

--SQL E-Commerce Mini Project

```
CREATE TABLE Users (
    user_id INT PRIMARY KEY IDENTITY(1,1),
    name VARCHAR(50) NOT NULL,
    email VARCHAR(50) UNIQUE NOT NULL,
    phone VARCHAR(15),
    address VARCHAR(100));
```

```
CREATE TABLE Products (
    product_id INT PRIMARY KEY IDENTITY(1,1),
    name VARCHAR(50) NOT NULL,
    category VARCHAR(30),
    price DECIMAL(10,2) NOT NULL,
    stock_quantity INT DEFAULT 0);
```

Drop Table orders;

```
CREATE TABLE Orders (
    order_id INT PRIMARY KEY IDENTITY(1,1),
    user_id INT FOREIGN KEY REFERENCES Users(user_id),
    order_date DATE DEFAULT GETDATE(),
    total_amount DECIMAL(10,2));
```

```
CREATE TABLE Order_Items (
    order_item_id INT PRIMARY KEY IDENTITY(1,1),
    order_id INT FOREIGN KEY REFERENCES Orders(order_id),
    product_id INT FOREIGN KEY REFERENCES Products(product_id),
    quantity INT NOT NULL,
    price DECIMAL(10,2) NOT NULL);
```

--Inserting Sample Data

```
INSERT INTO Users (name, email, phone, address)
VALUES ('Mahi', 'mahi@example.com', '1234567890', 'Chittorgarh');
```

```
INSERT INTO Products (name, category, price, stock_quantity)
VALUES ('Laptop', 'Electronics', 50000, 10),
       ('Headphones', 'Electronics', 1500, 25);
```

```
INSERT INTO Orders (user_id, total_amount)
VALUES (1, 51500);
```

```
INSERT INTO Order_Items (order_id, product_id, quantity, price)
```

```
VALUES (1, 1, 1, 50000),
       (1, 2, 1, 1500);
```

--Getting all orders of a user

```
SELECT o.order_id, o.order_date, o.total_amount
FROM Orders o
JOIN Users u ON o.user_id = u.user_id
WHERE u.name = 'Mahi';
```

--Show products with low stock (<5)

```
SELECT * FROM Products
WHERE stock_quantity < 5;
```

--Total sales per product

```
SELECT p.name, SUM(oi.quantity) AS total_sold
FROM Order_Items oi
JOIN Products p ON oi.product_id = p.product_id
GROUP BY p.name;
```

--Most expensive order

```
SELECT TOP 1 * FROM Orders
ORDER BY total_amount DESC;
```

--Add new order

```
BEGIN TRANSACTION;
```

```
INSERT INTO Orders (user_id, total_amount)
VALUES (1, 6500);
```

```
INSERT INTO Order_Items (order_id, product_id, quantity, price)
VALUES (SCOPE_IDENTITY(), 2, 2, 1500);
```

```
COMMIT;
```

--Showing all orders with customer names

```
SELECT o.order_id, u.name AS customer_name, o.order_date, o.total_amount
FROM Orders o
JOIN Users u ON o.user_id = u.user_id;
```

--Showing products with stock less than 5

```
SELECT *
FROM Products
```

```
WHERE stock_quantity < 5;

--Total sales per product
SELECT p.name AS product_name, SUM(oi.quantity) AS total_sold, SUM(oi.price * oi.quantity)
AS total_revenue
FROM Order_Items oi
JOIN Products p ON oi.product_id = p.product_id
GROUP BY p.name;

--Most expensive order
SELECT TOP 1 *
FROM Orders
ORDER BY total_amount DESC;

--Orders of a specific customer
SELECT o.order_id, o.order_date, o.total_amount
FROM Orders o
JOIN Users u ON o.user_id = u.user_id
WHERE u.name = 'Mahi';

--Updating stock after a new order
UPDATE Products
SET stock_quantity = stock_quantity - 2
WHERE product_id = 2;

--Deleting an order
DELETE FROM Order_Items WHERE order_id = 1;
DELETE FROM Orders WHERE order_id = 1;

--Top selling product
SELECT TOP 1 p.name AS product_name, SUM(oi.quantity) AS total_sold
FROM Order_Items oi
JOIN Products p ON oi.product_id = p.product_id
GROUP BY p.name
ORDER BY total_sold DESC;

--Total revenue per customer
SELECT u.name AS customer_name, SUM(oi.price * oi.quantity) AS total_spent
FROM Users u
JOIN Orders o ON u.user_id = o.user_id
JOIN Order_Items oi ON o.order_id = oi.order_id
GROUP BY u.name;

--Orders in last 7 days
```

```
SELECT *
FROM Orders
WHERE order_date >= DATEADD(DAY, -7, GETDATE());

--Products not sold yet
SELECT *
FROM Products
WHERE product_id NOT IN (SELECT product_id FROM Order_Items);

--Average order value
SELECT AVG(total_amount) AS avg_order_value
FROM Orders;

--Customer with max orders
SELECT TOP 1 u.name, COUNT(o.order_id) AS total_orders
FROM Users u
JOIN Orders o ON u.user_id = o.user_id
GROUP BY u.name
ORDER BY total_orders DESC;

--Updating stock after orders
UPDATE P
SET P.stock_quantity = P.stock_quantity - OI.quantity
FROM Products P
JOIN Order_Items OI ON P.product_id = OI.product_id;
```