

Date: 04/08/2025

## Task 21: Generating design of other traditional database model.

Aim: ~~Goal~~

To implementation of DDL and DML commands of SQL with suitable example

- Create table
- Alter table
- Drop table
- Truncate
- INSERT
- UPDATE
- DELETE
- SELECT

SQL (Structured Query Language):

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

There are five types of SQL Statement

They are

1. Data Definition language (DDL)
2. Data Manipulation language (DML)
3. Data Retrieval language (DQL)
4. Transactional control language (TCL)
5. Data Control language (DCL)

1. Data Definition Language(DDL):  
The Data definition language(DDL) is used to create and destroy database and database objects; These commands will primarily be used by database administrator during the setup and normal phase of a database and usage of four DDL Commands

1. DDL Commands (Data Definition Language)  
Definition: DDL commands are used to define, modify or delete the structure of database objects such as table.

1. CREATE TABLE:

definition: used to create a new table in the database.

SQL

```
CREATE TABLE Books(  
    BookID INT,  
    Title VARCHAR(150),  
    Author VARCHAR(100),  
    Price DECIMAL(8,2))
```

Output:

Field	Type
BookID	INT(10)
Title	VARCHAR(50)
Author	VARCHAR(100)
Price	DECIMAL(10,2)

Comments

(80%) within 90 sec average 100 - 1

50% 90 sec 20 rows 100 within 90 sec

90% 95% 100 rows 90 sec 100

100% 20 sec 100 rows 90 sec 100

-10% 20 sec

7.8AT 37.8AT 1

100% 90 sec 100 rows 90 sec 100

100% 90 sec 100 rows 90 sec 100

15%

1170087 118AT 37A391

7.8AT 37.8AT

(02) 94112441 01717

(00) 94112441 84717

(02) 94112441 84717

```
CREATE TABLE Members(
    Member ID INT,
    Member Name VARCHAR(100),
    Join Date DATE
);
```

Output:

Tables Books and members  
Created successfully

## 2. DESCRIBE or DESC

Definition: Display the structure  
of a table (column names and data  
types)

SQL:

```
DESC Books;
```

## 3. DROP TABLE

Definition: Deletes the entire table  
structure and all its data

SQL:

```
DROP TABLE Books;
```

Output:

Table Books dropped successfully.

#### 4. ALTER TABLE:

Definition: used to add, delete or modify columns in an existing table.

SQL:

ALTER TABLE Books ADD PublishedYear INT;

Output:

Column Published Year added to Books

SQL code: ALTER TABLE Books ADD PublishedYear INT;

#### IV. DML commands (Data Manipulation) (910408)

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

##### 1. INSERT INTO

Definition: Insert new rows info a

Table.

SQL:

INSERT INTO Books (Book ID, Title, Author, Price)

VALUES ('The Alchemist', 'Peyo Coelho', 350.00)

INSERT INTO Books (Book ID, Title,

Author, Price)

VALUES ('Wing of Tide', 'A. P. Abdu', 400.00)

## Output:

Book ID	Title	Author	Price
1.	The Alchemist	Paulo Coelho	350.00
2.	Whispers of Fire	A. P. J. Abdul Kalam	400.00
3.	1984	George Orwell	299.00

BOOK ID	TITLE	AUTHOR	PRICE
1.	The Alchemist	Paulo Coelho	350.00
2.	Wings of fire	A.P.J. Abdul Kalam	450.00
3.	1984	George Orwell	299.00

## Output:

Book ID	Title	Author	Price
10021	wings of fire	A.P.J Abdul kalam	450.00
2	1984	George Orwell	299.00

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BOOK ID	TITLE	AUTHOR	PRICE
981171008	1984	George Orwell	299.00
981291008	1984	George Orwell	299.00

INSERT INTO Books (Book ID, Title, Author, Price)  
VALUES (3, '1984', 'George Orwell', 297.00);  
3 rows inserted into Books table

SQL:

2. SELECT:

Definition: Retrieves data from the  
table One or more tables

SQL:

SELECT \* FROM Books;

3. UPDATE:

Definition: Modifies existing data in  
a table

SQL:

UPDATE Books SET Price = 450.00 WHERE  
Title = 'Wings of Fire';

Output:

1 row updated

SQL:

SELECT \* FROM Books

4. DELETE:

Definition: Deletes one or more rows  
of data in a table

SQL:

DELETE FROM Books WHERE Book ID = 1;

Command type	Command	Description
DDL	CREATE	Create table
DDL	DESC	Show table structure
DDL	DROP	Delete table
DDL	ALTER	Modifies table structure.
DML	INSERT	Adds new records to table
DML	SELECT	Retrieves record
DML	UPDATE	Modifies existing record
DML	DELETE	Removes Record

SQL DDL 2008 29/7/10 1.12

SQL DML 2008 29/7/10 1.12

SQL DQL 2008 29/7/10 1.12

SQL DCL 2008 29/7/10 1.12

Output:

1 row deleted

SQL:

· SELECT \* FROM Books;

S · SELECT with WHERE clause

Definition: retrieves specific records  
that satisfy the condition.

SQL:

SELECT \* FROM Books WHERE Author  
= 'George Orwell';

VEL TECH	
EX No.	2.1
PERFORMANCE (5)	5
RESULT AND ANALYSIS (5)	5
VIVA VOCE (5)	3
RECORD (5)	1
TOTAL (20)	13
SIGN WITH DATE	4/8/25

RESULT:

The task to create, delete,  
alter the table and DML commands  
was executed successfully.