



UNIVERSITY OF ENGINEERING AND TECHNOLOGY, LAHORE

DATABASE LAB 6

Submitted by:

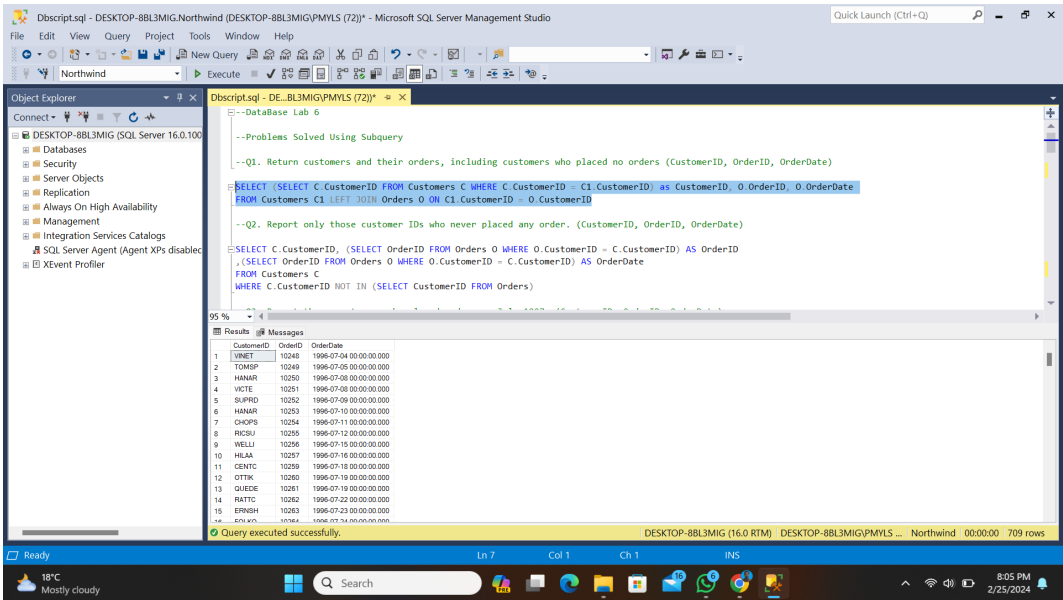
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2022-CS-1

Supervised by:

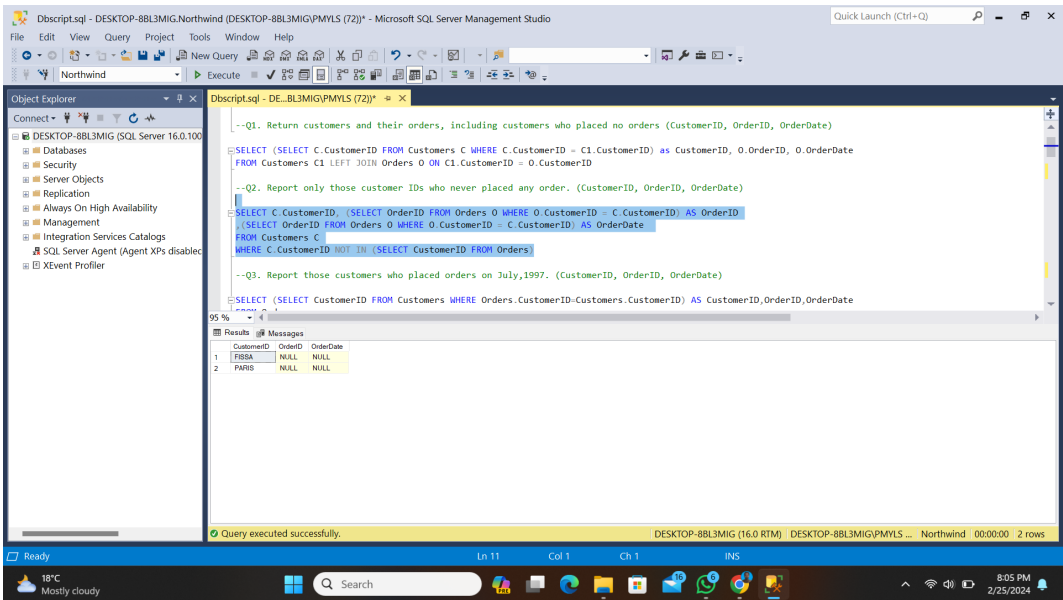
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Q1: Return customers and their orders, including customers who placed no orders (CustomerID, OrderID, OrderDate)



Q2: Report only those customer IDs who never placed any order. (CustomerID, OrderID, OrderDate)



Q3: Report those customers who placed orders on July,1997. (CustomerID, OrderID, OrderDate)

The screenshot shows the Microsoft SQL Server Enterprise Manager interface. The query window displays the following SQL code for Q3:

```
--Q3. Report those customers who placed orders on July,1997. (CustomerID, OrderID, OrderDate)
SELECT (SELECT CustomerID FROM Customers WHERE Orders.CustomerID=Customers.CustomerID) AS CustomerID,OrderID,OrderDate
FROM Orders
GROUP BY OrderID,OrderDate, CustomerID
HAVING YEAR(OrderDate)=1997 and MONTH(OrderDate)=7
ORDER BY OrderID;
```

The Results pane shows the following data:

CustomerID	OrderID	OrderDate
1	10585	1997-07-01 00:00:00.000
2	10586	1997-07-02 00:00:00.000
3	10588	1997-07-03 00:00:00.000
4	10589	1997-07-04 00:00:00.000
5	10590	1997-07-07 00:00:00.000
6	10592	1997-07-08 00:00:00.000
7	10593	1997-07-09 00:00:00.000
8	10594	1997-07-09 00:00:00.000
9	10595	1997-07-10 00:00:00.000
10	10596	1997-07-11 00:00:00.000
11	10597	1997-07-11 00:00:00.000
12	10599	1997-07-15 00:00:00.000
13	10600	1997-07-16 00:00:00.000
14	10601	1997-07-16 00:00:00.000
15	10602	1997-07-17 00:00:00.000

The status bar indicates the query executed successfully, returning 26 rows.

Q4: Report the total orders of each customer. (customerID, totalorders)

The screenshot shows the Microsoft SQL Server Enterprise Manager interface. The query window displays the following SQL code for Q4:

```
--Q4. Report the total orders of each customer. (customerID, totalorders)
SELECT C.CustomerID, (SELECT Count(*) FROM Orders O WHERE O.CustomerID = C.CustomerID) AS totalorders
FROM Customers C
```

The Results pane shows the following data:

CustomerID	totalorders
1	4
2	4
3	6
4	10
5	14
6	7
7	11
8	3
9	14
10	12
11	9
12	6
13	1
14	7
15	4

The status bar indicates the query executed successfully, returning 91 rows.

Q5: Write a query to generate a five copies of each employee. (EmployeeID, FirstName, LastName)

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

```
--Q5. Write a query to generate a five copies of each employee. (EmployeeID, FirstName, LastName)
SELECT E.EmployeeID, E.FirstName, E.LastName
FROM Employees AS E
CROSS JOIN dbo.Products AS N
WHERE N.ProductID = 5
ORDER BY EmployeeID asc
```

The Results pane shows the output of the query, which is a table with three columns: EmployeeID, FirstName, and LastName. The data is as follows:

EmployeeID	FirstName	LastName
1	Andrew	Fulter
2	Andrew	Fulter
3	Andrew	Fulter
4	Andrew	Fulter
5	Andrew	Fulter
6	Janet	Leveling
7	Janet	Leveling
8	Janet	Leveling
9	Janet	Leveling
10	Janet	Leveling
11	Margaret	Peacock
12	Margaret	Peacock
13	Margaret	Peacock
14	Margaret	Peacock
15	Margaret	Peacock

The status bar at the bottom indicates "Query executed successfully." and "40 rows".

Q6: List all the products whose price is more than average price.

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

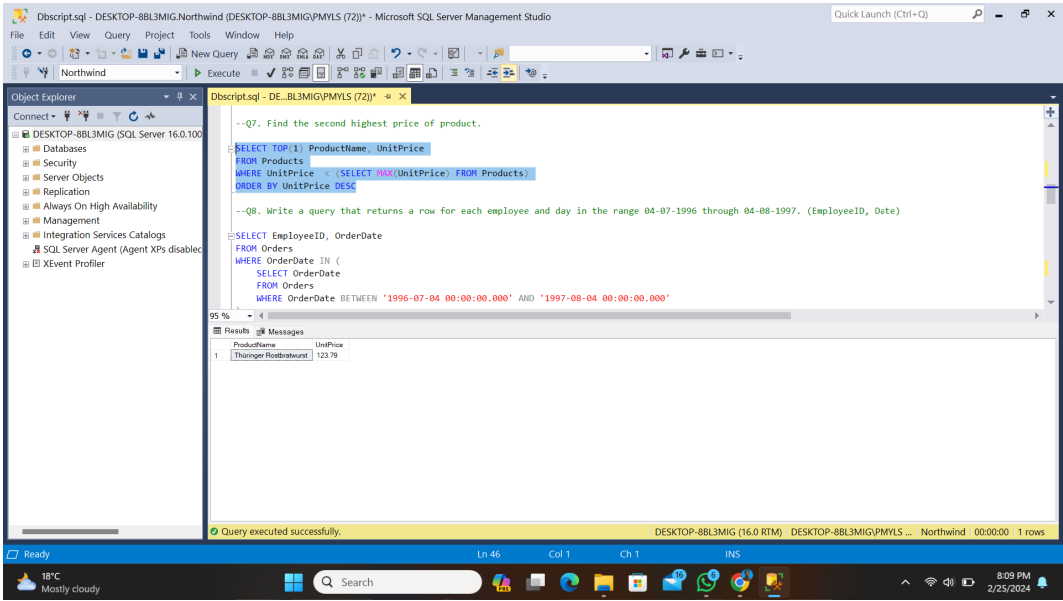
```
--Q6. List all the products whose price is more than average price.
SELECT ProductName
FROM Products
WHERE UnitPrice > (SELECT AVG(UnitPrice) FROM Products)
```

The Results pane shows the output of the query, which is a table with one column: ProductName. The data is as follows:

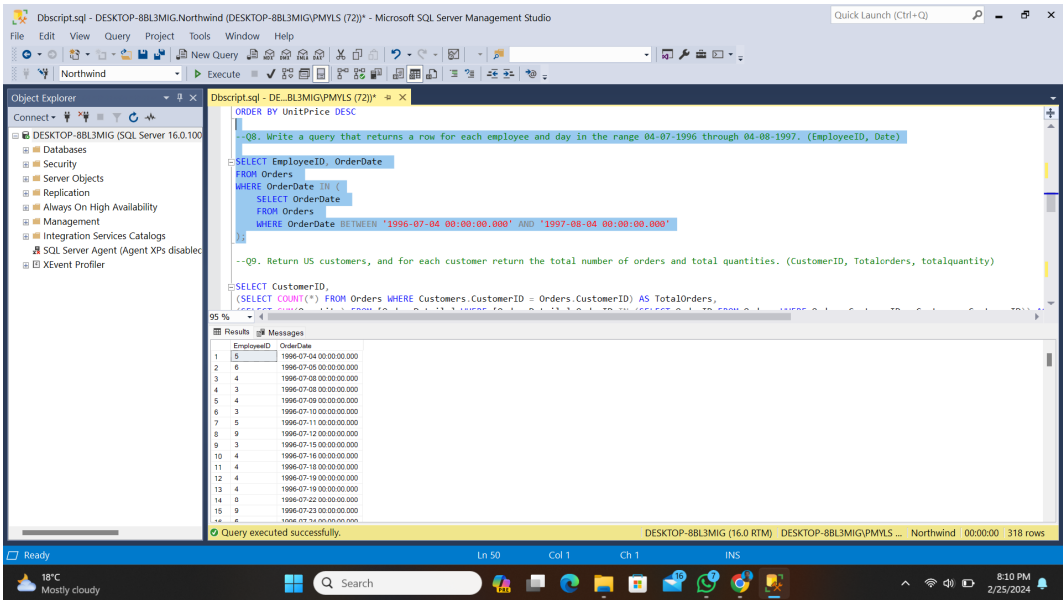
ProductName	
1	Uncle Bob's Organic Dried Pears
2	Northwoods Cranberry Sauce
3	Maha Kobe Niku
4	Rais
5	Guano Manchego La Pastora
6	Alice Mutton
7	Cameron Tigris
8	St. Paddy's Marmalade
9	Gumbier Gumbierchen
10	Schoggi Schokolade
11	Rosini Sausage
12	Thuringer Rostbratenwurst
13	Mascarpone Faboli
14	Oslo de Olive
15	Isch Coffee

The status bar at the bottom indicates "Query executed successfully." and "25 rows".

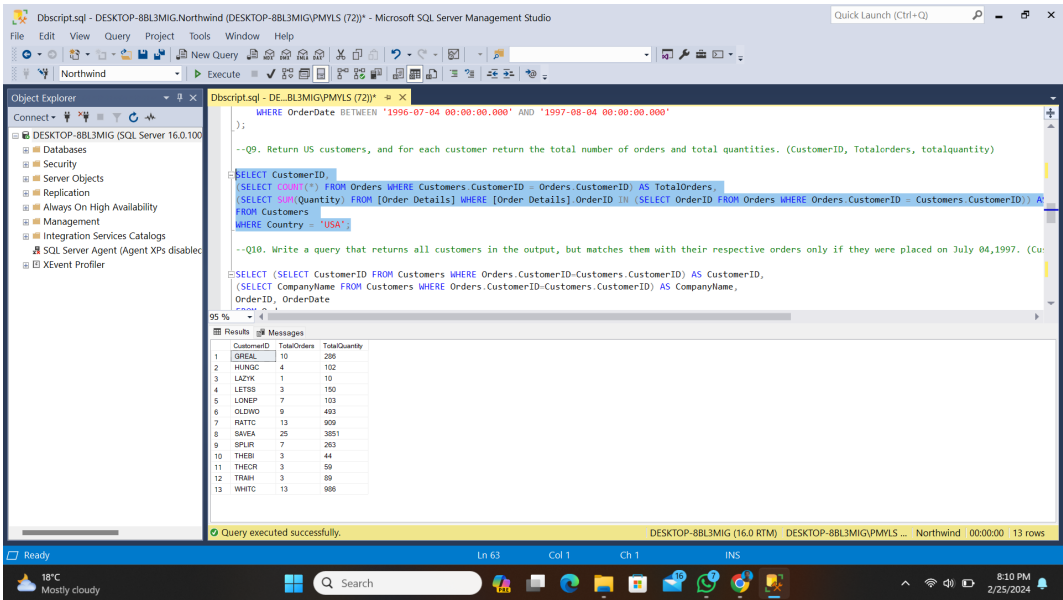
Q7: Find the second highest price of product.



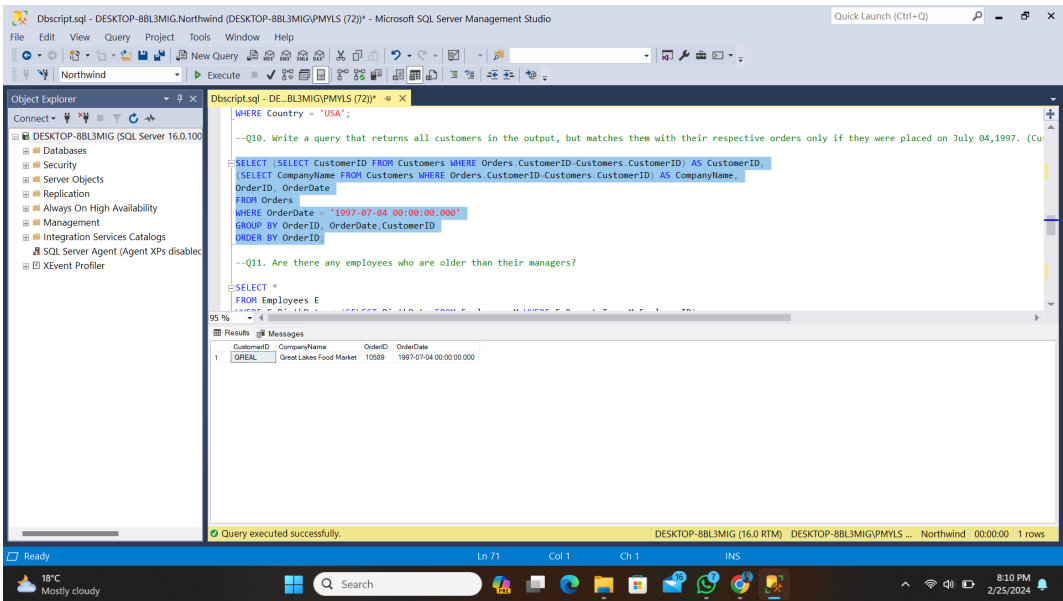
Q8: Write a query that returns a row for each employee and day in the range 04-07-1996 through 04-08-1997. (EmployeeID, Date)



Q9: Return US customers, and for each customer return the total number of orders and total quantities. (CustomerID, Totalorders, totalquantity)



Q10: Write a query that returns all customers in the output, but matches them with their respective orders only if they were placed on July 04,1997. (CustomerID, CompanyName, OrderID, Orderdate)



Q11: Are there any employees who are older than their managers?

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

```
--Q11. Are there any employees who are older than their managers?  
--Q12. List that names of those employees and their ages. (EmployeeName, Age, Manager Age)  
--Q13. List the names of products which were ordered on 8th August 1997. (ProductName, OrderDate)
```

The results pane shows a single row of data for the query:

EmployeeID	LastName	FirstName	Title	TitleOfCourtesy	BirthDate	HireDate	Address	City	Region	PostalCode	Country	HomePhone	Extension	Photo
4	Peacock	Margaret	Sales Representative	Mrs.	1937-09-19 00:00:00.000	1993-05-03 00:00:00.000	4110 Old Redmond Rd.	Redmond	WA	98052	USA	(206) 555-8122	5176	0x151C2F0020000000

Q12: List that names of those employees and their ages. (EmployeeName, Age, Manager Age)

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

```
--Q12. List that names of those employees and their ages. (EmployeeName, Age, Manager Age)  
--Q13. List the names of products which were ordered on 8th August 1997. (ProductName, OrderDate)  
--Q14. List the addresses, cities, countries of all orders which were serviced by Anne and were shipped late. (Address, City, Country)
```

The results pane shows a single row of data for the query:

EmployeeName	Age	ManagerAge
Margaret Peacock	87	72

Q13: List the names of products which were ordered on 8th August 1997. (ProductName, OrderDate)

The screenshot shows the Microsoft SQL Server Enterprise Manager interface. The Object Explorer on the left shows the 'Northwind' database. The Query window on the right contains the following SQL query:

```
--Q13. List the names of products which were ordered on 8th August 1997. (ProductName, OrderDate)
SELECT (SELECT P.ProductName FROM Products P WHERE P.ProductID = O.ProductID) AS ProductName,
(SELECT O.OrderDate FROM Orders O WHERE O.OrderID = O.OrderID) AS OrderDate
FROM [Order Details] OD
WHERE OD.OrderID = (SELECT OrderID FROM Orders WHERE OrderDate = '1997-08-08 00:00:00.000')
```

The Results pane shows the following data:

ProductID	ProductName	OrderDate
1	Tofu	1997-08-08 00:00:00.000
2	Singaporean Hokkien Fried Mee	1997-08-08 00:00:00.000
3	Canarmenbent Permut	1997-08-08 00:00:00.000

The status bar at the bottom indicates 'Query executed successfully.' and 'DESKTOP-8BL3MIG (16.0 RTM) DESKTOP-8BL3MIG/PMYLS ... Northwind 00:00:00 3 rows'.

Q14: List the addresses, cities, countries of all orders which were serviced by Anne and were shipped late. (Address, City, Country)

The screenshot shows the Microsoft SQL Server Enterprise Manager interface. The Query window on the right contains the following SQL query:

```
WHERE O.OrderID = (SELECT OrderID FROM Orders WHERE OrderDate = '1997-08-08 00:00:00.000')
--Q14. List the addresses, cities, countries of all orders which were serviced by Anne and were shipped late. (Address, City, Country)
SELECT ShipAddress AS Address, ShipCity AS City, ShipCountry AS Country
FROM Orders
WHERE EmployeeID IN (SELECT EmployeeID FROM Employees WHERE FirstName = 'Anne') AND ShippedDate > RequiredDate;
--Q15. List all countries to which beverages have been shipped. (Country)
SELECT DISTINCT o.ShipCountry
FROM Orders o
WHERE o.OrderID IN (
SELECT od.OrderID
FROM [Order Details] od
JOIN Products p ON p.ProductID = od.ProductID
```

The Results pane shows the following data:

Address	City	Country
8 Joliffen Road	Cork	Ireland
Carrera 22 con Ave. Carlos Soublette #8-35	San Cristobal	Venezuela
Av. del Libertador 900	Buenos Aires	Argentina
C/ Araquil, 67	Madrid	Spain

The status bar at the bottom indicates 'Query executed successfully.' and 'DESKTOP-8BL3MIG (16.0 RTM) DESKTOP-8BL3MIG/PMYLS ... Northwind 00:00:00 4 rows'.

Q15: List all countries to which beverages have been shipped. (Country)

