

11/8/25

TASK 2: Generating diagram of commands traditional Database model.

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

DQL Commands:

* Creating a Table by using create commands.

```
CREATE TABLE students (  
    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.

ALTER table student ADD column
stu-dep stu-depart-id int;

DROP

* drop command is used to drop the table completely

DROP TABLE STUDENT

TRUNCATE

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

TRUNCATE TABLE student

DML COMMANDS

INSERT

* Insert command is used to insert the values to the table

INSERT INTO student VALUES

(30409, 'Chandu', 'CSE', 'MALE', 2344321),
39482, 'Raj Harsha', 'ECE', 'male', (1234567),

UPDATE

* update command is used to update the existing records.

UPDATE student

SET stu-name = 'chandu'.

WHERE stu-ID = 299001

DELETE:

* Delete command is used to delete a record.

DELETE FROM student

WHERE stu-ID = 299001

SELECT

* select command is used to retrieve the records from table.

~~SELECT *~~ FROM student.

so	stu-ID	stu-Name	student ment	stu gender	stu-phno
1.	30409	chandu	CSE	male	123456

CREATE:

~~CREATE TABLE student (~~

~~roll_no INT~~

~~name VARCHAR(30),~~

~~age INT,~~

~~course VARCHAR(30)~~

~~ALTER TABLE student ADD~~

~~email VARCHAR(50),~~

~~insert INTO student~~

email varun@gmail.com

INSERT INTO Students VALUES
('Shandu', 19, 'BTech', Richard@gmail.com)
('Nisha', 20, 'BTech', Nisha@gmail.com)
('Nishika', 21, 'BTech', Nishika@gmail.com)

UPDATE Student;

SET Email = VTU30409@gmail.com
WHERE Roll.No = 3;

DELETE FROM STUDENT;

WHERE Roll.No = 3;

SELECT * FROM student;

SE	Roll.no	Name	Age	Course	Email
1	3	Chandu	19	BTech	VTU30409@gmail.com
2	0	Nishika	20	BTech	VTU30410@gmail.com

SELECT Name from student;

SE Name

1. Chandu

2. Nishika.

SELECT * FROM student;

WHERE Name = 'Chandu';

SE NO	Roll	Name	Age	Course	Email
1.	3	Chandu	19	BTech	chandu@gmail.com

VELTECH	
A No.	21
PERFORMANCE (5)	5
RESULT AND ANALYSIS (5)	3
VIVA VOICE (5)	-
RECORD (5)	13
TOTAL (10)	10
SIGN WITH DATE	11/8/13

Result:- All the DDL and DML commands
in SQL are successfully executed.

11/8/25. Table(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 ensures a column cannot store NULL value,

Syntax:

CREATE TABLE TABLE NAME(
 columnname DATA TYPE NOT NULL);

UNIQUE:

It ensures all values in a column
are unique

Syntax:

CREATE TABLE tablename(
 columnname data type UNIQUE),

PRIMARY KEY

It is the combination of NOT NULL &
UNIQUE

FOREIGN KEY

It ensures value in one table matches value in another table.

Syntax:

FOREIGN KEY (columnname) REFERENCES another tablename(column name)

DEFAULT:

Provides a default value for a column if no value is specified.

Example:

```
CREATE TABLE DEPARTMENT
  DEPT-ID INT PRIMARY KEY
  DEPT-NAME VARCHAR(20) UNIQUE NOTNULL;
```

```
CREATE TABLE STUDENT (
  STU-ID INT PRIMARY KEY,
  STU-NAME VARCHAR(30) NOT NULL,
  STU-DEPARTMENT INT DEFAULT(0),
  STU-GENDER VARCHAR(1)
    CHECK (STU-GENDER IN ('M', 'F'))
```

STU-PHNO INT UNIQUE;

FOREIGN KEY (STU-DEPARTMENT)
REFERENCES DEPARTMENT (DEPT-ID);

DEPARTMENT (DEPT-ID),

INSERT INTO DEPARTMENT VALUES

(101, 'CSE'),
(102, 'ECE'),
(103, 'IT'),

~~SELECT * FROM STUDENT~~ → Before performing
ALTER command

S.NO	STU NAME	STU DEPARTMENT	STU GENDER	STU PH NO
1.	Chandu	102	MALE	93294611
2.	Nishika	101	FEMALE	93294611

~~SELECT * FROM DEPARTMENT~~ → Before performing
ALTER command

STU-ID
1 101 CSC
2 102 ECG
3 103 IT

~~SELECT * FROM STUDENT~~ ... after performing up that
command

STU-ID	STU NAME	STU DEPARTMENT	STU GENDER	STU PH NO	STU GMAIL
1. Chandu	Chandu	102	male	932946400	NULL
2.	Nishika	103	female	932946400	NULL

~~Select * FROM STUDENT~~ ... after performing delete
command.

STU-ID	STU NAME	STU DEPARTMENT	STU GENDER	STU PH NO	STU GMAIL
1.	Chandu	102	male	932946400	NULL

INSERT : INTO STUDENT VALUES

(1) 'Chandu', 102, 'MALE', 9192436400

(2) 'Alishika', 101, 'Female', 9192436400

SELECT * FROM DEPARTMENT;

SELECT * FROM STUDENT;

ALTER TABLE STUDENT

ADD STUEMAIL VARCHAR(10) DEFAULT

'vutech@gmail.com'.

STU-ID	STUNAME	STU Department	STU Gender	STU PHNO	STU Email
1.	Chandu	102	MALE	9192436400	NULL
2.	Alishika	101	Female	9192436400	NULL

UPDATE STUDENT

SET STU-DEPARTMENT = 103

WHERE STU-NAME = 'Alishika'.

DELETE FROM DEPARTMENT

WHERE DEPT ID = 103;

INSERT INTO STUDENT VALUES

(2) Chandu, FEMALE, 9191436400

(3) Alishika, FEMALE, 9192436400

SELECT * FROM STUDENTS -- After inserting values

STU-ID	STU NAME	STU DEPARTMENT	STU GENDER	STU PHONE	MTU EMAIL
1. 101	Chandu	102	Male	93924312 400	mtu123@gmail.com
2. 2	Nidhi	101	Female	93924312 400	mtu123@gmail.com
3. 3	Harihi	101	Female	93924312 400	mtu123@gmail.com

SELECT * FROM DEPARTMENT -- After inserting values

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

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)	3
RESULT AND ANALYSIS (5)	3
VIVA VOCE (5)	5
RECORD (5)	1
TOTAL (20)	16
SIGN WITH DATE	R 11/8/14

Result: ALL the DDL and DML commands
are with constraints are performed and
executed successfully.