   |  28000 |      2000 |
|   4 | Pooja  | Mumbai  |  19000 |      NULL |
|   5 | Sagar  | Mumbai  |  25000 |      3000 |
+-----+--------+---------+--------+-----------+
5 rows in set (0.00 sec)
```

7. **Find the information of employees whose name starts with ‘A’.**

Query:- SELECT * FROM EMPLOYEE

➔WHERE EName LIKE ‘A%’;

```
mysql> SELECT * FROM EMPLOYEE
    -> WHERE EName LIKE 'A%';
+-----+-------+---------+--------+-----------+
| Eid | EName | Address | Salary | Commision |
+-----+-------+---------+--------+-----------+
|   1 | Amit  | Nasik   |  35000 |      5000 |
+-----+-------+---------+--------+-----------+
1 row in set (0.00 sec)
```

8. Find the count of staff from Mumbai.

Query:- SELECT COUNT(Address)

➔FROM EMPLOYEE

➔WHERE Address = ‘Mumbai’;

```
mysql> SELECT COUNT(Address)
    -> FROM EMPLOYEE
    -> WHERE Address = 'Mumbai';
+----------------+
| COUNT(Address) |
+----------------+
|              2 |
+----------------+
1 row in set (0.00 sec)
```

9. Find the count of staff from each city.

Query:- SELECT Address, COUNT(Address)

➔FROM EMPLOYEE

➔GROUP BY Address;

```
mysql> SELECT Address, COUNT(Address)
    -> FROM EMPLOYEE
    -> GROUP BY Address;
+---------+----------------+
| Address | COUNT(Address) |
+---------+----------------+
| Nasik   |              2 |
| Pune    |              1 |
| Mumbai  |              2 |
+---------+----------------+
3 rows in set (0.00 sec)
```

10. Find the address from where employees are belonging as well as where projects are going on.

Query:- SELECT EMPLOYEE.EName AS NAME,

➔EMPLOYEE.Address AS BELONGING_ADDRESS,
➔PROJECT.PrNo AS PROJECT_NO,
➔PROJECT.Addr AS PROJECT_ADDR
➔FROM EMPLOYEE
➔ JOIN PROJECT ON EMPLOYEE.Address = PROJECT.Addr;

```
mysql> SELECT EMPLOYEE.EName AS NAME,
    -> EMPLOYEE.Address AS BELONGING_ADDRESS,
    -> PROJECT.PrNo AS PROJECT_NO,
    -> PROJECT.Addr AS PROJECT_ADDR
    -> FROM EMPLOYEE
    -> JOIN PROJECT ON EMPLOYEE.Address = PROJECT.Addr;
+-------+------------------+------------+--------------+
| NAME  | BELONGING_ADDRESS | PROJECT_NO | PROJECT_ADDR |
+-------+------------------+------------+--------------+
| Sneha | Pune             |         20 | Pune         |
| Pooja | Mumbai           |         10 | Mumbai       |
| Sagar | Mumbai           |         10 | Mumbai       |
+-------+------------------+------------+--------------+
3 rows in set (0.00 sec)
```

11. Find city wise minimum salary.

Query:- SELECT Address, MIN(Salary)

➔AS MINIMUM_SALARY
➔FROM EMPLOYEE
➔GROUP BY Address;

```
mysql> SELECT Address, MIN(Salary) AS MINIMUM_SALARY
    -> FROM EMPLOYEE
    -> GROUP BY Address;
+---------+----------------+
| Address | MINIMUM_SALARY |
+---------+----------------+
| Nasik   |          28000 |
| Pune    |          25000 |
| Mumbai  |          19000 |
+---------+----------------+
3 rows in set (0.00 sec)
```

12. Find city wise maximum salary having maximum salary greater than 26000.

Query:- SELECT Address, MAX(Salary)

➔AS MAXIMUM_SALARY
➔FROM EMPLOYEE
➔GROUP BY Address
➔HAVING MAX(Salary) > 26000;

```
mysql> SELECT Address, MAX(Salary) AS MAXIMUM_SALARY
    -> FROM EMPLOYEE
    -> GROUP BY Address
    -> HAVING MAX(Salary) > 26000;
+---------+----------------+
| Address | MAXIMUM_SALARY |
+---------+----------------+
| Nasik   |          35000 |
+---------+----------------+
1 row in set (0.00 sec)
```

13. Delete the employee who is having salary greater than 30,000.

Query:- DELETE FROM EMPLOYEE

➔WHERE Salary > 30000;

```
mysql> DELETE FROM EMPLOYEE
    -> WHERE Salary > 30000;
Query OK, 1 row affected (0.01 sec)

mysql> SELECT * FROM EMPLOYEE;
+-----+--------+---------+--------+-----------+
| Eid | EName  | Address | Salary | Commision |
+-----+--------+---------+--------+-----------+
|   2 | Sneha  | Pune    |  25000 |      NULL |
|   3 | Savita | Nasik   |  28000 |      2000 |
|   4 | Pooja  | Mumbai  |  19000 |      NULL |
|   5 | Sagar  | Mumbai  |  25000 |      3000 |
+-----+--------+---------+--------+-----------+
4 rows in set (0.00 sec)
```