

EXPERIMENT 5

TCL Commands – COMMIT, SAVEPOINT, ROLLBACK

```
mysql> -- Start transaction (optional, some DBs auto-start)
mysql> START TRANSACTION;
Query OK, 0 rows affected (0.02 sec)
```

```
mysql>
mysql> -- Insert some data
mysql> INSERT INTO Students (StudentID, Name, Age, Class)
    -> VALUES (5, 'Rohit', 17, '11C');
Query OK, 1 row affected (0.00 sec)
```

```
mysql>
mysql> -- Make changes permanent
mysql> COMMIT;
Query OK, 0 rows affected (0.00 sec)
```

```
mysql> SELECT * FROM Students;
+-----+-----+-----+-----+
| StudentID | Name  | Age  | Class |
+-----+-----+-----+-----+
|          1 | Ravi  | 18   | 12A   |
|          2 | Anita | 17   | 11B   |
|          3 | Karan | 16   | 10A   |
|          4 | Sita  | 15   | 9C    |
|          5 | Rohit | 17   | 11C   |
+-----+-----+-----+-----+
5 rows in set (0.00 sec)
```

```

mysql> START TRANSACTION;
Query OK, 0 rows affected (0.00 sec)

mysql>
mysql> INSERT INTO Students (StudentID, Name, Age, Class)
    -> VALUES (6, 'Neha', 16, '10B');
Query OK, 1 row affected (0.00 sec)

mysql>
mysql> -- Create a savepoint
mysql> SAVEPOINT BeforeDelete;
Query OK, 0 rows affected (0.00 sec)

mysql>
mysql> -- Delete a student
mysql> DELETE FROM Students WHERE StudentID = 2;
Query OK, 1 row affected (0.00 sec)

mysql> ROLLBACK TO SAVEPOINT BeforeDelete;
Query OK, 0 rows affected (0.02 sec)

mysql> SELECT * FROM Students;
+-----+-----+-----+-----+
| StudentID | Name   | Age  | Class |
+-----+-----+-----+-----+
|          1 | Ravi   | 18   | 12A   |
|          2 | Anita  | 17   | 11B   |
|          3 | Karan  | 16   | 10A   |
|          4 | Sita   | 15   | 9C    |
|          5 | Rohit  | 17   | 11C   |
|          6 | Neha   | 16   | 10B   |
+-----+-----+-----+-----+
6 rows in set (0.00 sec)

```

```
mysql> START TRANSACTION;  
Query OK, 0 rows affected (0.03 sec)
```

```
mysql>  
mysql> INSERT INTO Students (StudentID, Name, Age, Class)  
-> VALUES (7, 'Amit', 15, '9A');  
Query OK, 1 row affected (0.00 sec)
```

```
mysql>  
mysql> -- Undo entire transaction  
mysql> ROLLBACK;  
Query OK, 0 rows affected (0.00 sec)
```

```
mysql> SELECT * FROM Students;  
+-----+-----+-----+-----+  
| StudentID | Name  | Age  | Class |  
+-----+-----+-----+-----+  
|          1 | Ravi  | 18   | 12A   |  
|          2 | Anita | 17   | 11B   |  
|          3 | Karan | 16   | 10A   |  
|          4 | Sita  | 15   | 9C    |  
|          5 | Rohit | 17   | 11C   |  
|          6 | Neha  | 16   | 10B   |  
+-----+-----+-----+-----+  
6 rows in set (0.00 sec)
```