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**DBMS Lab**

**Assignment No. 3 (My SQL Basic Queries)**

**Title:** Design at least 10 SQL queries for suitable database application using SQL DML statements: Insert, Select, Update, Delete with operators, functions, and set operator.

* **Create Employee table, Project table and add rows shown below**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Eid** | **EName** | **Address** | **Salary** | **Commision** |
| **1** | Amit | Pune | 35000 | 5000 |
| **2** | Sneha | Pune | 25000 |  |
| **3** | Savita | Nasik | 28000 | 2000 |
| **4** | Pooja | Mumbai | 19000 |  |
| **5** | Sagar | Mumbai | 25000 | 3000 |
| **6** | Rohit | Jaipur | 40000 |  |
| **7** | Poonam | Patna | 45000 | 2000 |
| **8** | Arjun | Delhi | 20000 | 900 |
| **9** | Rahul | Nagpur | 60000 | 5000 |
| **10** | Dulquer | Kochi | 30000 | 1000 |

|  |  |
| --- | --- |
| **PrNo** | **Addr** |
| 10 | Mumbai |
| 20 | Pune |
| 30 | Jalgoan |
| 40 | Nagpur |
| 50 | Delhi |
| 60 | Kochi |
| 70 | Pune |
| 80 | Nasik |

* **Execute the following queries in MySQL:**

1. Find different locations where employees belong to?
2. What are maximum ,minimum salary, average salary and sum of all salaries?
3. Display the content of employee table according to the ascending order of salary amount.
4. Find the name of employee who lived in Nasik or Pune city.
5. Find the name of employees who does not get commission.
6. Change the city of Amit to Nashik.
7. Find the information of employees whose name starts with ‘A’.
8. Find the count of staff from Mumbai.
9. Find the count of staff from each city
10. Find the address from where employees are belonging as well as where projects are going on.

(Use union operator)

1. Find city wise minimum salary.
2. Find city wise maximum salary having maximum salary greater than 26000
3. Delete the employee who is having salary greater than 30,000.
4. Delete the information of employees whose name starts with‘s’.
5. Display all the employee from Pune alphabetically.

EXECUTION:

Enter password: \*\*\*\*\*\*\*\*\*\*\*\*

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

Your MySQL connection id is 10

Server version: 8.0.20 MySQL Community Server - GPL

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owners.

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

mysql> CREATE TABLE PROJECT (

-> PrNo int PRIMARY KEY,

-> Addr varchar(30) NOT NULL

-> );

Query OK, 0 rows affected (0.58 sec)

mysql> CREATE TABLE EMPLOYEE(

-> EID INT PRIMARY KEY,

-> EName varchar(20) not NULL,

-> Address varchar(30) NOT NULL,

-> Salary int not NULL,

-> Commission int

-> );

Query OK, 0 rows affected (0.51 sec)

mysql> ALTER TABLE EMPLOYEE add PRNO int;

Query OK, 0 rows affected (0.53 sec)

Records: 0 Duplicates: 0 Warnings: 0

mysql> alter table employee add foreign key(PRNO) references Project(PrNo);

Query OK, 0 rows affected (2.48 sec)

Records: 0 Duplicates: 0 Warnings: 0

mysql> desc EMPLOYEE;

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

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

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

| EID | int | NO | PRI | NULL | |

| EName | varchar(20) | NO | | NULL | |

| Address | varchar(30) | NO | | NULL | |

| Salary | int | NO | | NULL | |

| Commission | int | YES | | NULL | |

| PRNO | int | YES | MUL | NULL | |

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

6 rows in set (0.18 sec)

mysql> show create table Employee;

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

| Table | Create Table |

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

| Employee | CREATE TABLE `employee` (

`EID` int NOT NULL,

`EName` varchar(20) NOT NULL,

`Address` varchar(30) NOT NULL,

`Salary` int NOT NULL,

`Commission` int DEFAULT NULL,

`PRNO` int DEFAULT NULL,

PRIMARY KEY (`EID`),

KEY `PRNO` (`PRNO`),

CONSTRAINT `employee\_ibfk\_1` FOREIGN KEY (`PRNO`) REFERENCES `project` (`PrNo`)

) ENGINE=InnoDB DEFAULT CHARSET=utf8mb4 COLLATE=utf8mb4\_0900\_ai\_ci |

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

1 row in set (0.00 sec)

mysql> INSERT into PROJECT (PrNO,Addr) values

-> (10,'MUMBAI'),

-> (20,'PUNE'),

-> (30,'JALGON'),

-> (40,'NAGPUR'),

-> (50,'DELHI'),

-> (60,'KOCHI'),

-> (70,'PUNE'),

-> (80,'NASIK')

-> ;

Query OK, 8 rows affected (0.32 sec)

Records: 8 Duplicates: 0 Warnings: 0

mysql> INSERT INTO EMPLOYEE (EID,EName,Address,Salary,Commission,PRNO) values

-> (1,'Amit','PUNE',35000,5000,10),

-> (2,'Sneha','PUNE',25000,2000,20),

-> (3,'Savita','NASIK',28000,3000,30),

-> (4,'Pooja','MUMBAI',19000,4000,40),

-> (5,'SAGAR','MUMBAI',25000,5000,50),

-> (6,'Rohit','JAIPUR',40000,6000,60),

-> (7,'Poonam','Patna',45000,7000,70),

-> (8,'Arjun','DELHI',20000,900,80),

-> (9,'Rahul','NAGPUR',60000,700,20),

-> (10,'Dulquer','KOCHI',30000,100,40)

-> ;

Query OK, 10 rows affected (0.12 sec)

Records: 10 Duplicates: 0 Warnings: 0

mysql> SELECT DISTINCT Address FROM EMPLOYEE;

+---------+

| Address |

+---------+

| PUNE |

| NASIK |

| MUMBAI |

| JAIPUR |

| Patna |

| DELHI |

| NAGPUR |

| KOCHI |

+---------+

8 rows in set (0.00 sec)

mysql> SELECT MAX(Salary),MIN(Salary),AVG(Salary),STD(Salary),SUM(Salary)

-> FROM EMPLOYEE;

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

| MAX(Salary) | MIN(Salary) | AVG(Salary) | STD(Salary) | SUM(Salary) |

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

| 60000 | 19000 | 32700.0000 | 12050.311199301037 | 327000 |

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

1 row in set (0.17 sec)

mysql> SELECT \*FROM EMPLOYEE

-> ORDER BY Salary ASC;

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

| EID | EName | Address | Salary | Commission | PRNO |

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

| 4 | Pooja | MUMBAI | 19000 | 4000 | 40 |

| 8 | Arjun | DELHI | 20000 | 900 | 80 |

| 2 | Sneha | PUNE | 25000 | 2000 | 20 |

| 5 | SAGAR | MUMBAI | 25000 | 5000 | 50 |

| 3 | Savita | NASIK | 28000 | 3000 | 30 |

| 10 | Dulquer | KOCHI | 30000 | 100 | 40 |

| 1 | Amit | PUNE | 35000 | 5000 | 10 |

| 6 | Rohit | JAIPUR | 40000 | 6000 | 60 |

| 7 | Poonam | Patna | 45000 | 7000 | 70 |

| 9 | Rahul | NAGPUR | 60000 | 700 | 20 |

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

10 rows in set (0.00 sec)

mysql> INSERT INTO EMPLOYEE (EID,EName,Address,Salary,PRNO) values

-> (11,'Anish','NAGPUR',10000,50);

Query OK, 1 row affected (0.16 sec)

mysql> SELECT EName FROM EMPLOYEE

-> WHERE Address LIKE 'NASIK' or Address LIKE 'PUNE';

+--------+

| EName |

+--------+

| Amit |

| Sneha |

| Savita |

+--------+

3 rows in set (0.00 sec)

mysql> SELECT EName FROM EMPLOYEE

-> WHERE Address in('NASIK','PUNE');

+--------+

| EName |

+--------+

| Amit |

| Sneha |

| Savita |

+--------+

3 rows in set (0.02 sec)

mysql> SELECT EID,EName,Commission FROM EMPLOYEE

-> WHERE Commission IS NULL;

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

| EID | EName | Commission |

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

| 11 | Anish | NULL |

| 12 | Sanjay | NULL |

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

2 rows in set (0.00 sec)

mysql> UPDATE EMPLOYEE SET Address='NASIK'

-> WHERE EName='Amit';

Query OK, 1 row affected (0.11 sec)

Rows matched: 1 Changed: 1 Warnings: 0

mysql> select \* from Employee where EName like "A%" ;

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

| EID | EName | Address | Salary | Commission | PRNO |

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

| 1 | Amit | NASIK | 35000 | 5000 | 10 |

| 8 | Arjun | DELHI | 20000 | 900 | 80 |

| 11 | Anish | NAGPUR | 10000 | NULL | 50 |

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

3 rows in set (0.00 sec)

mysql> SELECT\*FROM EMPLOYEE;

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

| EID | EName | Address | Salary | Commission | PRNO |

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

| 1 | Amit | NASIK | 35000 | 5000 | 10 |

| 2 | Sneha | PUNE | 25000 | 2000 | 20 |

| 3 | Savita | NASIK | 28000 | 3000 | 30 |

| 4 | Pooja | MUMBAI | 19000 | 4000 | 40 |

| 5 | SAGAR | MUMBAI | 25000 | 5000 | 50 |

| 6 | Rohit | JAIPUR | 40000 | 6000 | 60 |

| 7 | Poonam | Patna | 45000 | 7000 | 70 |

| 8 | Arjun | DELHI | 20000 | 900 | 80 |

| 9 | Rahul | NAGPUR | 60000 | 700 | 20 |

| 10 | Dulquer | KOCHI | 30000 | 100 | 40 |

| 11 | Anish | NAGPUR | 10000 | NULL | 50 |

| 12 | Sanjay | UK | 10000 | NULL | 10 |

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

12 rows in set (0.00 sec)

mysql> SELECT COUNT(\*) FROM EMPLOYEE

-> WHERE Address='MUMBAI';

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

| COUNT(\*) |

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

| 2 |

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

1 row in set (0.00 sec)

mysql> SELECT COUNT(\*),Address FROM EMPLOYEE

-> GROUP BY Address;

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

| COUNT(\*) | Address |

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

| 2 | NASIK |

| 1 | PUNE |

| 2 | MUMBAI |

| 1 | JAIPUR |

| 1 | Patna |

| 1 | DELHI |

| 2 | NAGPUR |

| 1 | KOCHI |

| 1 | UK |

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

9 rows in set (0.00 sec)

mysql> SELECT EName,EID,COUNT(\*),Address FROM EMPLOYEE

-> WHERE Address='MUMBAI';

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

| EName | EID | COUNT(\*) | Address |

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

| Pooja | 4 | 2 | MUMBAI |

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

1 row in set (0.00 sec)

mysql> select min(Salary),Address from employee group by Address;

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

| min(Salary) | Address |

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

| 28000 | NASIK |

| 25000 | PUNE |

| 19000 | MUMBAI |

| 40000 | JAIPUR |

| 45000 | Patna |

| 20000 | DELHI |

| 10000 | NAGPUR |

| 30000 | KOCHI |

| 10000 | UK |

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

9 rows in set (0.09 sec)

mysql> select MAX(Salary),Address from employee

-> where Salary>=26000

-> GROUP BY Address;

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

| MAX(Salary) | Address |

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

| 35000 | NASIK |

| 40000 | JAIPUR |

| 45000 | Patna |

| 60000 | NAGPUR |

| 30000 | KOCHI |

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

5 rows in set (0.00 sec)

mysql> delete from employee where salary>30000;

Query OK, 4 rows affected (0.18 sec)

mysql> select\*from employee;

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

| EID | EName | Address | Salary | Commission | PRNO |

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

| 2 | Sneha | PUNE | 25000 | 2000 | 20 |

| 3 | Savita | NASIK | 28000 | 3000 | 30 |

| 4 | Pooja | MUMBAI | 19000 | 4000 | 40 |

| 5 | SAGAR | MUMBAI | 25000 | 5000 | 50 |

| 8 | Arjun | DELHI | 20000 | 900 | 80 |

| 10 | Dulquer | KOCHI | 30000 | 100 | 40 |

| 11 | Anish | NAGPUR | 10000 | NULL | 50 |

| 12 | Sanjay | UK | 10000 | NULL | 10 |

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

8 rows in set (0.00 sec)

mysql> delete from employee where Ename like "s%";

Query OK, 4 rows affected (0.14 sec)

mysql> select\*from employee;

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

| EID | EName | Address | Salary | Commission | PRNO |

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

| 4 | Pooja | MUMBAI | 19000 | 4000 | 40 |

| 8 | Arjun | DELHI | 20000 | 900 | 80 |

| 10 | Dulquer | KOCHI | 30000 | 100 | 40 |

| 11 | Anish | NAGPUR | 10000 | NULL | 50 |

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

4 rows in set (0.00 sec)

mysql> select \*from employee

-> where address='PUNE'

-> order by ename;

Empty set (0.00 sec)