

Lab Assignment -3

DATA DEFINITION LANGUAGE (DDL) COMMANDS IN RDBMS

AIM:

To execute and verify the Data Definition Language commands and constraints

DDL (DATA DEFINITION LANGUAGE)

- ❖ CREATE
- ❖ ALTER
- ❖ DROP
- ❖ TRUNCATE
- ❖ COMMENT
- ❖ RENAME

PROCEDURE

STEP 1: Start

STEP 2: Create the table with its essential attributes.

STEP 3: Execute different Commands and extract information from the table.

STEP 4: Stop

SQL COMMANDS

1. COMMAND NAME: **CREATE**

COMMAND DESCRIPTION: **CREATE** command is used to create objects in the database.

2. COMMAND NAME: **DROP**

COMMAND DESCRIPTION: **DROP** command is used to delete the object from the database.

3. COMMAND NAME: **TRUNCATE**

COMMAND DESCRIPTION: **TRUNCATE** command is used to remove all the records from the table

4. COMMAND NAME: **ALTER**

COMMAND DESCRIPTION: **ALTER** command is used to alter the structure of database

5. COMMAND NAME: **RENAME**

COMMAND DESCRIPTION: **RENAME** command is used to rename the objects.

QUERY: 01

Q1. Write a query to create a table employee with empno, ename, designation, and salary.

Syntax for creating a table:

SQL: CREATE <OBJ.TYPE> <OBJ.NAME> (COLUMN NAME.1 <DATATYPE> (SIZE), COLUMN NAME.1 <DATATYPE> (SIZE));

QUERY: 01

```
SQL>CREATE TABLE EMP (EMPNO NUMBER (4),
                        ENAME VARCHAR2 (10),
                        DESIGNATIN VARCHAR2 (10),
                        SALARY NUMBER (8,2));
```

Table created.

QUERY: 02

Q2. Write a query to display the column name and datatype of the table employee.

Syntax for describe the table:

```
SQL: DESC <TABLE NAME>;
SQL> DESC EMP;
```

Name	Null?	Type
EMPNO		NUMBER(4)
ENAME		VARCHAR2(10)
DESIGNATIN		VARCHAR2(10)
SALARY		NUMBER(8,2)

QUERY: 03

Q3. Write a query for create a from an existing table with all the fields

Syntax For Create A from An Existing Table With All Fields

SQL> CREATE TABLE <TRAGET TABLE NAME> SELECT * FROM <SOURCE TABLE NAME>;

QUERY: 03

SQL> CREATE TABLE EMP1 AS SELECT * FROM EMP;
Table created.

SQL> DESC EMP1

Name	Null?	Type
EMPNO		NUMBER(4)
ENAME		VARCHAR2(10)
DESIGNATIN		VARCHAR2(10)
SALARY		NUMBER(8,2)

QUERY: 04

Q4. Write a query for create a from an existing table with selected fields

Syntax For Create A from An Existing Table With Selected Fields

SQL> CREATE TABLE <TRAGET TABLE NAME> SELECT EMPNO, ENAME FROM <SOURCE TABLE NAME>;

QUERY: 04

SQL> CREATE TABLE EMP2 AS SELECT EMPNO, ENAME FROM EMP;
Table created.

SQL> DESC EMP2

Name	Null?	Type
EMPNO		NUMBER (4)
ENAME		VARCHAR2 (10)

QUERY: 05

Q5. Write a query for create a new table from an existing table without any record:

Syntax for create a new table from an existing table without any record:

SQL> CREATE TABLE <TRAGET TABLE NAME> AS SELECT * FROM <SOURCE TABLE NAME> WHERE <FALSE CONDITION>;

QUERY: 05

**SQL> CREATE TABLE EMP3 AS SELECT * FROM EMP WHERE
1>2;**

Table created.

SQL> DESC EMP3;

Name	Null?	Type
EMPNO		NUMBER(4)
ENAME		VARCHAR2(10)
DESIGNATIN		VARCHAR2(10)
SALARY		NUMBER(8,2);

ALTER & MODIFICATION ON TABLE

QUERY: 06

Q6. Write a Query to Alter the column EMPNO NUMBER (4) TO EMPNO NUMBER (6).

Syntax for Alter & Modify on a Single Column:

SQL > ALTER <TABLE NAME> MODIFY <COLUMN NAME> <DATATYPE> (SIZE);

QUERY: 06

SQL>ALTER TABLE EMP MODIFY EMPNO NUMBER (6);

Table altered.

SQL> DESC EMP;

Name	Null?	Type
EMPNO		NUMBER(6)
ENAME		VARCHAR2(10)
DESIGNATION		VARCHAR2(10)
SALARY		NUMBER(8,2)

QUERY: 07

Q7. Write a Query to Alter the table employee with multiple columns (EMPNO, ENAME.)

Syntax for alter table with multiple column:

**SQL > ALTER <TABLE NAME> MODIFY <COLUMN NAME1> <DATATYPE>
(SIZE), MODIFY <COLUMN NAME2> <DATATYPE>
(SIZE).....;**

QUERY: 07

**SQL>ALTER TABLE EMP MODIFY (EMPNO NUMBER (7), ENAME
VARCHAR2(12));**

Table altered.

SQL> DESC EMP;

Name	Null?	Type
EMPNO		NUMBER(7)
ENAME		VARCHAR2(12)
DESIGNATION		VARCHAR2(10)
SALARY		NUMBER(8,2);

QUERY: 08

Q8. Write a query to add a new column in to employee

Syntax for add a new column:

**SQL> ALTER TABLE <TABLE NAME> ADD (<COLUMN NAME> <DATA TYPE>
<SIZE>);**

QUERY: 08

SQL> ALTER TABLE EMP ADD QUALIFICATION VARCHAR2(6);

Table altered.

SQL> DESC EMP;

Name	Null?	Type

EMPNO		NUMBER(7)
ENAME		VARCHAR2(12)
DESIGNATIN		VARCHAR2(10)
SALARY		NUMBER(8,2)
QUALIFICATION		VARCHAR2(6)

QUERY: 09

Q9. Write a query to add multiple columns in to employee

Syntax for add a new column:

**SQL> ALTER TABLE <TABLE NAME> ADD (<COLUMN NAME1> <DATA TYPE>
<SIZE>,<COLUMN NAME2> <DATA TYPE>
<SIZE>,...);**

QUERY: 09

SQL>ALTER TABLE EMP ADD (DOB DATE, DOJ DATE);

Table altered.

SQL> DESC EMP;

Name	Null?	Type

EMPNO		NUMBER(7)
ENAME		VARCHAR2(12)
DESIGNATIN		VARCHAR2(10)
SALARY		NUMBER(8,2)
QUALIFICATION		VARCHAR2(6)
DOB		DATE
DOJ		DATE

REMOVE / DROP

QUERY: 10

Q10. Write a query to drop a column from an existing table employee

Syntax for add a new column:

SQL> ALTER TABLE <TABLE NAME> DROP COLUMN <COLUMN NAME>;

QUERY: 10

SQL> ALTER TABLE EMP DROP COLUMN DOJ;

Table altered.

SQL> DESC EMP;

Name	Null?	Type
EMPNO		NUMBER(7)
ENAME		VARCHAR2(12)
DESIGNATION		VARCHAR2(10)
SALARY		NUMBER(8,2)
QUALIFICATION		VARCHAR2(6)
DOB		DATE

QUERY: 11

Q10. Write a query to drop multiple columns from employee

Syntax for add a new column:

SQL> ALTER TABLE <TABLE NAME> DROP <COLUMN NAME1>,<COLUMN NAME2>,... ;

QUERY: 11

SQL> ALTER TABLE EMP DROP (DOB, QUALIFICATION);

Table altered.

SQL> DESC EMP;

Name	Null?	Type
EMPNO		NUMBER(7)
ENAME		VARCHAR2(12)
DESIGNATION		VARCHAR2(10)
SALARY		NUMBER(8,2)

REMOVE

QUERY: 12

Q10. Write a query to rename table emp to employee

Syntax for add a new column:

SQL> ALTER TABLE RENAME <OLD NAME> TO <NEW NAME>

QUERY: 12

SQL> ALTER TABLE EMP RENAME EMP TO EMPLOYEE;

SQL> DESC EMPLOYEE;

Name	Null?	Type

EMPNO		NUMBER(7)
ENAME		VARCHAR2(12)
DESIGNATIN		VARCHAR2(10)
SALARY		NUMBER(8,2)