

# DCL , TCL , AND DB OBJECTS COMMANDS

## AIM :

To implement SQL commands using DCL,TCL and DB objects.

## DCL COMMANDS

SQL> connect sys as sysdba

Enter password:

Connected.

SQL> create table employee(id number unique,name varchar(10));

Table created.

SQL> insert into employee values(123,'vignesh');

1 row created.

SQL> insert into employee values(111,'vickey');

1 row created.

SQL> create user vigneshvickey identified by vickey;   // USER CREATION

User created.

SQL> grant create session to vigneshvickey;               // CREATING SESSION

Grant succeeded.

SQL> connect

Enter user-name: vigneshvickey

Enter password:

Connected.

SQL> select \* from sys.employee;

select \* from sys.employee

**ERROR at line 1:**

**ORA-00942: table or view does not exist**

SQL> connect sys as sysdba;

Enter password:

Connected.

SQL> grant all on employee to vigneshvickey;

Grant succeeded.

SQL> grant create table to vigneshvickey; // **CREATE TABLE PERMISSIONS**

Grant succeeded.

SQL> grant drop any table to vigneshvickey;

Grant succeeded. // **ALOTTING SPACE FOR CREATING NEW TABLES**

SQL> alter user vigneshvickey quota unlimited on system;

User altered.

SQL> connect

Enter user-name: vigneshvickey

Enter password:

Connected.

SQL> select \* from sys.employee;

ID NAME

-----

123 vignesh

111 vickey

SQL> create table emp(id number unique,name varchar(10));

Table created.

SQL> insert into employee values(777,'vigneshwara');

insert into employee values(777,'vigneshwara')

**ERROR at line 1:**

**ORA-00942: table or view does not exist**

SQL> connect sys as sysdba

Enter password:

Connected.

SQL> grant sysdba to vigneshvickey;

Grant succeeded.

SQL> connect

Enter user-name: vigneshvickey

Enter password:

Connected.

SQL> select \* from sys.employee;

ID NAME

-----

123 vignesh

111 vickey

SQL> select \* from emp;

no rows selected

SQL> insert into emp values(1,'vignesh');

1 row created.

SQL> select \* from emp;

ID NAME

-----

1 vignesh

SQL> drop table emp;

Table dropped.

SQL> select \* from emp;

**ERROR at line 1:**

**ORA-00942: table or view does not exist**

SQL> connect sys as sysdba

Enter password:

Connected.

SQL> revoke create table from vigneshvickey;

**// REVOKE**

**COMMAND**

Revoke succeeded.

SQL> connect

Enter user-name: vigneshvickey

Enter password:

Connected.

SQL> create table emp(id number);

create table emp(id number)

\*

**ERROR at line 1:**

**ORA-01031: insufficient privileges**

SQL> select \* from sys.employee;

ID NAME

-----

123 vignesh

111 vickey

SQL> update sys.employee set name='vickey123' where id=123;

1 row updated.

SQL> select \* from sys.employee;

ID NAME

-----

123 vickey123

111 vickey

## **TCL COMMANDS**

SQL> create table abcd(name varchar(20) not null,dept varchar(10) not null);

Table created.

SQL> insert into abcd values('vickey','mca');

1 row created.

SQL> insert into abcd values('vignesh','eee');

1 row created.

SQL> commit;

**//COMMIT**

Commit complete.

SQL> savepoint a;  
Savepoint created.

**// SAVEPOINT**

SQL> insert into abcd values('vigneshwara','ece');  
1 row created.

SQL> savepoint b; Savepoint created.

SQL> insert into abcd values('vigneshvickey','mech');  
1 row created.

SQL> select \* from abcd;

NAME	DEPT
-----	

Vickey	mca
--------	-----

Vignesh	eee
---------	-----

Vigneshwara	ece
-------------	-----

vigneshvickey	mech
---------------	------

SQL> rollback to b;  
Rollback complete.

**// ROLLBACK**

SQL> select \* from abcd;

NAME	DEPT
-----	

Vickey	mca
--------	-----

Vignesh	eee
---------	-----

Vigneshwara	ece
-------------	-----

SQL> rollback to a;  
Rollback complete.

SQL> select \* from abcd;

NAME	DEPT
-----	

Vickey	mca
--------	-----

Vignesh	eee
---------	-----

## DB OBJECTS

```
SQL> create table cc1(id number,name varchar(20),dept varchar(10));
```

Table created.

```
SQL> insert into cc1 values(007,'vickey','mca');
```

1 row created.

```
SQL> insert into cc1 values(23,'vignesh','chemistry');
```

1 row created.

```
SQL> insert into cc1 values(123,'vigneshwara','eee');
```

1 row created.

```
SQL> create view cts as select id,name from cc1;           // VIEW
```

View created.

```
SQL> select * from cts;
```

ID NAME

-----

7 vickey

23 vignesh

123 vigneshwara

```
SQL> insert into cts values(1,'sri');
```

1 row created.

```
SQL> select * from cts;
```

ID NAME

-----

7 vickey

23 vignesh

123 vigneshwara

1 sri

```
SQL> delete cts where id=1;
```

1 row deleted.

```
SQL> select * from cts;
```

ID	NAME
----	------

-----

7	vickey
---	--------

23	vignesh
----	---------

123	vigneshwara
-----	-------------

```
SQL> create view cc2 as select id,name from cc1,cts where cc1.id=cts.id;
```

```
create view cc2 as select id,name from cc1,cts where cc1.id=cts.id
```

**ERROR at line 1:**

**ORA-00918: column ambiguously defined**

```
SQL> create view cc2 as select cc1.id,name from cc1,cts where cc1.id=cts.id;
```

```
create view cc2 as select cc1.id,name from cc1,cts where cc1.id=cts.id
```

**ERROR at line 1:**

**ORA-00918: column ambiguously defined**

```
SQL> create view cc2 as select cc1.id,cc1.name from cc1,cts where cc1.id=cts.id;
```

View created.

```
SQL> select *from cc2;
```

ID	NAME
----	------

-----

7	vickey
---	--------

23	vignesh
----	---------

123	vigneshwara
-----	-------------

```
SQL> insert into cc2 values(456,'vickey123');
```

```
insert into cc2 values(456,'vickey123')
```

```
*
```

**ERROR at line 1:**

**ORA-01779: cannot modify a column which maps to a non key-preserved table**

```
SQL> select * from cts;
```

```
ID NAME
```

```
-----
```

```
7 vickey
```

```
23 vignesh
```

```
123 vigneshwara
```

```
SQL> insert into cts values(456,'sri');
```

```
1 row created.
```

```
SQL> select * from cc2;
```

```
ID NAME
```

```
-----
```

```
7 vickey
```

```
23 vignesh
```

```
123 vigneshwara
```

```
456 sri
```

```
SQL> insert into cc1 values(456,'sri','ece');
```

```
1 row created.
```

```
SQL> select * from cts;
```

```
ID NAME
```

```
-----
```

```
7 vickey
```

```
23 vignesh
```

```
123 vigneshwara
```



456 sri

456 sri

```
SQL> create table entry(id number,name varchar(20));
```

Table created.

```
SQL> insert into entry values(1,'sri');
```

1 row created.

```
SQL> insert into entry values(2,'vignesh');
```

1 row created.

```
SQL> select * from entry;
```

ID	NAME
----	------

-----

1	sri
---	-----

2	vignesh
---	---------

```
SQL> create index ind on entry(id,name);           // CREATING INDEX
```

Index created.

```
SQL> create sequence seq start with 1 increment by 1 minvalue 1 maxvalue 10 cycle;
```

```
create sequence seq start with 1 increment by 1 minvalue 1 maxvalue 10 cycle
```

\*

**ERROR at line 1:**

**ORA-04013: number to CACHE must be less than one cycle**

**// SEQUENCE**

```
SQL> create sequence seqminvalue 1 maxvalue 10 start with 1 increment by 1;
```

Sequence created.

**// SEQUENCE**

```
SQL> insert into entry values(10,'vicky');
```

1 row created.

```
SQL> select * from entry;
```

ID	NAME
----	------

-----

1 sri

2 vignesh

10 vickey

```
SQL> insert into entry(id,name) values(id.nextval,'vigneshvickey');
```

```
insert into entry(id,name) values(id.nextval,'vigneshvickey')
```

**ERROR at line 1:**

**ORA-02289: sequence does not exist**

```
SQL> insert into entry values(seq.nextval,'vigneshvickey');
```

1 row created.

```
SQL> select * from entry;
```

ID NAME

-----

1 sri

2 vignesh

10 vickey

1 vigneshvickey

```
SQL> insert into entry values(seq.nextval,'srivignesh');
```

1 row created.

```
SQL> select * from entry;
```

ID NAME

-----

1 sri

2 vignesh

10 vickey

1 vigneshvickey

2 srivignesh

```
SQL> create synonym entry1 for entry;
```

**// *SYNONYM***

Synonym created.

```
SQL> select * from entry1;
```

ID NAME

-----

1 sri

2 vignesh

10 vickey

1 vigneshvickey

2 srivignesh

**RESULT :**

The SQL commands for DCL , TCL , and DB OBJECTS has been executed successfully.