

IT ELECTIVE PRELIM PA3

According to the last slide, I should create a table for products using DDL commands which is CREATE and DML commands such as INSERT, SELECT with conditions, UPDATE and DELETE.

This is the given:

- Create a Products Table
- INSERT 3 rows
- SELECT with WHERE + ORDER BY
- UPDATE one row by Id
- DELETE one row by Id
-

These basic SQL operations will manage data using SQL commands, for me to create a simple database.

1. Create a Products Table

- To be able to make a table, a developer should always consider normalization, data type and the difference between primary key (PK) and foreign key (FK).

```
CREATE TABLE Products (
    Id INTEGER PRIMARY KEY,
    Name TEXT,
    Category, TEXT
    Price DECIMAL (10, 2)
```

**price stores numbers up to 10 digits total and 2 digits after the decimal point.*

2. Insert 3 rows

- To insert data, a developer should check the order of the attributes to avoid mixed data and errors.

```
INSERT INTO Products (Id, Name, Category, Price) VALUES (1,
    'Laptop', 'Tech', 1200.00);
INSERT INTO Products (Id, Name, Category, Price) VALUES(2,
    'Smartphone', 'Tech', 800.00);
INSERT INTO Products (Id, Name, Category, Price) VALUES(3,
    'DeskChair', 'Furniture', 150.00);
```

3. SELECT Query with WHERE and ORDER BY

- To make a select with conditions, a developer must ensure what data should be pick and displayed.

```
SELECT * FROM Products  
WHERE Category = 'Tech'  
ORDER BY Price DESC;
```

**this category returns only products from the “Tech” category, sorted by price from highest to lowest*

4. Update Query

- To update the query, a developer must check if there's sudden changes in product details such as the names, category or prices.

```
UPDATE Products  
SET Price = 1100.00  
WHERE Id = 1;
```

**this query updates the price of the product with id =1 (Laptop) to 11000.*

5. DELETE Query

- To delete data, a developer must be aware what record should be remove because in worst scenarios if accidentally make a wrong fetch and commands all data may be remove permanently if there's no backup.

```
DELETE FROM Products  
WHERE Id = 3;
```

**this query deletes the product with Id = 3 (Desk Chair) from the table.*

EXIT TICKET QUERY

- This is the query that returns tech products sorted by price in descending order, as required in the exit ticket.

```
SELECT * FROM Products  
WHERE Category = 'Tech'  
ORDER BY Price DESC;
```

Through this mini-lab, I have practiced creating tables and performing common SQL operations such as inserting, selecting with conditions, and sorting, updating, and deleting records. These skills are essential for managing databases effectively.