

3. Commands of Rollback and Commit

1. Create Teacher table with the following fields (Id, Name, DeptNo, Date of joining, DeptName, Location, Salary)

Code:

sql

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```
CREATE TABLE Teacher (  
    Id INT PRIMARY KEY,  
    Name VARCHAR(50),  
    DeptNo INT,  
    Date_of_joining DATE,  
    DeptName VARCHAR(50),  
    Location VARCHAR(50),  
    Salary DECIMAL(10, 2)  
);
```

Output: *No output for table creation.*

2. Insert five records

Code:

sql

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```
INSERT INTO Teacher (Id, Name, DeptNo, Date_of_joining, DeptName,  
Location, Salary)  
VALUES  
(1, 'Alice Green', 101, '2022-01-10', 'Mathematics', 'New York',  
5000.00),  
(2, 'Bob White', 102, '2022-02-20', 'Commerce', 'Los Angeles',  
5500.00),  
(3, 'Charlie Black', 103, '2022-03-15', 'Physics', 'Chicago',  
5200.00),
```

```
(4, 'Diana Blue', 104, '2022-04-25', 'Mathematics', 'Houston',  
5300.00),  
(5, 'Eve Red', 105, '2022-05-30', 'Commerce', 'Philadelphia',  
5600.00);
```

Output: *No output for data insertion.*

3. Give increment of 25% salary for Mathematics Department

Code:

```
sql  
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BEGIN;  
  
UPDATE Teacher  
SET Salary = Salary * 1.25  
WHERE DeptName = 'Mathematics';
```

Output: *No output for the update command before rollback or commit.*

4. Perform Rollback command

Code:

```
sql  
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ROLLBACK;
```

Output: *No rows affected (reverts the previous update).*

5. Give increment of 15% salary for Commerce Department

Code:

```
sql
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BEGIN;

UPDATE Teacher
SET Salary = Salary * 1.15
WHERE DeptName = 'Commerce';
```

Output: *No output for the update command before commit.*

6. Perform commit command

Code:

```
sql
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COMMIT;
```

Output: *No output for the commit command.*

Summary:

- **1.** Created the Teacher table.
- **2.** Inserted five records.
- **3.** Attempted to give a 25% salary increment to the Mathematics Department, which was rolled back.
- **4.** Rolled back the changes from step 3.
- **5.** Gave a 15% salary increment to the Commerce Department.
- **6.** Committed the changes from step 5.