Task-2 Date - 4/8/25

Aim:- To perform (DDL) Data definition language and (DML) Data manipulation language commands.

DDL Commands:-

→ Create → rename
→ Drop
→ Alter
→ Truncate

DML Commands:-

→ Insert
→ Update
→ Delete
→ Select

DDL Commands:-

CREATE

* Creating a table by using Create commands.

```
CREATE table student (
        Stu_id int,
        Stu_name varchar (30),
        Stu_department varchar (10),
        Stu_gender varchar (5),
        stu_ph_no int);
```

* Using Alter command we can add or remove the column

SYNTAX.

ALTER table student ADD column stu_depart_id int;

Output:- tables Books and Members created

Drop:-

* Drop command is used to drop the table completly

```
DROP TABLE student
```

Output:- table books dropped successfully.

TRUNCATE

* Truncate command is used to remove all data but keep structure.

```
TRUNCATE TABLE student.
```

Output: column published year added to Book.

DML COMMANDS

INSERT

* Insert command is used to insert the values to the Table.

```
INSERT INTO student VALUES
(30628, 'Sharavan', 'CSE', 'Male', '8688056')
28800, 'Missile', 'ECE', 'Male', 12345)
```

UPDATE

* UPDATE command is used to update the existing records.

```
UPDATE student.
SET stu. name = 'Mohith'
where stu-ID = 28800;
```

DELETE

* Delete command is used delete a record

```
DELETE from student
WHERE stu-ID = 28800;
```

SELECT * FROM student

S.No	Stu-ID	Stu_Name	studepartment	Stu gender	Stu ph no.
1	30628	Shravan	CSE	Male	8688056

Ex:-

```
CREATE TABLE Students (
        Roll_NO INT,
        Name VARCHAR(30),
        Age INT,
        Course VARCHAR(30));
ALTER TABLE Student ADD
    Email VARCHAR(50);
INSERT INTO Students Values
(1, 'Sharvan', 19, 'BTECH', 'Shravan@gmail.com')
(2, 'Roy', 20, 'BTECH', apple @gmail.com)
(3, Joy', 21, 'BTECH', Joy @ gmail.com)
UPDATE Students
SET Email = vtu30628@gmail.com
WHERE Roll_no = 1;
DELETE FROM Students
WHERE Roll-no = 2;
SELECT * FROM Students;
```

output:- 1 row updated.

S.No.	Rollno.	Name	Age	course	Email
1	1	Shravan	19	B Tech	vtu30628@gmail.com
2	3	Joy	21	BTech	Joy @ gmail.com

SELECT Name FROM Students ;

Sno.	Name
1	Shravan
2	Joy

Output one row deleted.

SELECT * FROM Students

where Name = 'Shravan';

SNo.	Roll no.	Name	Age	course	Email
1	1	Shravan	19	BTECH	vcu2062@gmail.com

Results :- All the DDL and DML Commands are in SQL executed successfully.

VEL TECH - CSE	
EX NO.	2.1 a
PERFORMANCE (5)	5
RESULT AND ANALYSIS (5)	5
VIVA VOCE (5)	3
CORD (5)	—
AL (20)	13
WITH DATE	11/8/25

~~Select~~

SELECT * FROM STUDENT → Before performing ALTER command

S.No.	STU NAME	STU DEPARTMENT	STU GENDER	STU PH. No.
1.	Chandu	102	Male	9.349 463
2.	Nishika	101	Female	9 32946 3

SELECT * FROM DEPARTMENT - BEFORE performing ALTER Command

STU. ID		
1	101	CSE
2	102	ECE
3	103	IT

SELECT * FROM STUDENT ... After performing up that command

S.No.	STU. ID	STU NAME	STU Department	STU Gender	STU ph. no.	STU Email
1.	1	Chandu	102	male	9392436400	Null
2.	2	Nishika	103	female	9392436400	Null

Select * FROM Student ... after performing delete command

S.No.	STU ID	STU NAME	STU DEPARTMENT	STU Gender	STU ph	STU Email
1.	1	Chandu	102	male	9392 436 400	NULL

Task(2.2) DDL and DML commands with constraints

Aim:- To perform DDL and DML commands with constraints in SQL

Constraints:-

→ NOT NULL
→ UNIQUE
→ PRIMARY KEY
→ FOREIGN KEY
→ CHECK
→ DEFAULT

NOT NULL:-

It ensure a column cannot store NULL values

Syntax:-

CREATE TABLE NAME (
Column Name Data type NOT NULL);

UNIQUE:-

It ensures all table in a column are unique.

Syntax:-

CREATE TABLE Tablename (
Column name data type UNIQUE);

PRIMARY KEY:-

It is the combination of NOT NULL & UNIQUE

FOREIGN KEY:-

It ensures values in our table match values in another value.

Syntax:-

FOREIGN KEY(Column name) REFERENCES another table name;

SELECT * FROM STUDENTS ... AFTER inserting values

Sno.	STU. No.	STUNAME	STU Department	STU GENDER	STU Phno.
1.	1	chandu	102	Male	9392436400
2.	2	Nishika	101	female	9392436400
3.	3	Manshi	101	female	9392436400

SELECT * FROM DEPARTMENT ... After inserting values

SNO.	DEPT ID	DEPT NAME
1.	101	CSE
2.	102	ECE
3.	103	IT

Default

It provides a default value for a column when none is specified.

Example:-

```
CREATE TABLE DEPARTMENT
        DEPT-ID INT PRIMARY KEY
        DEPTNAME VARCHAR (20) UNIQUE NOT NULL);

CREATE TABLE STUDENT (
        STU-ID INT PRIMARY KEY
        STU-DEPARTMENT INT DEFAULT (0),
        STU-GENDER VARCHAR (1)
                CHECK (STU-GENDER IN (
                        MALE , FEMALE)
        STU-PHNO BIGINT UNIQUE,
        FOREIGN KEY (STU-DEPARTMENT REFERENCES),
                DEPARTMENT (DEPT-ID),
INSERT IN TO DEPARTMENT VALUES
        (101 , 'CSE'),
        (102, 'ECE')
        (103, 'IS');
```

INSERT : NO STUDENT VALUES

(1) 'chandu', 102, 'MALE', 9392 436 400

(2) 'Nishila', female, 9392436403.

```
SELECT * FROM DEPARTMENT;
SELECT * FROM STUDENT;
```

alter table student

add STU_EMAIL VARCHAR(100) DEFAULT

velfish@gmail.com

UPDATE STUDENT

SET STU_DEPARTMENT = 103

WHERE STU_NAME = 'Alishka'

DELETE FROM DEPARTMENT

WHERE DEPT_ID = 103;

INSERT INT STUDENT VALUES

(2) chandu ; female ; 9392436400

(5) Alishka ; female ; 9392436400

Drop table Department;

... Error.

Could not drop object "DEPARTMENT" Because it is referenced by a FOREIGN KEY constraint

To solve this first we have to drop student table after we have to drop Department table

VELTECH	
Ex No.	2.2.
PERFORMANCE (5)	5
RESULT AND ANALYSIS (5)	5
VIVA VOCE (5)	3
RECORD (5)	—
TOTAL (20)	13
SIGN WITH DATE	11/8/25

Result: All the DDL and DML commands are with constraints are parsed and executed successfully.