

# Assignment-1

## TechShop

### Task 1 Database Design

1.

The screenshot shows the Microsoft SQL Server Management Studio interface. In the Object Explorer, a database named 'TechShop' is selected. In the center pane, three CREATE TABLE statements are shown:

```
CREATE DATABASE TechShop;
USE TechShop;

CREATE TABLE Customers
(
    CustomerID INT PRIMARY KEY NOT NULL,
    FirstName VARCHAR(30) NOT NULL,
    LastName VARCHAR(30) NOT NULL,
    Email VARCHAR(30) NOT NULL,
    Phone VARCHAR(15) NOT NULL,
    Address VARCHAR(30) NOT NULL
);

CREATE TABLE Products
(
    ProductID INT PRIMARY KEY NOT NULL,
    ProductName VARCHAR(30) NOT NULL,
    Description VARCHAR(50),
    Price INT NOT NULL
);

CREATE TABLE Orders
```

The status bar at the bottom indicates "Commands completed successfully." and "Completion time: 2023-12-09T19:33:29.0704870+05:30".

2.

The screenshot shows the Microsoft SQL Server Management Studio interface. In the Object Explorer, a database named 'TechShop' is selected. In the center pane, four CREATE TABLE statements are shown, each including a FOREIGN KEY clause:

```
CREATE TABLE Customers
(
    CustomerID INT PRIMARY KEY NOT NULL,
    FirstName VARCHAR(30) NOT NULL,
    LastName VARCHAR(30) NOT NULL,
    Email VARCHAR(30) NOT NULL,
    Phone VARCHAR(15) NOT NULL,
    Address VARCHAR(30) NOT NULL
);

CREATE TABLE Products
(
    ProductID INT PRIMARY KEY NOT NULL,
    ProductName VARCHAR(30) NOT NULL,
    Description VARCHAR(50),
    Price INT NOT NULL
);

CREATE TABLE Orders
(
    OrderID INT PRIMARY KEY,
    CustomerID INT,
    OrderDate DATE,
    TotalAmount INT
);

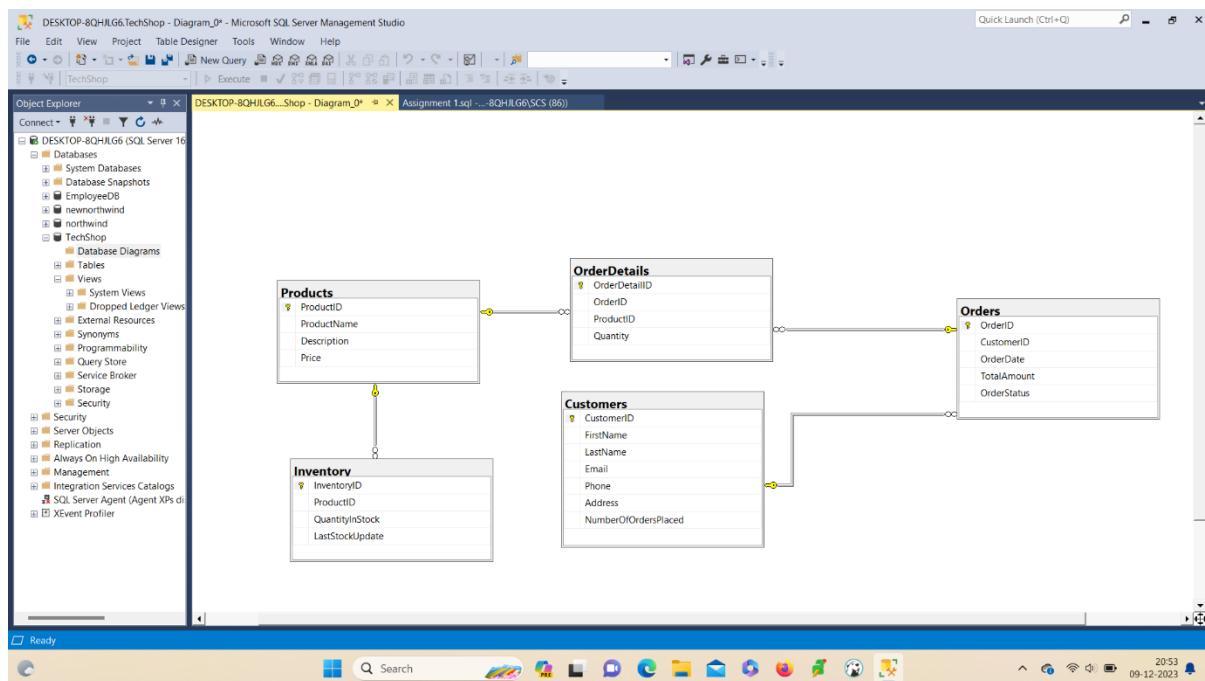
CREATE TABLE OrderDetails
(
    OrderDetailID INT PRIMARY KEY,
    OrderID INT,
    ProductID INT,
    Quantity INT
);

ALTER TABLE Orders
ADD FOREIGN KEY (CustomerID) REFERENCES Customers(CustomerID);

ALTER TABLE OrderDetails
ADD FOREIGN KEY (OrderID) REFERENCES Orders(OrderID);
ADD FOREIGN KEY (ProductID) REFERENCES Products(ProductID);
```

The status bar at the bottom indicates "Commands completed successfully." and "Completion time: 2023-12-09T19:34:12.2871500+05:30".

3.



4.

The screenshot shows the Microsoft SQL Server Management Studio interface with a query window titled 'Assignment 1.sql - DESKTOP-8QHJLG6.TechShop (DESKTOP-8QHJLG6(SCS (83)) - Microsoft SQL Server Management Studio'. The query window displays a series of INSERT statements into the 'Orders' and 'OrderDetails' tables. The 'Orders' table insertions are:

```
INSERT INTO Orders (OrderID, CustomerID, OrderDate, TotalAmount) VALUES (101, 1, '2023-12-01', 799.99);
INSERT INTO Orders (OrderID, CustomerID, OrderDate, TotalAmount) VALUES (102, 2, '2023-12-02', 1449.98);
INSERT INTO Orders (OrderID, CustomerID, OrderDate, TotalAmount) VALUES (103, 3, '2023-12-03', 149.99);
INSERT INTO Orders (OrderID, CustomerID, OrderDate, TotalAmount) VALUES (104, 4, '2023-12-04', 199.99);
INSERT INTO Orders (OrderID, CustomerID, OrderDate, TotalAmount) VALUES (105, 5, '2023-12-05', 499.99);
INSERT INTO Orders (OrderID, CustomerID, OrderDate, TotalAmount) VALUES (106, 6, '2023-12-06', 79.99);
INSERT INTO Orders (OrderID, CustomerID, OrderDate, TotalAmount) VALUES (107, 7, '2023-12-07', 499.99);
INSERT INTO Orders (OrderID, CustomerID, OrderDate, TotalAmount) VALUES (108, 8, '2023-12-08', 699.99);
INSERT INTO Orders (OrderID, CustomerID, OrderDate, TotalAmount) VALUES (109, 9, '2023-12-09', 89.99);
INSERT INTO Orders (OrderID, CustomerID, OrderDate, TotalAmount) VALUES (110, 10, '2023-12-10', 999.99);
```

The 'OrderDetails' table insertions are:

```
INSERT INTO OrderDetails (OrderDetailID, OrderID, ProductID, Quantity) VALUES (201, 101, 1, 1);
INSERT INTO OrderDetails (OrderDetailID, OrderID, ProductID, Quantity) VALUES (202, 102, 2, 1);
INSERT INTO OrderDetails (OrderDetailID, OrderID, ProductID, Quantity) VALUES (203, 102, 3, 2);
INSERT INTO OrderDetails (OrderDetailID, OrderID, ProductID, Quantity) VALUES (204, 103, 4, 1);
INSERT INTO OrderDetails (OrderDetailID, OrderID, ProductID, Quantity) VALUES (205, 104, 5, 1);
INSERT INTO OrderDetails (OrderDetailID, OrderID, ProductID, Quantity) VALUES (206, 105, 6, 1);
INSERT INTO OrderDetails (OrderDetailID, OrderID, ProductID, Quantity) VALUES (207, 105, 7, 2);
INSERT INTO OrderDetails (OrderDetailID, OrderID, ProductID, Quantity) VALUES (208, 106, 8, 1);
INSERT INTO OrderDetails (OrderDetailID, OrderID, ProductID, Quantity) VALUES (209, 107, 9, 1);
INSERT INTO OrderDetails (OrderDetailID, OrderID, ProductID, Quantity) VALUES (210, 108, 10, 1);
```

The status bar at the bottom indicates 'Query executed successfully.'

Assignment 1.sql - DESKTOP-8QHJLG6.TechShop (B3) - Microsoft SQL Server Management Studio

File Edit View Query Project Tools Window Help

Object Explorer

Assignment 1.sql - ~\8QHJLG6\SCS (B3)\* # X

```
INSERT INTO Inventory (InventoryID, ProductID, QuantityInStock, LastStockUpdate) VALUES (301, 1, 50, '2023-12-01');
INSERT INTO Inventory (InventoryID, ProductID, QuantityInStock, LastStockUpdate) VALUES (302, 2, 20, '2023-12-02');
INSERT INTO Inventory (InventoryID, ProductID, QuantityInStock, LastStockUpdate) VALUES (303, 3, 30, '2023-12-03');
INSERT INTO Inventory (InventoryID, ProductID, QuantityInStock, LastStockUpdate) VALUES (304, 4, 15, '2023-12-04');
INSERT INTO Inventory (InventoryID, ProductID, QuantityInStock, LastStockUpdate) VALUES (305, 5, 10, '2023-12-05');
INSERT INTO Inventory (InventoryID, ProductID, QuantityInStock, LastStockUpdate) VALUES (306, 6, 25, '2023-12-06');
INSERT INTO Inventory (InventoryID, ProductID, QuantityInStock, LastStockUpdate) VALUES (307, 7, 10, '2023-12-07');
INSERT INTO Inventory (InventoryID, ProductID, QuantityInStock, LastStockUpdate) VALUES (308, 8, 35, '2023-12-08');
INSERT INTO Inventory (InventoryID, ProductID, QuantityInStock, LastStockUpdate) VALUES (309, 9, 18, '2023-12-09');
INSERT INTO Inventory (InventoryID, ProductID, QuantityInStock, LastStockUpdate) VALUES (310, 10, 22, '2023-12-10');

-- SQL query to retrieve the names and emails of all customers

=SELECT FirstName, LastName, Email
FROM Customers;]
```

Results Messages

	FirstName	LastName	Email
1	Rajesh	Mehra	raj12@gmail.com
2	Rohit	Kulkarni	rohit212@gmail.com
3	Ravi	Patil	ravi234@gmail.com
4	Sara	Khan	sara123@gmail.com
5	Ankit	Sharma	ankit.sharma@gmail.com
6	Anil	Singh	anila_0@gmail.com
7	Rahul	Gupta	rahul_0@gmail.com
8	Priya	Yadav	priya_yadav@gmail.com
9	Rajesh	Mehra	raj_mehra@gmail.com
10	Neha	Shah	neha_shah@gmail.com

Query executed successfully.

DESKTOP-8QHJLG6 (16.0 RTM) | DESKTOP-8QHJLG6\SCS (B3) | TechShop | 00:00:00 | 10 rows

Ready

Breaking news  
Get caught up

Search

Ln 104 Col 16 Ch 16 INS

19:35 09-12-2023

# Task 2 Select, Where, Between, And, Like

1.

The screenshot shows the Microsoft SQL Server Management Studio interface. In the Object Explorer, a database named 'TechShop' is selected. A query window titled 'Assignment 1.sql' is open, displaying several SQL queries:

```
INSERT INTO Inventory (InventoryID, ProductID, QuantityInStock, LastStockUpdate) VALUES (309, 9, 18, '2023-12-09');
INSERT INTO Inventory (InventoryID, ProductID, QuantityInStock, LastStockUpdate) VALUES (310, 10, 22, '2023-12-10');

-- SQL query to retrieve the names and emails of all customers
SELECT FirstName, LastName, Email
FROM Customers;

-- SQL query to list all orders with their order dates and corresponding customer names.
SELECT O.OrderID, O.OrderDate, C.FirstName, C.LastName
FROM Orders O
JOIN Customers C ON O.CustomerID = C.CustomerID;

-- SQL query to insert a new customer record into the "Customers" table. Include customer information such as name, email, and address.
INSERT INTO Customers VALUES ('11', 'Rohit', 'Kulkarni', 'krohitr2000@gmail.com', '8055998766', 'Sangli, Maharashtra, India');

100 %
```

The results pane shows a table with columns OrderID, OrderDate, FirstName, and LastName. The data is as follows:

OrderID	OrderDate	FirstName	LastName
101	2023-12-01	Raj	Pali
102	2023-12-02	Rohit	Kulkarni
103	2023-12-03	Ravi	Pali
104	2023-12-04	Sara	Khan
105	2023-12-05	Ankit	Sharma
106	2023-12-06	Arita	Singh
107	2023-12-07	Rahul	Gupta
108	2023-12-08	Priya	Yadav
109	2023-12-09	Rajesh	Mehra
110	2023-12-10	Neha	Shah

Message bar: Query executed successfully.

2.

The screenshot shows the Microsoft SQL Server Management Studio interface. In the Object Explorer, a database named 'TechShop' is selected. A query window titled 'Assignment 1.sql' is open, displaying several SQL queries:

```
FROM Orders O
JOIN Customers C ON O.CustomerID = C.CustomerID;

-- SQL query to insert a new customer record into the "Customers" table. Include customer information such as name, email, and address.
INSERT INTO Customers VALUES ('11', 'Rohit', 'Kulkarni', 'krohitr2000@gmail.com', '8055998766', 'Sangli, Maharashtra, India');
SELECT * FROM Customers;

-- SQL query to update the prices of all electronic gadgets in the "Products" table by increasing them by 10%.
UPDATE Products
SET Price=Price*1.1;
SELECT * FROM Products;

-- SQL query to delete a specific order and its associated order details from the "Orders" and "OrderDetails" tables. Allow users to input the order ID as a parameter.
DECLARE @OrderIDToDelete int = 101;
DELETE FROM Orders WHERE OrderID = @OrderIDToDelete;
DELETE FROM OrderDetails WHERE OrderID = @OrderIDToDelete;
```

The results pane shows a table with columns CustomerID, FirstName, LastName, Email, Phone, and Address. The data is as follows:

CustomerID	FirstName	LastName	Email	Phone	Address
1	Raj	Pali	raj12@gmail.com	2346274756	403,Pune, Maharashtra
2	Rohit	Kulkarni	rohit2000@gmail.com	2346274756	403,Pune, Maharashtra
3	Ravi	Pali	ravi23@gmail.com	7479569110	Pune, Maharashtra
4	Sara	Khan	sara123@gmail.com	8876543210	Mumbai, Maharashtra
5	Ankit	Sharma	ankit.sharma@gmail.com	8765432109	Delhi, India
6	Arita	Singh	arita_9@gmail.com	7890123456	Bangalore, Karnataka
7	Rahul	Gupta	rahul_gupta@gmail.com	9012345678	Chennai, Tamil Nadu
8	Priya	Yadav	priya_yadav@gmail.com	7654321098	Kolkata, West Bengal
9	Rajesh	Mehra	raj_mehra@gmail.com	6543210987	Ahmedabad, Gujarat
10	Neha	Shah	neha_shah@gmail.com	8901234567	Hyderabad, Telangana
11	Rohit	Kulkarni	krohitr2000@gmail.com	8055998766	Sangli, Maharashtra, India

Message bar: Query executed successfully.

3.

Assignment 1.sql - DESKTOP-8QHJLG6.TechShop (DESKTOP-8QHJLG6\SCS (83)) - Microsoft SQL Server Management Studio

```
File Edit View Query Project Tools Window Help
New Query Execute
Assignment 1.sql --8QHJLG6\SCS (83)*
SELECT * FROM Customers;
--SQL query to update the prices of all electronic gadgets in the "Products" table by increasing them by 10%.
UPDATE Products
SET Price=Price*1.1;
SELECT * FROM Products;
--SQL query to delete a specific order and its associated order details from the "Orders" and "OrderDetails" tables. Allow users to input the order ID as a parameter.
DECLARE @OrderIDToDelete int = 101;
DELETE FROM Orders WHERE OrderID= @OrderIDToDelete;
DELETE FROM OrderDetails WHERE OrderID= @OrderIDToDelete;
SELECT * FROM Orders;
SELECT * FROM OrderDetails;
--SQL query to insert a new order into the "Orders" table. Include the customer ID, order date, and any other necessary information.
```

Results Messages

ProductID	ProductName	Description	Price
1	Smartphone X	High-end smartphone	878
2	Power Pro	Power bank with 10000 mAh	1428
3	Wireless Earbuds	Noise-cancelling earbuds	183
4	Smartwatch	Fitness tracking smartwatch	218
5	Tablet	Portable tablet with HD display	548
6	Bluetooth Speaker	Waterproof portable speaker	86
7	Gaming Console	Next-gen gaming console	548
8	Digital Camera	High-resolution digital camera	768
9	External Hard Drive	1TB external hard drive	97
10	Smart TV	4K Ultra HD Smart TV	1098

Query executed successfully.

LN 121 Col 22 Ch 22 INS

DESKTOP-8QHJLG6 (16.0 RTM) | DESKTOP-8QHJLG6\SCS (83) | TechShop | 00:00:00 | 10 rows

19:36 09-12-2023

4.

Assignment 1.sql - DESKTOP-8QHJLG6.TechShop (DESKTOP-8QHJLG6\SCS (83)) - Microsoft SQL Server Management Studio

```
File Edit View Query Project Tools Window Help
New Query Execute
Assignment 1.sql --8QHJLG6\SCS (83)*
SELECT * FROM Products;
--SQL query to delete a specific order and its associated order details from the "Orders" and "OrderDetails" tables. Allow users to input the order ID as a parameter.
DECLARE @OrderIDToDelete int = 101;
DELETE FROM Orders WHERE OrderID= @OrderIDToDelete;
DELETE FROM OrderDetails WHERE OrderID= @OrderIDToDelete;
SELECT * FROM Orders;
SELECT * FROM OrderDetails;
--SQL query to insert a new order into the "Orders" table. Include the customer ID, order date, and any other necessary information.
INSERT INTO Orders (OrderID,CustomerID, OrderDate, TotalAmount) VALUES (111,11, '2023-12-15', 999.99);
```

Results Messages

OrderID	CustomerID	OrderDate	TotalAmount
1	102	2023-12-02	1449
2	103	2023-12-03	198
3	104	2023-12-04	198
4	105	2023-12-05	499
5	106	2023-12-06	79
6	107	2023-12-07	499
7	108	2023-12-08	699
8	109	2023-12-09	89

OrderDetailID	OrderID	ProductID	Quantity
1	202	102	2
2	203	102	3
3	204	103	4
4	205	104	5
5	206	105	6
6	207	105	7
7	208	106	8
8	209	107	9
9	210	108	10

Query executed successfully.

LN 129 Col 26 Ch 26 INS

DESKTOP-8QHJLG6 (16.0 RTM) | DESKTOP-8QHJLG6\SCS (83) | TechShop | 00:00:00 | 18 rows

19:37 09-12-2023

## 5.

```
Assignment 1.sql - DESKTOP-8QHJLG6.TechShop (DESKTOP-8QHJLG6\SCS (83)) - Microsoft SQL Server Management Studio
File Edit View Project Tools Window Help
New Query Execute
Object Explorer
Connect Connect ...
DESKTOP-8QHJLG6 (SQL Server 16)
Databases Security Server Objects Replication Always On High Availability Management Integration Services Catalogs SQL Server Agent (Agent XPs disabled) XEvent Profiler
Assignment 1.sql (~ - 8QHJLG6\SCS (83))
DELETE FROM Orders WHERE OrderID= @OrderIDToDelete;
DELETE FROM OrderDetails WHERE OrderID = @OrderIDToDelete;
SELECT * FROM Orders;
SELECT * FROM OrderDetails;

--SQL query to insert a new order into the "Orders" table. Include the customer ID, order date, and any other necessary information.

INSERT INTO Orders (OrderID,CustomerID, OrderDate, TotalAmount) VALUES (111,11, '2023-12-15', 999.99);

/*SQL query to update the contact information (e.g., email and address) of a specific customer in the "Customers" table.
Allow users to input the customer ID and new contact information.*/
UPDATE Customers
100 %
Messages
(1 row affected)
Completion time: 2023-12-09T19:37:16.5878039+06:30
100 %
Query executed successfully.
Ready
Breaking news Get caught up
Search
INS
DESKTOP-8QHJLG6 (16.0 RTM) DESKTOP-8QHJLG6\SCS (83) TechShop 00:00:00 0 rows
19:37 09-12-2023
```

## 6.

```
Assignment 1.sql - DESKTOP-8QHJLG6.TechShop (DESKTOP-8QHJLG6\SCS (83)) - Microsoft SQL Server Management Studio
File Edit View Project Tools Window Help
New Query Execute
Object Explorer
Connect Connect ...
DESKTOP-8QHJLG6 (SQL Server 16)
Databases Security Server Objects Replication Always On High Availability Management Integration Services Catalogs SQL Server Agent (Agent XPs disabled) XEvent Profiler
Assignment 1.sql (~ - 8QHJLG6\SCS (83))
INSERT INTO Orders (OrderID,CustomerID, OrderDate, TotalAmount) VALUES (111,11, '2023-12-15', 999.99);

/*SQL query to update the contact information (e.g., email and address) of a specific customer in the "Customers" table.
Allow users to input the customer ID and new contact information.*/
UPDATE Customers
SET Email='rkulkarni0507@gmail.com', Address='Solapur,India'
WHERE CustomerID=11;
SELECT * FROM Customers;

--an SQL query to recalculate and update the total cost of each order in the "Orders" table based on the prices and quantities in the "OrderDetails" table.

100 %
Messages
CustomerID FirstName LastName Email Phone Address
1 Raj Patel raj12@gmail.com 2345678901 Mumbai, Maharashtra
2 Ravi Patel ravi23@gmail.com 98765432108 103,Pune, Maharashtra
3 Ravi Patel ravi34@gmail.com 7447565576 Pune, Maharashtra
4 Saro Khan saro123@gmail.com 98765432109 Mumbai, Maharashtra
5 Amit Sharma amit.sharma@gmail.com 8765432109 Delhi, India
6 Anita Singh anita_12@gmail.com 7890123456 Bangalore, Karnataka
7 Rahul Gupta rahul_gupta@gmail.com 9012345678 Chennai, Tamil Nadu
8 Priya Yadav priya_yadav@gmail.com 7654321098 Kolkata, West Bengal
9 Rajesh Mehta raj_mehta@gmail.com 6543210987 Ahmedabad, Gujarat
10 Neha Shah neha_shah@gmail.com 8901234567 Hyderabad, Telangana
11 Rohit Kumar rkumar0507@gmail.com 8056998766 Solapur, India
100 %
Query executed successfully.
Ready
Breaking news Get caught up
Search
INS
DESKTOP-8QHJLG6 (16.0 RTM) DESKTOP-8QHJLG6\SCS (83) TechShop 00:00:00 11 rows
19:37 09-12-2023
```

7.

Assignment 1.sql - DESKTOP-8QHJLG6.TechShop (DESKTOP-8QHJLG6\SCS (83)) - Microsoft SQL Server Management Studio

File Edit View Project Tools Window Help

New Query Connect Object Explorer

Assignment 1.sql (~-8QHJLG6\SCS (83)\*

```
SELECT * FROM Customers;
--an SQL query to recalculate and update the total cost of each order in the "Orders" table based on the prices and quantities in the "OrderDetails" table.
UPDATE Orders
SET TotalAmount = TotalAmount*Quantity
FROM OrderDetails OD
JOIN Orders O ON OD.OrderID=O.OrderID;

/*SQL query to delete all orders and their associated order details for a specific customer from the "Orders" and "OrderDetails" tables.
Allow users to input the customer ID as a parameter.*/
DELETE FROM OrderDetails
```

100 % 100 %

Messages

(? rows affected)

Completion time: 2023-12-09T19:37:41.8498019+00:30

Ready

Breaking news Get caught up

Search

DESKTOP-8QHJLG6 (16.0 RTM) DESKTOP-8QHJLG6\SCS (83) TechShop 00:00:00 0 rows

19:37 09-12-2023

This screenshot shows the Microsoft SQL Server Management Studio interface. The Object Explorer pane on the left lists the database 'DESKTOP-8QHJLG6' with its objects: Databases, Security, Server Objects, Replication, Always On High Availability, Integration Services Catalogs, SQL Server Agent (Agent XPs), and XEvent Profiler. Three scripts are listed in the 'Assignment 1.sql' file: one to calculate total amounts, one to delete all orders and details for a specific customer (parameterized), and one to delete all details for a specific customer. The status bar at the bottom indicates the completion time as 2023-12-09T19:37:41.8498019+00:30.

8.

Assignment 1.sql - DESKTOP-8QHJLG6.TechShop (DESKTOP-8QHJLG6\SCS (83)) - Microsoft SQL Server Management Studio

File Edit View Project Tools Window Help

New Query Connect Object Explorer

Assignment 1.sql (~-8QHJLG6\SCS (83)\*

```
FROM OrderDetails OD
JOIN Orders O ON OD.OrderID=O.OrderID;

/*SQL query to delete all orders and their associated order details for a specific customer from the "Orders" and "OrderDetails" tables.
Allow users to input the customer ID as a parameter.*/
DELETE FROM OrderDetails
FROM OrderDetails OD
JOIN Orders O ON O.OrderID = OD.OrderID
WHERE O.CustomerID = 10;
SELECT * FROM OrderDetails;
```

100 % 100 %

Results

OrderDetailID	OrderID	ProductID	Quantity
1	202	102	2
2	203	102	3
3	204	103	4
4	205	104	5
5	206	105	6
6	207	105	7
7	208	106	8
8	209	107	9
9	210	108	1

Messages

(9 rows affected)

Query executed successfully.

Ready

Breaking news Get caught up

Search

DESKTOP-8QHJLG6 (16.0 RTM) DESKTOP-8QHJLG6\SCS (83) TechShop 00:00:00 9 rows

19:37 09-12-2023

This screenshot shows the Microsoft SQL Server Management Studio interface. The Object Explorer pane on the left lists the database 'DESKTOP-8QHJLG6' with its objects. A query is run against the 'OrderDetails' table, resulting in a grid of 9 rows. The columns are 'OrderDetailID', 'OrderID', 'ProductID', and 'Quantity'. The data shows various order details for different products. The status bar at the bottom indicates 9 rows affected and the completion time as 2023-12-09T19:37:41.8498019+00:30.

## 9.

Assignment 1.sql - DESKTOP-8QHJLG6.TechShop (DESKTOP-8QHJLG6\SCS (83)) - Microsoft SQL Server Management Studio

```
File Edit View Project Tools Window Help
New Query Execute Save All Open All Close All Refresh
Object Explorer Connect Connect to Database Object Explorer Properties
Assignment 1.sql - DESKTOP-8QHJLG6\SCS (83)*
WHERE CustomerID = 10;
SELECT * FROM OrderDetails;

--DELETE FROM Orders
WHERE CustomerID = 10;
SELECT * FROM Orders;

--SQL query to insert a new electronic gadget product into the "Products" table, including product name, category, price, and any other relevant details.
INSERT INTO Products (ProductID, ProductName, Price) VALUES (11, 'Smartwatch', 1299.00);
SELECT * FROM Products;

-- SQL query to update the status of a specific order in the "Orders" table (e.g., from "Pending" to "Shipped"). Allow users to input the order ID and the new status.
```

Results Messages

OrderID	CustomerID	OrderDate	TotalAmount
102	1	2023-12-02	1449
103	3	2023-12-03	149
104	4	2023-12-04	199
105	5	2023-12-05	499
106	6	2023-12-06	79
107	7	2023-12-07	499
108	8	2023-12-08	699
109	9	2023-12-09	89
111	11	2023-12-15	999

Query executed successfully.

Ready Breaking news Get caught up

DESKTOP-8QHJLG6 (16.0 RTM) DESKTOP-8QHJLG6\SCS (83) TechShop 00:00:00 9 rows

19:38 09-12-2023

## 10.

Assignment 1.sql - DESKTOP-8QHJLG6.TechShop (DESKTOP-8QHJLG6\SCS (83)) - Microsoft SQL Server Management Studio

```
File Edit View Project Tools Window Help
New Query Execute Save All Open All Close All Refresh
Object Explorer Connect Connect to Database Object Explorer Properties
Assignment 1.sql - DESKTOP-8QHJLG6\SCS (83)*
--SQL query to insert a new electronic gadget product into the "Products" table, including product name, category, price, and any other relevant details.
INSERT INTO Products (ProductID, ProductName, Price) VALUES (11, 'Smartwatch', 1299.00);
SELECT * FROM Products;

-- SQL query to update the status of a specific order in the "Orders" table (e.g., from "Pending" to "Shipped"). Allow users to input the order ID and the new status.
ALTER TABLE Orders
ADD OrderStatus varchar(10);

UPDATE Orders
SET OrderStatus = 'Shipped'
```

Results Messages

ProductID	ProductName	Description	Price
1	Smartphone X	High-end smartphone	876
2	Laptop Pro	Powerful laptop with SSD	1428
3	Wireless Earbuds	Noise-cancelling earbuds	163
4	Smartwatch	Fitness tracking smartwatch	218
5	Tablet	Portable tablet with HD display	548
6	Bluetooth Speaker	Waterproof portable speaker	86
7	Gaming Console	Next-gen gaming console	548
8	Digital Camera	High-resolution digital camera	768
9	External Hard Drive	1TB external hard drive	97
10	Smart TV	4K Ultra HD SmartTV	1098
11	Smartwatch	NULL	1299

Query executed successfully.

Ready Breaking news Get caught up

DESKTOP-8QHJLG6 (16.0 RTM) DESKTOP-8QHJLG6\SCS (83) TechShop 00:00:00 11 rows

19:38 09-12-2023

## 11.

Assignment 1.sql - DESKTOP-8QHJLG6.TechShop (DESKTOP-8QHJLG6\SCS (83)) - Microsoft SQL Server Management Studio

```
-- SQL query to update the status of a specific order in the "Orders" table (e.g., from "Pending" to "Shipped"). Allow users to input the order ID and the new status.  
ALTER TABLE Orders  
ADD OrderStatus varchar(10);  
  
UPDATE Orders  
SET OrderStatus = 'Shipped'  
WHERE OrderID = 102;  
SELECT * FROM Orders;  
  
-- SQL query to calculate and update the number of orders placed by each customer in the "Customers" table based on the data in the "Orders" table.  
ALTER TABLE Customers  
ADD NumberOfOrdersPlaced int;
```

Results

OrderID	CustomerID	OrderDate	TotalAmount	OrderStatus
102	3	2023-12-02	1449	Shipped
2	103	2023-12-03	149	NULL
3	104	2023-12-04	199	NULL
4	105	2023-12-05	499	NULL
5	106	2023-12-06	79	NULL
6	107	2023-12-07	499	NULL
7	108	2023-12-08	999	NULL
8	109	2023-12-09	89	NULL
9	111	2023-12-15	999	NULL

Query executed successfully.

## 12.

Assignment 1.sql - DESKTOP-8QHJLG6.TechShop (DESKTOP-8QHJLG6\SCS (83)) - Microsoft SQL Server Management Studio

```
-- SQL query to calculate and update the number of orders placed by each customer in the "Customers" table based on the data in the "Orders" table.  
ALTER TABLE Customers  
ADD NumberOfOrdersPlaced int;  
  
UPDATE Customers  
SET NumberOfOrdersPlaced = (SELECT COUNT(OrderID)  
FROM Orders  
WHERE Customers.CustomerID=Orders.CustomerID  
);  
SELECT * FROM Customers;  
SELECT * FROM Orders;
```

Messages

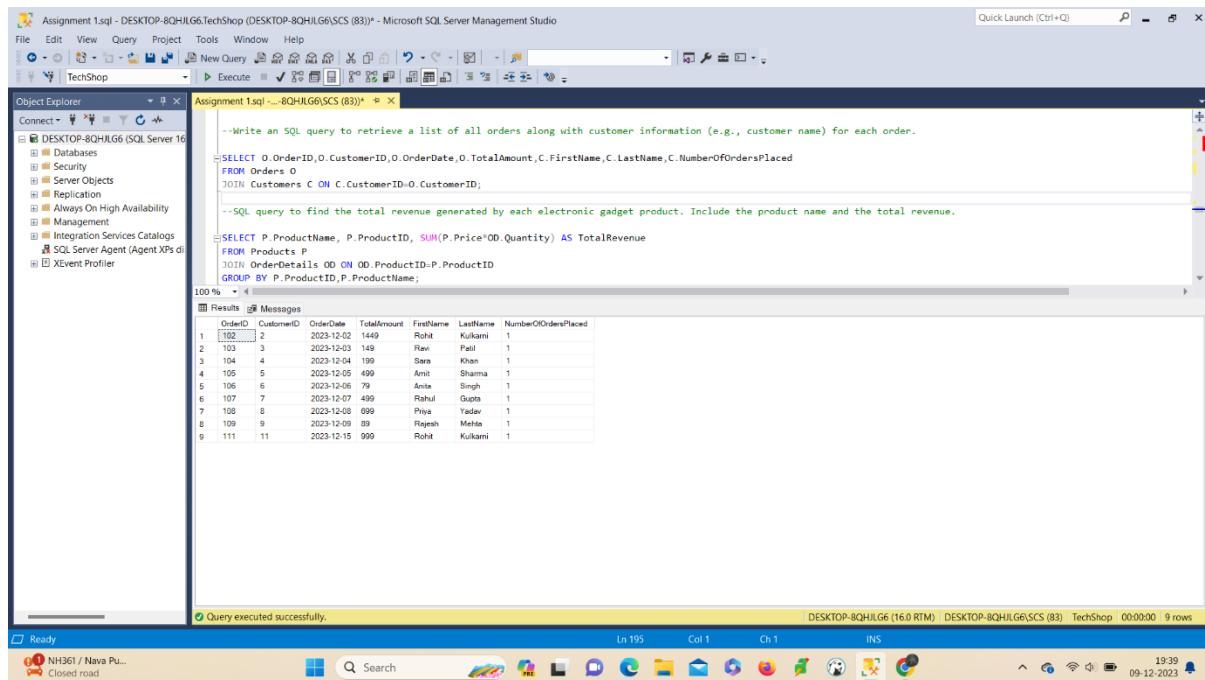
(1) row affected

Completion time: 2023-12-09T19:39:32.0866098+06:30

Query executed successfully.

# Task 3 Aggregate functions, Having, Order By, Group By

1.



Assignment 1.sql - DESKTOP-8QHJLG6.TechShop (DESKTOP-8QHJLG6\SCS (83)) - Microsoft SQL Server Management Studio

--Write an SQL query to retrieve a list of all orders along with customer information (e.g., customer name) for each order.

```
SELECT O.OrderID, O.CustomerID, O.OrderDate, O.TotalAmount, C.FirstName, C.LastName, C.NumberOfOrdersPlaced
FROM Orders O
JOIN Customers C ON C.CustomerID=O.CustomerID;
```

--SQL query to find the total revenue generated by each electronic gadget product. Include the product name and the total revenue.

```
SELECT P.ProductName, P.ProductID, SUM(P.Price*OD.Quantity) AS TotalRevenue
FROM Products P
JOIN OrderDetails OD ON OD.ProductID=P.ProductID
GROUP BY P.ProductID,P.ProductName;
```

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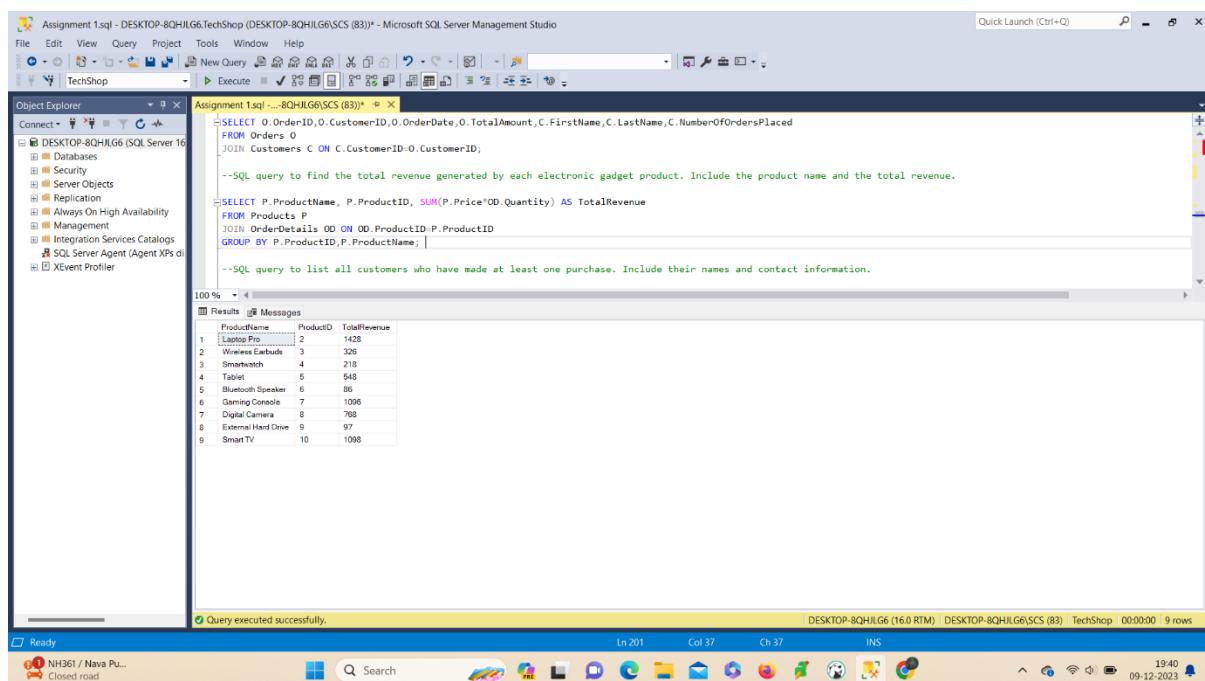
OrderID	CustomerID	OrderDate	TotalAmount	FirstName	LastName	NumberOfOrdersPlaced
102	2	2023-12-02	1449	Rohit	Kukarni	1
103	3	2023-12-03	149	Revi	Paili	1
104	4	2023-12-04	199	Sara	Khan	1
105	5	2023-12-05	499	Amit	Sharma	1
106	6	2023-12-06	79	Anita	Singh	1
107	7	2023-12-07	29	Rahul	Gupta	1
108	8	2023-12-08	699	Priya	Talwar	1
109	9	2023-12-09	89	Rajesh	Maria	1
111	11	2023-12-15	999	Rohit	Kukarni	1

Query executed successfully. DESKTOP-8QHJLG6 (16.0 RTM) DESKTOP-8QHJLG6\SCS (83) TechShop 00:00:00 9 rows

Ready NH361 / Nava Pu... Closed road

Ln 195 Col 1 Ch 1 INS 19:39 09-12-2023

2.



Assignment 1.sql - DESKTOP-8QHJLG6.TechShop (DESKTOP-8QHJLG6\SCS (83)) - Microsoft SQL Server Management Studio

--Write an SQL query to retrieve a list of all orders along with customer information (e.g., customer name) for each order.

```
SELECT O.OrderID, O.CustomerID, O.OrderDate, O.TotalAmount, C.FirstName, C.LastName, C.NumberOfOrdersPlaced
FROM Orders O
JOIN Customers C ON C.CustomerID=O.CustomerID;
```

--SQL query to find the total revenue generated by each electronic gadget product. Include the product name and the total revenue.

```
SELECT P.ProductName, P.ProductID, SUM(P.Price*OD.Quantity) AS TotalRevenue
FROM Products P
JOIN OrderDetails OD ON OD.ProductID=P.ProductID
GROUP BY P.ProductID,P.ProductName;
```

--SQL query to list all customers who have made at least one purchase. Include their names and contact information.

```
--SQL query to list all customers who have made at least one purchase. Include their names and contact information.
```

100% < 100% 100% 100%

ProductName	ProductID	TotalRevenue
Laptop Pro	2	1428
Wireless Earbuds	3	326
Smartwatch	4	218
Tablet	5	548
Bluetooth Speaker	6	86
Gaming Console	7	1096
Digital Camera	8	768
External Hard Drive	9	97
Smart TV	10	1096

Query executed successfully. DESKTOP-8QHJLG6 (16.0 RTM) DESKTOP-8QHJLG6\SCS (83) TechShop 00:00:00 9 rows

Ready NH361 / Nava Pu... Closed road

Ln 201 Col 37 Ch 37 INS 19:40 09-12-2023

3.

The screenshot shows the Microsoft SQL Server Management Studio interface. In the Object Explorer, a connection to 'DESKTOP-8QHJLG6 (SQL Server 16)' is selected, with the 'TechShop' database chosen. Three queries are open in the main pane:

```
Assignment 1.sql - DESKTOP-8QHJLG6.TechShop (DESKTOP-8QHJLG6\SCS (83)) - Microsoft SQL Server Management Studio
File Edit View Project Tools Window Help
New Query Execute
Assignment 1.sql - DESKTOP-8QHJLG6\SCS (83)*
--SQL query to list all customers who have made at least one purchase. Include their names and contact information.
SELECT FirstName, LastName, Phone
FROM Customers
WHERE NumberOfOrdersPlaced > 0;

--SQL query to find the most popular electronic gadget, which is the one with the highest total quantity ordered. Include the product name and the total quantity ordered.
SELECT P.ProductName, P.ProductID, SUM(OD.Quantity) AS TotalRevenue
FROM Products P
JOIN Order-Details OD ON OD.ProductID = P.ProductID
GROUP BY P.ProductID, P.ProductName;
```

The results for the first query are displayed in the 'Results' tab:

FirstName	LastName	Phone
Rohit	Kulkarni	23903742756
Ravi	Puri	7445655078
Sara	Khan	9876543210
Amit	Sharma	8765432109
Anita	Singh	7890123456
Rahul	Gupta	9012345678
Priya	Yadav	7654321098
Rajesh	Mehra	6543210987
Rohit	Kulkarni	8055998766

The status bar at the bottom indicates 'Query executed successfully.' and shows the system as 'Ready'.

4.

The screenshot shows the Microsoft SQL Server Management Studio interface. In the Object Explorer, a connection to 'DESKTOP-8QHJLG6 (SQL Server 16)' is selected, with the 'TechShop' database chosen. Three queries are open in the main pane:

```
Assignment 1.sql - DESKTOP-8QHJLG6.TechShop (DESKTOP-8QHJLG6\SCS (83)) - Microsoft SQL Server Management Studio
File Edit View Project Tools Window Help
New Query Execute
Assignment 1.sql - DESKTOP-8QHJLG6\SCS (83)*
WHERE NumberOfOrdersPlaced > 0;

--SQL query to find the most popular electronic gadget, which is the one with the highest total quantity ordered. Include the product name and the total quantity ordered.
SELECT TOP 1 P.ProductName, P.ProductID, SUM(OD.Quantity) AS TotalQuantityOrdered
FROM Products P
JOIN Order-Details OD ON OD.ProductID = P.ProductID
GROUP BY P.ProductName, P.ProductID
ORDER BY TotalQuantityOrdered DESC.;

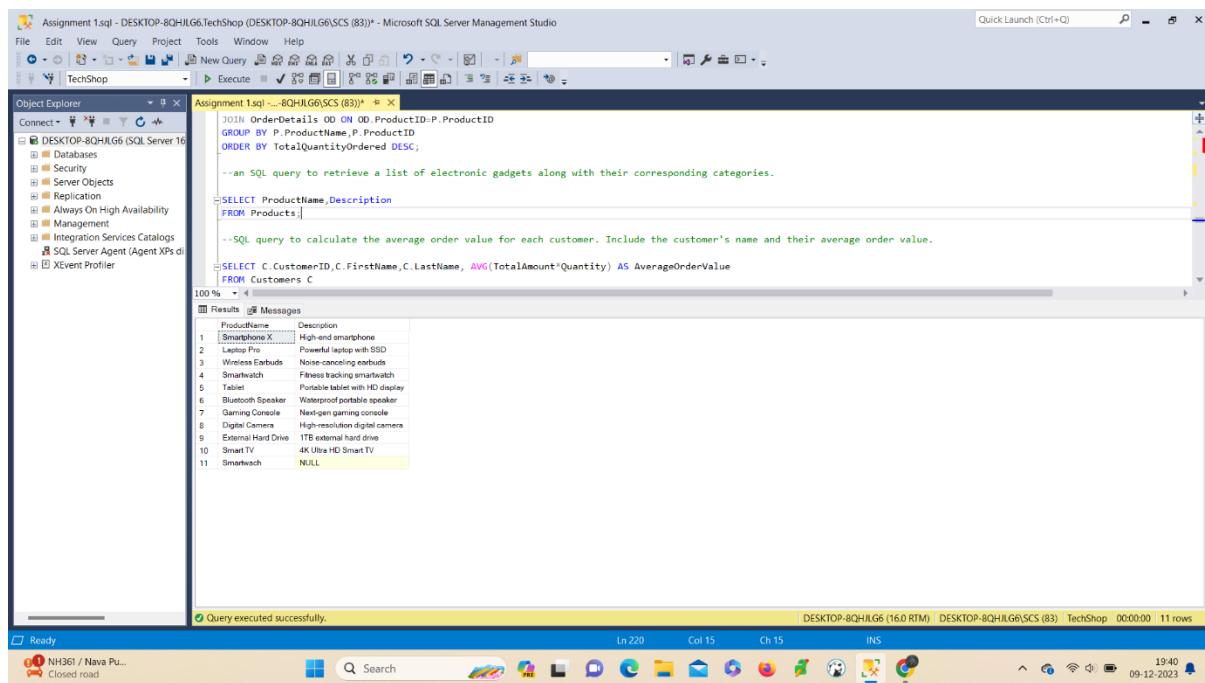
--an SQL query to retrieve a list of electronic gadgets along with their corresponding categories.
SELECT ProductName, Description
```

The results for the second query are displayed in the 'Results' tab:

ProductName	ProductID	TotalQuantityOrdered
WirelessEarbuds	3	2

The status bar at the bottom indicates 'Query executed successfully.' and shows the system as 'Ready'.

5.



Assignment 1.sql - DESKTOP-8QHJLG6.TechShop (DESKTOP-8QHJLG6\SCS (83)) - Microsoft SQL Server Management Studio

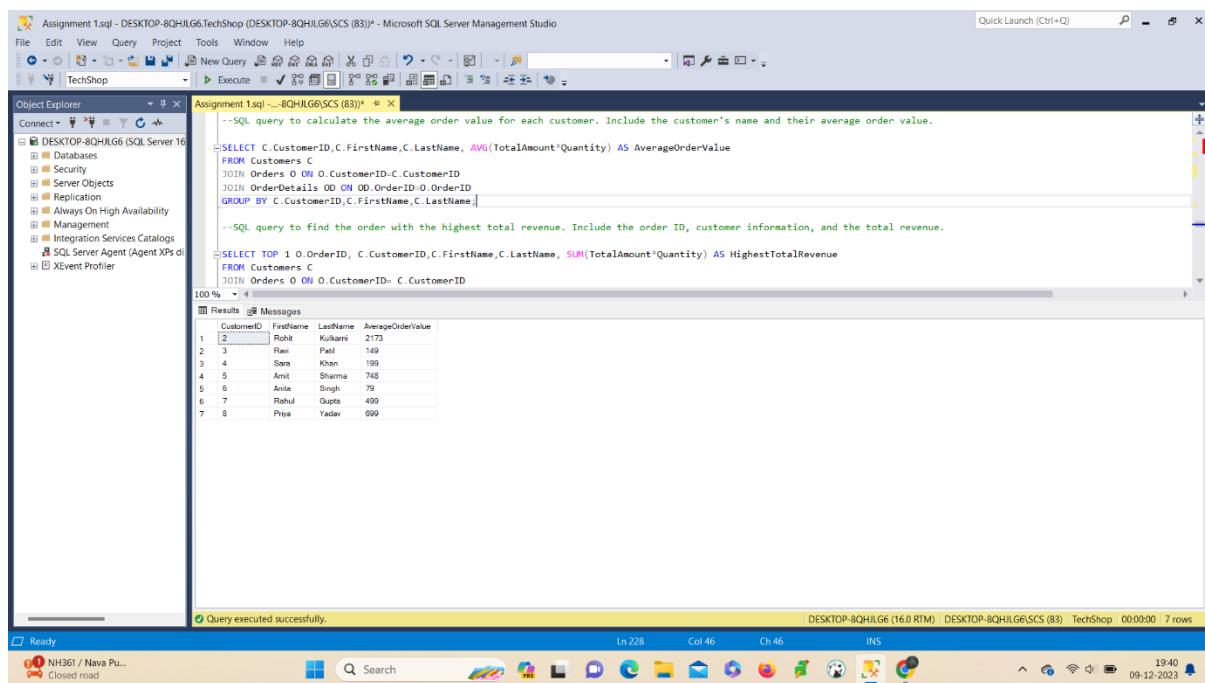
```
--an SQL query to retrieve a list of electronic gadgets along with their corresponding categories.  
--  
--SQL query to calculate the average order value for each customer. Include the customer's name and their average order value.  
--  
SELECT C.CustomerID,C.FirstName,C.LastName, AVG(TotalAmount/Quantity) AS AverageOrderValue  
FROM Customers C
```

Results Messages

ProductID	ProductName	Description
1	Smartphone X	High-end smartphone
2	Laptop Pro	Powerful laptop with SSD
3	Wireless Earbuds	Noise-cancelling earbuds
4	Smartwatch	Fitness tracking smartwatch
5	Tablet	Portable tablet with HD display
6	Bluetooth Speaker	Waterproof portable speaker
7	Gaming Console	Next-gen gaming console
8	Digital Camera	High-resolution digital camera
9	External Hard Drive	1TB external hard drive
10	Smart TV	4K Ultra HD Smart TV
11	Smartwatch	NULL

Query executed successfully.

6.



Assignment 1.sql - DESKTOP-8QHJLG6.TechShop (DESKTOP-8QHJLG6\SCS (83)) - Microsoft SQL Server Management Studio

```
--SQL query to calculate the average order value for each customer. Include the customer's name and their average order value.  
--  
--SQL query to find the order with the highest total revenue. Include the order ID, customer information, and the total revenue.  
--  
SELECT TOP 1 O.OrderID, C.CustomerID,C.FirstName,C.LastName, SUM(TotalAmount/Quantity) AS HighestTotalRevenue  
FROM Customers C  
JOIN Orders O ON O.CustomerID= C.CustomerID
```

Results Messages

CustomerID	FirstName	LastName	AverageOrderValue
1	Rohit	Kumar	2173
2	Pankaj	Patel	40
3	Sara	Khan	199
4	Amrit	Sharma	748
5	Anita	Singh	79
6	Rahul	Gupta	499
7	Priya	Yadav	699

Query executed successfully.

7.

Assignment 1.sql - DESKTOP-8QHJLG6.TechShop (DESKTOP-8QHJLG6\SCS (83)) - Microsoft SQL Server Management Studio

```
--SQL query to find the order with the highest total revenue. Include the order ID, customer information, and the total revenue.  
--  
--SELECT TOP 1 O.OrderID, C.CustomerID, C.FirstName, C.LastName, SUM(TotalAmount*Quantity) AS HighestTotalRevenue  
FROM Customers C  
JOIN Orders O ON C.CustomerID = O.CustomerID  
JOIN OrderDetails OD ON OD.OrderID = O.OrderID  
GROUP BY O.OrderID, C.CustomerID, C.FirstName, C.LastName  
ORDER BY HighestTotalRevenue DESC;
```

--SQL query to list electronic gadgets and the number of times each product has been ordered.

OrderID	CustomerID	FirstName	LastName	HighestTotalRevenue
1	102	Rohit	Kulkarni	4347

Query executed successfully.

Ready NH361 / Nava Pu... Search 19:40 09-12-2023

8.

Assignment 1.sql - DESKTOP-8QHJLG6.TechShop (DESKTOP-8QHJLG6\SCS (83)) - Microsoft SQL Server Management Studio

```
ORDER BY HighestTotalRevenue DESC;
```

--SQL query to list electronic gadgets and the number of times each product has been ordered.

```
--  
--SELECT P.ProductID, P.ProductName, COUNT(OD.OrderID) AS OrderCount  
FROM Products P  
LEFT JOIN OrderDetails OD ON OD.ProductID = P.ProductID  
GROUP BY P.ProductID, P.ProductName  
ORDER BY OrderCount DESC;
```

--SQL query to find customers who have purchased a specific electronic gadget product. Allow users to input the product name as a parameter.

```
DECLARE @ProductName varchar(100)  
SET @ProductName='Gaming Console'
```

ProductID	ProductName	OrderCount
1	Laptop Pro	1
2	Wireless Earbuds	1
3	Smartwatch	1
4	Tablet	1
5	Bluetooth Speaker	1
6	Gaming Console	1
7	Digital Camera	1
8	External Hard Drive	1
9	Smart TV	1
10	Smartwatch	0
11	Smartphone X	0

Query executed successfully.

Ready NH361 / Nava Pu... Search 19:40 09-12-2023

9.

The screenshot shows the Microsoft SQL Server Management Studio interface. The Object Explorer pane on the left lists the database 'TechShop'. The central pane contains two queries:

```
--SQL query to find customers who have purchased a specific electronic gadget product. Allow users to input the product name as a parameter.  
DECLARE @ProductName varchar(100)  
SET @ProductName='Gaming Console'  
  
SELECT C.FirstName,C.LastName,P.ProductName,O.OrderID,P.ProductID  
FROM Customers C  
JOIN Orders O ON O.CustomerID=C.CustomerID  
JOIN OrderDetails OD ON OD.OrderID=O.OrderID  
JOIN Products P ON P.ProductID=OD.ProductID  
WHERE P.ProductName=@ProductName;  
  
--SQL query to calculate the total revenue generated by all orders placed within a specific time period. Allow users to input the start and end dates as parameters.
```

The 'Results' tab shows the output of the first query:

FirstName	LastName	ProductName	OrderID	ProductID
Raj	Kukani	Laptop Pro	102	2
Ruth	Kukani	Wireless Earbuds	102	3
Rey	Petri	Smartwatch	103	4
Sara	Khan	Tablet	104	5
Amit	Sharma	Bluetooth Speaker	105	6
Amit	Sharma	Gaming Console	105	7
Anita	Singh	Digital Camera	106	8
Rahul	Gupta	External Hard Drive	107	9
Priya	Yadav	Smart TV	108	10

The status bar at the bottom indicates 'Query executed successfully.' and shows the system information: DESKTOP-8QHJLG6 (16.0 RTM) | DESKTOP-8QHJLG6\SCS (83) | TechShop | 00:00:00 | 9 rows.

10.

The screenshot shows the Microsoft SQL Server Management Studio interface. The Object Explorer pane on the left lists the database 'TechShop'. The central pane contains two queries:

```
--SQL query to calculate the total revenue generated by all orders placed within a specific time period. Allow users to input the start and end dates as parameters.  
DECLARE @StartDate DATE  
DECLARE @EndDate DATE  
SET @startDate='2023-12-02'  
SET @endDate='2023-12-06'  
SELECT SUM(O.TotalAmount*OD.Quantity) AS RevenueGenerated  
FROM Orders O  
JOIN OrderDetails OD ON OD.OrderID=O.OrderID  
WHERE OrderDate > @startDate AND OrderDate<@endDate;  
  
--SQL query to find out which customers have not placed any orders.
```

The 'Results' tab shows the output of the second query:

RevenueGenerated
6271

The status bar at the bottom indicates 'Query executed successfully.' and shows the system information: DESKTOP-8QHJLG6 (16.0 RTM) | DESKTOP-8QHJLG6\SCS (83) | TechShop | 00:00:00 | 1 rows.

# Task 4 Subquery and its Types

1.

The screenshot shows the Microsoft SQL Server Management Studio interface. In the Object Explorer, the connection is to DESKTOP-8QHJLG6 (SQL Server 16). In the center pane, there are two tabs: 'Assignment 1.sql - DESKTOP-8QHJLG6.TechShop (DESKTOP-8QHJLG6\SCS (69))' and 'SQLQuery1.sql - DESKTOP-8QHJLG6\SCS (57)'. The SQLQuery1 tab contains the following query:

```
--SQL query to find the total number of orders placed by each customer and list their names along with the order count.
--
SELECT CustomerID, FirstName, LastName,
       (SELECT COUNT(*) FROM Orders WHERE Orders.CustomerID = Customers.CustomerID) AS OrderCount
FROM Customers;
```

The results pane shows a table with columns CustomerID, FirstName, LastName, and OrderCount. The data is as follows:

CustomerID	FirstName	LastName	OrderCount
1	Puri	Peeli	0
2	Rohit	Kukami	1
3	Ravi	Patil	1
4	Sara	Khan	1
5	Amit	Sharma	1
6	Anita	Singh	1
7	Rahul	Gupta	1
8	Priya	Yadav	1
9	Rajesh	Mehra	1
10	Neha	Shah	0
11	Rohit	Kukami	1

At the bottom of the results pane, a message says 'Query executed successfully.'

2.

The screenshot shows the Microsoft SQL Server Management Studio interface. In the Object Explorer, the connection is to DESKTOP-8QHJLG6 (SQL Server 16). In the center pane, there is one tab: 'Assignment 1.sql - DESKTOP-8QHJLG6.TechShop (DESKTOP-8QHJLG6\SCS (69))'. The query is:

```
SELECT
       (SELECT COUNT(*) FROM Products) AS TotalProductsAvailableForSale;
```

The results pane shows a table with one column 'TotalProductsAvailableForSale' containing the value 10. At the bottom of the results pane, a message says 'Query executed successfully.'

3.

Assignment 1.sql - DESKTOP-8QHILG6TechShop (DESKTOP-8QHILG6\SCS (69)) - Microsoft SQL Server Management Studio

```
SELECT CustomerID, FirstName, LastName
FROM Customers
WHERE CustomerID NOT IN (SELECT DISTINCT CustomerID FROM Orders);

--SQL query to find the total number of products available for sale.

SELECT SUM(QuantityInStock) AS ProductsAvailable
FROM Inventory;

--SQL query to calculate the total revenue generated by TechShop.

SELECT SUM(RevenueGenerated) AS TotalRevenue
FROM (
    SELECT O.TotalAmount * OD.Quantity AS RevenueGenerated
    FROM Orders O
    JOIN OrderDetails OD ON OD.OrderID = O.OrderID) AS TotalRevenue;
```

Results

TotalRevenue
7469

Query executed successfully.

DESKTOP-8QHILG6 (16.0 RTM) DESKTOP-8QHILG6\SCS (69) TechShop 00:00:00 1 rows

Ready 27°C Sunny 13:15 11-12-2023

4.

Assignment 1.sql - DESKTOP-8QHILG6TechShop (DESKTOP-8QHILG6\SCS (69)) - Microsoft SQL Server Management Studio

```
JOIN OrderDetails OD ON OD.OrderID = O.OrderID) AS TotalRevenue;

--SQL query to calculate the average quantity ordered for products in a specific category. Allow users to input the category name as a parameter.

DECLARE @CategoryName VARCHAR(30);
SET @CategoryName = 'Smart TV';
SELECT AVG(od.Quantity) AS AverageQuantityOrdered
FROM Orders O
JOIN OrderDetails OD ON OD.OrderID = O.OrderID
JOIN Products p ON od.ProductID = p.ProductID
WHERE p.ProductID IN (
    SELECT ProductID
    FROM Products
    WHERE ProductName = @CategoryName
);

-- SQL query to calculate the total revenue generated by a specific customer. Allow users to input the customer ID as a parameter.

REPLACE AdventureworksLT..
```

Results

AverageQuantityOrdered
1

Query executed successfully.

DESKTOP-8QHILG6 (16.0 RTM) DESKTOP-8QHILG6\SCS (69) TechShop 00:00:00 1 rows

Ready 27°C Sunny 13:14 11-12-2023

5.

Assignment 1.sql - DESKTOP-8QHILG6.TechShop (DESKTOP-8QHILG6\SCS (69)) - Microsoft SQL Server Management Studio

```
SELECT * FROM Products;
-- SQL query to calculate the total revenue generated by a specific customer. Allow users to input the customer ID as a parameter.
DECLARE @CustomerID INT;
SET @CustomerID = 6;
SELECT c.CustomerID, c.FirstName, c.LastName, SUM(od.Quantity * p.Price) AS TotalRevenue
FROM
    Customers c
INNER JOIN
    Orders o ON c.CustomerID = o.CustomerID
INNER JOIN
    OrderDetails od ON o.OrderID = od.OrderID
INNER JOIN
    Products p ON od.ProductID = p.ProductID
WHERE
    c.CustomerID = @CustomerID
GROUP BY
    c.CustomerID, c.FirstName, c.LastName;
```

Results

CustomerID	FirstName	LastName	TotalRevenue
6	Anta	Singh	768

Query executed successfully.

6.

Assignment 1.sql - DESKTOP-8QHILG6.TechShop (DESKTOP-8QHILG6\SCS (69)) - Microsoft SQL Server Management Studio

```
--SQL query to find the customers who have placed the most orders. List their names and the number of orders they've placed.
SELECT TOP 1
    Customers.CustomerID,
    FirstName,
    LastName,
    OrderCount
FROM (
    SELECT
        CustomerID,
        COUNT(*) AS OrderCount
    FROM Orders
    GROUP BY CustomerID
) AS CustomerOrders
JOIN Customers ON CustomerOrders.CustomerID = Customers.CustomerID
ORDER BY OrderCount DESC;

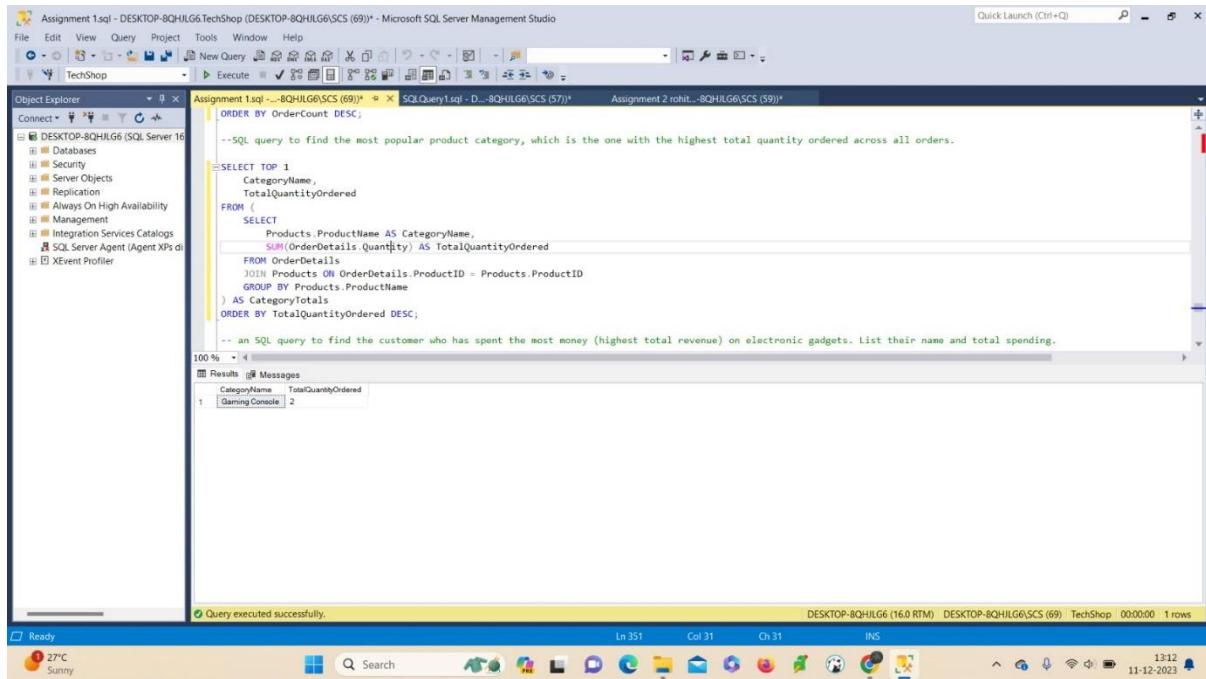
--SQL query to find the most popular product category, which is the one with the highest total quantity ordered across all orders.
```

Results

CustomerID	FirstName	LastName	OrderCount
2	Rohit	Kulkarni	1

Query executed successfully.

7.



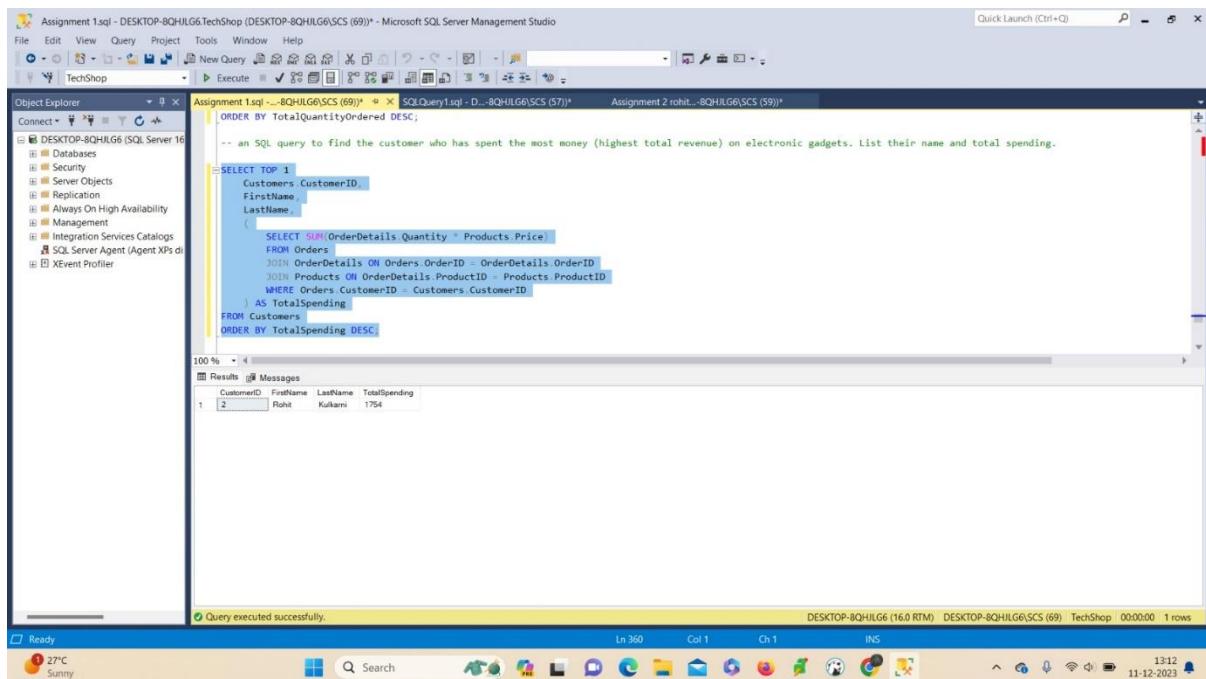
```
--SQL query to find the most popular product category, which is the one with the highest total quantity ordered across all orders.

SELECT TOP 1
    CategoryName,
    TotalQuantityOrdered
FROM (
    SELECT
        Products.ProductName AS CategoryName,
        SUM(OrderDetails.Quantity) AS TotalQuantityOrdered
    FROM OrderDetails
    JOIN Products ON OrderDetails.ProductID = Products.ProductID
    GROUP BY Products.ProductName
) AS CategoryTotals
ORDER BY TotalQuantityOrdered DESC;

-- an SQL query to find the customer who has spent the most money (highest total revenue) on electronic gadgets. List their name and total spending.
```

CategoryName	TotalQuantityOrdered
Gaming Console	2

8.



```
-- an SQL query to find the customer who has spent the most money (highest total revenue) on electronic gadgets. List their name and total spending.

SELECT TOP 1
    Customers.CustomerID,
    FirstName,
    LastName,
    (
        SELECT SUM(OrderDetails.Quantity * Products.Price)
        FROM Orders
        JOIN OrderDetails ON Orders.OrderID = OrderDetails.OrderID
        JOIN Products ON OrderDetails.ProductID = Products.ProductID
        WHERE Orders.CustomerID = Customers.CustomerID
    ) AS TotalSpending
FROM Customers
ORDER BY TotalSpending DESC;
```

CustomerID	FirstName	LastName	TotalSpending
2	Rohit	Kulkarni	1754

9.

Assignment 1.sql - DESKTOP-8QHILG6.TechShop (DESKTOP-8QHILG6\SCS (69)) - Microsoft SQL Server Management Studio

File Edit View Project Tools Window Help

New Query Execute

Assignment 1.sql - DESKTOP-8QHILG6\SCS (69)\* SQLQuery1.sql - DESKTOP-8QHILG6\SCS (57)\* Assignment 2 rohit..-8QHILG6\SCS (59)\*

Object Explorer

Connect Databases Security Server Objects Replication Always On High Availability Management Integration Services Catalogs SQL Server Agent (Agent XPs disabled) XEvent Profiler

Assignment 1.sql - DESKTOP-8QHILG6\SCS (69)\*

```
JOIN Products ON OrderDetails.ProductID = Products.ProductID
WHERE Orders.CustomerID = Customers.CustomerID
) AS TotalSpending
FROM Customers
ORDER BY TotalSpending DESC;
```

--SQL query to calculate the average order value (total revenue divided by the number of orders) for all customers.

```
SELECT CustomerID, FirstName, LastName,
(SELECT AVG(TotalAmount)
FROM Orders
WHERE Orders.CustomerID = Customers.CustomerID
) AS AverageOrderValue
FROM Customers;
```

Results

CustomerID	FirstName	LastName	AverageOrderValue
1	Raj	Pali	NULL
2	Rohit	Kukami	1449
3	Ravi	Pali	149
4	Sara	Khan	199
5	Amit	Sharma	499
6	Anita	Singh	79
7	Rahul	Gupta	499
8	Priya	Yadav	699
9	Rakesh	Mehra	89
10	Neha	Shah	NULL
11	Rohit	Kukami	999

Query executed successfully.

LN 376 Col 1 Ch 1 INS

DESKTOP-8QHILG6 (16.0 RTM) DESKTOP-8QHILG6\SCS (69) TechShop 00:00:00 11 rows

Ready 27°C Sunny 13:11 11-12-2023

10.

Assignment 1.sql - DESKTOP-8QHILG6.TechShop (DESKTOP-8QHILG6\SCS (69)) - Microsoft SQL Server Management Studio

File Edit View Project Tools Window Help

New Query Execute

Assignment 1.sql - DESKTOP-8QHILG6\SCS (69)\* SQLQuery1.sql - DESKTOP-8QHILG6\SCS (57)\* Assignment 2 rohit..-8QHILG6\SCS (59)\*

Object Explorer

Connect Databases Security Server Objects Replication Always On High Availability Management Integration Services Catalogs SQL Server Agent (Agent XPs disabled) XEvent Profiler

Assignment 1.sql - DESKTOP-8QHILG6\SCS (69)\*

```
--SQL query to find the total number of orders placed by each customer and list their names along with the order count.
```

```
SELECT CustomerID, FirstName, LastName,
(SELECT COUNT(*) FROM Orders WHERE Orders.CustomerID = Customers.CustomerID) AS OrderCount
FROM Customers;
```

Results

CustomerID	FirstName	LastName	OrderCount
1	Raj	Pali	0
2	Rohit	Kukami	1
3	Ravi	Pali	1
4	Sara	Khan	1
5	Amit	Sharma	1
6	Anita	Singh	1
7	Rahul	Gupta	1
8	Priya	Yadav	1
9	Rakesh	Mehra	1
10	Neha	Shah	0
11	Rohit	Kukami	1

Query executed successfully.

LN 392 Col 1 Ch 1 INS

DESKTOP-8QHILG6 (16.0 RTM) DESKTOP-8QHILG6\SCS (69) TechShop 00:00:00 11 rows

Ready 27°C Sunny 13:11 11-12-2023