

# FAMILIARIZATION OF SQL COMMANDS

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## Data Definition Language (DDL) Statements

### 1. Create

To create tables, views, synonyms, sequences, functions, procedures, packages etc.

```
CREATE TABLE <tablename>( attribute1 datatype, attribute2 datatype, attribute n
datatype);
```

### 2. Alter

To alter the structure of a table.

- To add new columns

```
ALTER TABLE <tablename> add (attribute1 datatype);
```

- To modify a column.

```
ALTER TABLE <tablename> modify (attribute datatype);
```

- To drop columns

```
ALTER TABLE <tablename> drop column <column name>;
```

### 3. Rename

To rename a table, view, sequence, or private synonym for a table, view, or sequence.

Oracle automatically transfers integrity constraints, indexes, and grants on the old object to the new object.

```
RENAME <oldtablename> to <newtablename>
```

#### **4. Drop**

To permanently delete the values and the structure of tables, functions, procedures, views, synonym, sequences etc.

```
DROP table <tablename>;
```

#### **5. Truncate**

Use the Truncate statement to delete all the rows from table permanently.

```
TRUNCATE table <tablename>;
```

### **Data Manipulation Language (DML) Statements**

#### **1. Insert**

Used to add new rows to a table.

```
INSERT INTO <table name>VALUES (<value 1>, ... <value n>;
```

#### **2. Update**

The update statement is used to change values that are already in a table.

```
UPDATE <table name> SET <attribute> = <expression> WHERE <condition>;
```

#### **3. Delete**

To delete a particular row from the table based on a condition.

```
DELETE FROM <table name> WHERE <condition>;
```

If the WHERE clause is omitted, then every row of the table is deleted.

#### 4. Select

A SELECT statement can include the following:

1. The name of each column you want to include
2. The name of the table or view that contains the data
3. A search condition to uniquely identify the row that contains the information you want
4. The name of each column used to group your data
5. A search condition that uniquely identifies a group that contains the information you want
6. The order of the results so a specific row among duplicates can be returned.

**SELECT** column names

**FROM** table or view name

**WHERE** search condition

**GROUP BY** column names

**HAVING** search condition

**ORDER BY** column-name

The SELECT and FROM clauses must be specified. The other clauses are optional.

To retrieve all columns (in the same order as they appear in the table's definition), use an asterisk (\*) instead of naming the columns:

**SELECT \*FROM <TABLENAME>;**

The FROM clause specifies the table that you want to select data from. You can select columns from more than one table.

## **Transaction Control Statements (TCL)**

TCL statements are used to manage the changes made by DML statements. A transaction is a set of SQL statements which Oracle treats as a Single Unit i.e. all the statements should execute successfully or none of the statements should execute.

### **1. Commit**

To make the changes done in a transaction permanent, issue the COMMIT statement.

### **2. Rollback**

To rollback the changes done in a transaction, give ROLLBACK statement.

Rollback restores the state of the database to the last commit point.

### **3. Savepoint**

To specify a point in a transaction to which later you can roll back.

SAVEPOINT savepointname;

## **Data Control Language (DCL) Statements**

DCL statements are used to control access to data stored in a database.

### **1. Grant**

To provide privileges and accesses on database objects to the users.

GRANT <privilege name> ON <object name> TO <user name/role name/public>;

### **2. Revoke**

To remove the previously granted privileges from the user.