

# PRACTICAL 3

Aim: Create a database using Data Definition Language (DDL) and apply integrity constraints for the specified system.

Theory: DDL Queries are used to:

- To create structure of the database
- To change or modify the structure
- To delete a table from database
- To change the name of a table
- To delete rows of a table.

## \* Create Query

Syntax: create table <name>  
( column1, datatype (size),  
column2, datatype (size),  
⋮  
⋮ ) ;

Example- for student info (rollno, name, DOB, address, branch)

create table query would be.

create table student info (rollno number (4),  
name varchar (30),  
DOB DATE,  
address varchar (40),  
branch varchar (4) ) ;

\* Alter Query - used to change the structure of an existing query/table.

Type - a) Alter add  
b) Alter modify

- Alter add is used when we need to add a new column to an existing table. We can also add constraints.

① to add column: alter table <name>  
add column name datatype(size)  
② to add constraint: alter table <name>  
add constraint name type(column);

Eg. alter table student\_info  
add email varchar(20);

alter table student\_info  
add constraint student\_key primary key (Rollno);

- Alter modify is used when the data type or size of an existing table is to be modified. This query can also be used to add a not null constraint.

Syntax: alter table <name>  
modify column\_name datatype(size);



\* **Drop Query** - used to completely delete a table from database.

Syntax      drop table <name>;  
Eg.          drop table student\_info;

\* **Trunc**

\* **Truncate Query** - similar to drop, but removes only few selected rows & columns

Syntax :      Truncate table <name>;  
Eg.          Truncate table student\_info;

\* **Rename Query** - to rename the name of table

Syntax      old\_table\_name to new\_table\_name;  
Eg.          student\_info to student\_details;

## DDL Queries with Output:

### 1. Customer Table:





a. create table customer (cid int, cname varchar (20), address char(10));

Data Output   Explain   Messages   Notifications





CREATE TABLE

Query returned successfully in 222 msec.




b. alter table customer add phno numeric (10);

Data Output	Explain	Messages	Notifications
 <b>cld</b> integer	 <b>cname</b> character varying (20)	 <b>address</b> character (10)	 <b>phno</b> numeric (10)

c. alter table customer modify address varchar (20);  
alter table customer alter column address type varchar;







Data Output	Explain	Messages	Notifications
 <b>cld</b> integer	 <b>cname</b> character varying (20)	 <b>address</b> character varying	 <b>phno</b> numeric (10)

d. alter table customer drop column address;






Data Output	Explain	Messages	Notifications
 <b>cld</b> integer	 <b>cname</b> character varying (20)	 <b>phno</b> numeric (10)	

## 2. Employee Table

a. create table employee (ssn int primary key, ename varchar(20) not null, salary int, dno int, Foreign key(dno) references dept(dno));






Data Output		Explain	Messages	Notifications	
	<b>ssn</b> [PK] integer 	<b>ename</b> character varying (20) 	<b>salary</b> money 	<b>superssn</b> integer 	<b>dno</b> integer 

b. alter table employee add constraint fk\_dno foreign key(dno) references dept1(dno);

Data Output		Explain	Messages	Notifications
	<b>ssn</b> [PK] integer 	<b>ename</b> character varying (20) 	<b>salary</b> integer 	<b>dno</b> integer 






### 3. Department Table:

a. create table dept1(dno int primary key,dname varchar(20),mgrssn int references employee,startdate datetime);

Data Output	Explain	Messages	Notifications
 <b>dno</b> [PK] integer 	<b>dname</b> character varying (20) 	<b>mgrssn</b> integer 	<b>startdate</b> date 





### 4. Deptlocation Table:

a. create table deptloc(dno int,dloc varchar(20),primary key(dno,dloc),foreign key(dno) references dept1(dno));

Data Output	Explain	Messages	Notifications
 <b>dno</b> [PK] integer 	<b>dname</b> character varying (20) 	<b>mgrssn</b> integer 	<b>startdate</b> date 





### 5. Project Table:

a. create table project (pno int primary key,pname varchar(20),dno int references dept1(dno));

Data Output	Explain	Messages	Notifications
 <b>pno</b> [PK] integer 	<b>pname</b> character varying (20) 	<b>dno</b> integer 	

### 6. Table Dependent:

a. create table dependent(ssn int,depname varchar(20),relation varchar(20), primary key(ssn,depname),foreign key(ssn) references employee(ssn));

Data Output	Explain	Messages	Notifications
 <b>ssn</b> [PK] integer 	<b>depname</b> [PK] character varying (20) 	<b>relation</b> character varying (20) 	

Conclusion :- Thus we have learnt about various DDL Queries (Create, Alter, Drop, Truncate, Rename) in detail with proper Syntax and examples.