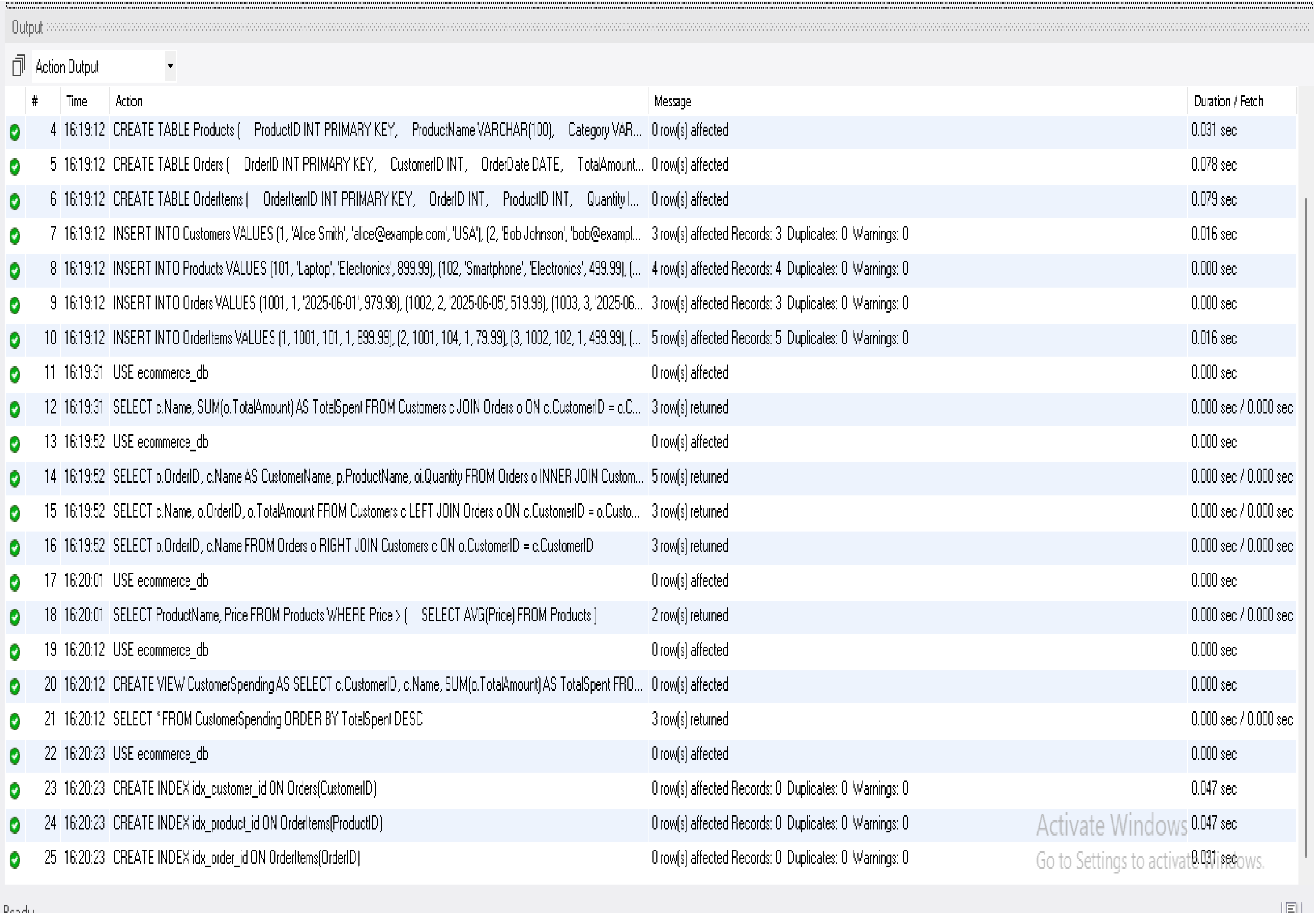
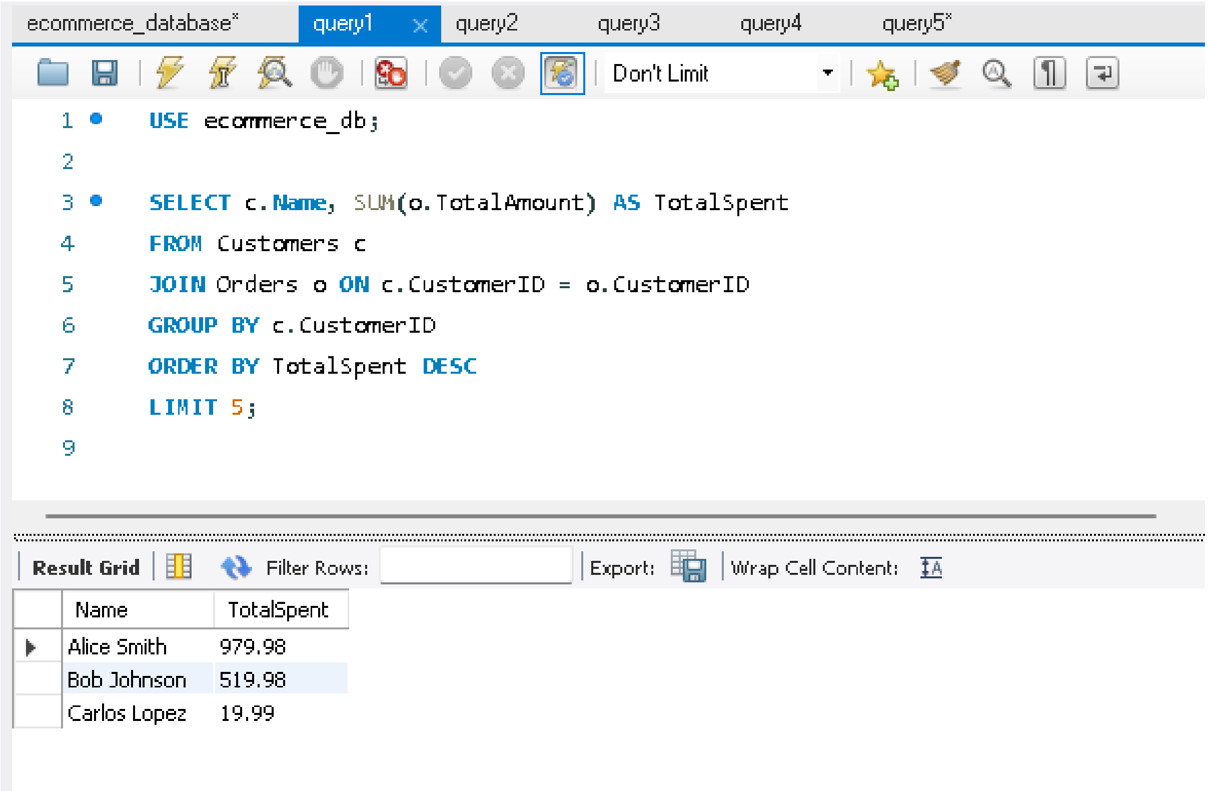


Output

Action Output

	#	Time	Action	Message	Duration / Fetch
✓	4	16:19:12	CREATE TABLE Products (ProductID INT PRIMARY KEY, ProductName VARCHAR(100), Category VAR...	0 row(s) affected	0.031 sec
✓	5	16:19:12	CREATE TABLE Orders (OrderID INT PRIMARY KEY, CustomerID INT, OrderDate DATE, TotalAmount...	0 row(s) affected	0.078 sec
✓	6	16:19:12	CREATE TABLE OrderItems (OrderItemID INT PRIMARY KEY, OrderID INT, ProductID INT, Quantity I...	0 row(s) affected	0.079 sec
✓	7	16:19:12	INSERT INTO Customers VALUES (1, 'Alice Smith', 'alice@example.com', 'USA'), (2, 'Bob Johnson', 'bob@exampl...	3 row(s) affected Records: 3 Duplicates: 0 Warnings: 0	0.016 sec
✓	8	16:19:12	INSERT INTO Products VALUES (101, 'Laptop', 'Electronics', 899.99), (102, 'Smartphone', 'Electronics', 499.99), (...	4 row(s) affected Records: 4 Duplicates: 0 Warnings: 0	0.000 sec
✓	9	16:19:12	INSERT INTO Orders VALUES (1001, 1, '2025-06-01', 979.98), (1002, 2, '2025-06-05', 519.98), (1003, 3, '2025-06...	3 row(s) affected Records: 3 Duplicates: 0 Warnings: 0	0.000 sec
✓	10	16:19:12	INSERT INTO OrderItems VALUES (1, 1001, 101, 1, 899.99), (2, 1001, 104, 1, 79.99), (3, 1002, 102, 1, 499.99), (...	5 row(s) affected Records: 5 Duplicates: 0 Warnings: 0	0.016 sec
✓	11	16:19:31	USE ecommerce_db	0 row(s) affected	0.000 sec
✓	12	16:19:31	SELECT c.Name, SUM(o.TotalAmount) AS TotalSpent FROM Customers c JOIN Orders o ON c.CustomerID = o.C...	3 row(s) returned	0.000 sec / 0.000 sec
✓	13	16:19:52	USE ecommerce_db	0 row(s) affected	0.000 sec
✓	14	16:19:52	SELECT o.OrderID, c.Name AS CustomerName, p.ProductName, oi.Quantity FROM Orders o INNER JOIN Custom...	5 row(s) returned	0.000 sec / 0.000 sec
✓	15	16:19:52	SELECT c.Name, o.OrderID, o.TotalAmount FROM Customers c LEFT JOIN Orders o ON c.CustomerID = o.Custo...	3 row(s) returned	0.000 sec / 0.000 sec
✓	16	16:19:52	SELECT o.OrderID, c.Name FROM Orders o RIGHT JOIN Customers c ON o.CustomerID = c.CustomerID	3 row(s) returned	0.000 sec / 0.000 sec
✓	17	16:20:01	USE ecommerce_db	0 row(s) affected	0.000 sec
✓	18	16:20:01	SELECT ProductName, Price FROM Products WHERE Price > (SELECT AVG(Price) FROM Products)	2 row(s) returned	0.000 sec / 0.000 sec
✓	19	16:20:12	USE ecommerce_db	0 row(s) affected	0.000 sec
✓	20	16:20:12	CREATE VIEW CustomerSpending AS SELECT c.CustomerID, c.Name, SUM(o.TotalAmount) AS TotalSpent FRO...	0 row(s) affected	0.000 sec
✓	21	16:20:12	SELECT * FROM CustomerSpending ORDER BY TotalSpent DESC	3 row(s) returned	0.000 sec / 0.000 sec
✓	22	16:20:23	USE ecommerce_db	0 row(s) affected	0.000 sec
✓	23	16:20:23	CREATE INDEX idx_customer_id ON Orders(CustomerID)	0 row(s) affected Records: 0 Duplicates: 0 Warnings: 0	0.047 sec
✓	24	16:20:23	CREATE INDEX idx_product_id ON OrderItems(ProductID)	0 row(s) affected Records: 0 Duplicates: 0 Warnings: 0	0.047 sec
✓	25	16:20:23	CREATE INDEX idx_order_id ON OrderItems(OrderID)	0 row(s) affected Records: 0 Duplicates: 0 Warnings: 0	0.031 sec

Ready

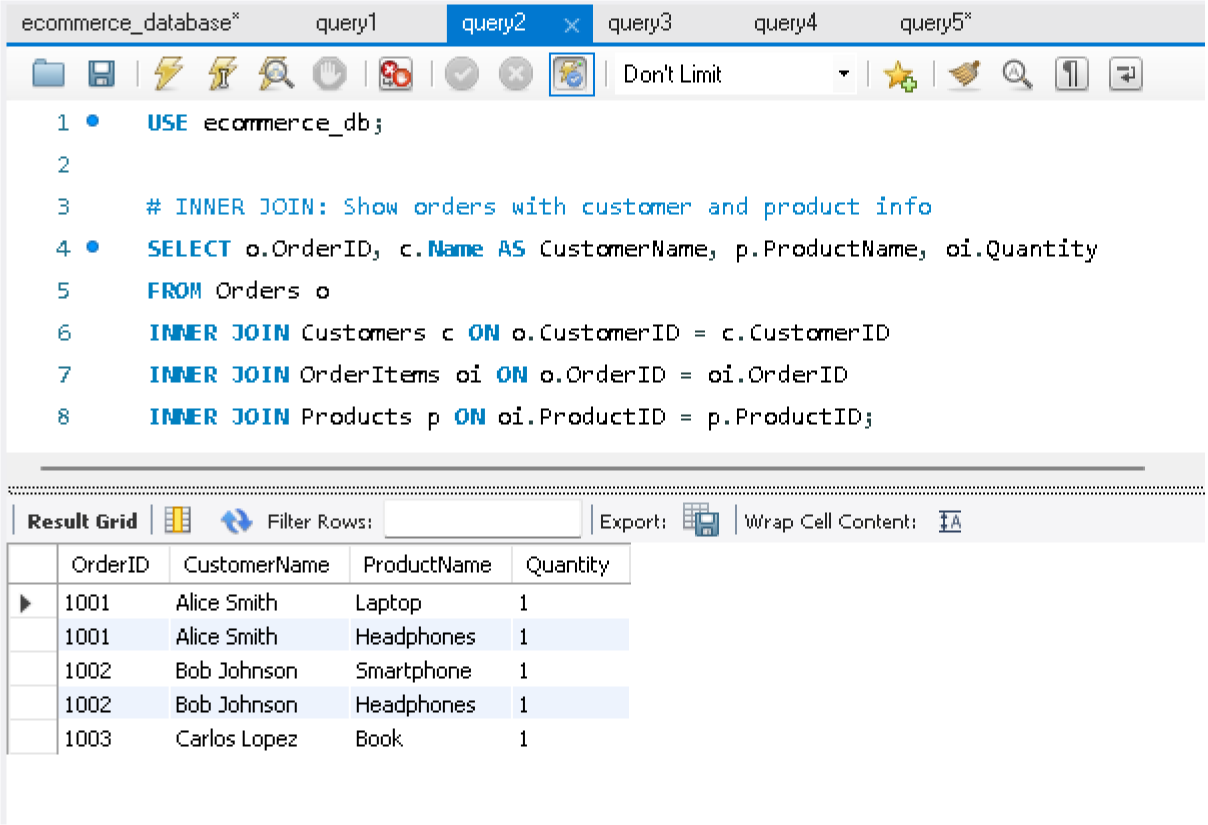


```sql
USE ecommerce_db;

SELECT c.Name, SUM(o.TotalAmount) AS TotalSpent
FROM Customers c
JOIN Orders o ON c.CustomerID = o.CustomerID
GROUP BY c.CustomerID
ORDER BY TotalSpent DESC
LIMIT 5;

```

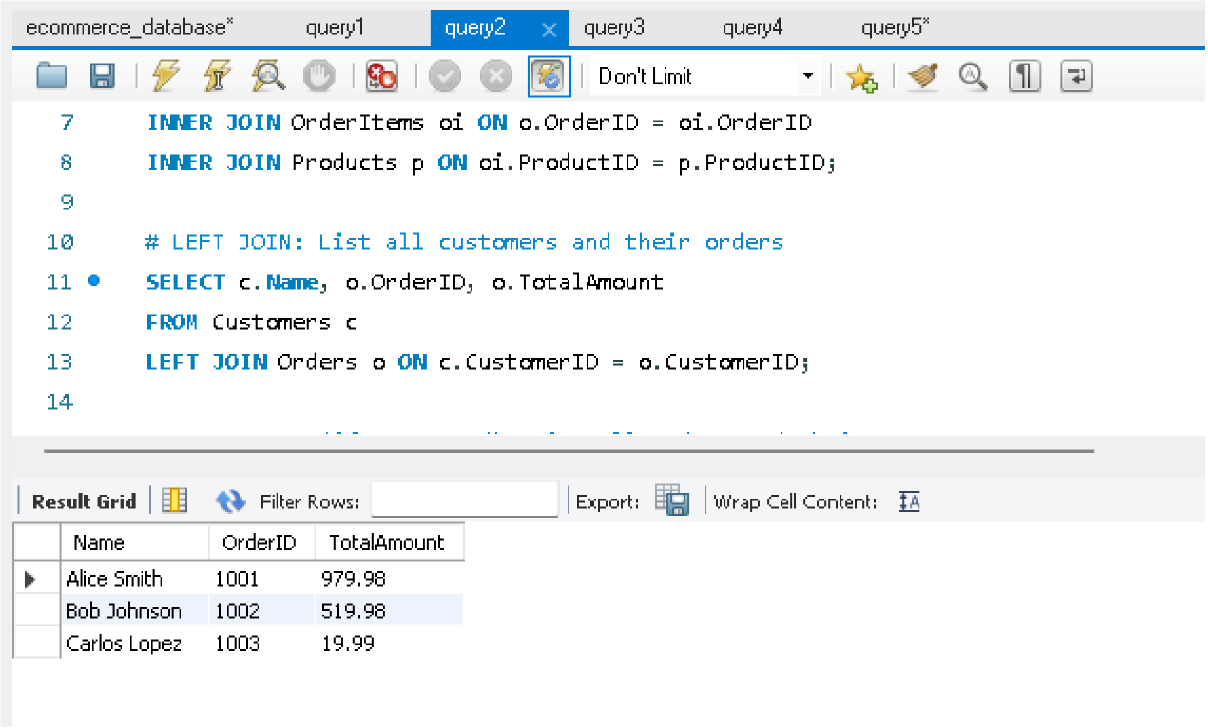
Name	TotalSpent
Alice Smith	979.98
Bob Johnson	519.98
Carlos Lopez	19.99



```sql
USE ecommerce_db;

# INNER JOIN: Show orders with customer and product info
SELECT o.OrderID, c.Name AS CustomerName, p.ProductName, oi.Quantity
FROM Orders o
INNER JOIN Customers c ON o.CustomerID = c.CustomerID
INNER JOIN OrderItems oi ON o.OrderID = oi.OrderID
INNER JOIN Products p ON oi.ProductID = p.ProductID;
```

OrderID	CustomerName	ProductName	Quantity
1001	Alice Smith	Laptop	1
1001	Alice Smith	Headphones	1
1002	Bob Johnson	Smartphone	1
1002	Bob Johnson	Headphones	1
1003	Carlos Lopez	Book	1

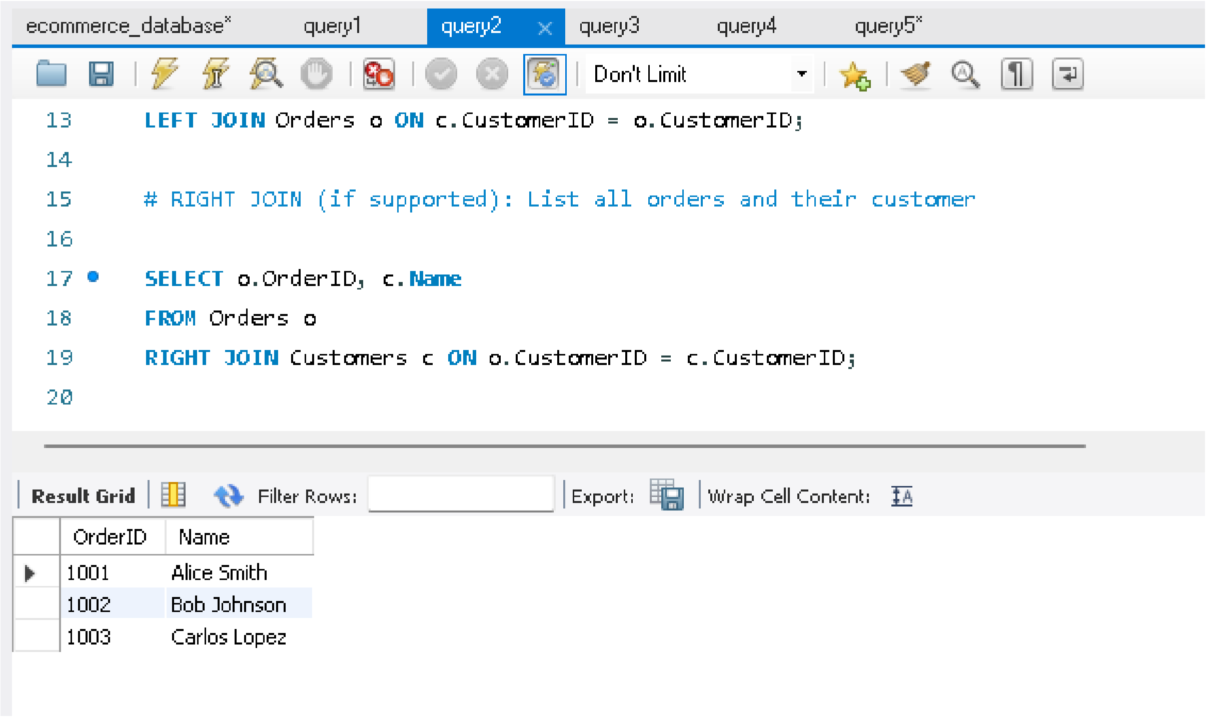


```sql
INNER JOIN OrderItems oi ON o.OrderID = oi.OrderID
INNER JOIN Products p ON oi.ProductID = p.ProductID;

# LEFT JOIN: List all customers and their orders
SELECT c.Name, o.OrderID, o.TotalAmount
FROM Customers c
LEFT JOIN Orders o ON c.CustomerID = o.CustomerID;

```

Name	OrderID	TotalAmount
Alice Smith	1001	979.98
Bob Johnson	1002	519.98
Carlos Lopez	1003	19.99



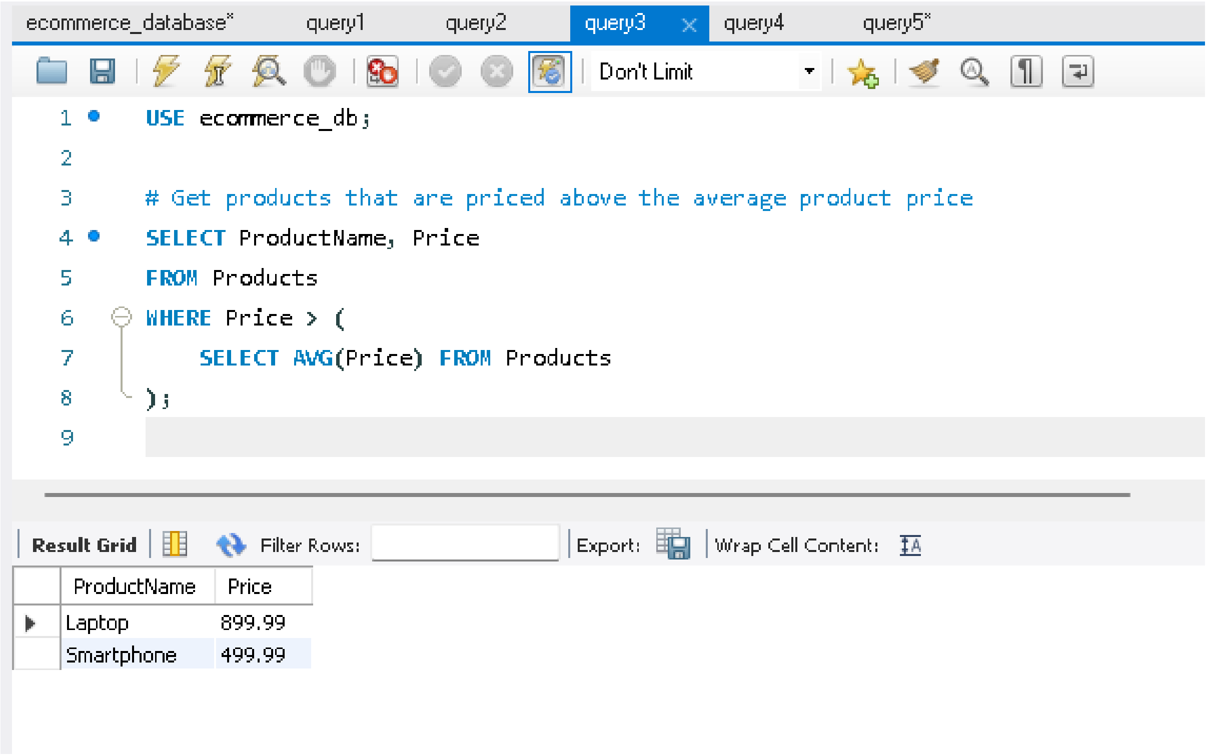
```sql
LEFT JOIN Orders o ON c.CustomerID = o.CustomerID;

# RIGHT JOIN (if supported): List all orders and their customer

SELECT o.OrderID, c.Name
FROM Orders o
RIGHT JOIN Customers c ON o.CustomerID = c.CustomerID;

```

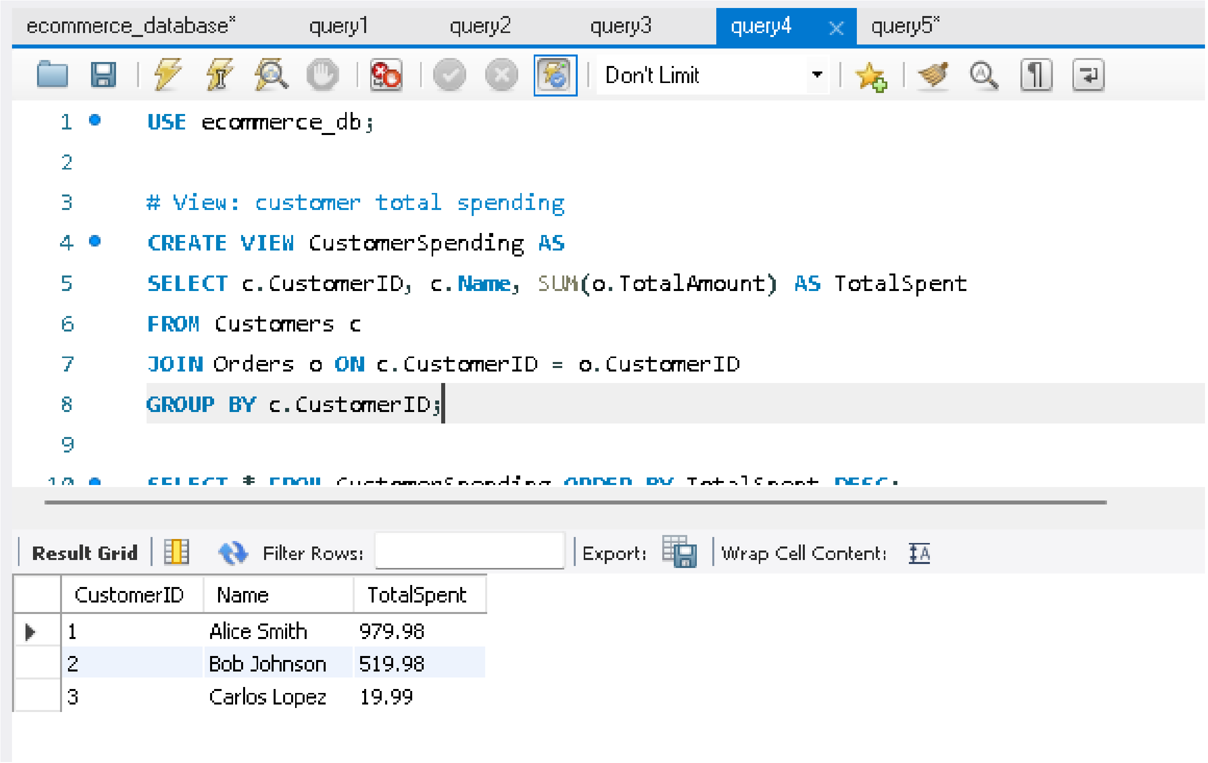
OrderID	Name
1001	Alice Smith
1002	Bob Johnson
1003	Carlos Lopez



```sql
USE ecommerce_db;

# Get products that are priced above the average product price
SELECT ProductName, Price
FROM Products
WHERE Price > (
    SELECT AVG(Price) FROM Products
);
```

ProductName	Price
Laptop	899.99
Smartphone	499.99

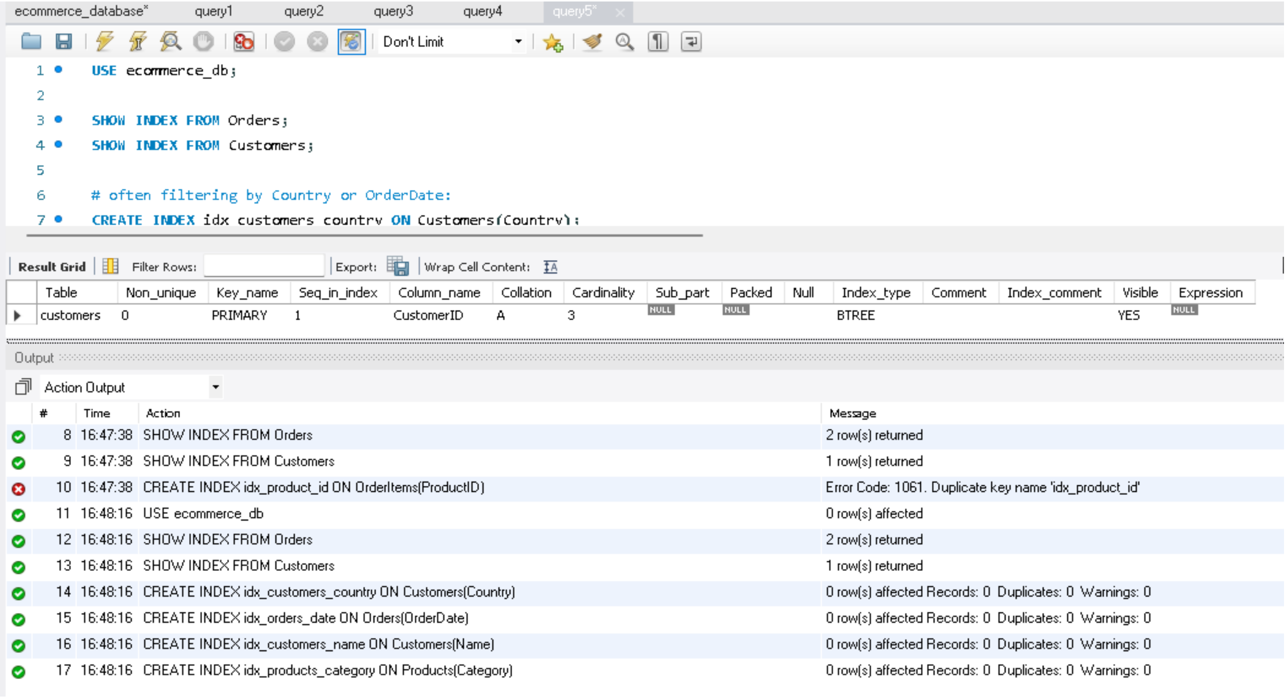


```sql
USE ecommerce_db;

# View: customer total spending
CREATE VIEW CustomerSpending AS
SELECT c.CustomerID, c.Name, SUM(o.TotalAmount) AS TotalSpent
FROM Customers c
JOIN Orders o ON c.CustomerID = o.CustomerID
GROUP BY c.CustomerID;

SELECT * FROM CustomerSpending ORDER BY TotalSpent DESC;
```

CustomerID	Name	TotalSpent
1	Alice Smith	979.98
2	Bob Johnson	519.98
3	Carlos Lopez	19.99



```sql
USE ecommerce_db;

SHOW INDEX FROM Orders;
SHOW INDEX FROM Customers;

# often filtering by Country or OrderDate:
CREATE INDEX idx_customers_country ON Customers(Country);
```

Table	Non_unique	Key_name	Seq_in_index	Column_name	Collation	Cardinality	Sub_part	Packed	Null	Index_type	Comment	Index_comment	Visible	Expression
customers	0	PRIMARY	1	CustomerID	A	3	NULL	NULL		BTREE			YES	NULL

```
   #  Time      Action                                                  Message
✓  8  16:47:38  SHOW INDEX FROM Orders                                  2 row(s) returned
✓  9  16:47:38  SHOW INDEX FROM Customers                               1 row(s) returned
✗ 10  16:47:38  CREATE INDEX idx_product_id ON OrderItems(ProductID)    Error Code: 1061. Duplicate key name 'idx_product_id'
✓ 11  16:48:16  USE ecommerce_db                                        0 row(s) affected
✓ 12  16:48:16  SHOW INDEX FROM Orders                                  2 row(s) returned
✓ 13  16:48:16  SHOW INDEX FROM Customers                               1 row(s) returned
✓ 14  16:48:16  CREATE INDEX idx_customers_country ON Customers(Country)  0 row(s) affected Records: 0  Duplicates: 0  Warnings: 0
✓ 15  16:48:16  CREATE INDEX idx_orders_date ON Orders(OrderDate)       0 row(s) affected Records: 0  Duplicates: 0  Warnings: 0
✓ 16  16:48:16  CREATE INDEX idx_customers_name ON Customers(Name)      0 row(s) affected Records: 0  Duplicates: 0  Warnings: 0
✓ 17  16:48:16  CREATE INDEX idx_products_category ON Products(Category)  0 row(s) affected Records: 0  Duplicates: 0  Warnings: 0
```