EXPERIMENT: 1

Aim: Queries for Creating, Dropping, and Altering Tables and insert row into a table (use constraints while creating tables) examples using Select Command

Creating Tables

create command is also used to create a table. We can specify names and data types of various columns along. Following is the Syntax,

create table table-name

{

column-name1 datatype1, column-name2 datatype2, column-name3 datatype3

};

Procedure:

Creation of dept & emp table in Sql:

SQL>create table dept(deptno number(2,0) primary key, dname varchar2(14) NOT NULL, loc varchar2(13) NOT NULL);

Table created.

DESC: It is used to describe a schema as well as to retrieve rows from table in descending order.

SQL> desc dept;

Name	Null?	Type
DEPTNO	NOT NULL	NUMBER(2)
DNAME	NOT NULL	VARCHAR2(14)
LOC	NOT NULL	VARCHAR2(13)

SQL> create table emp(empno number(4),ename varchar2(10) NOT NULL,job varchar2(9) NOT NULL,mgr number(4),hiredate date,sal number(7) NOT NULL,eptno number(2),primary key (empno),foreign key(empno) references dept(deptno));

Table created.

SQL> desc emp;

Name	Null?	Type
EMPNO	NOT NULL	NUMBER(4)
ENAME	NOT NULL	VARCHAR2(10)
JOB	NOT NULL	VARCHAR2(9)
MGR		NUMBER(4)
HIREDATE		DATE
SAL	NOT NULL	NUMBER(7)
EPTNO		NUMBER(2)

Insert the values in emp & dept table in sql:

SQL> insert into dept values(20,’admin’,’hyd’);

1 row created.

Query to insert multiple records in the existing table:

SQL> insert into dept values(&deptno,'&dname','&loc');

Enter value for deptno: 10

Enter value for dname: sales

Enter value for loc: vijayawada

old 1: insert into dept values(&deptno,'&dname','&loc')

new 1: insert into dept values(10,'sales','vijayawada')

1 row created.

SQL> /

Enter value for deptno: 20

Enter value for dname: admin

Enter value for loc: hyd

old 1: insert into dept values(&deptno,'&dname','&loc')

new 1: insert into dept values(20,'admin','hyd')

1 row created.

SQL> /

Enter value for deptno: 30

Enter value for dname: marketing Enter value for loc: vzg

old 1: insert into dept values(&deptno,'&dname','&loc')

new 1: insert into dept values(30,'marketing','vzg')

1 row created.

Select Command: this command is used to print the record from the existing table.

SQL> select *from dept;

DEPTNO	DNAME	LOC
20	admin	hyd
10	sales	vijayawada
30	marketing	vzg

View single column from existing table.

SQL> select dname from dept;

DNAME

---

admin

sales

marketing

View specific record(s) from existing table based on given condition.

SQL> select *from dept where dname='sales';

DEPTNO	DNAME	LOC
10	sales	vijayawada

ALTER: This is used for add, remove or modify the structure of the existing table

Syntax: ALTER TABLE table-name ADD(new field_1 data_type(size), new field_2 data_type(size),..);

SQL> ALTER TABLE emp ADD(Address CHAR(10));

Table altered.

SQL> desc emp;

Name	Null?	Type
EMPNO	NOT NULL	NUMBER(4)
ENAME	NOT NULL	VARCHAR2(10)
JOB	NOT NULL	VARCHAR2(9)
MGR		NUMBER(4)
HIREDATE		DATE
SAL	NOT NULL	NUMBER(7)
EPTNO		NUMBER(2)
ADDRESS		**CHAR(10)**

ALTER TABLE...MODIFY...: This is used to change the width as well as data type of fields of existing relations.

Syntax: ALTER TABLE table-name MODIFY (field_1 newdata_type(Size), field_2 newdata_type(Size),... , field_newdata_type(Size));

SQL> ALTER TABLE emp MODIFY(ename VARCHAR2(20), sal NUMBER(5));

Table altered.

SQL> desc emp;

Name	Null?	Type
EMPNO	NOT NULL	NUMBER(4)
ENAME	NOT NULL	VARCHAR2(20)
JOB	NOT NULL	VARCHAR2(9)
MGR		NUMBER(4)
HIREDATE		DATE
SAL	NOT NULL	NUMBER(5)
EPTNO		NUMBER(2)
ADDRESS		CHAR(10)

DROP TABLE: This is used to delete the structure of a relation. It permanently deletes the table.

Syntax: DROP TABLE tablename;

SQL> DROP TABLE EMP;

Table dropped.

DROP: This command is used to remove the date from the existing table

Syntax: ALTER TABLE table_name DROP COLUMN column_name;

SQL> ALTER TABLE dept DROP COLUMN loc;

Table altered.

SQL> desc dept;

Name	Null?	Type
DEPTNO	NOT NULL	NUMBER(2)
DNAME	NOT NULL	VARCHAR2(14)

RENAME: It is used to modify the name of the existing database object.

Syntax: RENAME old_table_name TO new_table_name;

SQL> rename dept to department;

Table renamed.

SQL> desc department;

Name	Null?	Type
DEPTNO	NOT NULL	NUMBER(2)
DNAME	NOT NULL	VARCHAR2(14)

TRUNCATE: This command will remove the data permanently. But structure will not be removed.

Syntax: TRUNCATE TABLE <Table name>

SQL> TRUNCATE TABLE department;

Table truncated.

SQL> desc department;

Name	Null?	Type
DEPTNO	NOT NULL	NUMBER(2)
DNAME	NOT NULL	VARCHAR2(14)

SQL> select *from department;

no rows selected