

# Generalising Design of Other Unstructured Database Model

Aim:

Implementation of DDL commands of SQL with suitable

- Create table
- Alter table
- Drop table
- Insert
- update
- select

SQL (Structured Query Language)

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

there are five types of SQL statements they are

1. Data definition language (DDL)
2. Data manipulation language (DML)
3. Data Retrieval language

## 1. DDL commands (Data Definition language)

: 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

create table Books

BookID INT,

Title varchar(150),

Author varchar(100),

Price decimal(8,2)

);

create table members

Member-ID INT,

Member Name varchar(100),

Join Date date

);

Output :

Tables Books and Members created successfully:

## 2. DESCRIBE OR DESC

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

SQL :

DESC Books;

## 3. DROP TABLE

Deletes the entire table structure  
and all its data

SQL :

DROP TABLE Books

Output

Table Books dropped successfully

## 4. ALTER TABLE;

Used to add, delete or modify  
columns in existing table.

SQL

ALTER TABLE Books ADD Published  
Year INT;

DESC Books;

Output:

## II DML commands (Data manipulation language)

DML commands are used to manage and manipulate data inside the database tables

### 1. Insert into

Insert new rows into a table

SQL:

Insert into Books(BookID, Title, Author, Price) values(1, 'The Alchemist', 'Paul Cholho', 350.00);

### 2. select

Definition:

Retrieves data from one or more SQL tables

Select \* from Books;

Book ID	Title	Author	Price
1	The Alchemist	Paul Cholho	350.00
2	Wings of Fire	APJ Abdul Kalam	400.00
3	1984	George Orwell	300.00

## UPDATE

definition : Modifies existing data in a table

sql:

update Books set price = 450.00 where title = "wings of fire";

output

1 row updated

select \* from Books;

Book id	Title	Author	Price
1	The Alchemist	Pereira Colho	350.0
2	wings of fire	APJ Abdul Kalam	450.0
3	1984	George Orwell	299.0

4. Delete

Definition:

modifies existing data in a table

sql :

update Books set price = 450.00 where title = "wings of fire";

output

1 row updated

select \* from Books;

Book id	Title	Author	Price
2	wings of fire	APJ Abdul Kalam	350.0
3	1984	George Orwell	299.0

Select with where clause

Definition:

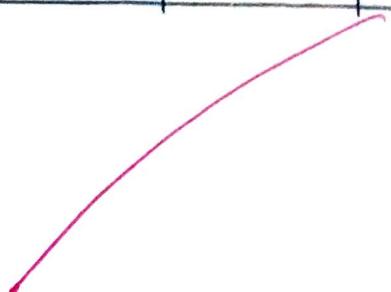
Retrieves & specific records that satisfy the condition

SQL:

Select \* from book where Author =

George Orwell;

Book ID	Title	Author	Price
3	1984	George Russell	



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EX NO.	
PERFORMANCE (5)	
RESULT AND ANALYSIS (5)	
VIVA VOCE (5)	
RECORD (5)	
TOTAL (20)	

Result:

The ~~task~~ to create and delete a table and DML commands were executed successfully.

Aim :

To implement the DDL and DML commands with constraints

DDL commands:

Create, Alter, Drop, Truncate, Rename

DML commands

Insert, UPDATE, DELETE, SELECT

constraints:

Primary key

foreign key

NOT NULL

UNIQUE

CHECK

DEFAULT

Create table Books

~~BookID INT Primary Key,~~  
~~Title VARCHAR(150) NOT NULL,~~  
Author VARCHAR(100), NOT NULL,  
Price Decimal (8,2) check (Price > 0);  
PublishedYear INT Default 2020,  
ISBN VARCHAR (20) UNIQUE);

Create table members

memberID INT PRIMARY KEY,  
memberName VARCHAR(100) NOT NULL,  
JoinDate DATE DEFAULT current\_DATE;  
Email VARCHAR(100) UNIQUE;

Create table ~~members~~ Borrower

BorrowerID INT Primary Key;  
BookID INT NOT NULL;  
member INT NOT NULL;  
BorrowDate Default current\_DATE;

ReturnDate Date;

Foreign Key(Book ID) References Book

(BookID);  
Foreign Key(MemberID) References member  
(MemberID);

#### 1.2 ALTER TABLE

ALTER TABLE Books ADD Publisher VARCHAR(100);

ALTER TABLE Books Modify price  
Decimal(10,2);

#### 1.3 Truncate Table

Truncate Table Borrower;

#### 1.4 Rename Table

Rename members to LibraryMembers;

1. DML commands for library management system

2. Insert data

Insert into Books (Book ID, Title, Author, Price, Published Year, ISBN)  
Value (1, 'The Alchemist', 'Pablo Coelho', 350.00,

2018, '9780061224155');

Insert into LibraryMembers (MemberID, MemberName, Join Date, Email) Value (101, 'Ananya Sharma', '2025-08-01', 'ananya@gmail.com');

Insert into Borrow (BorrowID, BookID, memberID, Borrow Date, Return Date) values (1001, 1, 101, '2025-08-10', NULL);

Output

Book table

BookID	Title	Author	Price	Published year
1	The Alchemist	Pablo Coelho	350.0	2018

Library member table

MemberID	MemberName	JoinDate	Email
101	Ananya Sharma	2025-08-01	ananya@gmail.com

## Borrowable

BorrowID	BookID	MemberID	BorrowDate
101	1	101	2025-08-10

## 2.2 Update Date

SQl:

update Books set price=400.00, published  
Year = 2022, where BookID = 1;

Output

BookID	Title	Author	Price	ILSBD	PublishYear
1	Alchemist	Pascal	400	A98001 02AIS	NULL

## 2.3 Delete date

delete from Borrow where BorrowID

2101;

Output

NO Rows.

## 2.4 Select with Join;

Select b.Title, b.Author, l.MemberName,  
ber.BorrowDate From Borrow er  
JOIN Books b on ber.BookID = b.BookID  
JOIN Library Member l on ber.MemberID =  
l.MemberID;  
Output

NO rows returned as Borrow table is  
empty.

VEL TECH - CSE	
EX NO.	22
PERFORMANCE (5)	5
RESULT AND ANALYSIS (5)	5
VIVA VOCE (5)	4
RECORD (5)	—
TOTAL (20)	14
SIGN WITH DATE	(m)

11/8/15

Result:

ALL DDL and DML commands executed successfully with constraints and sample outputs