

## **Database Lab#4**



Session: 2022 – 2026

**Submitted by:**

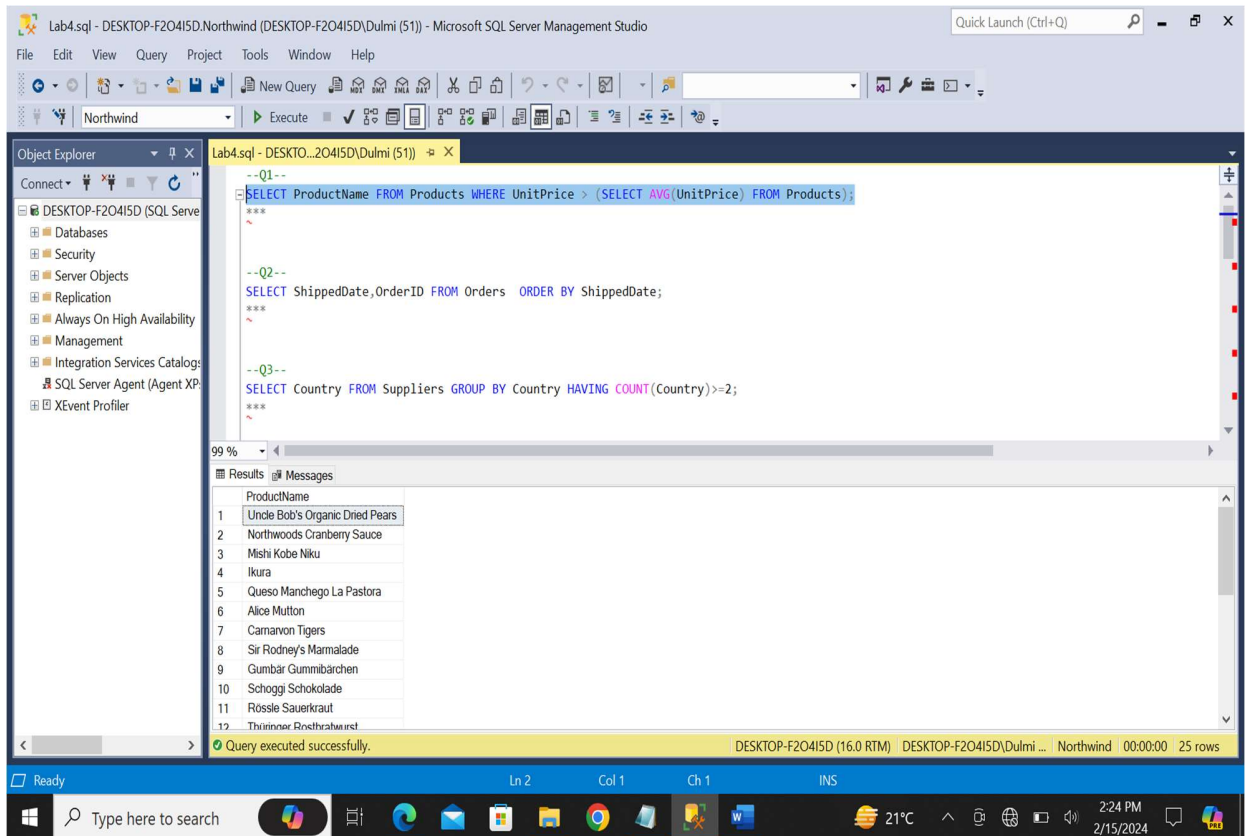
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- 1. List name of all the products whose price is above average. (Product Name)



The screenshot shows the Microsoft SQL Server Management Studio interface. The query editor contains three queries: Q1, Q2, and Q3. Query Q1 is selected and its results are displayed in the Results pane. The Results pane shows a table with one column, ProductName, and 12 rows of data. The status bar at the bottom indicates that the query was executed successfully and returned 25 rows.

```
--Q1--
SELECT ProductName FROM Products WHERE UnitPrice > (SELECT AVG(UnitPrice) FROM Products);
***

--Q2--
SELECT ShippedDate, OrderID FROM Orders ORDER BY ShippedDate;
***

--Q3--
SELECT Country FROM Suppliers GROUP BY Country HAVING COUNT(Country) >= 2;
***
```

ProductName
1 Uncle Bob's Organic Dried Pears
2 Northwoods Cranberry Sauce
3 Mishi Kobe Niku
4 Ikura
5 Queso Manchego La Pastora
6 Alice Mutton
7 Carnarvon Tigers
8 Sir Rodney's Marmalade
9 Gumbär Gummibärchen
10 Schoggi Schokolade
11 Rössle Sauerkraut
12 Thüringer Rostbratwurst

Query executed successfully. DESKTOP-F2O4I5D (16.0 RTM) DESKTOP-F2O4I5D\Dulmi ... Northwind 00:00:00 25 rows

- 2. Write a query to generate report showing date wise orders shipped. (ShippedDate, numeroforders)

Lab4.sql - DESKTOP-F2O4I5D.Northwind (DESKTOP-F2O4I5D\Dulmi (51)) - Microsoft SQL Server Management Studio

Object Explorer: DESKTOP-F2O4I5D (SQL Server) > Databases > Northwind

Query: Lab4.sql - DESKTOP-F2O4I5D\Dulmi (51) X

```
--Q1--
SELECT ProductName FROM Products WHERE UnitPrice > (SELECT AVG(UnitPrice) FROM Products);
***

--Q2--
SELECT ShippedDate, OrderID FROM Orders ORDER BY ShippedDate;
***

--Q3--
SELECT Country FROM Suppliers GROUP BY Country HAVING COUNT(Country) >= 2;
***
```

Results: 99 %

	ShippedDate	OrderID
1	NULL	11008
2	NULL	11019
3	NULL	11040
4	NULL	11045
5	NULL	11051
6	NULL	11054
7	NULL	11058
8	NULL	11059
9	NULL	11061
10	NULL	11062
11	NULL	11068
12	NULL	11070

Query executed successfully. DESKTOP-F2O4I5D (16.0 RTM) DESKTOP-F2O4I5D\Dulmi ... Northwind 00:00:00 707 rows

- 3. List name of all countries from where two or more suppliers belong to. (Country)

Lab4.sql - DESKTOP-F2O4I5D.Northwind (DESKTOP-F2O4I5D\Dulmi (51)) - Microsoft SQL Server Management Studio

Object Explorer: DESKTOP-F2O4I5D (SQL Server) > Databases > Northwind

Query: Lab4.sql - DESKTOP-F2O4I5D\Dulmi (51) X

```
SELECT ShippedDate, OrderID FROM Orders ORDER BY ShippedDate;
***

--Q3--
SELECT Country FROM Suppliers GROUP BY Country HAVING COUNT(Country) >= 2;
***

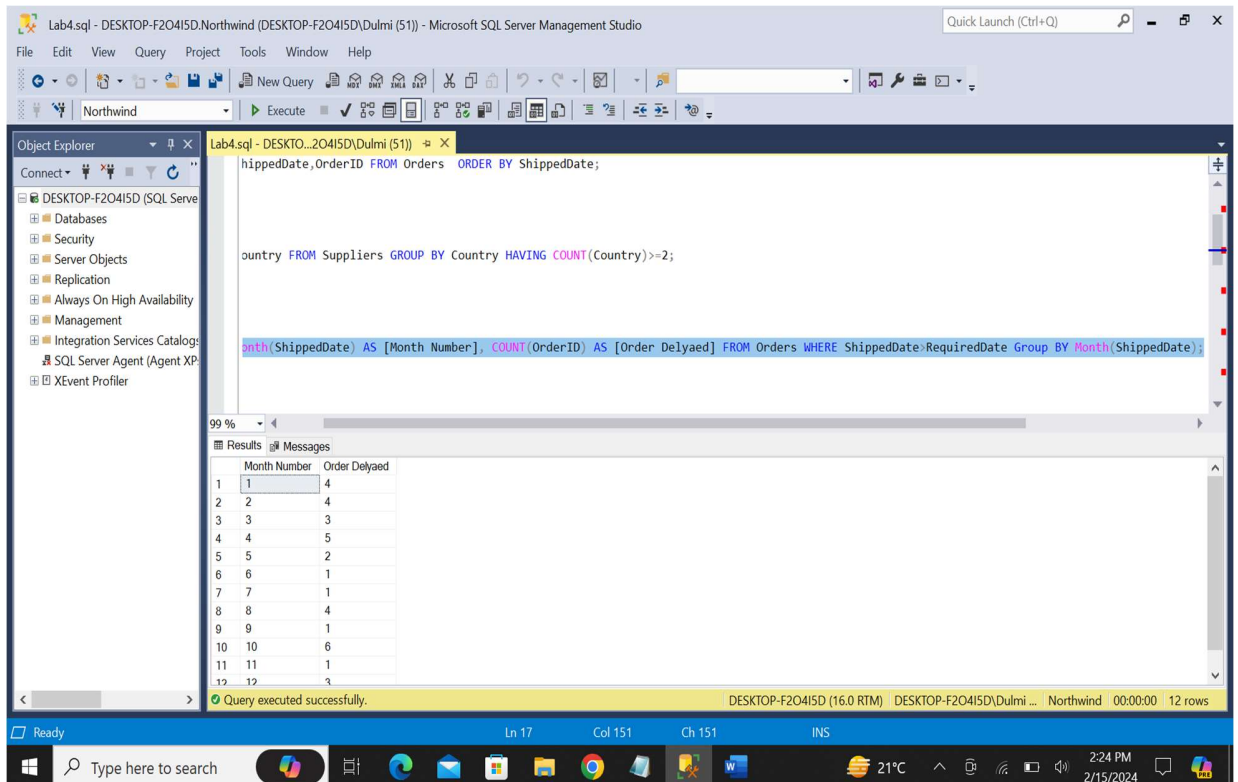
--Q4--
SELECT Month(ShippedDate) AS [Month Number], COUNT(OrderID) AS [Order Delayed] FROM Orders WHERE ShippedDate > RequiredDate Group BY Month(ShippedDate);
***
```

Results: 99 %

	Country
1	Australia
2	Canada
3	France
4	Germany
5	Italy
6	Japan
7	Sweden
8	UK
9	USA

Query executed successfully. DESKTOP-F2O4I5D (16.0 RTM) DESKTOP-F2O4I5D\Dulmi ... Northwind 00:00:00 9 rows

- 4. Write a query to generate report showing month wise orders delayed shipped. Your output should look like this (Month Number, Orders Delayed).



The screenshot shows the Microsoft SQL Server Enterprise Manager interface. The query editor displays the following SQL query:

```

SELECT ShippedDate, OrderID FROM Orders ORDER BY ShippedDate;

Country FROM Suppliers GROUP BY Country HAVING COUNT(Country) >= 2;

Month(ShippedDate) AS [Month Number], COUNT(OrderID) AS [Order Delayed] FROM Orders WHERE ShippedDate > RequiredDate Group BY Month(ShippedDate);

```

The Results pane shows the output of the query, displaying a table with two columns: Month Number and Order Delayed. The data is as follows:

Month Number	Order Delayed
1	4
2	4
3	3
4	5
5	2
6	1
7	1
8	4
9	1
10	6
11	1
12	3

The status bar at the bottom indicates "Query executed successfully." and "12 rows".

- 5. Report all the orders which have been discounted. Your result should show the total discount against each order. Output should look like this (Order ID, Discount).

The screenshot shows the Microsoft SQL Server Management Studio interface. The query editor contains the following SQL code:

```
--Q4--
SELECT Month(ShippedDate) AS [Month Number], COUNT(OrderID) AS [Order Delayed] FROM Orders WHERE ShippedDate>RequiredDate Group BY Month(Shipp
***

--Q5--
SELECT OrderID, SUM(Discount) AS Discount FROM [Order Details] WHERE Discount>0 GROUP BY OrderID;
***

--Q6--
SELECT ShipCity, COUNT(OrderID) AS [Number of Orders] FROM Orders WHERE ShipCountry='USA' AND YEAR(ShippedDate)='1997' GROUP BY ShipCity;
***
```

The Results pane shows the output of the query:

OrderID	Discount
10250	0.300000011920929
10251	0.100000001490116
10252	0.100000001490116
10254	0.300000011920929
10260	0.75
10262	0.200000002980232
10263	0.75
10264	0.150000005960464
10266	0.0500000007450581
10267	0.300000011920929
10269	0.100000001490116
10273	0.200000002980232

Query executed successfully. DESKTOP-F2O4I5D (16.0 RTM) DESKTOP-F2O4I5D\Dulmi ... Northwind 00:00:00 324 rows

- 6. Write a query to list the number of orders which were shipped in the cities of USA in 1997. Show the number of order against each city. (Ship City, Number of orders)

The screenshot shows the Microsoft SQL Server Management Studio interface. The query editor contains the following SQL code:

```
--Q6--
SELECT ShipCity, COUNT(OrderID) AS [Number of Orders] FROM Orders WHERE ShipCountry='USA' AND YEAR(ShippedDate)='1997' GROUP BY ShipCity;
***

--Q7--
SELECT ShipCountry AS Country, COUNT(ShippedDate) AS [Orders Delayed] FROM Orders WHERE ShippedDate>RequiredDate GROUP BY ShipCountry;
***

--Q8--
SELECT OrderID, SUM(Discount) AS Discount, SUM(UnitPrice*Quantity) AS [Total Price] FROM [Order Details] WHERE Discount>0 GROUP BY OrderID;
***
```

The Results pane shows the output of the query:

ShipCity	Number of Orders
1 Albuquerque	4
2 Anchorage	3
3 Boise	16
4 Butte	2
5 Elgin	3
6 Eugene	5
7 Kirkland	2
8 Lander	2
9 Portland	3
10 San Francisco	2
11 Seattle	7
12 Walla Walla	1

Query executed successfully. DESKTOP-F2O4I5D (16.0 RTM) DESKTOP-F2O4I5D\Dulmi ... Northwind 00:00:00 12 rows

- 7. Write a query to generate report showing country wise orders delayed shipped. Your output should look like this: (Country, Orders Delays)

The screenshot shows the Microsoft SQL Server Management Studio interface. The query editor contains three SQL queries labeled --Q6--, --Q7--, and --Q8--. The results pane shows the output of the --Q7-- query, which is a table with two columns: Country and Orders Delayed. The table contains 12 rows of data.

```
--Q6--
SELECT ShipCity, COUNT(OrderID) AS [Number of Orders] FROM Orders WHERE ShipCountry='USA' AND YEAR(ShippedDate)='1997' GROUP BY ShipCity;
***

--Q7--
SELECT ShipCountry AS Country, COUNT(ShippedDate) AS [Orders Delayed] FROM Orders WHERE ShippedDate>RequiredDate GROUP BY ShipCountry;
***

--Q8--
SELECT OrderID, SUM(Discount) AS Discount, SUM(UnitPrice*Quantity) AS [Total Price] FROM [Order Details] WHERE Discount>0 GROUP BY OrderID;
***
```

Country	Orders Delayed
1 Argentina	1
2 Austria	1
3 Belgium	1
4 Brazil	2
5 Finland	1
6 France	2
7 Germany	4
8 Ireland	3
9 Italy	2
10 Portugal	1
11 Spain	1
12 Sweden	3

Query executed successfully. DESKTOP-F2O4I5D (16.0 RTM) DESKTOP-F2O4I5D\Dulmi ... Northwind 00:00:00 15 rows

- 8. Report all the orders which have been discounted with total price of order. Your result should show the total discount against each order. Output should look like this: (Order ID, Discount, Total Price)

The screenshot shows the Microsoft SQL Server Management Studio interface. The title bar indicates the file is 'Lab4.sql' located at 'DESKTOP-F2O4ISD.Northwind (DESKTOP-F2O4ISD\Dulmi (51))'. The interface includes a menu bar (File, Edit, View, Query, Project, Tools, Window, Help), a toolbar, and a sidebar with 'Object Explorer' showing the server structure for 'DESKTOP-F2O4ISD (SQL Server)'. The main query editor contains two SQL queries. The first query, labeled '--Q7--', is a SELECT statement that groups orders by ship country and counts the number of delayed orders. The second query, labeled '--Q8--', is a SELECT statement that calculates the total price for each order by summing the discount and the product of unit price and quantity. Below the query editor, the 'Results' pane displays the output of the second query as a table with three columns: OrderID, Discount, and Total Price. The status bar at the bottom indicates that the query was executed successfully, returning 324 rows.

```

--Q7--
SELECT ShipCountry AS Country, COUNT(ShippedDate) AS [Orders Delayed] FROM Orders WHERE ShippedDate>RequiredDate GROUP BY ShipCountry;

--Q8--
SELECT OrderID, SUM(Discount) AS Discount, SUM(UnitPrice*Quantity) AS [Total Price] FROM [Order Details] WHERE Discount>0 GROUP BY OrderID;

```

OrderID	Discount	Total Price
10250	0.3000000011920929	1736.00
10251	0.100000001490116	334.80
10252	0.100000001490116	2642.00
10254	0.3000000011920929	457.20
10260	0.75	966.20
10262	0.200000002980232	204.00
10263	0.75	2364.00
10264	0.150000005960464	192.50
10266	0.050000007450581	364.80
10267	0.3000000011920929	3296.00
10269	0.100000001490116	676.00
10273	0.200000002980232	2102.40

Query executed successfully. DESKTOP-F2O4ISD (16.0 RTM) | DESKTOP-F2O4ISD\Dulmi ... | Northwind | 00:00:00 | 324 rows

- 9. Write a query to list the number of orders which were shipped in the cities of each region in 1997. Show the number of order against each city. Your results should look like this: (ShipRegion, ShipCity, Numberoforders)



The screenshot shows the Microsoft SQL Server Management Studio interface. The title bar indicates the file 'Lab4.sql' is open on the 'Northwind' database. The 'Object Explorer' on the left shows the 'Northwind' database structure. The 'Query Editor' in the center contains two SQL queries. The first query, labeled '--Q8--', is a SELECT statement that groups data by OrderID, showing the sum of discounts and the total price. The second query, labeled '--Q9--', is a SELECT statement that groups data by ShipRegion, showing the count of orders for each region in the year 1997. The 'Results' pane at the bottom displays the output of the second query as a table with three columns: ShipRegion, ShipCity, and Orders. The status bar at the bottom indicates that the query was executed successfully and returned 25 rows.

```
--Q8--
SELECT OrderID, SUM(Discount) AS Discount, SUM(UnitPrice*Quantity) AS [Total Price] FROM [Order Details] WHERE Discount>0 GROUP BY OrderID;
***

--Q9--
SELECT ShipRegion, ShipCity, COUNT(OrderID) AS Orders FROM Orders WHERE YEAR(ShippedDate)='1997' AND ShipRegion IS NOT NULL GROUP BY ShipRegion;
***
```

ShipRegion	ShipCity	Orders
NM	Albuquerque	4
AK	Anchorage	3
Lara	Barquisimeto	3
ID	Boise	16
MT	Butte	2
SP	Campinas	5
Essex	Colchester	3
Co. Cork	Cork	10
Isle of Wight	Cowes	3
OR	Elgin	3
OR	Eugene	5
Nueva Farnata	La Marmarita	4

Query executed successfully. DESKTOP-F2O4ISD (16.0 RTM) DESKTOP-F2O4ISD\Dulmi ... Northwind 00:00:00 25 rows