

# DBMS PRACTICAL NO.: 06

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**Experiment No 06:** Execute TCL Commands to control transactions on data using SQL

## EXERCISE:

1. Write TCL command to save all the changes made so far in the EMP

The screenshot shows the MySQL Workbench interface. On the left, the 'SCHEMAS' pane shows a tree view with 'ems\_db' selected, containing 'pr5' (Tables), 'dept' (Tables), 'emp' (Tables), and 'Columns' (empno, empname, salary, phno). The main editor shows a SQL script with the following commands:

```
1 use pr5;
2
3 Update emp
4 Set salary = salary + 5000
5 Where empno = 1;
6
7 -- step 1
8 COMMIT ;
```

The 'Output' pane at the bottom shows the execution results:

#	Time	Action	Message	Duration / Fetch
1	10:01:49	use pr5	0 row(s) affected	0.000 sec
2	10:04:14	select * from emp LIMIT 0, 1000	0 row(s) returned	0.015 sec / 0.000 sec
3	10:05:41	Update emp Set salary = salary + 5000 Where empno = 1	0 row(s) affected Rows matched: 0 Changed: 0 Warnings: 0	0.000 sec
4	10:06:10	COMMIT	0 row(s) affected	0.016 sec

*Explanation: Updates the salary of empno 1 and then saves (commits) this change so it can't be undone.*

2. Delete any one record in the EMP table created earlier and undo the deletion operation

The screenshot shows the MySQL Workbench interface. On the left, the 'SCHEMAS' pane shows a tree view with 'ems\_db' selected, containing 'pr5' (Tables), 'dept' (Tables), 'emp' (Tables), and 'Columns' (empno, empname, salary, phno). The main editor shows a SQL script with the following commands:

```
51 INSERT INTO EMP (empno, empname, salary, phno) VALUES (41, 'Aparna Jagdale', NULL, 5432109872);
52 INSERT INTO EMP (empno, empname, salary, phno) VALUES (42, 'Hitesh Bhayde', 38000, 4321098761);
53 INSERT INTO EMP (empno, empname, salary, phno) VALUES (43, 'Aniket Sawant', 31000, 3210987650);
54 INSERT INTO EMP (empno, empname, salary, phno) VALUES (44, 'Manjiri Joshi', 49000, 2109876539);
55 INSERT INTO EMP (empno, empname, salary, phno) VALUES (45, 'Siddharth Joshi', 30000, 1098765438);
56 INSERT INTO EMP (empno, empname, salary, phno) VALUES (46, 'Bhavna Goud', 42000, 9876543215);
57 INSERT INTO EMP (empno, empname, salary, phno) VALUES (47, 'Pratibha Ghare', NULL, 8765432104);
58 INSERT INTO EMP (empno, empname, salary, phno) VALUES (48, 'Arvind Khade', 36000, 7654321093);
59 INSERT INTO EMP (empno, empname, salary, phno) VALUES (49, 'Vasudha Kothawade', 29000, 6543210982);
60 INSERT INTO EMP (empno, empname, salary, phno) VALUES (50, 'Abhay Bandekar', 52000, 5432109871);
61
62 -- step 2
63 UPDATE emp
64 SET salary = 40000
65 WHERE empno = 1;
66 ROLLBACK;
```

3. You are in the middle of a transaction and want to set a savepoint named *BeforeSalaryUpdate*. Write the SQL command to set this savepoint.

MySQL Workbench

Local instance MYSQL80 x

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**SCHEMAS**

Filter objects

- ems\_db
  - pr5
    - Tables
      - dept
      - emp
        - Columns
          - empno
          - empname
          - salary
          - phno
        - Indexes
        - Foreign Keys
        - Triggers
  - pr6
    - Tables
    - Views
    - Stored Procedures
    - Functions
  - sakila

Administration Schemas

Information

```
61 • INSERT INTO EMP (empno, empname, salary, phno) VALUES (50, 'Abhay Bandekar', 52000, 5432109871);
62
63 -- step 2
64 • UPDATE emp
65 SET salary = 40000
66 WHERE empno = 1;
67 • ROLLBACK;
68
69 -- step 3
70 • SAVEPOINT BeforeSalaryUpdate;
71 • UPDATE emp
72 SET salary = 300000
73 WHERE empno = 1;
74 • ROLLBACK TO BeforeSalaryUpdate;
75 • COMMIT;
76
77
78
```

Output

Action Output

#	Time	Action	Message	Duration / Fetch
✓ 17	10:49:43	UPDATE emp SET salary = 300000 WHERE empno = 1	0 row(s) affected Rows matched: 1 Changed: 0 Warnings: 0	0.000 sec
✗ 18	10:49:47	ROLLBACK TO BeforeSalaryUpdate	Error Code: 1305. SAVEPOINT BeforeSalaryUpdate does not exist	0.000 sec
✓ 19	10:52:09	Start transaction	0 row(s) affected	0.000 sec
✓ 20	10:52:20	SAVEPOINT BeforeSalaryUpdate	0 row(s) affected	0.000 sec
✓ 21	10:52:25	UPDATE emp SET salary = 300000 WHERE empno = 1	0 row(s) affected Rows matched: 1 Changed: 0 Warnings: 0	0.000 sec
✓ 22	10:52:30	ROLLBACK TO BeforeSalaryUpdate	0 row(s) affected	0.000 sec