Name: Vinayak Kumar Singh
Register No: 23MCA1030
Subject: DBMS LAB

1.Create Table and inserting values in it

```
[mysql> create table 23mca1030(Id int Primary Key,Name varchar(50) Not Null, city varchar(25) Not Null, college varchar(20) not null);
Query OK, 0 rows affected (0.03 sec)

[mysql> insert into 23mca1030 values(1,"Vinayak","Raipur","VIT");
Query OK, 1 row affected (0.01 sec)

[mysql> insert into 23mca1030 values(2,"Atul","Bilaspur","BIT");
Query OK, 1 row affected (0.00 sec)

[mysql> insert into 23mca1030 values(3,"Raj","Jaipur","BIT");
Query OK, 1 row affected (0.00 sec)

[mysql> insert into 23mca1030 values(4,"Rahul","Delhi","IPU");
Query OK, 1 row affected (0.00 sec)

[mysql> insert into 23mca1030 values(5,"Pankaj","Bikaner","RU");
Query OK, 1 row affected (0.00 sec)
```

2.Table View

```
[mysql> select * from 23mca1030;
+----+---------+----------+---------+
| Id | Name    | city     | college |
+----+---------+----------+---------+
|  1 | Vinayak | Raipur   | VIT     |
|  2 | Atul    | Bilaspur | BIT     |
|  3 | Raj     | Jaipur   | BIT     |
|  4 | Rahul   | Delhi    | IPU     |
|  5 | Pankaj  | Bikaner  | RU      |
+----+---------+----------+---------+
5 rows in set (0.01 sec)
```

3.Start Transaction and savepoint

```
[mysql> start transaction;
Query OK, 0 rows affected (0.00 sec)

[mysql> savepoint n;
Query OK, 0 rows affected (0.00 sec)
```

4.Updating table and its content

```
[mysql> update 23mca1030 set Name="Kanika" where college="RU";
Query OK, 1 row affected (0.00 sec)
Rows matched: 1  Changed: 1  Warnings: 0

[mysql> savepoint a;
Query OK, 0 rows affected (0.00 sec)

[mysql> update 23mca1030 set Name="Naina" where City="Jaipur";
Query OK, 1 row affected (0.00 sec)
Rows matched: 1  Changed: 1  Warnings: 0

[mysql> savepoint b;
Query OK, 0 rows affected (0.00 sec)

[mysql> select * from 23mca1030;
+----+---------+----------+---------+
| Id | Name    | city     | college |
+----+---------+----------+---------+
|  1 | Vinayak | Raipur   | VIT     |
|  2 | Atul    | Bilaspur | BIT     |
|  3 | Naina   | Jaipur   | BIT     |
|  4 | Rahul   | Delhi    | IPU     |
|  5 | Kanika  | Bikaner  | RU      |
+----+---------+----------+---------+
5 rows in set (0.00 sec)
```

5.Rollback to savepoint

```
[mysql> rollback to n;
Query OK, 0 rows affected (0.01 sec)

[mysql> select * from 23mca1030;
+----+---------+----------+---------+
| Id | Name    | city     | college |
+----+---------+----------+---------+
|  1 | Vinayak | Raipur   | VIT     |
|  2 | Atul    | Bilaspur | BIT     |
|  3 | Raj     | Jaipur   | BIT     |
|  4 | Rahul   | Delhi    | IPU     |
|  5 | Pankaj  | Bikaner  | RU      |
+----+---------+----------+---------+
5 rows in set (0.00 sec)
```

6.In clause

```
[mysql> select * from 23mca1030 where city IN("Raipur","Delhi");
+----+---------+--------+---------+
| Id | Name    | city   | college |
+----+---------+--------+---------+
|  1 | Vinayak | Raipur | VIT     |
|  4 | Rahul   | Delhi  | IPU     |
+----+---------+--------+---------+
2 rows in set (0.00 sec)

[mysql> select * from 23mca1030 where Id IN("2","4");
+----+-------+----------+---------+
| Id | Name  | city     | college |
+----+-------+----------+---------+
|  2 | Atul  | Bilaspur | BIT     |
|  4 | Rahul | Delhi    | IPU     |
+----+-------+----------+---------+
2 rows in set (0.00 sec)
```

7.Creating another table subject and inserting values

```
mysql> create table Subject(Sub_Id int Primary Key,SubName varchar(50) Not Null, Id int, foreign key(Id) references 23mca1030(Id) );
Query OK, 0 rows affected (0.01 sec)

mysql> insert into Subject values(1,"DBMS",1);
Query OK, 1 row affected (0.01 sec)

mysql> insert into Subject values(2,"DSA",4);
Query OK, 1 row affected (0.00 sec)

mysql> insert into Subject values3,"WEBDEV",5);
ERROR 1064 (42000): You have an error in your SQL syntax; check the manual that corresponds to your MySQL server version for the right syntax to use near 'values3,"WEBDEV",5)' at line 1
mysql> insert into Subject values(3,"WEBDEV",5);
Query OK, 1 row affected (0.00 sec)

mysql> insert into Subject values(4,"JAVA",2);
Query OK, 1 row affected (0.01 sec)

mysql> insert into Subject values(5,"DATASCIENCE",3);
Query OK, 1 row affected (0.00 sec)

mysql> select * from Subject;
+--------+-------------+------+
| Sub_Id | SubName     | Id   |
+--------+-------------+------+
|      1 | DBMS        |    1 |
|      2 | DSA         |    4 |
|      3 | WEBDEV      |    5 |
|      4 | JAVA        |    2 |
|      5 | DATASCIENCE |    3 |
+--------+-------------+------+
5 rows in set (0.00 sec)
```

8.Using Exist command

```
[mysql> select college from 23mca1030 where exists(Select SubName from Subject where Subject.Id=23mca1030.Id);
+---------+
| college |
+---------+
| VIT     |
| BIT     |
| BIT     |
| IPU     |
| RU      |
+---------+
5 rows in set (0.00 sec)

[mysql> select Name from 23mca1030 where exists(Select SubName from Subject where Subject.Id=23mca1030.Id);
+---------+
| Name    |
+---------+
| Vinayak |
| Atul    |
| Raj     |
| Rahul   |
| Pankaj  |
+---------+
5 rows in set (0.00 sec)
```

9.Using Not in Command

```
[mysql> select * from 23mca1030 where city NOT IN(select SubName from Subject);
+----+---------+----------+---------+
| Id | Name    | city     | college |
+----+---------+----------+---------+
|  1 | Vinayak | Raipur   | VIT     |
|  2 | Atul    | Bilaspur | BIT     |
|  3 | Raj     | Jaipur   | BIT     |
|  4 | Rahul   | Delhi    | IPU     |
|  5 | Pankaj  | Bikaner  | RU      |
+----+---------+----------+---------+
5 rows in set (0.01 sec)
```

10.Checking Empty set and commit

```
[mysql> select * from 23mca1030 where city IN(select SubName from Subject);
Empty set (0.00 sec)

[mysql> commit;
Query OK, 0 rows affected (0.00 sec)
```