Dt: 05/08/25 Task - 2.

Implementation of DDL commands of SQL with Example

Aim: To study and implement Data Definition language (DDL) commands in Relational Problems Database Management system (RDBMS)

I) DDL COMMAND are used to define, modify, or delete the structure of database objects such as tables.

1) Create Table :- Create a new table in database

Query :- create table teacher (tech id int, primary key, tech Name varchar (100), Department varchar (50), phno int);

Create table Teacher (teach id int, tech name varchar(

output :-

Table created (2).

2) Describe or Desc - Displays structure of a table

Query :

Desc ~~Students~~ Teacher;

output :-

Name	Null?	Type
teshid	NOT	Number (28)
tech name		Varchar (50)
department		Varchar (38)
phno		NUMBER (28)

3) ALTER TABLE - Used to add, delete or modify colums in existing table

Query:

Alter table Teacher add admission date;

alter table Employee rename to Employees;

output : Table altered (2)

4) DROP TABLE : Delete entire table structure and all its data

Query :

```
drop table Teacher;
```

Output :

Table dropped

II DML COMMANDS - Used to manage and manipulate data inside database tables.

1. INSERT INTO;

Inserts new rows into a table.

Query :

```
insert all into Employees (Emp id, Emp name) values
(101, 'Swamy') into Employees (Emp id, Emp name)
values (102, 'Swamy') select * from dual;
```

Output :

2 rows created

2. UPDATE :

Modifies existing data in a table

Query :

```
update Employees set Empname = 'SwamySai'
where Empid = 102;
```

Output : 1 row updated

After update :

```
select * from Employees
```

output :

Empid	Empname
101	Swamy
102	Swamy Sai

3) Select - Retrieves data from one or more table

Select empname from Employees;

output:

Empname
Swamy
Swamy Sai

4) Select with where clause

retrieves specific records that satisfy condition

Query:

select * from Employee where empid = 101;

Empid	Empname
101	Swamy

5) Delete:

Delete one or more rows from table

delete from employee where empid = 101;

output: 1 rows deleted

select * from employees;

output:

Empid	Empname
102	Swamy Sai

VEL TECH	
EX NO.	2.1
PERFORMANCE (5)	5
RESULT AND ANALYSIS (5)	5
VIVA VOCE (5)	5
RECORD (5)	5
TOTAL (20)	25
SIGN WITH DATE	5/8/25

Result: Thus, the ~~task~~ ~~to~~ implementing DDL & DML commands in relational database Management Systems completed successfully.

12/08/25

Task.2.2 DDL and DML commands with constraints

Aim: To implement the Data Definition language and Data Manipulation language commands with constraints.

PRIMARY KEY, FOREIGN KEY, NOT NULL, UNIQUE, CHECK, DEFAULT are the constraints used.

1. DDL commands for Hospital Management system

1.1. CREATE Table

```
CREATE TABLE Patient (
PatientID INT PRIMARY KEY,
Patient Name VARCHAR (50) NOT NULL,
Gender CHAR(1) CHECK (Gender IN('M','F')),
Age INT CHECK (Age>0),
Contact Number VARCHAR (15) UNIQUE,
Address VARCHAR (100)
);
```

Table created.

output:

Column Name	Datatype	constraints
Patient ID	INT	PRIMARY KEY. NOT NULL
Patient Name	VARCHAR	
Gender	char(1)	check (Gender in ('M','F')
Age	INT	Check (Age>0)
Contact Number	Varchar (15)	UNIQUE

```
CREATE TABLE Appointment (
  AppointmentID INT PRIMARY KEY,
  PatientID INT NOT NULL,
  DoctorID INT NOT NULL,
  AppointmentDate DATE DEFAULT CURRENT_DATE,
  Diagnosis VARCHAR(200),
  FOREIGN KEY (PatientID) REFERENCES Patient
                                (PatientID),
  FOREIGN KEY (DoctorID) REFERENCES Doctor(DoctorID)
```

Output: Table created.

Column Name	Datatype	Constraints
AppointmentID	INT	PRIMARY KEY
PatientID	INT	NOT NULL
DoctorID	INT	NOT NULL
Diagnosis	VARCHAR	FOREIGN KEY

1.2 ALTER TABLE:

```
ALTER TABLE Patient ADD Email VARCHAR(50);
ALTER TABLE Patient MODIFY ContactNumber
VARCHAR(20);
```

Output: Table ALTERED.

1.3. TRUNCATE Table:

```
TRUNCATE TABLE Appointment
```

Result: All rows removed from Appointment table, structure remains.

1.4 RENAME Table.

```
RENAME TABLE Patient TO Patients;
```

2. DML Commands for Hospital Management system

2.1. INSERT DATA

INSERT INTO Patients (Patient ID, Patient Name, Gender, Age, ContactNumber, Address, Email)

VALUES (1, 'John Doe', 'M', 35, '9876543210', 'NEW DELHI', 'John@gmail.com');

select * from Patient

output :-

Patient ID	1
Patient Name	John Doe
Gender	M
Age	35
ContactNumber	9876543210
Address	NEW DELHI

output Result : Records inserted succesfully.

2.2. UPDATE Data

UPDATE Patient

SET Age = 36, Address = 'chennai'

WHERE Patient ID = 1

output Result : John Doe's age updated to 36 and address changed to chennai.

2.3. DELETE Data

DELETE FROM Appointment

WHERE Appointment ID = 1001;

output : Appointment with ID 1001 deleted.

VEL TECH	
EX NO.	2.2
PERFORMANCE (5)	5
RESULT AND ANALYSIS (5)	5
VIVA VOCE (5)	5
RECORD (5)	—
TOTAL (20)	15
SIGN WITH DATE	12/8/25

Result : Thus implementing DDL & DML commands with constraints for Hospital Management system completed successfully.