Experiment -1.2

Student Name: Rohan Jaiswal
UID: 21BCS2856
Branch: CSE
Section/Group: 608-B
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1. Aim/Overview of the practical:

To explore "SELECT" clause using where, order by, between, like, group by, having etc.

2. Command Definition:

Select command is used to fetch the data in a set of records from a table, view or a group of tables, views by making use of SQL joins.

1.select * from emp; => To see all records

```
mysql> select * from emp;
+------+----------+------+--------+
| eid  | ename    | dept | salary |
+------+----------+------+--------+
|  101 | Ankit    | CSE  | 100000 |
|  102 | Tabish   | ECE  |  70000 |
|  103 | Aman     | IT   |  80000 |
|  104 | Harsh    | CSE  |  50000 |
|  105 | Prabhat  | ECE  |  90000 |
|  106 | Himanshu | CSE  |  70000 |
|  107 | Ashish   | IT   |  60000 |
|  108 | Rishu    | CSE  |  70000 |
|  109 | Niraj    | IT   |  60000 |
|  110 | Sameer   | ECE  |  80000 |
+------+----------+------+--------+
10 rows in set (0.00 sec)

mysql>
```

2.select ename, salary from emp; => To see selected columns

```
mysql> select ename,salary from emp;
+----------+--------+
| ename    | salary |
+----------+--------+
| Ankit    | 100000 |
| Tabish   |  70000 |
| Aman     |  80000 |
| Harsh    |  50000 |
| Prabhat  |  90000 |
| Himanshu |  70000 |
| Ashish   |  60000 |
| Rishu    |  70000 |
| Niraj    |  60000 |
| Sameer   |  80000 |
+----------+--------+
10 rows in set (0.00 sec)

mysql>
```

3.select ename as “employee”, salary from emp=> To see emp as employee and their salary.

```
mysql> select ename as "employee", salary from emp;
+----------+--------+
| employee | salary |
+----------+--------+
| Ankit    | 100000 |
| Tabish   |  70000 |
| Aman     |  80000 |
| Harsh    |  50000 |
| Prabhat  |  90000 |
| Himanshu |  70000 |
| Ashish   |  60000 |
| Rishu    |  70000 |
| Niraj    |  60000 |
| Sameer   |  80000 |
+----------+--------+
10 rows in set (0.00 sec)

mysql>
```

4.select count(*) from emp=> to see the number of employees

```
mysql> select count(*) from emp;
+----------+
| count(*) |
+----------+
|       10 |
+----------+
1 row in set (0.04 sec)

mysql>
```

5.select count(eid) from emp=> to see the number of eid

```
mysql> select count(eid) from emp;
+------------+
| count(eid) |
+------------+
|         10 |
+------------+
1 row in set (0.00 sec)

mysql>
```

6.select avg (salary) from emp=> to see the average salary of employees

```
mysql> select avg (salary) from emp;
+--------------+
| avg (salary) |
+--------------+
|   73000.0000 |
+--------------+
1 row in set (0.00 sec)

mysql>
```

7.select sum(salary) from emp=> to see total salary of employee

```
mysql> select sum(salary) from emp;
+-------------+
| sum(salary) |
+-------------+
|      730000 |
+-------------+
1 row in set (0.00 sec)

mysql>
```

8.select max(salary) from emp=> to see what is maximum salary given to employee

```
mysql> select max(salary) from emp;
+-------------+
| max(salary) |
+-------------+
|      100000 |
+-------------+
1 row in set (0.00 sec)

mysql>
```

9.select min(salary) from emp=> to see what is minimum salary given to employee

```
mysql> select min(salary) from emp;
+-------------+
| min(salary) |
+-------------+
|       50000 |
+-------------+
1 row in set (0.00 sec)

mysql>
```

10.select eid,name from emp where dept='CSE'=> to see eid and name of employees in CSE

```
mysql> select eid,ename from emp where dept='CSE';
+------+----------+
| eid  | ename    |
+------+----------+
|  101 | Ankit    |
|  104 | Harsh    |
|  106 | Himanshu |
|  108 | Rishu    |
+------+----------+
4 rows in set (0.00 sec)

mysql>
```

11.select eid,ename from emp where salary between 50000 and 80000=> to see details of employees who are getting salary between 50k and 80k

```
mysql> select eid,ename from emp where salary between 50000 and 80000;
+------+----------+
| eid  | ename    |
+------+----------+
|  102 | Tabish   |
|  103 | Aman     |
|  104 | Harsh    |
|  106 | Himanshu |
|  107 | Ashish   |
|  108 | Rishu    |
|  109 | Niraj    |
|  110 | Sameer   |
+------+----------+
8 rows in set (0.00 sec)

mysql>
```

12.select eid,ename,dept from emp where dept in ('CSE','IT')=> to see the details of emp who are in CSE and IT

```
mysql> select eid,ename,dept from emp where dept in ('CSE','IT');
+------+----------+------+
| eid  | ename    | dept |
+------+----------+------+
|  101 | Ankit    | CSE  |
|  103 | Aman     | IT   |
|  104 | Harsh    | CSE  |
|  106 | Himanshu | CSE  |
|  107 | Ashish   | IT   |
|  108 | Rishu    | CSE  |
|  109 | Niraj    | IT   |
+------+----------+------+
7 rows in set (0.00 sec)

mysql>
```

13.select eid,ename,dept from emp where dept not in ('CSE','IT')=> to see the details of emp who are not in CSE and IT

```
mysql> select eid,ename,dept from emp where dept not in ('CSE','IT');
+------+--------+------+
| eid  | ename  | dept |
+------+--------+------+
|  102 | Tabish | ECE  |
|  105 | Prabhat| ECE  |
|  110 | Sameer | ECE  |
+------+--------+------+
3 rows in set (0.00 sec)

mysql>
```

14.select ename from emp where ename like 'a%'=> to see the name of emp whose name starts with A

```
mysql> select ename from emp where ename like 'a%';
+--------+
| ename  |
+--------+
| Ankit  |
| Aman   |
| Ashish |
+--------+
3 rows in set (0.00 sec)

mysql>
```

15.select * from emp order by salary=> it shows the salary in ascending order

```
mysql> select * from emp order by salary;
+------+----------+------+--------+
| eid  | ename    | dept | salary |
+------+----------+------+--------+
|  104 | Harsh    | CSE  |  50000 |
|  107 | Ashish   | IT   |  60000 |
|  109 | Niraj    | IT   |  60000 |
|  102 | Tabish   | ECE  |  70000 |
|  106 | Himanshu | CSE  |  70000 |
|  108 | Rishu    | CSE  |  70000 |
|  103 | Aman     | IT   |  80000 |
|  110 | Sameer   | ECE  |  80000 |
|  105 | Prabhat  | ECE  |  90000 |
|  101 | Ankit    | CSE  | 100000 |
+------+----------+------+--------+
10 rows in set (0.00 sec)

mysql>
```

16.select * from emp order by salary desc=> it shows the salary in decending order

```
mysql> select * from emp order by salary desc;
+------+----------+------+--------+
| eid  | ename    | dept | salary |
+------+----------+------+--------+
|  101 | Ankit    | CSE  | 100000 |
|  105 | Prabhat  | ECE  |  90000 |
|  103 | Aman     | IT   |  80000 |
|  110 | Sameer   | ECE  |  80000 |
|  102 | Tabish   | ECE  |  70000 |
|  106 | Himanshu | CSE  |  70000 |
|  108 | Rishu    | CSE  |  70000 |
|  107 | Ashish   | IT   |  60000 |
|  109 | Niraj    | IT   |  60000 |
|  104 | Harsh    | CSE  |  50000 |
+------+----------+------+--------+
10 rows in set (0.00 sec)

mysql>
```

17.select * from emp order by dept,salary desc=> it shows the department in ascending order

```
mysql> select * from emp order by dept,salary desc;
+------+----------+------+--------+
| eid  | ename    | dept | salary |
+------+----------+------+--------+
|  101 | Ankit    | CSE  | 100000 |
|  106 | Himanshu | CSE  |  70000 |
|  108 | Rishu    | CSE  |  70000 |
|  104 | Harsh    | CSE  |  50000 |
|  105 | Prabhat  | ECE  |  90000 |
|  110 | Sameer   | ECE  |  80000 |
|  102 | Tabish   | ECE  |  70000 |
|  103 | Aman     | IT   |  80000 |
|  107 | Ashish   | IT   |  60000 |
|  109 | Niraj    | IT   |  60000 |
+------+----------+------+--------+
10 rows in set (0.01 sec)

mysql>
```

18.select count(eid), dept from emp group by dept=> it shows the count of department in ascending order

```
mysql> select count(eid), dept from emp group by dept;
+------------+------+
| count(eid) | dept |
+------------+------+
|          4 | CSE  |
|          3 | ECE  |
|          3 | IT   |
+------------+------+
3 rows in set (0.01 sec)

mysql>
```

19.select count(eid), dept from emp group by dept order by count(eid) desc=> it shows the count of department in decending order

```
mysql> select dept, count(eid) from emp group by dept order by count(eid) desc;
+------+------------+
| dept | count(eid) |
+------+------------+
| CSE  |          4 |
| ECE  |          3 |
| IT   |          3 |
+------+------------+
3 rows in set (0.04 sec)

mysql>
```

20.select dept, count(eid) from emp group by dept having count(eid)>2=> it shows the count of department in which are greater than 2

```
mysql> select dept, count(eid) from emp group by dept having count(eid)>2;
+------+------------+
| dept | count(eid) |
+------+------------+
| CSE  |          4 |
| ECE  |          3 |
| IT   |          3 |
+------+------------+
3 rows in set (0.00 sec)

mysql>
```

21.select distinct dept from emp=> it shows the name of distinct departments

```
mysql> select distinct dept from emp;
+------+
| dept |
+------+
| CSE  |
| ECE  |
| IT   |
+------+
3 rows in set (0.00 sec)

mysql>
```