

**120A3043**

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**Experiment No: 11**

**Aim:** To study and execute TCL commands.

**Theory:**

TCL commands are used to manage transaction in the database. These commands are used to manage the changes made to the data in a statements to be grouped together into a logical transaction.

1. **Commit:** Commit command is used to permanently save the transaction into database. When you use DML commands like insert, update, delete the changes made by these commands are not permanent until the current session is closed. The changes made by these commands can be rolledback. To avoid that we use commit command to mark the changes as permanent.
2. **Rollback:** This command restores the database to the last committed state. It is also used with savepoint command to jump to a savepoint in an ongoing transaction.
3. **Savepoint:** It is used to temporarily save the transaction so that you can rollback to that point whenever required.

**Output:**

```
begin transaction;  
insert into student values(6,'xyz' , '1999-08-06', '9807897654','xyz@gmail.com',  
50,  
4);  
select * from student;  
Output:
```

```
Rollback;  
Output:
```

```
begin transaction;  
update student set d_id=1 where id=3;  
select * from student;  
commit;  
Output:
```

```
Rollback;  
Output:
```

```
begin transaction;  
insert into student values(6,'xyz' , '1999-08-06', '9807897654','xyz@gmail.com',  
50,  
4);  
savepoint a;
```

```
begin transaction;
delete from student where id=5;
savepoint b;
select * from student order by id;
Output:
```

```
rollback to a;
Output:
1) BEGIN;
DELETE
FROM
userprofile
WHERE
id=3;
```

Data Output	Explain	Messages	Notifications
DELETE 1			
Query returned successfully in 153 msec.			

```
2) BEGIN;
DELETE
FROM
userprofile
WHERE
id=3;
ROLLBACK
;
select * from
userprofile
```

Data Output

Explain

Messages

Notifications

	id [PK] integer	location character varying (20)	name character varying (50)	birthday date	designation character varying (20)
1	3	Kharghar	@ Salman Adhikari	2003-12-02	IT Student SE

```
3) BEGIN;
DELETE
FROM
userprofile
WHERE
id=3;
COMMIT;
select * from
userprofile
```

Data Output

Explain

Messages







Notifications

	id [PK] integer	location character varying (20)	name character varying (50)	birthday date	designation character varying (20)
1	1	Thane	Dhiraj Shelke	2003-08-01	IT Student SE
2	2	Kharghar	Salman Adhikari	2003-08-01	IT Student SE

```

4) BEGIN;
INSERT
INTO
userprofile
VALUES(7,'
Thane','Dhira
j
Shelke','2003
-08-01','IT
Student SE');
DELETE
FROM
userprofile
WHERE
id=7;
SAVEPOINT
T s1;
ROLLBACK
TO
SAVEPOINT
T s1;
select * from
userprofile

```

Data Output							Explain	Messages	Notifications	
	 id [PK] integer 		location character varying (20) 		name character varying (50) 		birthday date 		designation character varying (20) 	
3		1	Thane		Dhiraj Shelke		2003-08-01		IT Student SE	
4		4	Thane		Dhiraj Shelke		2003-08-01		IT Student SE	
5		5	Kharghar		Salman Adhikari		2003-08-01		IT Student SE	
6		6	Nerul		Raj Tandel		2003-08-01		IT Student SE	
7		7	Thane		Dhiraj Shelke		2003-08-01		IT Student SE	

### Conclusion:

We Are Able To Understand The Concept Of TCL and Have Executed The Commands Also.