



TCL Statements with examples



TCL statements defined...

- TCL is short name of Transactions Control Language.
- These commands are used to manage the transactions in the database.
- Used to manage the changes made by DML statements.
- It also allows the statements to be grouped together into logical transactions.



COMMIT statements...

- Commit command is used to permanently save any transaction into the database.
- When we use Commit in any query then the change made by that query will be permanent and visible.

- **begin** tran d

update emp **set** empName ='D' **where** empid=11

commit tran d



ROLLBACK statements...

- Rollback is used to undo the changes made by any command but only before a commit is done.
- We can't Rollback data which has been committed in the database with the help of the commit keyword.

```
• DECLARE @BookCount int
  BEGIN TRANSACTION AddBook
  INSERT INTO Books VALUES (20, 'Book15', 'Cat5', 2000)
  SELECT @BookCount = COUNT(*) FROM Books WHERE name = 'Book15'
  IF @BookCount > 1
  BEGIN
    ROLLBACK TRANSACTION AddBook
    PRINT 'A book with the same name already exists'
  END
  ELSE
  BEGIN
    COMMIT TRANSACTION AddStudent
    PRINT 'New book added successfully'
  END
```



SAVEPOINT statements...

- SAVEPOINT command is used to temporarily save a transaction so that you can roll back to that point whenever necessary.
- Savepoint names must be distinct within a given transaction.
- After a savepoint has been created, you can either continue processing, commit your work, roll back the entire transaction, or roll back to the savepoint.

- ```
UPDATE employees SET salary = 7000 WHERE last_name = 'Banda';

SAVEPOINT banda_sal;

UPDATE employees SET salary = 12000 WHERE last_name = 'Greene';

SAVEPOINT greene_sal;

SELECT SUM(salary) FROM employees;

ROLLBACK TO SAVEPOINT banda_sal;

UPDATE employees SET salary = 11000 WHERE last_name = 'Greene';

COMMIT;
```