TASK : 2.1

DATE : 4/8/25

TASK: 2 Generating design of other Tranditional database model

AIM: To Implemente of DDL and DML commands of SQL with suitable example

DDL :

- Create table
- Alter table
- Drop table
- Truncate

DML :

- INSERT
- UPDATE
- DELETE
- SELECT

SQL (stradured Query language):

SQL is the standard language used to interad with relational database. It allows user to create, modify, query, and manage data efficiently.

There are Five type of sql statement They are :

- Data Definition language (DDL)
- Data Retrieval language (DRL)
- Data Manulipulation language (DML)
- Transational control language (TCL)
- Data Control language (DCL)

1. Data Definition language (DDL):

The Data definition language (DDL) is used to create and destory database and database objects. These commands will primarily be used by database administratars during the setup and removel phase of a database project. Let's take a look the structure and usage of four - DDL commands

• DDL Commands (DDL)

Definition : DDL commands core used to define . modify & delete the structure of database objects such as table

1.CREATE TABLE

-Used to create new table in the database

SQL :

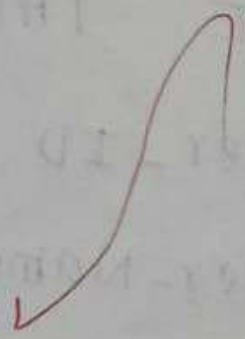
```
CREATE TABLE Dealer (
    Dealer_ID INT,
    Dealer_Name VARCHAR(50),
    location VARCHAR(50),
    phone INT
);

CREATE TABLE car (
carID INT,
model VARCHAR(30),
car_name VARCHAR(50),
year INT,
price INT
);
```

OUTPUT :

Table dealer and car created successfully

output:

Name	Type
Dealer_ID	INT
Dealer_name.	Varchar(50)
Location	Varchar(50)
phone	INT



2. Describe DESC
- Display The structure of a table (cloumn names and data type)

SQL:
DESC dealer;

3. DROP TABLE:
- Delete The entrie table structure and all its data

SQL:
DROP TABLE dealer;

output:
Table dealer dropped successfully

4. ALTER TABLE
- used to add, delete or modify columns in an existing table

SQL:
ALTER TABLE car ADD colour VARchar(50);

output:
column colour added to car

output:

Car_ID	model	car_Brand	year	price
1000	911	PORSCHE	1963	3.51cr
1001	M8	BMW	2019	2.44cr
1010	ghost	RollsRoyce	2010-2020	7.95cr

4. DML Commands (Data maipulation language)

Definition : DML command are used to manage and manipulate data inside database tables

1 INSERT INTO :

- Insert new rows into a table

SQL:

INSERT INTO Car (car_ID, model, car-Brand, year, price)
VALUES (1000,911, PORSCHE, 1963, 3.51cr)

INSERT INTO Car (car-ID, model, Car_Brand, year, price)
VALUES (1001, M8, BMW, 2019, 2.44 cr)

INSER INTO Car (car-ID, model, car_Brand, year, price)
VALUES (1010, ghost, RollsRoyce, 2010, 7.95cr)

2. SELECT

- Relrieves data from one or more tables.

SQL :

SELECT * FROM car;

output:

car_ID	model	car_Brand	year	price
1000	911	posche	1963	3.5 Cr
1001	M8	BMW	2019	4 Cr
1010	ghost	Roll Royce	2010-2020	7.95 Cr

output:

car_ID	model	car_Brand	year	price
1001	M8	BMW	2019	4 Cr
1010	ghost	Roll Royce	2000-2020	7.95 Cr

output:

car_ID	model	car_Brand	year	price
1010	ghost	RollRoyce	2010-2020	7.95 Cr

3. UPDATE

- Modifies existing data in a table

SQL:

```
UPDATE car SET Price = 4Cr WHERE
Title car_brand = 'BMW';
```

OUTPUT:

1 row updated

SQL:

```
SELECT * FROM car;
```

4. DELETE:

- Delete one or more rows of a table

SQL:

```
DELETE FROM car WHERE car_ID=
1000;
```

OUTPUT:

1 Row deleted

SQL:

```
SELECT * FROM Car;
```

5. SELECT with WHERE clause

- Retrieves Specific records that satisfy the condition

SQL:

```
SELECT * FROM car WHERE Car_model
= 'ghost';
```

Command type	command	Disription
DDL	CREATE	Create table
DDL	DESC	Show table structure.
DDL	DROP	Delete table
DDL	ALTER	modify table structure
DML	INSERT	Add Records to table
DML	SELECT	Retrieve Record
DML	UPDATE	modifies existics records
DML	DELETE	Remove records

VEL TECH	
EX No.	2.1
PERFORMANCE (5)	5
RESULT AND ANALYSIS (5)	5
VIVA VOCE (5)	4
RECORD (5)	5
TOTAL (10)	14
SIGN WITH DATE	

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Result: The task to create, delete, alter The table and DML command was executed successfully.

TASK : 2.2 Generating design of other Tranditional database model

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AIM To Implement The DDL and DML Commands with contraints

DDL Commands:

CREATE, AITER, DROP, TRUNCATE, REN-AME

DML commands:

INSERT, UPDATE, DELETE, SELECT

contraints:

Primary key

Foreign key

NOT NULL

UNIQUE

CHECK

DEFAULT

CREATE:

```
CREATE TABLE Books (
    BookID INT PRIMARY KEY,
    Title VARCHAR(150) NOT NULL,
    AUThor VARCHAR(8,2) NOT NULL,
    Prile DECIMAL(8,2) CHECK (price>0),
    prublished year INT DEFALT 2020,
      ISBN VARCHAR(20) UNIQUE
);
```

```
CREATE TABLE Members(
    member_ID INT PRIMARY KEY,
    member Name VARCHAR (100) NOT NULL,
    Joindate DATE DEFAULT CURRENT_
                                DATE,
    Email. VARCHAR (100) UNIQUE
);
```

OUTPUT: TABLE Created

```
CREATE TABLE Barrow(
    Barrow_ID INT PRIMARY KEY,
    Book_ID INT NOT NULL,
    MemberID INT NOT NULL;
    Borrow Date DATE DEFAULT CURRENT_DATE,
    ReturDate DATE,
    FOREIGN KEY (BOOKID) REFENCES
                Books (BookID),
    FORFING KEY (MemberID) REFENCES
                member (member ID)
);
```

OUTPUT TABLE Created

1.2 ALTER TABLE

```
ALTER TABLE BOOKS ADD Publisher
                    VARCHAR(100);
ALTER TABLE Books MODIFY prile
                    DECIMAL(10,2);
```

OUTPUT

Table Altered

OUTPUT After INSERT:-

BooksTable

Book ID	Title	AUTHOR	price	Published year
1	T Alchemist	paul cocho	350	2018

Library Members Table

member_ID	MEmberName	Joindate	email
101	Ananyasharma	2025-08-01	ananya@gmail.com

Borrow Table.

Borrow ID	Book_ID	membe_ID	Borrow Date	ReturnDate
1001	1	101	2025-08-10	NULL

1.3 TRUNCATE TABLE

TRUNCATE TABLE Borrow;

~~TABLE Truncated~~.

OUTPUT TABLE Trancated

1.4 RENAME TABLE

RENAME TABLE Member To Library members;

OUTPUT TABLE Tranlated.

DML Commands for Library Management system :-

2.1 INSERT Data:

SQL:

INSERT INTO Books (Book ID, Title, Author, Price, published year, ISBN)

VALUE (101, 'Ananya sharma', '2025-08-01' 'ananya@gmail.com');

INSERT INTO library nembers (memberID, Member Name, joindate, email)

VALUE (1 The Archemist', Paula 'coelho', 350-00, 2018, 1978006122415');

INSERT INTO Borrow (BORROWID, Book ID, member_ID, BORROWDATE, Returndate)

VALUE (1001, 1, 101, '2025-08-10', NULL);

output.

1 row updated successfully.

Books table After update :-

BookID	TITLE	AUTHOR	PRICE	IBNB	Publis
1	The Alchemist	Paulo Coelho	400	978019 22415	NULL

2.2 UPDATE DATE

SQL:

```
UPDATE Books
SET Price = 400.00, published year = 2022
WHERE Book ID = 1;
```

2.3 DELETE Data

SQL:

```
DELETE FROM Borrow WHERE Borrow
ID = 1001;
```

OUTPUT:

1 row deleted from Borrow table

Borrow table after delete;

No rows:

2.4 SELECT With Join:-

SQL:

```
SELECT books Title, books Author, l.Member
name, br. Borrow Date . FROM Borrow
JOIN Books ON br.Book ID = b. book ID
JOIN Library Member IDN br. Member ID =
l. Member ID;
```

OUTPUT:

No rows returned as Borrow table as empty

VEL TECH	
EX No.	2.2
PERFORMANCE (5)	5
RESULT AND ANALYSIS (5)	5
VIVA VOCE (5)	4
RECORD (5)	14
TOTAL (20)	28
SIGN WITH DATE	4/8/25

RESULT: All The DDL and DML commands are in SQL are successfully excuted: