



UNIVERSITY OF ENGINEERING AND TECHNOLOGY, LAHORE

DATABASE LAB 5

**Submitted by:**

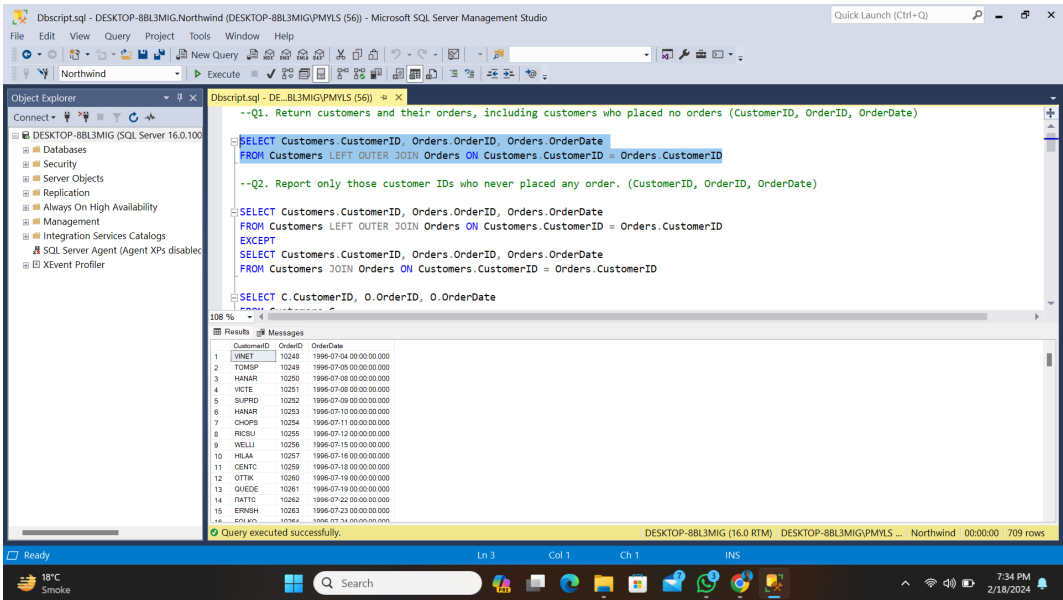
Saad Ahmad Malik  
2022-CS-1

**Supervised by:**

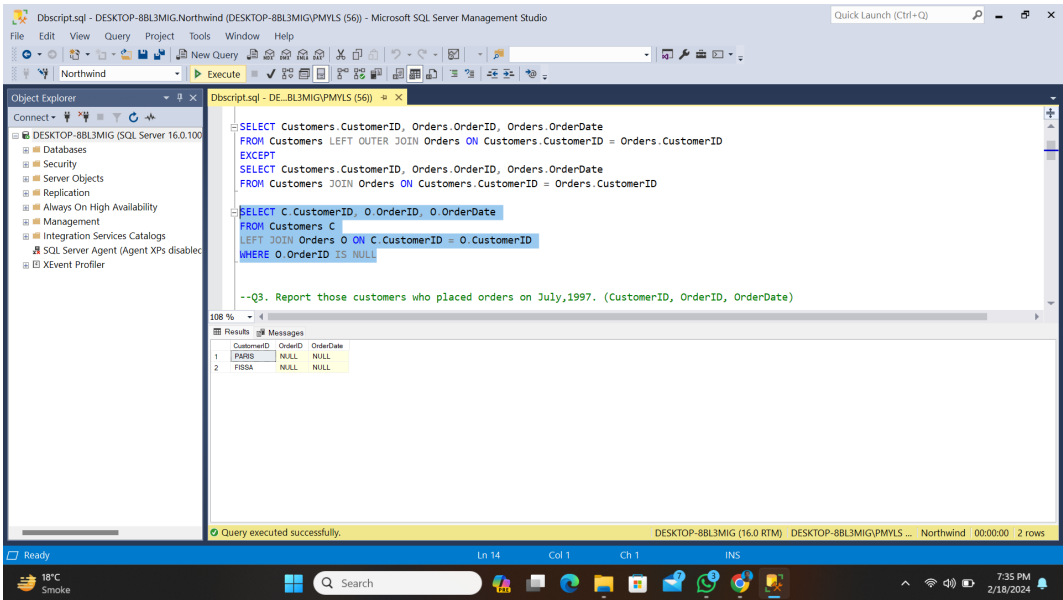
Mr. Nazeef ul Haq

February 18, 2024

**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:

```

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

SELECT Customers.CustomerID, Orders.OrderID, Orders.OrderDate
FROM Customers INNER JOIN Orders ON Customers.CustomerID = Orders.CustomerID
WHERE MONTH(Orders.OrderDate) = 7 and YEAR(Orders.OrderDate) = 1997;

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

SELECT C.CustomerID, COUNT(O.OrderID) AS totalorders
FROM Customers C
LEFT JOIN Orders O ON C.CustomerID = O.CustomerID

```

The Results pane shows the output of the first query (Q3):

CustomerID	OrderID	OrderDate
WELLI	10585	1997-07-01 00:00:00.000
REGUC	10586	1997-07-02 00:00:00.000
GUICK	10588	1997-07-03 00:00:00.000
GREAL	10589	1997-07-04 00:00:00.000
MEREP	10590	1997-07-07 00:00:00.000
LEHMB	10592	1997-07-08 00:00:00.000
LEHMB	10593	1997-07-09 00:00:00.000
OLDWO	10594	1997-07-09 00:00:00.000
ERNIS	10595	1997-07-10 00:00:00.000
WHITC	10596	1997-07-11 00:00:00.000
PICCO	10597	1997-07-11 00:00:00.000
BISBEV	10599	1997-07-15 00:00:00.000
HUNGC	10600	1997-07-16 00:00:00.000
VILAA	10601	1997-07-16 00:00:00.000
VAFFE	10602	1997-07-17 00:00:00.000

The status bar indicates the query was 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:

```

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

SELECT C.CustomerID, COUNT(O.OrderID) AS totalorders
FROM Customers C
LEFT JOIN Orders O ON C.CustomerID = O.CustomerID
GROUP BY C.CustomerID;

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

SELECT E1.EmployeeID, E1.FirstName, E1.LastName FROM Employees AS E1, Employees AS E2 WHERE E2.EmployeeID % 2 = 0 OR E2.EmployeeID = 3 OR D

--Q6. Write a query that returns a row for each employee and day in the range 04-07-1996 through 04-08-1997. (EmployeeID, Date)

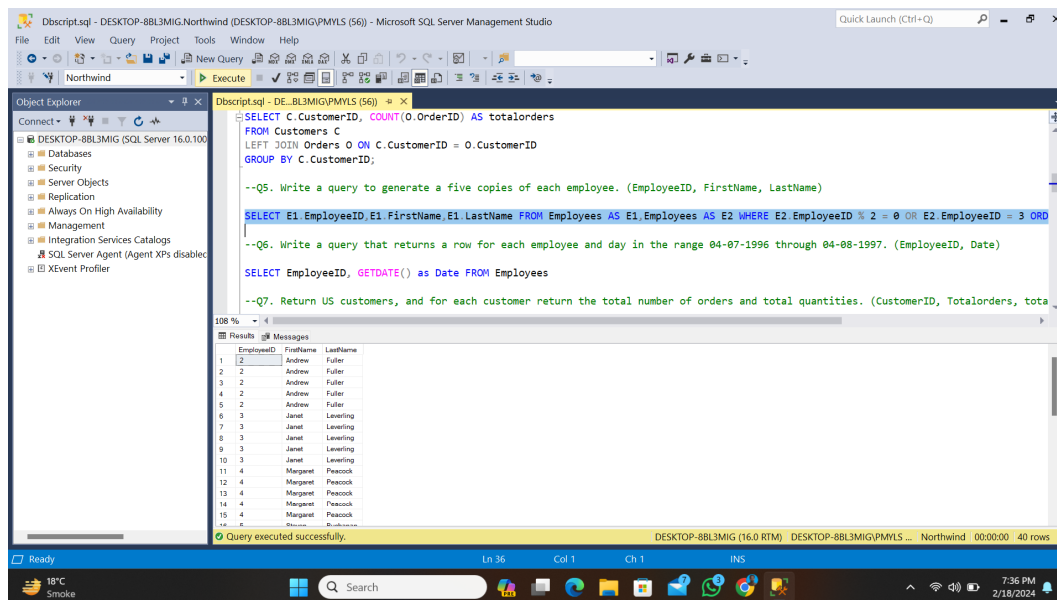
```

The Results pane shows the output of the first query (Q4):

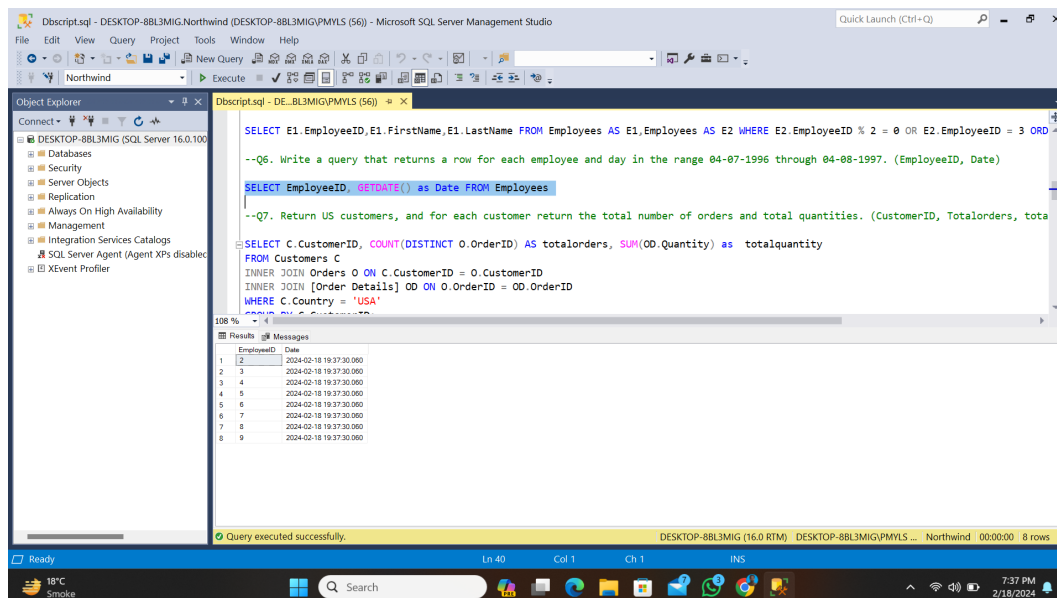
CustomerID	totalorders
ALFKI	4
ANATR	4
ANTON	6
AROUT	10
BERRIS	14
BLAUS	7
BOLSP	11
BOLID	3
BONAP	14
BOTTM	12
BISBEV	9
CACTU	6
CENTC	1
CHOPS	7
COMM	4
FRANZ	5

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

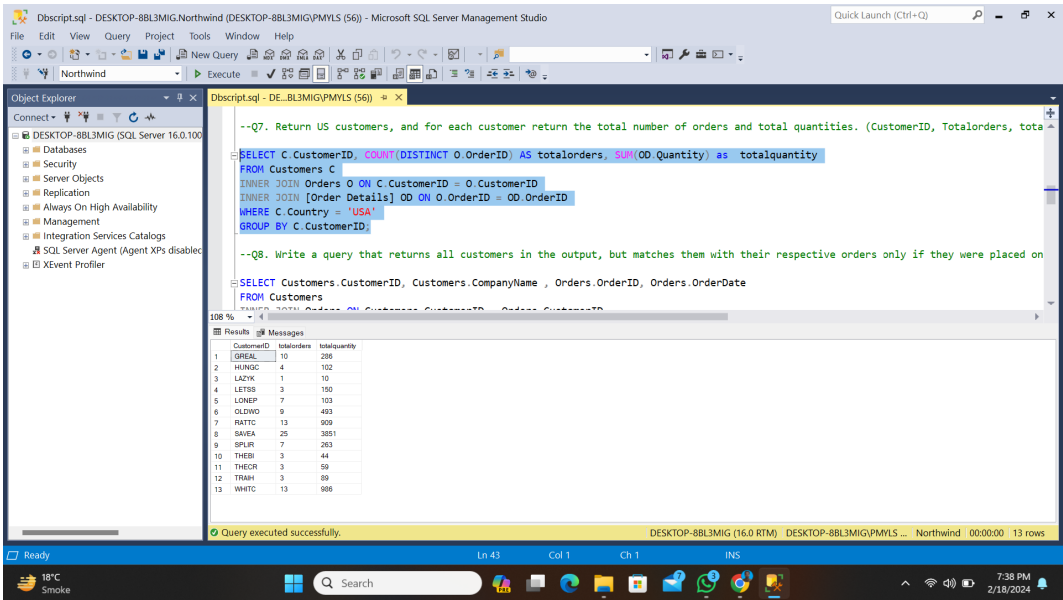
**Q5:** Write a query to generate a five copies of each employee. (EmployeeID, FirstName, LastName)



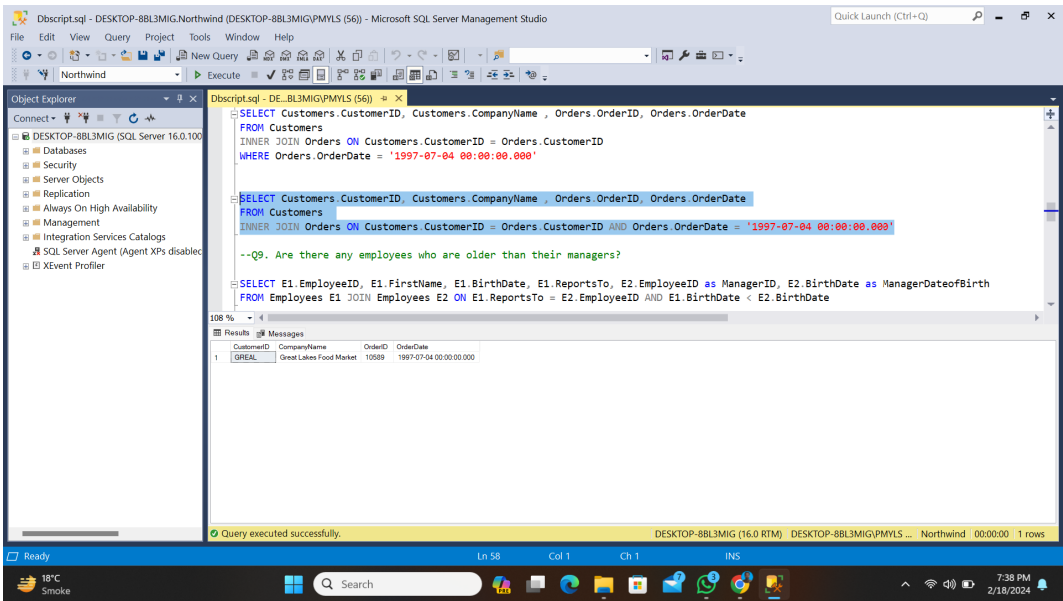
**Q6:** Write a query that returns a row for each employee and day in the range 04-07-1996 through 04-08-1997. (EmployeeID, Date)



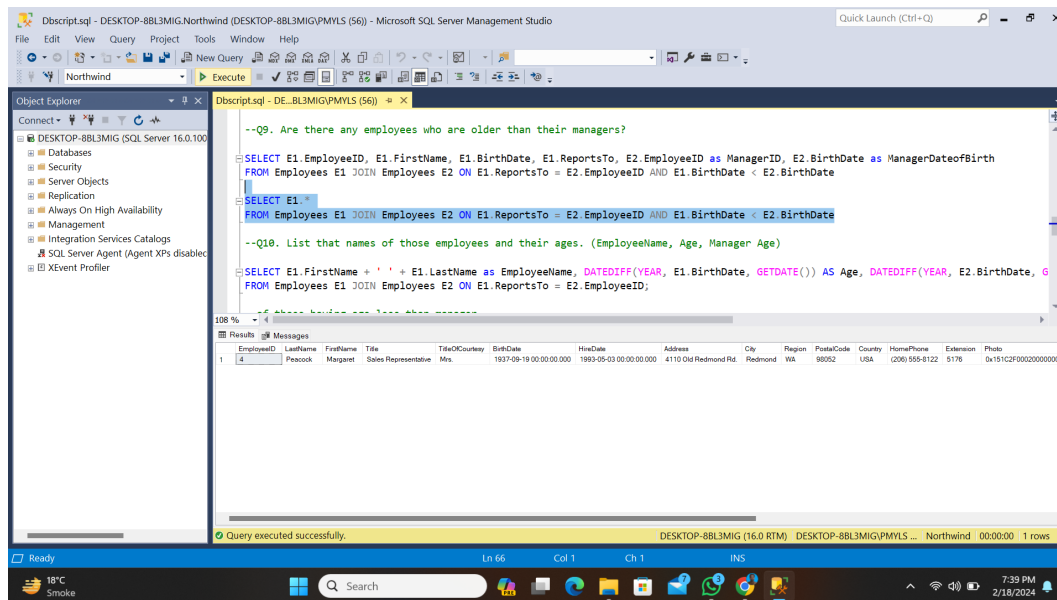
**Q7:** Return US customers, and for each customer return the total number of orders and total quantities. (CustomerID, Totalorders, totalquantity)



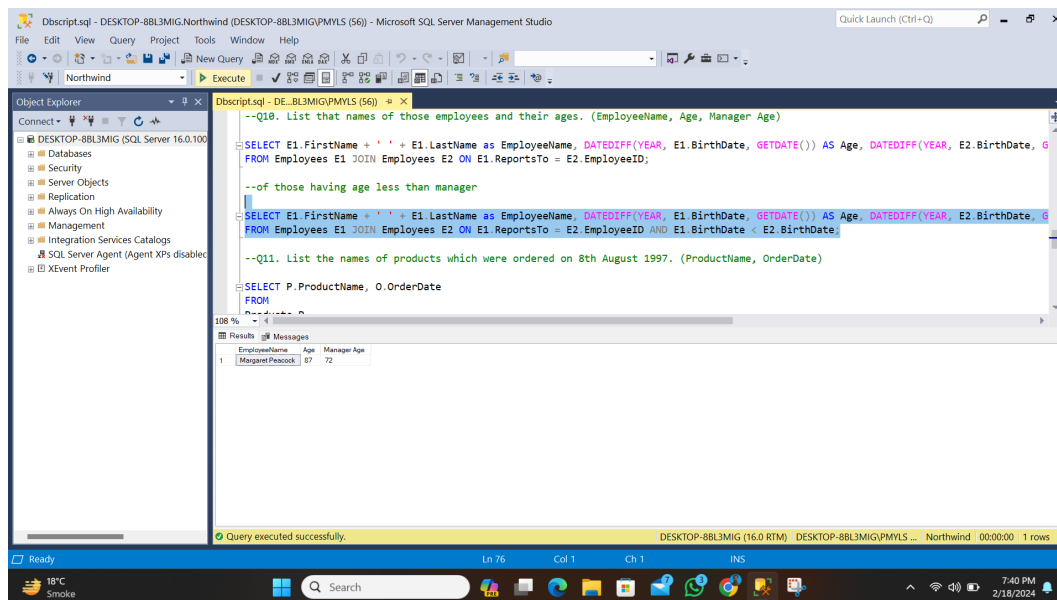
**Q8:** Write a query that returns all customers in the output, but matches them with their respective orders only if they were placed on July 04,1997. (CustomerID, CompanyName, OrderID, Orderdate)



**Q9:** Are there any employees who are older than their managers?



**Q10:** List that names of those employees and their ages. (EmployeeName, Age, Manager Age)



**Q11:** List the names of products which were ordered on 8th August 1997. (ProductName, OrderDate)

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

```
--Q11. List the names of products which were ordered on 8th August 1997. (ProductName, OrderDate)

SELECT P.ProductName, O.OrderDate
FROM
Products P
JOIN [Order Details] OD ON P.ProductID = OD.ProductID
JOIN Orders O ON OD.OrderID = O.OrderID
WHERE O.OrderDate = '1997-08-08 00:00:00.000'
ORDER BY P.ProductID
```

The Results pane shows the following data:

ProductName	OrderDate
Tutu	1997-08-08 00:00:00.000
Singaporean Hokkien Fried Mee	1997-08-08 00:00:00.000
Canarmenbent Penant	1997-08-08 00:00:00.000

The status bar indicates the query was executed successfully, returning 3 rows.

**Q12:** 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 Management Studio interface. The query window contains the following SQL code:

```
--Q12. List the addresses, cities, countries of all orders which were serviced by Anne and were shipped late. (Address, City, Country)

SELECT O.ShipAddress as Address, O.ShipCity as City, O.ShipCountry as Country
FROM Orders O JOIN Employees E ON O.EmployeeID = E.EmployeeID AND E.FirstName = 'Anne'
WHERE O.ShippedDate > O.RequiredDate

SELECT O.ShipAddress as Address, O.ShipCity as City, O.ShipCountry as Country
FROM Orders O JOIN Employees E ON O
WHERE O.ShippedDate > O.RequiredDate column ShipCity(nvarchar, null)

--Q13. List all countries to which beverages have been shipped. (Country)

SELECT DISTINCT O.ShipCountry as Country
```

The Results pane shows the following data:

Address	City	Country
8 Johnston 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 indicates the query was executed successfully, returning 4 rows.

**Q13:** List all countries to which beverages have been shipped. (Country)

