

ASSIGNMENT NO-3

PROBLEM STATEMENT:SQL Queries – all types of Join, Sub-Query and View:

Write at least 10 SQL queries for suitable database application using SQL DML statements.

d. Note: Instructor will design the queries which demonstrate the use of concepts like all types of Join, Sub-Query and View

Create following table
Table Name : Student_Mark
Table Column Name : Rollno, Name, Marks, Branch
Apply primary key constraint
Insert four records
1 Ravi 90 Computer
2 Vedika 70 Computer
3 Aarush 95 IT
4 Jyoti 60 IT
Display Student Having marks above 70
Display Student Having marks Below 70
Display Student Having marks equal to 70 and name is Vedika
Change Student Name Ravi to Sachin
Delete Student whose name is Aarush
Write a Function to display student having max mark.
Display Minimum, Maximum, Average, Sum, Total count of each branch

```
gescoe@gescoe-OptiPlex-3010:~$ mysql -h 192.168.2.232 -u TEB39 -p
```

Enter password:

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

Your MySQL connection id is 29

```
mysql> create table student_mark(rollno numeric,name varchar(10),marks numeric,branch  
varchar(10));
```

Query OK, 0 rows affected (0.30 sec)

```
mysql> insert into student_mark  
values(1,'ravi',90,'computer'),(2,'vedika',70,'computer'),(3,'aarush',95,'it'),(4,'jyoti',60,'IT');
```

Query OK, 4 rows affected (0.04 sec)

Records: 4 Duplicates: 0 Warnings: 0

```
mysql> select * from student_mark;
```

```
+-----+-----+-----+-----+
| rollno | name  | marks | branch |
+-----+-----+-----+-----+
|      1 | ravi  |    90 | computer |
|      2 | vedika |    70 | computer |
|      3 | aarush |    95 | it       |
|      4 | jyoti  |    60 | IT       |
+-----+-----+-----+-----+
```

```
mysql> select * from student_mark where marks>70;
```

```
+-----+-----+-----+-----+
| rollno | name  | marks | branch |
+-----+-----+-----+-----+
|      1 | ravi  |    90 | computer |
|      3 | aarush |    95 | it       |
+-----+-----+-----+-----+
```

```
2 rows in set (0.00 sec)
```

```
mysql> select * from student_mark where marks<70;
```

```
+-----+-----+-----+-----+
| rollno | name  | marks | branch |
+-----+-----+-----+-----+
|      4 | jyoti  |    60 | IT       |
+-----+-----+-----+-----+
```

```
mysql> update student_mark set name='sachin' where name='ravi';
```

```
Query OK, 1 row affected (0.06 sec)
```

```
Rows matched: 1  Changed: 1  Warnings: 0
```

```
mysql> delete from student_mark where name='aarush';
```

```
Query OK, 1 row affected (0.06 sec)
```

```
mysql> select * from student_mark;
```

```
+-----+-----+-----+-----+
| rollno | name  | marks | branch |
+-----+-----+-----+-----+
|      1 | sachin |    90 | computer |
|      2 | vedika |    70 | computer |
|      4 | jyoti  |    60 | IT       |
+-----+-----+-----+-----+
```

```
mysql> select max(marks) from student_mark;
```

```
+-----+  
| max(marks) |  
+-----+  
|      90 |
```

```
+-----+  
1 row in set (0.00 sec)
```

```
mysql> select max(marks) from student_mark where branch='computer';
```

```
+-----+  
| max(marks) |  
+-----+  
|      90 |
```

```
+-----+  
1 row in set (0.00 sec)
```

```
mysql> select max(marks) from student_mark where branch='IT';
```

```
+-----+  
| max(marks) |  
+-----+  
|      60 |
```

```
+-----+  
1 row in set (0.00 sec)
```

```
mysql> select min(marks) from student_mark where branch='IT';
```

```
+-----+  
| min(marks) |  
+-----+  
|      60 |
```

```
+-----+  
1 row in set (0.00 sec)
```

```
mysql> select min(marks) from student_mark where branch='computer';
```

```
+-----+  
| min(marks) |  
+-----+  
|      70 |
```

```
+-----+  
1 row in set (0.00 sec)
```

```
mysql> select avg(marks) from student_mark where branch='computer';
```

```
+-----+
| avg(marks) |
+-----+
|      80.0000 |
+-----+
```

```
1 row in set (0.00 sec)
```

```
mysql> select avg(marks) from student_mark where branch='IT';
```

```
+-----+
| avg(marks) |
+-----+
|      60.0000 |
+-----+
```

```
1 row in set (0.00 sec)
```

```
mysql> select sum(marks) from student_mark where branch='computer';
```

```
+-----+
| sum(marks) |
+-----+
|        160 |
+-----+
```

```
1 row in set (0.00 sec)
```

```
mysql> select count(marks) from student_mark where branch='computer';
```

```
+-----+
| count(marks) |
+-----+
|          2 |
+-----+
```

```
1 row in set (0.00 sec)
```

```
mysql> select count(marks) from student_mark where branch='IT';
```

```
+-----+
| count(marks) |
+-----+
|          1 |
+-----+
```

JOINS:

```
mysql> create table customer(accno int primary key,name varchar(15),balance numeric(10),city
varchar(15));
```

```
mysql> insert into customer
values(1,'Ram',10000,'Pune'),(2,'Ravi',25000,'Nashik'),(3,'Sachin',30000,'Mumbai');Query OK, 3
rows affected (0.06 sec)
Records: 3 Duplicates: 0 Warnings: 0
```

```
mysql> select * from customer;
+-----+-----+-----+-----+
| accno | name  | balance | city  |
+-----+-----+-----+-----+
|      1 | Ram   | 10000   | Pune  |
|      2 | Ravi  | 25000   | Nashik |
|      3 | Sachin | 30000   | Mumbai |
+-----+-----+-----+-----+
3 rows in set (0.02 sec)
```

```
mysql> create table loan(loanno int primary key,name varchar(15),loanamt numeric(10));
```

```
mysql> insert into loan values(1,'Ram',10000),(2,'Ravi',50000),(4,'dipak',40000);
```

```
mysql> select * from loan;
+-----+-----+-----+
| loanno | name  | loanamt |
+-----+-----+-----+
|      1 | Ram   | 10000   |
|      2 | Ravi  | 50000   |
|      4 | dipak | 40000   |
+-----+-----+-----+
3 rows in set (0.02 sec)
```

```
mysql> create table cust_info(loanno numeric,address varchar(50));
Query OK, 0 rows affected (0.32 sec)
```

```
mysql> insert into cust_info values(1,'Nashik'),(3,'Pune');
Query OK, 2 rows affected (0.05 sec)
Records: 2 Duplicates: 0 Warnings: 0
```

```
mysql> select * from cust_info;
```

```

+-----+-----+
| loanno | address |
+-----+-----+
|      1 | Nashik  |
|      3 | Pune    |
+-----+-----+
2 rows in set (0.00 sec)

```

mysql> select loan.loanno,loan.name,cust_info.address from loan inner join cust_info on loan.loanno=cust_info.loanno;

```

+-----+-----+-----+
| loanno | name | address |
+-----+-----+-----+
|      1 | Ram  | Nashik  |
+-----+-----+-----+
1 row in set (0.00 sec)

```

mysql> select loan.loanno,loan.name,cust_info.address from loan left outer join cust_info on loan.loanno=cust_info.loanno;

```

+-----+-----+-----+
| loanno | name | address |
+-----+-----+-----+
|      1 | Ram  | Nashik  |
|      2 | Ravi | NULL     |
|      4 | dipak | NULL     |
+-----+-----+-----+
3 rows in set (0.00 sec)

```

mysql> select loan.loanno,loan.name,cust_info.address from loan right outer join cust_info on loan.loanno=cust_info.loanno;

```

+-----+-----+-----+
| loanno | name | address |
+-----+-----+-----+
|      1 | Ram  | Nashik  |
| NULL  | NULL | Pune    |
+-----+-----+-----+
2 rows in set (0.00 sec)

```

```
mysql> select loan.loanno,loan.name,cust_info.address from loan right outer join cust_info on
loan.loanno=cust_info.loanno;
```

```
+-----+-----+-----+
| loanno | name | address |
+-----+-----+-----+
|      1 | Ram  | Nashik  |
| NULL  | NULL | Pune    |
+-----+-----+-----+
2 rows in set (0.00 sec)
```

```
mysql> (select loan.loanno,loan.name,cust_info.address from loan left outer join cust_info on
loan.loanno=cust_info.loanno) union (select loan.loanno,loan.name,cust_info.address from loan
right outer join cust_info on loan.loanno=cust_info.loanno);
```

```
+-----+-----+-----+
| loanno | name | address |
+-----+-----+-----+
|      1 | Ram  | Nashik  |
|      2 | Ravi | NULL    |
|      4 | dipak | NULL    |
| NULL  | NULL | Pune    |
+-----+-----+-----+
4 rows in set (0.00 sec)
```