

## Experiment-2

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**Section/Group:** B

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**Subject Name:** Advanced Database Management Lab

**Subject Code:** CSP - 434

### 1. Aim/Overview of the practical:

To implement DCL, create a user in Oracle Database and then grant and revoke privileges and then implement TCL Commit, Savepoint and Rollback commands.

### 2. Task to be done:

To implement DCL, create a user in Oracle Database and then grant and revoke privileges and then implement TCL Commit, Savepoint and Rollback commands.

### 3. Steps to be followed:

**Create a user identified by a password:**

1. CREATE USER BETA IDENTIFIED BY "beta";

```
SQL> connect
Enter user-name: system
Enter password:
Connected.
SQL> CREATE USER BETA IDENTIFIED BY "beta";
User created.
```

**Grant Create Session and Table access to the user:**

2. GRANT CREATE SESSION TO BETA;  
GRANT CREATE TABLE TO BETA;  
ALTER USER BETA QUOTA UNLIMITED ON USERS;

```
SQL> GRANT CREATE SESSION TO BETA;
Grant succeeded.
SQL> GRANT CREATE TABLE TO BETA;
Grant succeeded.
SQL> ALTER USER BETA QUOTA UNLIMITED ON USERS;
User altered.
```

## Creating a Table and Inserting Values into the Table:

1. CREATE TABLE STUDENTS(Roll\_No int, Name varchar(50), Age int);

```
Run SQL Command Line
Enter user-name: system
Enter password:
Connected.
SQL> CREATE TABLE STUDENTS(Roll_No int, Name varchar(50), Age int);
Table created.
```

2. INSERT INTO STUDENTS VALUES(1,'Gauri',21);  
INSERT INTO STUDENTS VALUES(2,'Lilly',22);  
INSERT INTO STUDENTS VALUES(3,'Rose',18);

```
SQL> INSERT INTO STUDENTS VALUES(1,'Gauri',21);
1 row created.
SQL> INSERT INTO STUDENTS VALUES(2,'Lilly',22);
1 row created.
SQL> INSERT INTO STUDENTS VALUES(3,'Rose',18);
1 row created.
```

## COMMIT Values into the table:

3. COMMIT;

```
SQL> COMMIT;
Commit complete.
```

4. INSERT INTO STUDENTS VALUES(4,'Chelsea',24);  
SELECT \* FROM STUDENTS;

```
SQL> INSERT INTO STUDENTS VALUES(4,'Chelsea',24);
1 row created.
SQL> SELECT * FROM STUDENTS;

ROLL_NO NAME                AGE
-----
1 Gauri                21
2 Lilly                22
3 Rose                 18
4 Chelsea              24
```

## ROLLBACK to the table:

5. ROLLBACK;

```
SQL> ROLLBACK;
Rollback complete.
```

## 6. Displaying the table after Rollback.

```
SELECT * FROM STUDENTS;
```

```
SQL> SELECT * FROM STUDENTS;
```

ROLL_NO	NAME	AGE
1	Gauri	21
2	Lilly	22
3	Rose	18

## Updating values and then creating SAVEPOINT and Rolling back to the Savepoint:

```
7. UPDATE STUDENTS SET Age=23 where Roll_No=2;  
SAVEPOINT LILLY;  
UPDATE STUDENTS SET Age=28 where Roll_No=3;  
SAVEPOINT ROSE;
```

```
SQL> UPDATE STUDENTS SET Age=23 where Roll_No=2;  
1 row updated.  
SQL> SAVEPOINT LILLY;  
Savepoint created.  
SQL> UPDATE STUDENTS SET Age=28 where Roll_No=3;  
1 row updated.  
SQL> SAVEPOINT ROSE;  
Savepoint created.
```

## 8. Rollback to Savepoint and displaying the table.

```
ROLLBACK TO SAVEPOINT LILLY;  
SELECT * FROM STUDENTS;
```

```
SQL> ROLLBACK TO SAVEPOINT LILLY;  
Rollback complete.  
SQL> SELECT * FROM STUDENTS;
```

ROLL_NO	NAME	AGE
1	Gauri	21
2	Lilly	23
3	Rose	18

```
SQL>
```

## Revoke the privileges of the created user:

```
9. REVOKE CREATE TABLE FROM BETA;
```

```
SQL> REVOKE CREATE TABLE FROM BETA;  
Revoke succeeded.  
SQL>
```

#### 4. Result/Output/Writing Summary:

- Successfully created a new user.
- Successfully implemented DCL Commands: Grant and Revoke.
- Successfully created a table on SQL command line.
- Successfully implemented TCL Commands: Commit, Rollback and Savepoint to the new user.
- Successfully understood the working of DCL and TCL commands.

#### 5. Learning outcomes (What I have learnt):

- Create new user in SQL.
- How to create table on SQL Command Line.
- DCL and TCL Commands.
- How to implement Grant, Revoke, Commit, Rollback and Savepoint command and returned their outcomes.

#### Evaluation Grid (To be created as per the SOP and Assessment guidelines by the faculty):

Sr. No.	Parameters	Marks Obtained	Maximum Marks
1.			
2.			
3.			

