

(iii) select (name, class, Roll no) from student.

DCL (Data control language) :- DCL Command

DCL (provide)

grant command

are used to control the security on database. It deal with various permissions which are given to the user to access the database. Such permission are known as privileges is the right to run the particular datatype in database.

→ There are two type of privileges.

1. System privileges (permissions)
2. Object privileges

→ The DCL command include The following commands:

* Grant command :- To allow specified user to perform specified task.

Syntax :-

GRANT [obj privilege] ON object
TO [user-Name] role/public [with grant options];

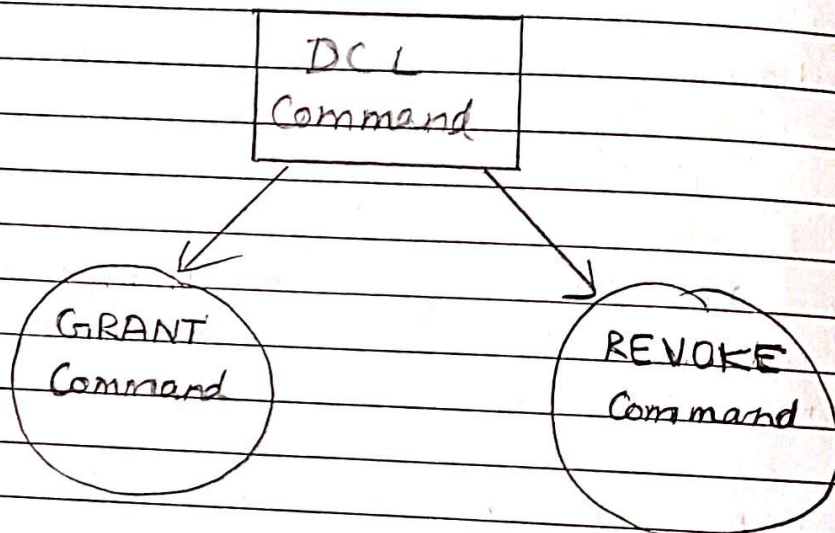
For example - (i) write a command to grant update privilege on student table to user BSc,

GRANT update ON student
TO BSc;

(ii) write a command to grant a privilege delete on student table to user BSc

~~GRANT insert, delete ON student~~
TO BSc;

(iii) To grant all the object privilege to user admin.
GRANT all ON student
TO admin;



* Revoke Command:- To cancel or remove previously granted or denied permission.

Syntax:-

REVOKE [obj privileges] ON object
FROM User Name;

for eg (i) ~~revoke~~ select and update privileges
on employee table from user BSc

REVOKE select, update ON employee
FROM BSc;

(ii) Revoke all the privileges or permission on student table from user BSc

```
REVOKE ALL ON Student
FROM BSc;
```

lab 9
forward
video
 is a collection of operation to it in series of TCL

TCL :- Transaction control language
 * it is used to manage different transaction occurring with database. Transaction are collection of operation that form a single logical unit of work is called transaction.
 * There are different types of command under TCL some of following are -

- commit
- Rollback
- Savepoint

* Commit command :- ^{used} ~~selectful~~ ^{complete} for successfully

* The commit command save all the changes made to the database since the last commit in Oracle change made to the database are not permanent until you tell the Oracle to make it permanent. The commit command make permanent change during current change execution of transaction.

for example :-

Roll-no	Name	class

Student



SQL > Insert Into Student
values (101, 'ABC', 'BSC');

If we
make commit
then the
changes
will enter
in table.
otherwise
not

SQL > Insert Into Student
values (102, 'BCD', 'BSC');

SQL > Commit;

SQL > select * from student

for eg.
if SQL > commit;
is not written
then changes
will not
show

Roll No	Name	Class	
101	ABC	BSC	← Student
102	BCD	BSC	

SQL > delete from Student where Roll no = 101;

SQL > Commit;

SQL > select * from Student;

Roll No	Name	Class	
102	BCD	BSC	← Student

- * Rollback command - It is inverse of commit statement. It undo some or all database changes made during the current transaction.
- * This command is used to undo the transaction that have not already been saved to the database.
- * It only be use to undo the transaction for eg &

SQL > Insert Into Student
values (101, 'ABC', 'BSC');

```
SQL> Insert Into Student  
values (102, 'BCD', 'RSC');
```

```
SQL> delete from student where Rollno=101;  
SQL> Rollback;
```

* Savepoint command :- It is a special mark inside the transaction that allows all commands that are executed after a savepoint established to be rolled back, restoring the transaction state to what it was at the time of the savepoint.

Syntax :-
SAVEPOINT savepoint-Name;
ROLLBACK to savepoint-Name;

for eg:-

```
SQL> Insert Into Student  
values (101, 'ABC', 'RSC');
```

```
SQL> Insert Into Student  
values (102, 'BCD', 'RSC');
```

```
SQL> SAVEPOINT savept;
```

```
SQL> delete from student where Roll No=101;
```

```
SQL> Rollback to savept;
```

Creating a table from another table :- User can also create a table from an existing table by copying the existing table columns. The select command is used to copy the data from old table.

Syntax :-
create table table-Name
As(select * from oldtable-Name);