Data Definition language

Date Definition language (DDL) is used to create, Rename , drop the columns or tables.If we want to create a table we need to learn about two things mainly :

1. **DATA TYPES :** It decides which type of data has to be stored in columns. They are 3 types of data types :

Number ()	Whenever we are setting the data type as Number, it is always numerical in nature.
char ()	whenever we are setting the datatype as character, it should be always Alphabetical in nature
varchar ()	It is present in the old version of the database, and for the latest version. We are using varchar2() function, and it accepts both numerical and alphabetical values.

2.**CONSTRAINTS :** Constraints are the conditions the columns have to flow while taking the records as input. They are two main constraints:

UNIQUE KEY	It doesn't allow duplicate values, but it allows null values
NOT NULL KEY	It doesn't allow null values, but it allows duplicate values

Syntax for creating a table:

```
SQL> create table table name
  ( Column name1 datatype(size) Constrains,
   Column name2 datatype(size) Constrains,
   Column name3 datatype(size) Constrains.....);
```

NOTE: Here 'SIZE' represents a number of characters.

EX: number (3) => it allows numbers from 1 to 999 only.

char (4) => it allows alphabetical letters up to 4 characters.

SQL> create table std

```
( sno number (5) unique,
  sname char (5) not null,
  course char (5) not null );
```

OUTPUT:

Table created.

/*
Query to display all the table names in database
*/

SQL> select * from cat;

OUTPUT :

```
TABLE_NAME                     TABLE_TYPE
------------------------------ -----------
DEPT                           TABLE
EMP                            TABLE
BONUS                          TABLE
SALGRADE                       TABLE
STD                            TABLE   /* Newly created table*/
```

/*
Query to display all the records of std table
*/

SQL> select * from std;

OUTPUT:

no rows selected (No rows selected because there are no records present in std we just created table)

/*
Displaying column-names of std table
*/

SQL> desc std;

OUTPUT:

```
Name
------------------------
SNO
SNAME
COURSE
```

Syntax for Renaming a table:

SQL> Rename old table name to new table name;

SQL> rename std to qsp;

OUTPUT : Table renamed.

/*
Query to display all the table names in database
*/
SQL> select * from cat;

OUTPUT :

```
TABLE_NAME                     TABLE_TYPE
------------------------------ -----------
DEPT                           TABLE
EMP                            TABLE
BONUS                          TABLE
SALGRADE                       TABLE
QSP                            TABLE /* renamed table (std to qsp)*/

7 rows selected.
```

/*
Displaying column-names of std(old tablename) table
*/
SQL> desc std;

OUTPUT :
ERROR:
ORA-04043: object std does not exist

/*
Displaying column-names of qsp(new tablename) table
*/
SQL> desc qsp;

OUTPUT :

```
Name
-------------
SNO
SNAME
COURSE
```

Syntax for dropping a table :

SQL> drop table tablename;

SQL> drop table qsp;

OUTPUT :

Table dropped.

/*

Query to display all the tablenames in database

*/

SQL> select * from cat;

OUTPUT :

```
TABLE_NAME                     TABLE_TYPE
------------------------------ -----------
DEPT                           TABLE
EMP                            TABLE
BONUS                          TABLE
SALGRADE                       TABLE
BIN$5ZWRXqR4SWKnDViE8GuCBg==$0 TABLE /* Dropped table (qsp)*/

7 rows selected.
```