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## Lab-Module 5

### Step 1

The screenshot displays the SQL Server Enterprise Manager interface. The left pane shows the 'Databases' folder expanded, with 'MyGuitarShop' selected. The right pane shows a SQL query window with the following code:

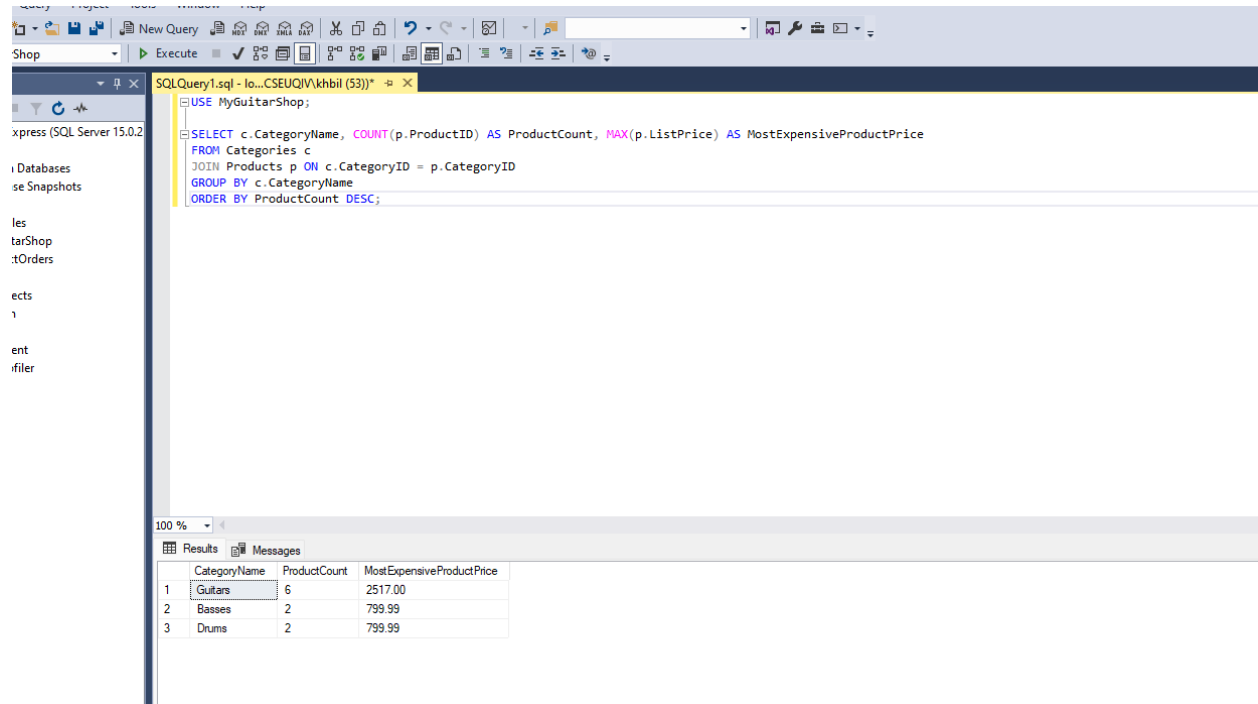
```
USE MyGuitarShop;  
  
SELECT COUNT(*) AS OrderCount, SUM(TaxAmount) AS TotalTaxAmount  
FROM Orders;
```

The query has been executed, and the results are shown in the bottom pane. The results table has two columns: 'OrderCount' and 'TotalTaxAmount'. The first row shows a count of 41 orders with a total tax amount of 2541.96.

	OrderCount	TotalTaxAmount
1	41	2541.96

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## Step 2



The screenshot shows the Microsoft SQL Server Enterprise Manager interface. The left pane displays the server hierarchy for 'MyGuitarShop' (SQL Server 15.0.2), including Databases, Snapshots, Files, Tables, Views, Functions, Procedures, Triggers, and Schemas. The right pane shows a SQL query in the 'SQLQuery1.sql' file:

```
USE MyGuitarShop;

SELECT c.CategoryName, COUNT(p.ProductID) AS ProductCount, MAX(p.ListPrice) AS MostExpensiveProductPrice
FROM Categories c
JOIN Products p ON c.CategoryID = p.CategoryID
GROUP BY c.CategoryName
ORDER BY ProductCount DESC;
```

Below the query editor, the 'Results' tab is active, displaying the following data:

	CategoryName	ProductCount	MostExpensiveProductPrice
1	Guitars	6	2517.00
2	Basses	2	799.99
3	Drums	2	799.99

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### Step 3

The screenshot displays the SQL Server Enterprise Manager interface. The left pane shows the 'Explorer' view with the 'MyGuitarShop' database selected. The central pane shows a SQL query in 'SQLQuery1.sql' that uses the 'MyGuitarShop' database and calculates item price totals and discount totals for each customer. The bottom pane shows the 'Results' tab with a table of 16 rows, each representing a customer's data.

```
USE MyGuitarShop;

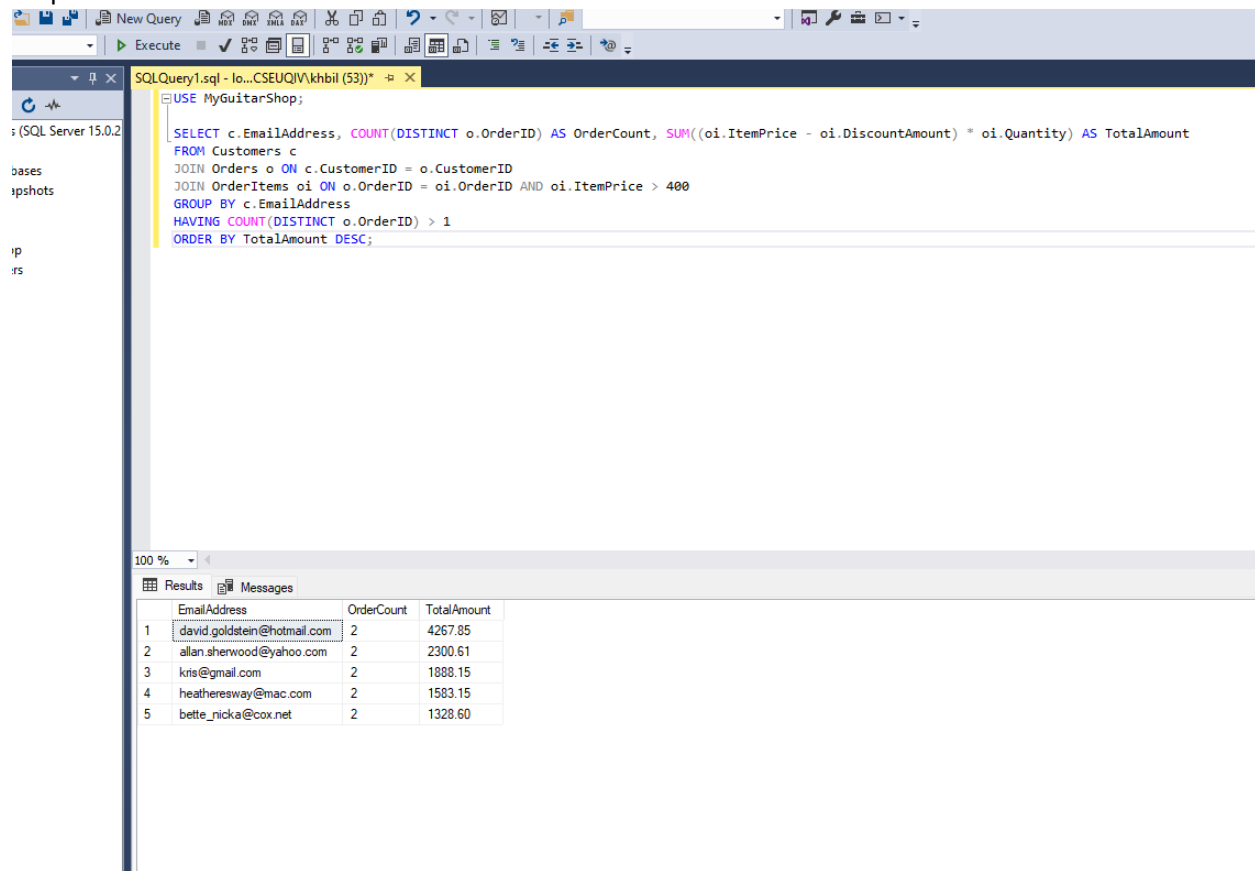
SELECT c.EmailAddress, SUM(oi.ItemPrice * oi.Quantity) AS ItemPriceTotal, SUM(oi.DiscountAmount * oi.Quantity) AS DiscountTotal
FROM Customers c
JOIN Orders o ON c.CustomerID = o.CustomerID
JOIN OrderItems oi ON o.OrderID = oi.OrderID
GROUP BY c.EmailAddress
ORDER BY ItemPriceTotal DESC;
```

	EmailAddress	ItemPriceTotal	DiscountTotal
1	david.goldstein@hotmail.com	6395.95	1829.10
2	allan.sherwood@yahoo.com	4131.00	1830.39
3	kris@gmail.com	3316.99	1428.84
4	yuki_whobrey@aol.com	3216.00	1518.54
5	heatheresway@mac.com	3016.99	1433.84
6	mroyster@royster.com	2517.00	1308.84
7	josephine_darakij@darakij.org	2517.00	1308.84
8	mattie@aol.com	2517.00	1308.84
9	gruta@cox.net	2398.00	719.40
10	lpaprocki@hotmail.com	2398.00	719.40
11	sage_wieser@cox.net	2398.00	719.40
12	christineb@solarone.com	2398.00	719.40
13	alisha@slusarski.com	2398.00	719.40
14	frankwilson@sbcglobal.net	2199.97	660.00
15	bette_nicka@cox.net	1898.00	569.40
16	chanel.caudy@caudy.org	1188.99	395.90

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## Step 4



The screenshot shows the SQL Server Enterprise Manager interface. The top pane displays a SQL query in the 'SQLQuery1.sql' file. The query is as follows:

```
USE MyGuitarShop;

SELECT c.EmailAddress, COUNT(DISTINCT o.OrderID) AS OrderCount, SUM((oi.ItemPrice - oi.DiscountAmount) * oi.Quantity) AS TotalAmount
FROM Customers c
JOIN Orders o ON c.CustomerID = o.CustomerID
JOIN OrderItems oi ON o.OrderID = oi.OrderID AND oi.ItemPrice > 400
GROUP BY c.EmailAddress
HAVING COUNT(DISTINCT o.OrderID) > 1
ORDER BY TotalAmount DESC;
```

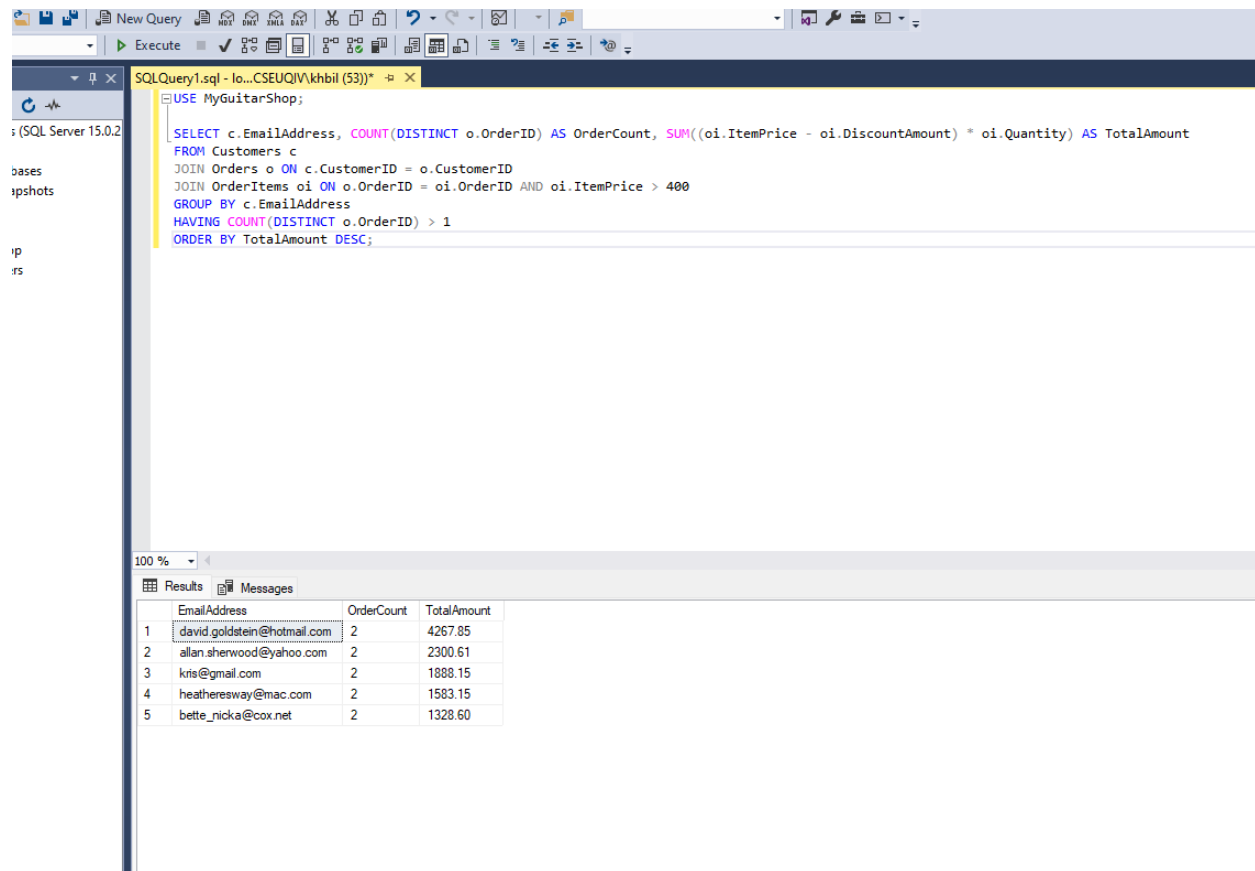
The bottom pane shows the 'Results' tab with a table containing 5 rows of data. The columns are EmailAddress, OrderCount, and TotalAmount.

	EmailAddress	OrderCount	TotalAmount
1	david.goldstein@hotmail.com	2	4267.85
2	allan.sherwood@yahoo.com	2	2300.61
3	kris@gmail.com	2	1888.15
4	heatheresway@mac.com	2	1583.15
5	bette_nicka@cox.net	2	1328.60

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## Step 5



The screenshot shows the SQL Server Enterprise Manager interface. The left pane displays the server hierarchy: 'rs' (SQL Server 15.0.2) > 'bases' > 'ipshots'. The right pane shows a new query window titled 'SQLQuery1.sql - lo...CSEUQIV\khbil (53)'. The query is as follows:

```
USE MyGuitarShop;

SELECT c.EmailAddress, COUNT(DISTINCT o.OrderID) AS OrderCount, SUM((oi.ItemPrice - oi.DiscountAmount) * oi.Quantity) AS TotalAmount
FROM Customers c
JOIN Orders o ON c.CustomerID = o.CustomerID
JOIN OrderItems oi ON o.OrderID = oi.OrderID AND oi.ItemPrice > 400
GROUP BY c.EmailAddress
HAVING COUNT(DISTINCT o.OrderID) > 1
ORDER BY TotalAmount DESC;
```

Below the query window, the 'Results' tab is active, displaying the following data:

	EmailAddress	OrderCount	TotalAmount
1	david.goldstein@hotmail.com	2	4267.85
2	allan.sherwood@yahoo.com	2	2300.61
3	kris@gmail.com	2	1888.15
4	heatheresway@mac.com	2	1583.15
5	bette_nicka@cox.net	2	1328.60

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## Step 6

The screenshot shows the Microsoft SQL Server Enterprise Manager interface. The top toolbar includes icons for New Query, Execute, and other database management functions. The left pane displays the server hierarchy for 'press (SQL Server 15.0.2)', including Databases, Snapshots, and various system tables like 'es', 'arShop', 'tOrders', 'cts', 'nt', and 'filer'. The main query editor window, titled 'SQLQuery1.sql - lo...CSEUQIV\khhil (53)', contains the following SQL code:

```
USE MyGuitarShop;  
  
SELECT p.ProductName, SUM((oi.ItemPrice - oi.DiscountAmount) * oi.Quantity) AS TotalAmount  
FROM Products p  
JOIN OrderItems oi ON p.ProductID = oi.ProductID  
GROUP BY p.ProductName WITH ROLLUP;
```

Below the query editor, the 'Results' tab is active, displaying the query output as a table with 11 rows and 2 columns: 'ProductName' and 'TotalAmount'. The first 10 rows list guitar and drum products with their respective total amounts. The 11th row, highlighted in yellow, shows 'NULL' for the product name and a total amount of 37292.42, which is the result of the ROLLUP operation.

	ProductName	TotalAmount
1	Fender Precision	5039.91
2	Fender Stratocaster	6850.20
3	Gibson Les Paul	10071.60
4	Gibson SG	8457.12
5	Hofner Icon	749.98
6	Ludwig 5-piece Drum Set with Cymbals	1469.97
7	Rodriguez Caballero 11	506.30
8	Tama 5-Piece Drum Set with Cymbals	2039.97
9	Washburn D10S	1196.00
10	Yamaha FG700S	911.37
11	NULL	37292.42

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## Step 7

The screenshot shows the SQL Server Enterprise Manager interface. The left pane displays the 'Databases' folder expanded, showing 'MyGuitarShop' and 'ProductOrders'. The right pane shows a SQL query in 'SQLQuery1.sql' with the following code:

```
USE MyGuitarShop;

SELECT c.EmailAddress, COUNT(DISTINCT oi.ProductID) AS ProductCount
FROM Customers c
JOIN Orders o ON c.CustomerID = o.CustomerID
JOIN OrderItems oi ON o.OrderID = oi.OrderID
GROUP BY c.EmailAddress
HAVING COUNT(DISTINCT oi.ProductID) > 1;
```

Below the query editor, the 'Results' tab is active, displaying a table with 9 rows of data:

	EmailAddress	ProductCount
1	allan.sherwood@yahoo.com	3
2	bette_nicka@cox.net	2
3	chanel.caudy@caudy.org	2
4	david.goldstein@hotmail.com	3
5	frankwilson@sbcglobal.net	2
6	heatheresway@mac.com	2
7	kris@gmail.com	2
8	simona@morasca.com	2
9	yuki_whobrey@aol.com	2