

SQL-structured query language | Database language

SQL commands

- **DDL(data definition language) commands:**

are **related to objects** i.e. Defines/ the object structure or removes objects.

- **DML (data manipulation language) commands:**

Are related to data present in created object

- **DCL (data control language) commands:**

Used to control the access to data/object

- **TCL (Transaction control language) commands:**

Used to control transaction i.e. we can save permanently /undo the transaction / also we can set a point till which we need to control transaction

Connect command

connects to the **oracle server/created user** using the given password

Syntax:

Connect username/password;

or

Connect username

Password: (give pwd)

Example :

```
SQL> connect System/pwd;
```

Connected.

Create user

It creates user with the given password

Syntax:

Create user `username` identified by `password`;

Example:

SQL> create user user_H1 identified by uh1;

User created.

```
SQL> connect user_H1/uh1;
```

```
ERROR:
```

```
ORA-01045: user USER_H1 lacks CREATE SESSION privilege; logon denied
```

```
Warning: You are no longer connected to ORACLE.
```

```
SQL> connect system/pwd;
```

```
Connected.
```

```
SQL> grant connect to user_H1;
```

```
Grant succeeded.
```

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```
SQL> connect user_H1/uh1;  
Connected.
```

Create table:

This command is used for creating table in oracle server/db.

Syntax:

```
Create table tablename(columnName1 datatype,columnName2  
datatype.....columnNameN datatype);
```

Example:

```
SQL> create table student_1(id int,name varchar(15),course  
varchar(10));
```

Table created.

Select

Used to select /retrieve table columns data

Syntax

```
Select columnName1,columnName2...columnNameN from  
tableName;
```

Selects or retrieves specified columns from table

or

```
Select * from tableName;
```

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Selects or retrieves all columns from table

(* refers to all columns in table)

```
SQL> select * from student_1;
```

no rows selected

After insert operation

```
SQL> select id from student_1;
```

ID
1

```
SQL> select id,name from student_1;
```

ID	NAME
1	Ram

```
SQL> select id,name,course from student_1;
```

ID	NAME	COURSE
1	Ram	C++

```
SQL> select * from student_1;
```

ID	NAME	COURSE
----	------	--------

1 Ram

C++

Insert into

- To add/insert data into created table.

Syntax:

Insert into tableName(columnName1,...N) values (values to be entered);

Example:

```
SQL> insert into student_1(id,name,course) values (1,'Ram','C++');
```

1 row created.

```
SQL> insert into student_1 values (2,'Sam','C++');
```

1 row created.

```
SQL> insert into student_1(id,name) values (3,'Sameer');
```

1 row created.

Update

Used for modifying existing table data.

Syntax:

Update tablename set columnName=newValue ;

or

Update tablename set columnName=newValue where condition;

Example:

```
SQL> update student_1 set course='SQL' where id=3;
```

1 row updated.

```
SQL> select * from student_1;
```

ID	NAME	COURSE
1	Ram	C++
2	Sam	C++
3	Sameer	SQL

Delete

Deletes the table rows

Syntax:

Delete from tableName;

or

Delete from tableName where condition;

Example:

```
SQL> select * from student_1;
```

ID	NAME	COURSE
1	Ram	C++
2	Sam	C++
3	Sameer	SQL

```
SQL> delete from student_1 where id=2;
```

1 row deleted.

```
SQL> select * from student_1;
```

ID	NAME	COURSE
1	Ram	C++
3	Sameer	SQL

Sql command line

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SQL> connect System/pwd;

Connected.

SQL> create user user_1 identified by u1pwd;

create user user_1 identified by u1pwd

*

ERROR at line 1:

ORA-01920: user name 'USER_1' conflicts with another user or role name

SQL> drop user user_1;

drop user user_1

*

ERROR at line 1:

ORA-01922: CASCADE must be specified to drop 'USER_1'

SQL> create user user_H1 identified by uh1;

User created.

SQL> create table student_1(id int,name varchar(15),course
varchar(10));

create table student_1(id int,name varchar(15),course varchar(10))

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*

ERROR at line 1:**ORA-00955: name is already used by an existing object****SQL> drop table student_1;****Table dropped.****SQL> create table student_1(id int,name varchar(15),course
varchar(10));****Table created.****SQL> select * from student_1;****no rows selected****SQL> insert into student_1(id,name,course) values (1,'Ram','C++');****1 row created.****SQL> select id from student_1;**

```
      ID
-----
      1
```

SQL> select id,name from student_1;

```
      ID NAME
-----
```

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1 Ram

SQL> select id,name,course from student_1;

ID	NAME	COURSE
1	Ram	C++

SQL> select * from student_1;

ID	NAME	COURSE
1	Ram	C++

SQL> insert into student_1 values (2,'Sam','C++');

1 row created.

SQL> insert into student_1(id,name) values (3,'Sameer');

1 row created.

SQL> select * from student_1;

ID	NAME	COURSE
1	Ram	C++
2	Sam	C++
3	Sameer	

SQL> update student_1 set course='SQL' where id=3;

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1 row updated.

SQL> select * from student_1;

ID	NAME	COURSE
1	Ram	C++
2	Sam	C++
3	Sameer	SQL

SQL> delete from student_1 where id=2;

1 row deleted.

SQL> select * from student_1;

ID	NAME	COURSE
1	Ram	C++
3	Sameer	SQL

SQL> connect user_H1/uh1;

ERROR:

ORA-01045: user USER_H1 lacks CREATE SESSION privilege; logon denied

Warning: You are no longer connected to ORACLE.

SQL> connect system/pwd;

Connected.

SQL> grant connect to user_H1;

Grant succeeded.

SQL> connect user_H1/uh1;

Connected.

SQL>