Data Control Language(DCL) deals with the commands used in SQL that permit a user to access, modify or work on the different privileges in order to control the database. It allows the database owner to give access, revoke access, and change the given permissions as and when required. DCL is basically used for enforcing data security.

What are the various DCL Commands Present in SQL?

The DCL commands present in SQL are

- GRANT: GRANT is a DCL command used to grant(give access to) security privileges to specific database users. It is mostly used to restrict user access to INSERT, DELETE, SELECT, UPDATE, EXECUTE, ALTER or to provide privileges to user's data.
- REVOKE: REVOKE is a DCL command that is used to revoke the permissions/access that was granted via the GRANT command. It is mostly used to revert back to the time when no access was specified, i.e., withdrawing the permission that was authorised to carry out specific tasks.

What is the syntax for writing DCL commands in SQL?

Syntax for writing GRANT command:

```
GRANT <privileges> ON <object name> TO <user/roles>
```

Syntax for writing REVOKE command:

```
REVOKE <privileges> ON <object name> FROM <user/roles>
```

Explanation:

- <privileges>: Privileges here refers to the INSERT,DELETE,SELECT,UPDATE, EXECUTE, ALTER, ALL, reference privilege(reference privilege permits a user/role to declare foreign keys while creating relations) and all options provided by SQL.
- <object_name>: Object could be anything amongst tables, views or functions.
- <user/roles>: Roles are the users to whom the privileges are granted or revoked.

Examples using GRANT command

```
//Gives access to SELECT and INSERT in the database to Icona
GRANT SELECT, INSERT
ON product_details
TO Icona;

//Gives all privilege access to Ancy
GRANT ALL PRIVILEGES
ON product_stock
TO Ancy;

//Gives all privilege access to anybody working with the
database
GRANT ALL
ON product_stock
TO PUBLIC;
```

Examples using REVOKE command The following examples show the usage of the revoke command in SQL.

```
//Retains access from Icona to SELECT and INSERT
REVOKE SELECT, INSERT
ON product_details
FROM Icona;

//Retains all access from Ancy
REVOKE ALL PRIVILEGES
ON product_stock
FROM Ancy;

// Retains access from anybody using the database
REVOKE ALL
ON product_stock
FROM PUBLIC;
```