**EXNO :1**

**DATA DEFINITION LANGUAGE COMMANDS**

**AIM:**

To write a program for SQL Data Definition Language Commands on sample exercise

**PROCEDURE:**

**Data Definition Commands:**

DDL or Data Definition Language actually consists of the SQL commands that can be used to define the database schema. It simply deals with descriptions of the database schema and is used to create and modify the structure of database objects in database.

**Examples of DDL commands:**

* [**CREATE**](https://www.geeksforgeeks.org/sql-create/) – is used to create the database or its objects (like table, index, function, views, store procedure and triggers).
* [**DROP**](https://www.geeksforgeeks.org/sql-drop-truncate/) – is used to delete objects from the database.
* [**ALTER**](https://www.geeksforgeeks.org/sql-alter-add-drop-modify/)-is used to alter the structure of the database.
* [**TRUNCATE**](https://www.geeksforgeeks.org/sql-drop-truncate/)–is used to remove all records from a table, including all spaces allocated for the records are removed.
* [**COMMENT**](https://www.geeksforgeeks.org/sql-comments/) –is used to add comments to the data dictionary.
* [**RENAME**](https://www.geeksforgeeks.org/sql-alter-rename/) –is used to rename an object existing in the database.

**1 - i) CREATE TABLE**

It is used to create a table.

**Rules:**

1. Oracle reserved words cannot be used.
2. Underscore, numerals, letters are allowed but not blank space.
3. Maximum length for the table name is 30 characters.
4. Different tables should not have same name.
5. We should specify a unique column name.
6. We should specify proper data type along with width.

**Syntax:**

**SQL>**Create table tablename (column\_name1 data\_ type constraints, column\_name2 data\_ type constraints …);

**ii) DESC**

This is used to view the structure of the table.

**Syntax:**

**SQL>**desc tablename;

**iii) CREATING NEW TABLE FROM EXISTING TABLE:**

**Syntax:**

CREATE TABLE new\_table\_name AS SELECT column1, column2,... FROM existing\_table\_name WHERE ....;

**2- DROP TABLE**

It will delete the table .

**Syntax:**

**SQL>**DROP TABLE <TABLENAME>;

**3- ALTER COMMAND**

Alter command is used to:

1. Add a new column.

2. Modify the existing column definition.

3. To include or drop integrity constraint.

**i) - ADD COMMAND**

Add the new column to the existing table.

**Syntax:**

**SQL>**alter table tablename add/modify (attribute datatype(size));

**ii) - MODIFY COMMAND**

Modify the existing column definition.

**Syntax :**

**SQL>**alter table <tablename> modify(columnname constraint);

**SQL>**alter table <tablename>modify(columnnamedatatype);

**4- TRUNCATE TABLE**

If there is no further use of records stored in a table and the structure has to be retained then the records alone can be deleted.

**Syntax:**

**SQL>**TRUNCATE TABLE <TABLE NAME>;

**5-** [**COMMENT**](https://www.geeksforgeeks.org/sql-comments/)

Comments can be written in the following three formats:

1. Single line comments.
2. Multi line comments
3. In line comments

* **Single line comments:** Comments starting and ending in a single line are considered as single line comments.  
  Line starting with ‘–‘ is a comment and will not be executed.

**Syntax:**

--single line comment

--another comment

* **Multi line comments:**Comments starting in one line and ending in different line are considered as multi line comments. Line starting with ‘/\*’ is considered as starting point of comment and are terminated when ‘\*/’ is encountered.

**Syntax:**

/\* multi line comment

another comment \*/

* **In line comments:**In line comments are an extension of multi line comments, comments can be stated in between the statements and are enclosed in between ‘/\*’ and ‘\*/’.

**Syntax:**

**SQL>**SELECT \* FROM /\* table name; \*/

**6- RENAME**

If you want to change the name of the table in the SQL database because they want to give a more relevant name to the table. Any database user can easily change the name by using the RENAME TABLE and ALTER TABLE statement in Structured Query Language.

**Syntax:**

**SQL>**RENAME old\_table \_name To new\_table\_name ;

**Program:**

SQL> connect

Enter user-name: system

Enter password: admin

Connected.

SQL> create table emp(id number(10),name varchar(10));

Table created.

SQL> desc emp;

Name Null? Type

----------------------------------------- -------- ----------------------------

ID NUMBER(10)

NAME VARCHAR2(10)

SQL> alter table emp add(dept varchar(10));

Table altered.

SQL> desc emp;

Name Null? Type

----------------------------------------- -------- ----------------------------

ID NUMBER(10)

NAME VARCHAR2(10)

DEPT VARCHAR2(10)

SQL> alter table emp modify dept varchar(20);

Table altered.

SQL> desc emp;

Name Null? Type

----------------------------------------- -------- ----------------------------

ID NUMBER(10)

NAME VARCHAR2(10)

DEPT VARCHAR2(20)

SQL> alter table emp drop column dept;

Table altered.

SQL> desc emp;

Name Null? Type

----------------------------------------- -------- ----------------------------

ID NUMBER(10)

NAME VARCHAR2(10)

SQL> alter table emp rename to emp1;

Table altered.

SQL> desc emp1;

Name Null? Type

----------------------------------------- -------- ----------------------------

ID NUMBER(10)

NAME VARCHAR2(10)

SQL> desc emp2;

Name Null? Type

----------------------------------------- -------- ----------------------------

ID NUMBER(10)

NAME VARCHAR2(10)

DEPT VARCHAR2(10)

SQL> drop table emp2;

Table dropped.

SQL> select \* from emp2;

select \* from emp2

\*

ERROR at line 1:

ORA-00942: table or view does not exist

SQL> select \* from emp1;

ID NAME DEPT

---------- ---------- ----------

1 aaa cse

2 aaa cse

3 aaa ece

4 aaa cse

5 aaa cse

SQL> truncate table emp1;

Table truncated.

SQL> select \* from emp1;

no rows selected

SQL> desc emp1;

Name Null? Type

----------------------------------------- -------- ----------------------------

ID NUMBER(10)

NAME VARCHAR2(10)

DEPT VARCHAR2(10)

SQL> drop table emp1;

Table dropped.

SQL> select \* from emp1;

select \* from emp1

\*

ERROR at line 1:

ORA-00942: table or view does not exist

SQL> desc emp1;

ERROR:

ORA-04043: object emp1 does not exist

**Result:**

Hence, the above query has been implemented successfully.