EXP 3

DCL COMMANDS

AIM: To write SQL queries to execute different DCL commands.

DCL includes commands such as GRANT and REVOKE which mainly deal with the rights, permissions, and other controls of the database system. List of DCL commands:

GRANT:

This command gives users access privileges to the database.

SYNTAX:

GRANT privileges_names ON object TO user;

Example:

Create user first identified by passwd;

Grant select on customers to first;

REVOKE:

This command withdraws the user's access privileges given by using the GRANT command.

SYNTAX:

REVOKE privileges ON object FROM user;

Example:

Revoke select on customers from first;

TCL COMMANDS

AIM: To write SQL queries to execute different TCL commands.
Data base created for this exercise is:

NAME	SUBJECT	MARKS	GRADE
CHITRA	MATH	98	A
MEERA	PHYSICS	85	B
GOUTHAM	CHEMISTRY	79	C
NAINA	SOCIAL	65	D

COMMIT: Commits a Transaction.

Syntax: COMMIT;

Example:

INSERT INTO MMARKS VALUES('JAGGU','SCIENCE','54','E');

INSERT INTO MMARKS VALUES('SIDDU','ENGLISH','59','E');

Commit;

SELECT * FROM MMARKS;

```
SQL> COMMIT;

Commit complete.

SQL> SELECT * FROM MMARKS;

NAME                                     SUBJECT               MARKS GRADE
---------------------------------------- --------------------- ----- -----
CHITRA                                   MATH                     98 A
JAGGU                                    SCIENCE                  54 E
MEERA                                    PHYSICS                  85 B
GOUTHAM                                  CHEMISTRY                79 C
NAINA                                    SOCIAL                   65 D
SIDDU                                    ENGLISH                  59 E

6 rows selected.
```

ROLLBACK: Rollbacks a Transaction in case of any error.

Syntax: ROLLBACK;

Example:

DELETE FROM MMARKS WHERE GRADE = 'D';

ROLLBACK;

SELECT * FROM MMARKS;

```
SQL> DELETE FROM MMARKS WHERE GRADE = 'D';

1 row deleted.

SQL> SELECT * FROM MMARKS;

NAME                                          SUBJECT                   MARKS GRADE
--------------------------------------------- ------------------------- ----------- -----
CHITRA                                        MATH                         98 A
JAGGU                                         SCIENCE                      54 E
MEERA                                         PHYSICS                      85 B
GOUTHAM                                       CHEMISTRY                    79 C
SIDDU                                         ENGLISH                      59 E
```

```
SQL> DELETE FROM MMARKS WHERE GRADE = 'D';

0 rows deleted.

SQL> ROLLBACK;

Rollback complete.

SQL> SELECT * FROM MMARKS;

NAME                                          SUBJECT                   MARKS GRADE
--------------------------------------------- ------------------------- ----------- -----
CHITRA                                        MATH                         98 A
JAGGU                                         SCIENCE                      54 E
MEERA                                         PHYSICS                      85 B
GOUTHAM                                       CHEMISTRY                    79 C
NAINA                                         SOCIAL                       65 D
SIDDU                                         ENGLISH                      59 E

6 rows selected.
```

SAVEPOINT: Sets a savepoint within a transaction.

Syntax: SAVEPOINT SAVEPOINT_NAME;

This command is used only in the creation of SAVEPOINT among all the transactions

```
SQL> SELECT * FROM MMARKS;

NAME                                      SUBJECT                    MARKS GRADE
----------------------------------------  --------------------       ----------- -----
CHITRA                                    MATH                          98 A
JAGGU                                     SCIENCE                       54 E
MEERA                                     PHYSICS                       85 B
GOUTHAM                                   CHEMISTRY                     79 C
NAINA                                     SOCIAL                        65 D
SIDDU                                     ENGLISH                       59 E

6 rows selected.

SQL> SAVEPOINT SP1;

Savepoint created.
```

In general ROLLBACK is used to undo a group of transactions.

SYNTAX for rolling back to Savepoint command:

ROLLBACK TO SAVEPOINT_NAME;

Example:

SAVEPOINT SP1;

INSERT INTO MMARKS VALUES('JESSIE','HINDI','44','F');

SAVEPOINT SP2;

SELECT * FROM MMARKS;

```
SQL> INSERT INTO MMARKS VALUES('JESSIE','HINDI','44','F');

1 row created.

SQL> SAVEPOINT SP2;

Savepoint created.

SQL> SELECT * FROM MMARKS;

NAME                                    SUBJECT                 MARKS GRADE
--------------------------------------  --------------------    ----------  -----
CHITRA                                  MATH                       98 A
JAGGU                                   SCIENCE                    54 E
MEERA                                   PHYSICS                    85 B
GOUTHAM                                 CHEMISTRY                  79 C
NAINA                                   SOCIAL                     65 D
SIDDU                                   ENGLISH                    59 E
JESSIE                                  HINDI                      44 F

7 rows selected.
```

```
SQL> ROLLBACK TO SP1;

Rollback complete.

SQL> SELECT * FROM MMARKS;

NAME                                    SUBJECT                 MARKS GRADE
--------------------------------------  --------------------    ----------  -----
CHITRA                                  MATH                       98 A
JAGGU                                   SCIENCE                    54 E
MEERA                                   PHYSICS                    85 B
GOUTHAM                                 CHEMISTRY                  79 C
NAINA                                   SOCIAL                     65 D
SIDDU                                   ENGLISH                    59 E

6 rows selected.
```

RESULT:

Thus the DCL and TCL commands are used to modify or manipulate data records present in the customer database tables.

CHITRALEKHA.CH
RA1911003010387