Assignment No 3(A)

Title:- all types of Join, Sub-Query and View:

Write at least10 SQL queries for suitable database application using SQL DML statements.

Solution:

I. Create following table
Table Name : Student_Mark
Table Column Name : Rollno, Name, Marks, Branch

```
mysql> create table Student_Mark(RollNo int, Name varchar(20),Marks int, Branch varchar(20));
Query OK, 0 rows affected (0.29 sec)
```

II. Apply primary key constraint

```
mysql> Alter table Student_Mark ADD PRIMARY KEY (RollNo);
Query OK, 0 rows affected (0.04 sec)
Records: 0  Duplicates: 0  Warnings: 0
```

III. Insert four records

1 Ravi 90 Computer
2 Vedika 70 Computer
3 Aarush 95 IT
4 Jyoti 60 IT

```
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 (0.05 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           |
+---------+-----------+--------+-------------+
4 rows in set (0.00 sec)
```

IV. Display Student Having marks above 70

```
mysql> select * from Student_Mark where Marks >= 70;
```

```
+----------+----------+---------+-------------+
| RollNo  | Name    | Marks  | Branch      |
+----------+----------+---------+-------------+
|     1       | Ravi      |    90     | Computer |
|     2       | Vedika  |    70     | Computer |
|     3       | Aarush  |    95     | IT           |
+----------+--------- -+---------+-------------+
3 rows in set (0.00 sec)
```

V. Display Student Having marks Below 70

```
mysql> select * from Student_Mark where Marks < 70;
+----------+----------+---------+-------------+
| RollNo  | Name    | Marks  | Branch      |
+----------+----------+---------+-------------+
|     4       | Jyoti     |    60     | IT           |
+----------+----------+---------+-------------+
1 row in set (0.00 sec)
```

VI. Display Student Having marks equal to 70 and name is Vedika

```
mysql> select * from Student_Mark where Marks=70 and Name='Vedika';
+----------+----------+---------+-------------+
| RollNo  | Name    | Marks  | Branch      |
+----------+----------+---------+-------------+
|     2       | Vedika  |    70     | Computer |
+----------+----------+---------+-------------+
1 row in set (0.00 sec)
```

VII. Change Student Name Ravi to Sachin

```
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> select * from Student_Mark;
+----------+----------+---------+-------------+
| RollNo  | Name    | Marks  | Branch      |
+----------+----------+---------+-------------+
|     1       | Sachin   |    90     | Computer |
|     2       | Vedika  |    70     | Computer |
|     3       | Aarush  |    95     | IT           |
|     4       | Jyoti      |    60     | IT           |
+----------+----------+---------+-------------+
4 rows in set (0.00 sec)
```

VIII. Delete Student whose name is Aarush

```
mysql> delete from Student_Mark where Name='Aarush';
Query OK, 1 row affected (0.03 sec)
```

```
mysql> select * from Student_Mark;
+----------+----------+---------+-------------+
| RollNo  | Name    | Marks  | Branch      |
+----------+----------+---------+-------------+
|     1       | Sachin |    90     | Computer |
|     2       | Vedika |    70     | Computer |
|     4       | Jyoti     |    60     | IT             |
+----------+----------+---------+-------------+
3 rows in set (0.00 sec)
```

IX. Write a Function to display student having max mark

```
mysql> Select * from Student_Mark where Marks=(Select max(Marks) from Student_Mark);
+---------+---------+---------+-------------+
| RollNo |  Name | Marks  | Branch      |
+---------+---------+---------+-------------+
|     1      | Sachin |    90     | Computer |
+---------+---------+---------+-------------+
1 row in set (0.00 sec)
```

X. Display Minimum, Maximum, Average, Sum, Total count of each branch

```
mysql> Select Branch, min(Marks) as Minimum,max(Marks) as Maximum,avg(Marks) as
Average,sum(Marks) as Sum,count(Branch) as Count from Student_Mark group by Branch;
+-------------+-------------+--------------+------------+-------+--------+
| Branch     | Minimum | Maximum  | Average  | Sum  | Count |
+-------------+-------------+--------------+------------+-------+--------+
| Computer |     70       |     90        | 80.0000  | 160  |    2    |
| IT            |     60       |     60        | 60.0000  |  60   |    1    |
+-------------+-------------+--------------+------------+-------+--------+
2 rows in set (0.00 sec)
```