

Types of SQL commands

DDL

Data Definition Language

It's used for create and modify the DB structure and its objects.
Commands are CREATE, DROP, ALTER, TRUNCATE and RENAME

DML

Data Manipulation Language

It's used inserting, updating and deleting data in a DB, so we have INSERT, UPDATE and DELETE

DCL

Data Control Language

It's used for create and modify the DB structure and its objects.
Commands are CREATE, DROP, ALTER, TRUNCATE and RENAME

TCL

Transaction Control Language

It's used for handling the transaction, its commands are COMMIT and ROLLBACK

Data Definition Language

CREATE

It's used for creating a database or a table

```
CREATE DATABASE <databaseName>;
```

```
CREATE TABLE <tableName> (  
col1 datatype,  
...  
colN datatype  
);
```

Data Definition Language

CREATE EXAMPLE

```
CREATE DATABASE dbTest;
```

```
CREATE TABLE employee (  
    ID number(18,0),  
    FIRST_NAME varchar(50),  
    LAST_NAME varchar(50)  
);
```

Data Definition Language

DROP

It's used for dropping a database or a table

```
DROP DATABASE <databaseName>;
```

```
DROP TABLE <tableName>;
```

Data Definition Language

DROP EXAMPLE

DROP DATABASE dbTest;

DROP TABLE employee;

Data Definition Language

ALTER

It's used for altering a table content

single
column

```
{ ALTER TABLE<tableName> ADD <columnName> <dataType>;  
ALTER TABLE<tableName> ADD (  
  <columnName1> <dataType1>,  
  ....  
  <columnNameN> <dataTypeN>  
);
```

multiple
columns

```
ALTER TABLE <tableName> MODIFY <columnName> <newDataTypeDefinition>;
```

Data Definition Language

ALTER

It's used for altering a table content

single
column

```
{ ALTER TABLE<tableName> DROP <columnName>;  
ALTER TABLE<tableName> DROP (  
  <columnName1>,  
  ....  
  <columnNameN>  
)
```

multiple
columns

Data Definition Language

ALTER EXAMPLE

```
ALTER TABLE employee ADD (  
    BIRTH_DATE date,  
    BIRTH_COUNTRY varchar(50)  
);
```

```
ALTER TABLE employee MODIFY LAST_NAME varchar(100);
```

we can always increase the dimension of a column, but can't decrease it

Data Definition Language

ALTER EXAMPLE

```
ALTER TABLE employee DROP (  
    BIRTH_DATE,  
    BIRTH_COUNTRY  
);
```

Data Definition Language

TRUNCATE

It's used for removing a table content, while keeping the structure. Performing a select right after will show no records in the table.

TRUNCATE TABLE <tableName>;



Same result of **DELETE FROM** TABLE <tableName>;
but TRUNCATE is faster

Data Definition Language

TRUNCATE EXAMPLE

TRUNCATE TABLE employee;

Data Definition Language

RENAME

Used to change the name of an existing table, depending on the RDBMS.

```
RENAME TABLE <tableName> TO <newTableName>;  
ALTER TABLE <tableName> RENAME TO <newTableName>;
```

Data Definition Language

RENAME EXAMPLE

ALTER TABLE employee **RENAME** TO employees;

Let's connect

If you want to learn more about the topic, connect or send me a DM.

