DATA DEFINATION LANGUAGE COMMANDS

Swati Bhushan Patil[1], Rahul Uttam Patil[2], Vijaya Sayaji Chavan[3]

Lecturer, Computer Technology, BVIT, Navi Mumbai, India [1,2,3]

Abstract: There the SQL commands that deals with the creation of database belong to DDL or Data Defination Language and this includes most of the SQL (Structure / sequencial query language) statements. It is the component of the SQL statement that creates database, drop databse and modify the database with DDL commands.

Keywords: SQL, DDL

I.   INTRODUCTION

DDL is an abbreviation for Data Defination Language.
Data Defination Language or DDL represents a collection of programming languages commands explicitly used to create database, modify database and drop database such as:
1.   Commands used to create database, modify   database and drop database .
2.   Using the CREATE, ALTER, DROP ,TRUNCATE and RENAME commands.
These DDL commands have a specific syntax to manage data in that language. DDL Commands provide a way to create database, modify   database, to rename database, and drop database and drop database. In the beginning, DDL commands were part of computer programs only, but with the popularity of SQL, they have now become a part of database.Data defination Languages (DDL)

DDL Commands in SQL

Here are DDL commands and their specific functions in the SQL programming language.
CREATE   Used for creating database objects like a database and a database table.
ALTER Used for modifying and renaming elements of an existing database table.
DROP   Used for removing an entire database or a database table.
TRUNCATE   Used to remove all the records from a database table.
COMMENT   Used to write comments within SQL queries.

II.   SYNTAX OF DDL COMMANDS

CREATE :
This command is used to create a new table in SQL. The user has to give information like table name, column names, and their datatypes.

Syntax –
CREATE TABLE table_name

(

column_1 datatype,

column_2 datatype,

column_3 datatype,

....

);

CREATE TABLE STUDENT_INFO
  (ST_ID NUMBER,
 ST_NAME VARCHAR2 (10),
 ST_BRANCH VARCHAR (10));
Table created.

Command-2
ALTERTABLE
This command is used to add, delete or change columns in the existing table. The user needs to know the existing table name and can do add, delete or modify tasks easily.
Syntax
Syntax to add a column to an existing table.
ALTER TABLE TABLE_NAME
ADD COLUMN_NAME DATATYPE;

Example

SQL> ALTER TABLE STUDENT_INFO
  ADD ST_PER NUMBER (4,2);

Table altered.

SQL> DESC STUDENT_INFO;
 Name
    Null?   Type
-- -------- ---------------------------
 ST_ID
         NUMBER
 ST_NAME
         VARCHAR2 (10)
 ST_BRANCH
         VARCHAR2 (10)
 ST_PER
         NUMBER (4,2)

ALTER TABLE TABLE_NAME
MODIFY COLUMN_NAME DATATYPE;

Example

SQL> ALTER TABLE STUDENT_INFO
 MODIFY ST_BRANCH VARCHAR (5);

Table altered.

SQL> DESC STUDENT_INFO;
 Name
    Null?   Type
-- -------- ---------------------------
 ST_ID
         NUMBER
 ST_NAME
         VARCHAR2 (10)
 ST_BRANCH
         VARCHAR2 (5)
 ST_PER
         NUMBER (4,2)

```
ALTER TABLE table_name
ADD column_name datatype;
```

Example

```
SQL> ALTER TABLE STUDENT_INFO
 DROP COLUMN ST_BRANCH;

Table altered.

SQL> DESC STUDENT_INFO;
 Name
        Null?   Type
 --------------------------------------- -------- --------------------------
 ST_ID
              NUMBER
 ST_NAME
              VARCHAR2 (10)
 ST_PER
              NUMBER (4,2)

SQL> ALTER TABLE STUDENT_INFO
 ADD ST_BR VARCHAR(5);

Table altered.

SQL> DESC STUDENT_INFO;
 Name
        Null?   Type
 --------------------------------------- -------- --------------------------
 ST_ID
              NUMBER
 ST_NAME
              VARCHAR2 (10)
 ST_PER
              NUMBER (4,2)
 ST_BR
              VARCHAR 2(5)
```

```
ALTER TABLE table_name
RENAME OLD_ column_name TO NEWCOLUMN_NAME;
```

Example
```
SQL> ALTER TABLE STUDENT_INFO
  RENAME COLUMN ST_BR TO ST_BRANCH;

Table altered.

SQL> DESC STUDENT_INFO;
 Name
        Null?   Type
 --------------------------------------- -------- --------------------------
 ST_ID
              NUMBER
 ST_NAME
              VARCHAR2 (10)
 ST_PER
              NUMBER (4,2)
```

ST_BRANCH
VARCHAR2 (5)

SQL> DROP TABLE STUDENT_INFO;

Table dropped.

SQL> DESC STUDENT_INFO;

ERROR:
ORA-04043: object STUDENT_INFO does not exist

COMMAND3

TRUNCATE
This command is used to remove all rows from the table, but the structure of the table still exists.
Syntax to remove an existing table.
TRUNCATE TABLE table_name;

Example
The College Authority wants to remove the details of all students for new batches but wants to keep the table structure.
The command they can use is as follows.
TRUNCATE TABLE TABLE_NAME;
SQL> TRUNCATE TABLE STUDENT_INFO;

Table truncated.

SQL> SELECT *FROM STUDENT_INFO;

no rows selected
SQL> DESC STUDENT_INFO;

Name	Null?	Type
ST_ID		NUMBER
ST_NAME		VARCHAR2(10)
ST_BRANCH		VARCHAR2(10)

COMMENTS
Multiple line comment

Comment begins with a slash and an asterisk (/*). Proceed with the text of the comment.with multiple lines. End the comment with an asterisk and a slash (*/).

Single line comment

Begin the comment with -- (two hyphens). Proceed with the text of the comment. This text cannot extend to a new line. End the comment with a line break.

CONCLUSION

The DDL commands are used to modify or create or rename,drop database tables. We can also add specific constraint to database table using Alter command

REFERENCES

[1]. SQL WITH AS Statement
[2]. W3school
[3] https://www.geeksforgeeks.org/ddl-commands-syntax/
[4]. Scheduling queries