DataBase Systems

CS262L-Home Task

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Reg No:

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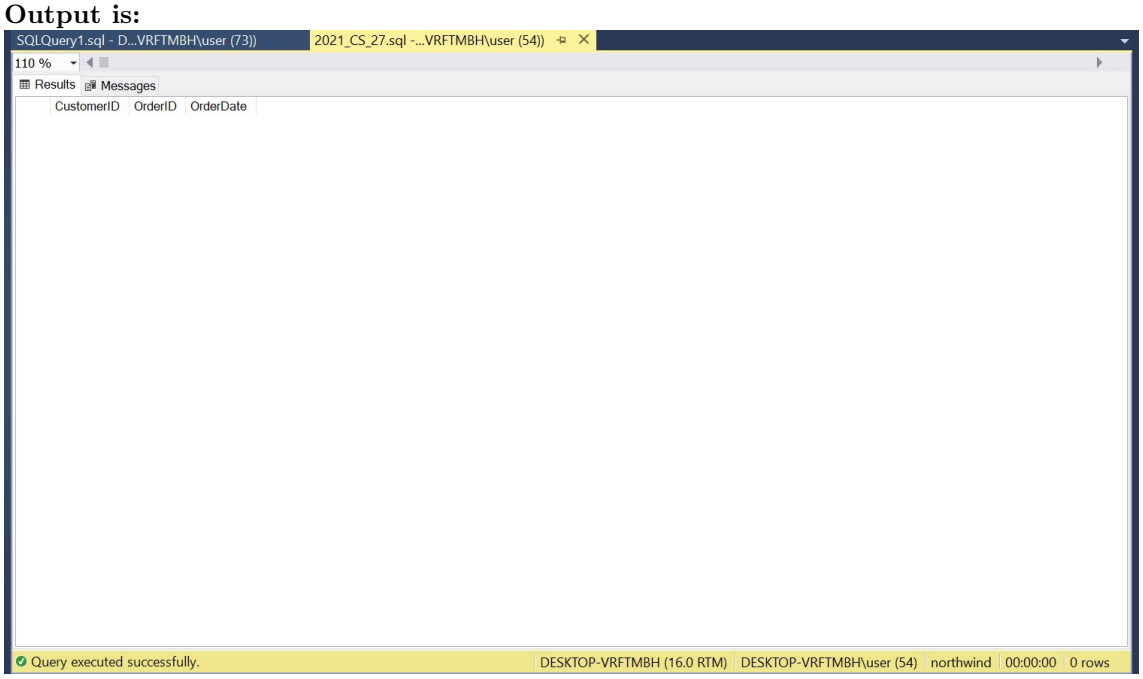
Contents

1 Queries

1.1 Return customers and their orders, including customers who placed no orders(CustomerID, OrderID, OrderDate).

```
SELECT Customers.CustomerID,OrderID,OrderDate
FROM Customers
JOIN (SELECT * FROM Orders WHERE (OrderDate) IS NULL)A
ON Customers.CustomerID = A.CustomerID
```

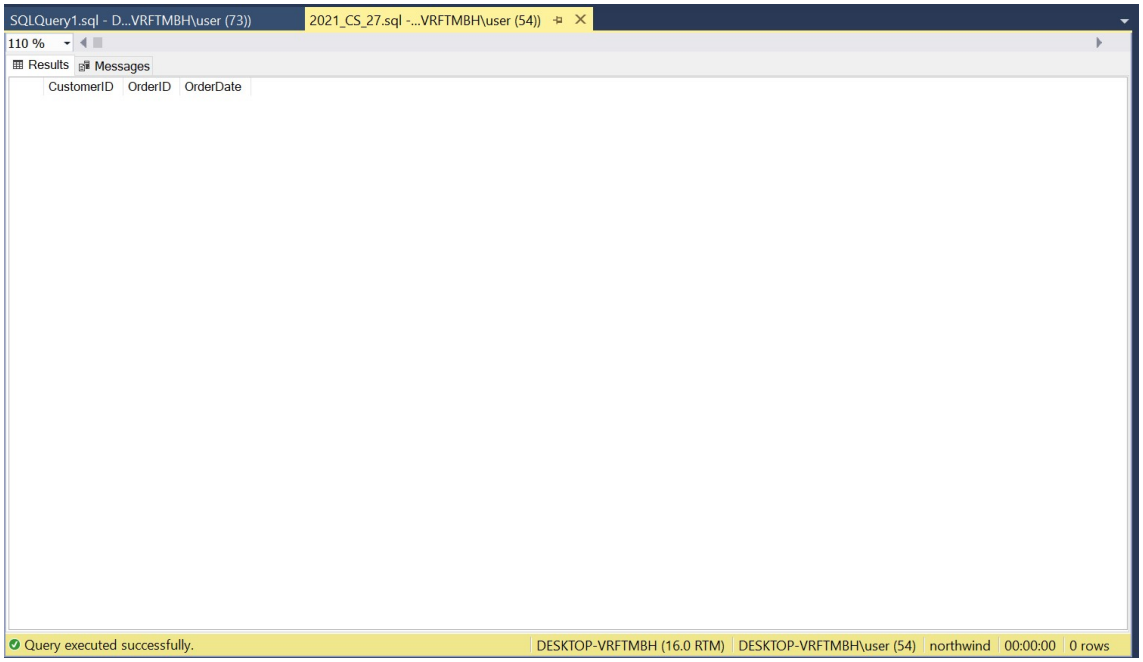
Output is:



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

```
SELECT CustomerID,OrderID,OrderDate
FROM Orders
WHERE OrderDate IN (SELECT OrderDate
FROM Orders
Where OrderDate IS NULL)
```

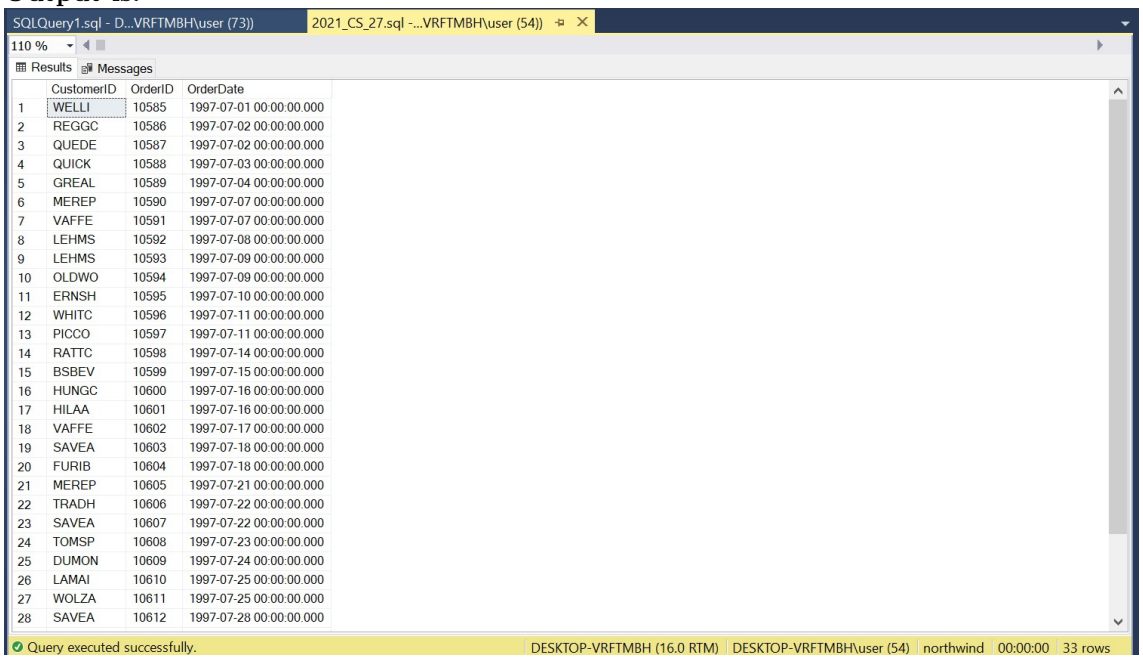
Output is:



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

SELECT CustomerID,OrderID,OrderDate
FROM Orders
WHERE OrderDate IN (SELECT OrderDate
FROM Orders
WHERE MONTH(OrderDate) = 7 AND
YEAR(OrderDate) = 1997)

Output is:



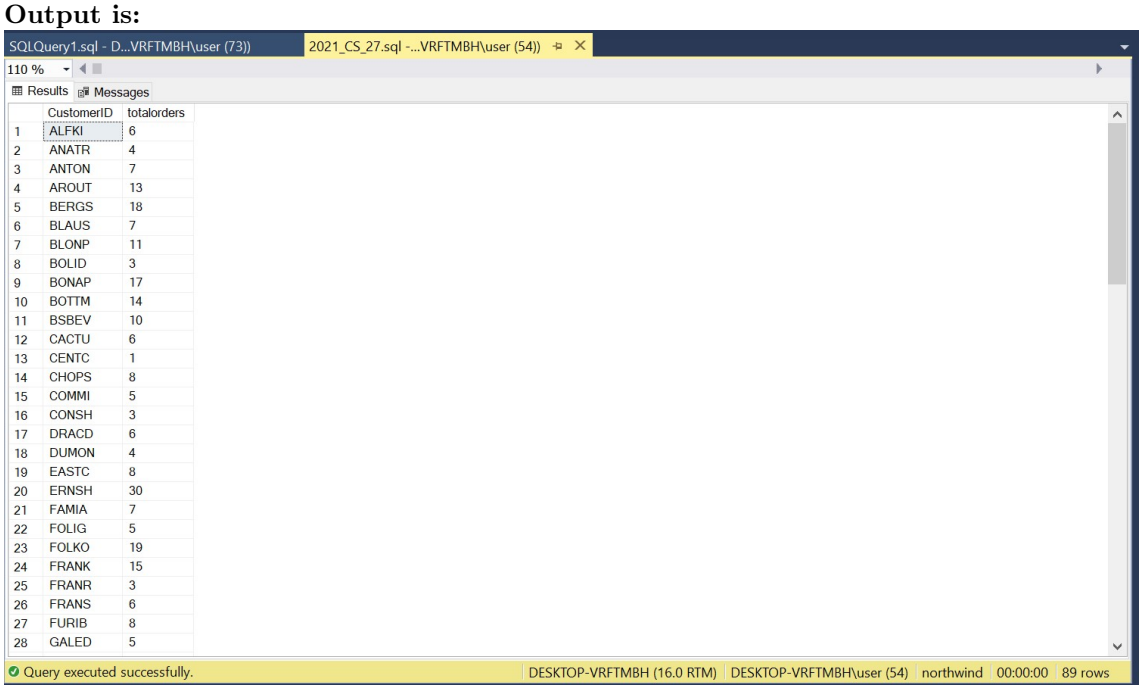
	CustomerID	OrderID	OrderDate
1	WELLI	10585	1997-07-01 00:00:00.000
2	REGGC	10586	1997-07-02 00:00:00.000
3	QUEDE	10587	1997-07-02 00:00:00.000
4	QUICK	10588	1997-07-03 00:00:00.000
5	GREAL	10589	1997-07-04 00:00:00.000
6	MEREP	10590	1997-07-07 00:00:00.000
7	VAFFE	10591	1997-07-07 00:00:00.000
8	LEHMS	10592	1997-07-08 00:00:00.000
9	LEHMS	10593	1997-07-09 00:00:00.000
10	OLDWO	10594	1997-07-09 00:00:00.000
11	ERNSH	10595	1997-07-10 00:00:00.000
12	WHITC	10596	1997-07-11 00:00:00.000
13	PICCO	10597	1997-07-11 00:00:00.000
14	RATTC	10598	1997-07-14 00:00:00.000
15	BSBEV	10599	1997-07-15 00:00:00.000
16	HUNGC	10600	1997-07-16 00:00:00.000
17	HILAA	10601	1997-07-16 00:00:00.000
18	VAFFE	10602	1997-07-17 00:00:00.000
19	SAVEA	10603	1997-07-18 00:00:00.000
20	FURIB	10604	1997-07-18 00:00:00.000
21	MEREP	10605	1997-07-21 00:00:00.000
22	TRADH	10606	1997-07-22 00:00:00.000
23	SAVEA	10607	1997-07-22 00:00:00.000
24	TOMSP	10608	1997-07-23 00:00:00.000
25	DUMON	10609	1997-07-24 00:00:00.000
26	LAMAI	10610	1997-07-25 00:00:00.000
27	WOLZA	10611	1997-07-25 00:00:00.000
28	SAVEA	10612	1997-07-28 00:00:00.000

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

SELECT CustomerID,COUNT(CustomerID) AS totalorders
FROM Orders

GROUP BY CustomerID

Output is:



SQLQuery1.sql - D...VRFTMBH\user (73)) | 2021_CS_27.sql -...VRFTMBH\user (54))

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Results | Messages

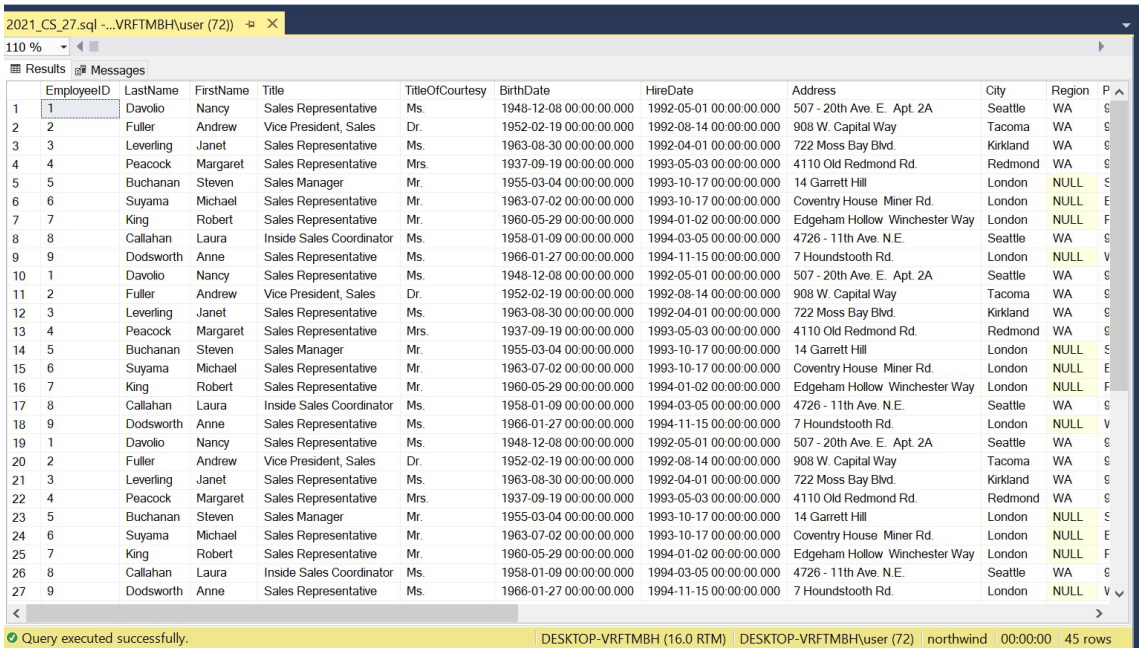
	CustomerID	totalorders
1	ALFKI	6
2	ANATR	4
3	ANTON	7
4	AROUT	13
5	BERGS	18
6	BLAUS	7
7	BLONP	11
8	BOLID	3
9	BONAP	17
10	BOTTM	14
11	BSBEV	10
12	CACTU	6
13	CENTC	1
14	CHOPS	8
15	COMMI	5
16	CONSH	3
17	DRACD	6
18	DUMON	4
19	EASTC	8
20	ERNSH	30
21	FAMIA	7
22	FOLIG	5
23	FOLKO	19
24	FRANK	15
25	FRANR	3
26	FRANS	6
27	FURIB	8
28	GALED	5

Query executed successfully. | DESKTOP-VRFTMBH (16.0 RTM) | DESKTOP-VRFTMBH\user (54) | northwind | 00:00:00 | 89 rows

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

```
SELECT *
FROM Employees
UNION ALL
SELECT *
FROM Employees
UNION ALL
(SELECT * FROM Employees)
UNION ALL
SELECT *
FROM Employees
UNION ALL
SELECT *
FROM Employees;
```

Output is:



2021_CS_27.sql -...VRFTMBH\user (72))

110 %

Results | Messages

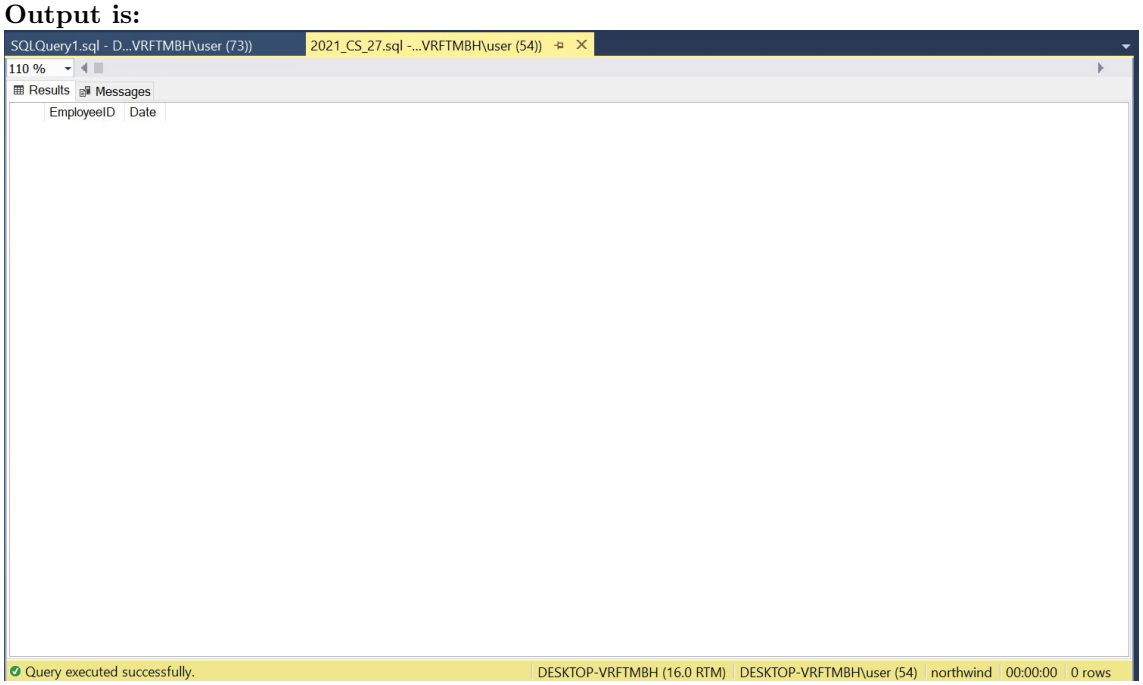
	EmployeeID	LastName	FirstName	Title	TitleOfCourtesy	BirthDate	HireDate	Address	City	Region	P
1	1	Davolio	Nancy	Sales Representative	Ms.	1948-12-08 00:00:00.000	1992-05-01 00:00:00.000	507 - 20th Ave. E. Apt. 2A	Seattle	WA	9
2	2	Fuller	Andrew	Vice President, Sales	Dr.	1952-02-19 00:00:00.000	1992-08-14 00:00:00.000	908 W. Capital Way	Tacoma	WA	9
3	3	Leverling	Janet	Sales Representative	Ms.	1963-08-30 00:00:00.000	1992-04-01 00:00:00.000	722 Moss Bay Blvd.	Kirkland	WA	9
4	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	9
5	5	Buchanan	Steven	Sales Manager	Mr.	1955-03-04 00:00:00.000	1993-10-17 00:00:00.000	14 Garrett Hill	London	NULL	S
6	6	Suyama	Michael	Sales Representative	Mr.	1963-07-02 00:00:00.000	1993-10-17 00:00:00.000	Coventry House Miner Rd.	London	NULL	E
7	7	King	Robert	Sales Representative	Mr.	1960-05-29 00:00:00.000	1994-01-02 00:00:00.000	Edgeham Hollow Winchester Way	London	NULL	F
8	8	Callahan	Laura	Inside Sales Coordinator	Ms.	1958-01-09 00:00:00.000	1994-03-05 00:00:00.000	4726 - 11th Ave. N.E.	Seattle	WA	9
9	9	Dodsworth	Anne	Sales Representative	Ms.	1966-01-27 00:00:00.000	1994-11-15 00:00:00.000	7 Houndstooth Rd.	London	NULL	W
10	1	Davolio	Nancy	Sales Representative	Ms.	1948-12-08 00:00:00.000	1992-05-01 00:00:00.000	507 - 20th Ave. E. Apt. 2A	Seattle	WA	9
11	2	Fuller	Andrew	Vice President, Sales	Dr.	1952-02-19 00:00:00.000	1992-08-14 00:00:00.000	908 W. Capital Way	Tacoma	WA	9
12	3	Leverling	Janet	Sales Representative	Ms.	1963-08-30 00:00:00.000	1992-04-01 00:00:00.000	722 Moss Bay Blvd.	Kirkland	WA	9
13	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	9
14	5	Buchanan	Steven	Sales Manager	Mr.	1955-03-04 00:00:00.000	1993-10-17 00:00:00.000	14 Garrett Hill	London	NULL	S
15	6	Suyama	Michael	Sales Representative	Mr.	1963-07-02 00:00:00.000	1993-10-17 00:00:00.000	Coventry House Miner Rd.	London	NULL	E
16	7	King	Robert	Sales Representative	Mr.	1960-05-29 00:00:00.000	1994-01-02 00:00:00.000	Edgeham Hollow Winchester Way	London	NULL	F
17	8	Callahan	Laura	Inside Sales Coordinator	Ms.	1958-01-09 00:00:00.000	1994-03-05 00:00:00.000	4726 - 11th Ave. N.E.	Seattle	WA	9
18	9	Dodsworth	Anne	Sales Representative	Ms.	1966-01-27 00:00:00.000	1994-11-15 00:00:00.000	7 Houndstooth Rd.	London	NULL	W
19	1	Davolio	Nancy	Sales Representative	Ms.	1948-12-08 00:00:00.000	1992-05-01 00:00:00.000	507 - 20th Ave. E. Apt. 2A	Seattle	WA	9
20	2	Fuller	Andrew	Vice President, Sales	Dr.	1952-02-19 00:00:00.000	1992-08-14 00:00:00.000	908 W. Capital Way	Tacoma	WA	9
21	3	Leverling	Janet	Sales Representative	Ms.	1963-08-30 00:00:00.000	1992-04-01 00:00:00.000	722 Moss Bay Blvd.	Kirkland	WA	9
22	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	9
23	5	Buchanan	Steven	Sales Manager	Mr.	1955-03-04 00:00:00.000	1993-10-17 00:00:00.000	14 Garrett Hill	London	NULL	S
24	6	Suyama	Michael	Sales Representative	Mr.	1963-07-02 00:00:00.000	1993-10-17 00:00:00.000	Coventry House Miner Rd.	London	NULL	E
25	7	King	Robert	Sales Representative	Mr.	1960-05-29 00:00:00.000	1994-01-02 00:00:00.000	Edgeham Hollow Winchester Way	London	NULL	F
26	8	Callahan	Laura	Inside Sales Coordinator	Ms.	1958-01-09 00:00:00.000	1994-03-05 00:00:00.000	4726 - 11th Ave. N.E.	Seattle	WA	9
27	9	Dodsworth	Anne	Sales Representative	Ms.	1966-01-27 00:00:00.000	1994-11-15 00:00:00.000	7 Houndstooth Rd.	London	NULL	W

Query executed successfully. DESKTOP-VRFTMBH (16.0 RTM) DESKTOP-VRFTMBH\user (72) northwind 00:00:00 45 rows

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

SELECT EmployeeID ,Employees.HireDate as Date
FROM Employees
WHERE Employees.HireDate IN (SELECT HireDate
FROM Employees
WHERE HireDate >= 1996-07-04 AND HireDate <= 1997-08-04)

Output is:



SQLQuery1.sql - D...VRFTMBH\user (73)) 2021_CS_27.sql -...VRFTMBH\user (54))

110 %

Results | Messages

	EmployeeID	Date

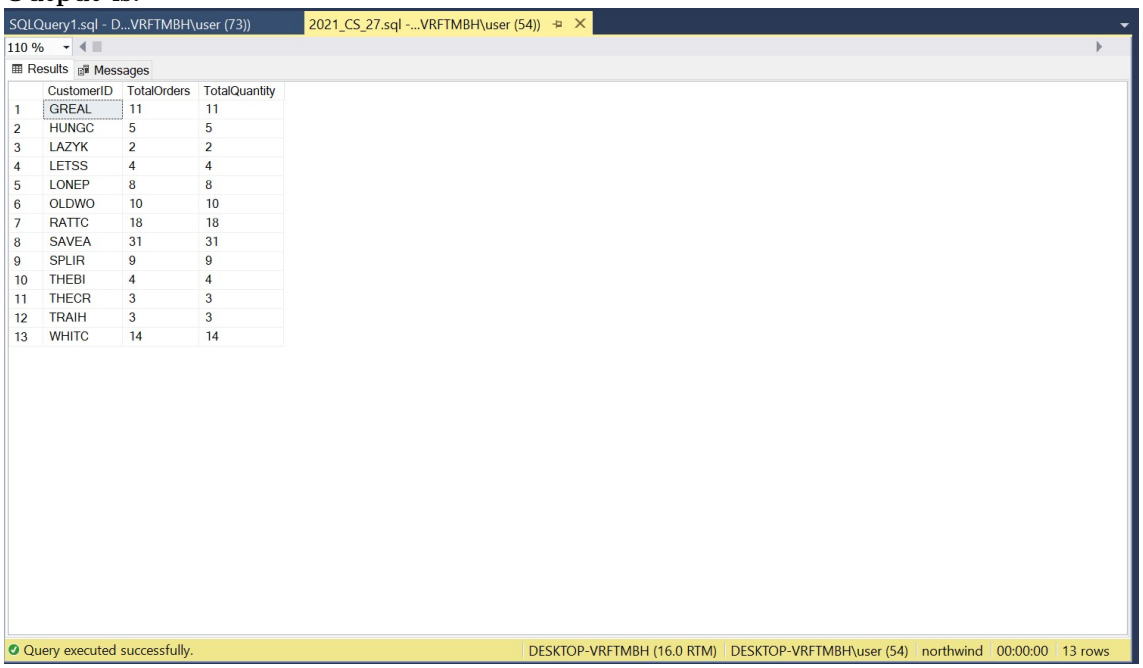
Query executed successfully. DESKTOP-VRFTMBH (16.0 RTM) DESKTOP-VRFTMBH\user (54) northwind 00:00:00 0 rows

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

SELECT Customers.CustomerID,COUNT(Customers.CustomerID)
as TotalOrders,COUNT(A.CustomerID) as TotalQuantity

```
FROM Customers
JOIN (SELECT *
FROM Orders) A
ON Customers.CustomerID = A.CustomerID
WHERE Customers.Country IN (SELECT Country
FROM Customers
WHERE Country ='USA')
Group By Customers.CustomerID
```

Output is:

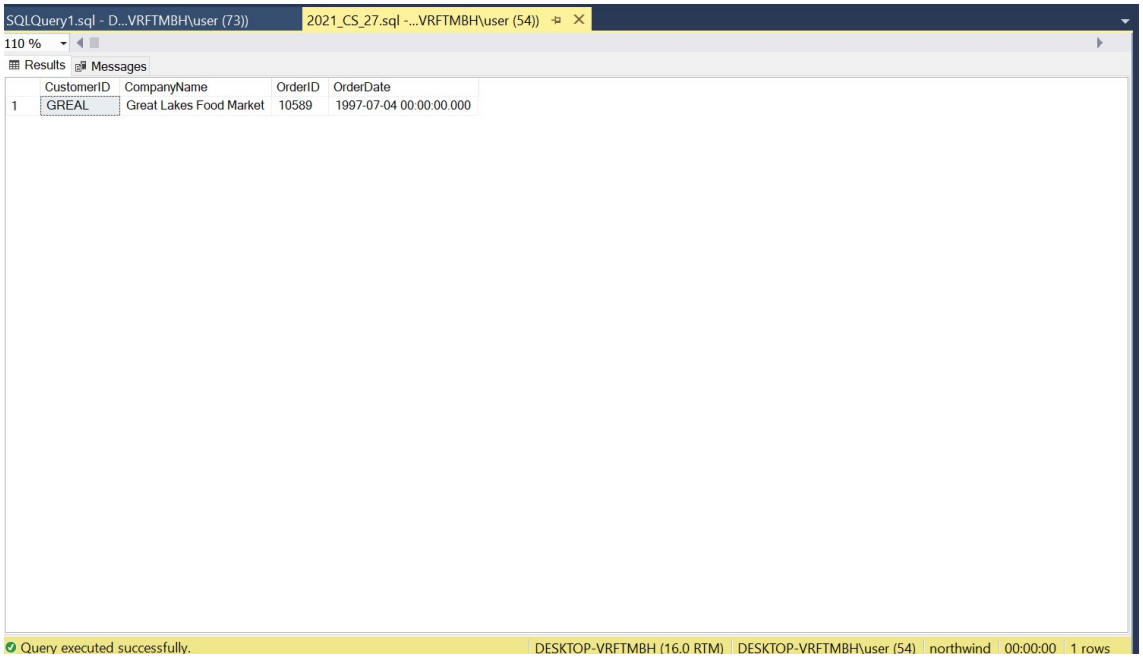


	CustomerID	TotalOrders	TotalQuantity
1	GREAL	11	11
2	HUNGC	5	5
3	LAZYK	2	2
4	LETSS	4	4
5	LONEP	8	8
6	OLDWO	10	10
7	RATTC	18	18
8	SAVEA	31	31
9	SPLIR	9	9
10	THEBI	4	4
11	THECR	3	3
12	TRAIH	3	3
13	WHITC	14	14

1.8 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).

```
SELECT Customers.CustomerID,
CompanyName,OrderID,OrderDate
FROM Customers
JOIN (SELECT *
FROM Orders)A
ON Customers.CustomerID = A.CustomerID
WHERE OrderDate IN (SELECT OrderDate
FROM Orders
WHERE MONTH(OrderDate) = 7
AND YEAR(OrderDate) = 1997
AND DAY(OrderDate) = 4)
```

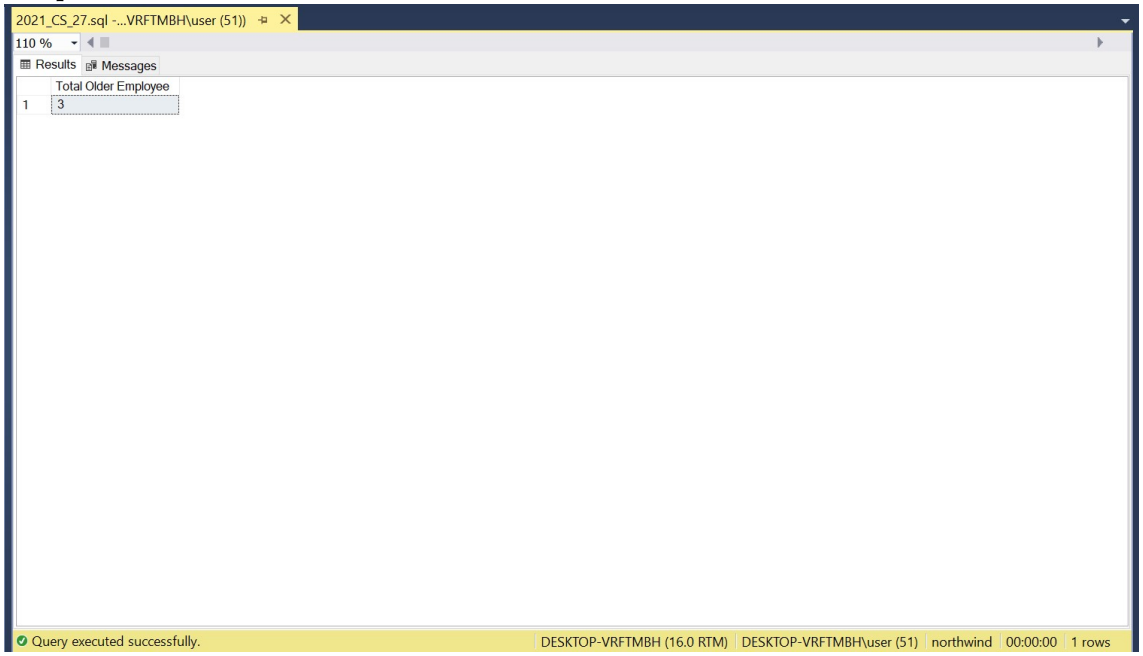
Output is:



1.9 Are there any employees who are older than their managers?

SELECT COUNT(*) AS [Total Older Employee]
FROM Employees ,(SELECT BirthDate
FROM Employees
WHERE Title like 'Manager') A
WHERE Employees.BirthDate < A.BirthDate

Output is:

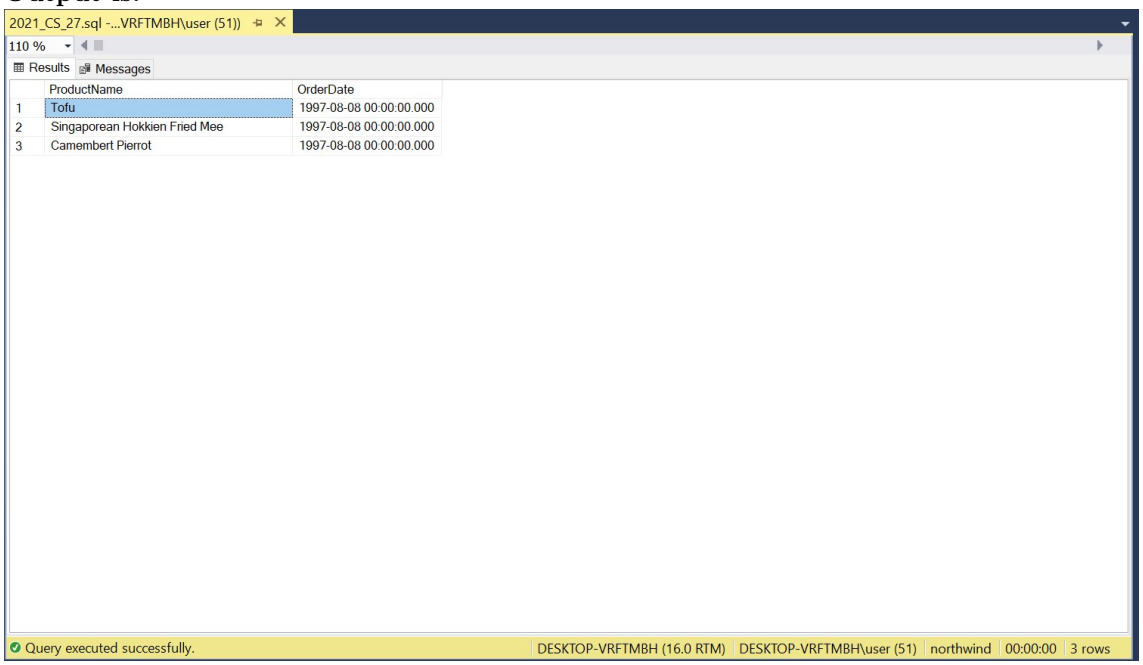


1.10 List the names of products which were ordered on 8th August 1997 (ProductName, OrderDate).

SELECT ProductName, OrderDate
FROM Products
JOIN (SELECT *

```
FROM [Order Details]) A
ON Products.ProductID = A.ProductID
JOIN (SELECT *
FROM Orders)B
ON A.OrderID = B.OrderID
WHERE OrderDate IN (SELECT OrderDate
FROM Orders
WHERE YEAR(OrderDate) = 1997 AND
MONTH(OrderDate) = 8 AND
Day(OrderDate) = 8)
```

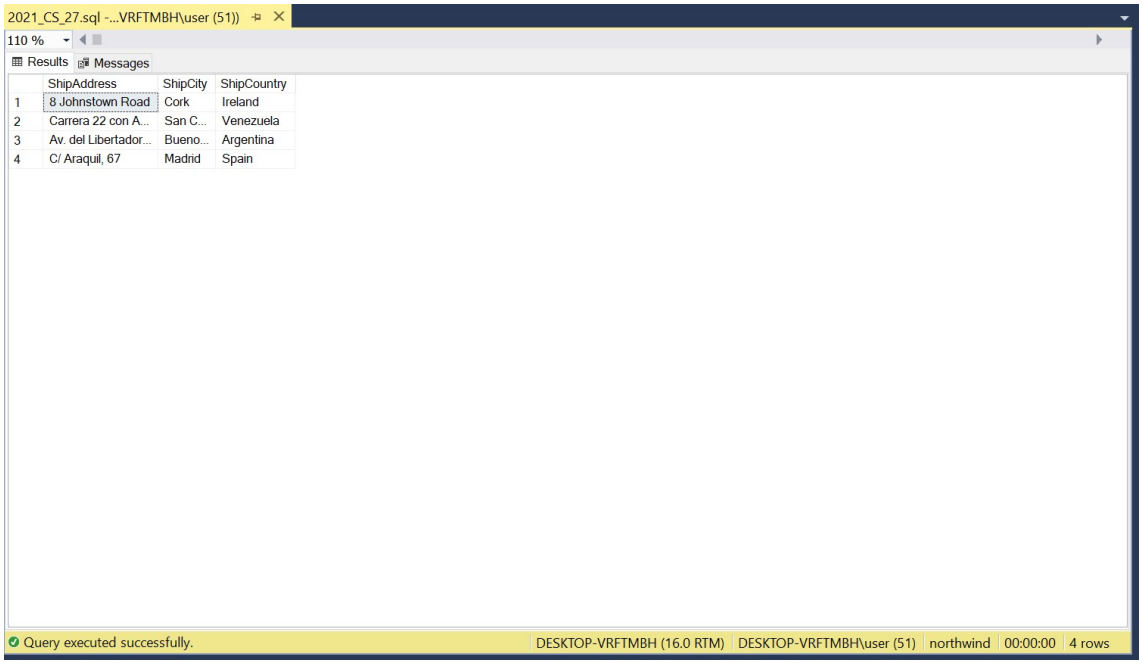
Output is:



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

```
SELECT ShipAddress,ShipCity,ShipCountry
FROM Orders
JOIN (SELECT *
FROM Employees)A
ON Orders.EmployeeID = A.EmployeeID
WHERE A.FirstName IN (SELECT FirstName
FROM Employees
WHERE FirstName = 'Anne' AND
ShippedDate > RequiredDate)
```

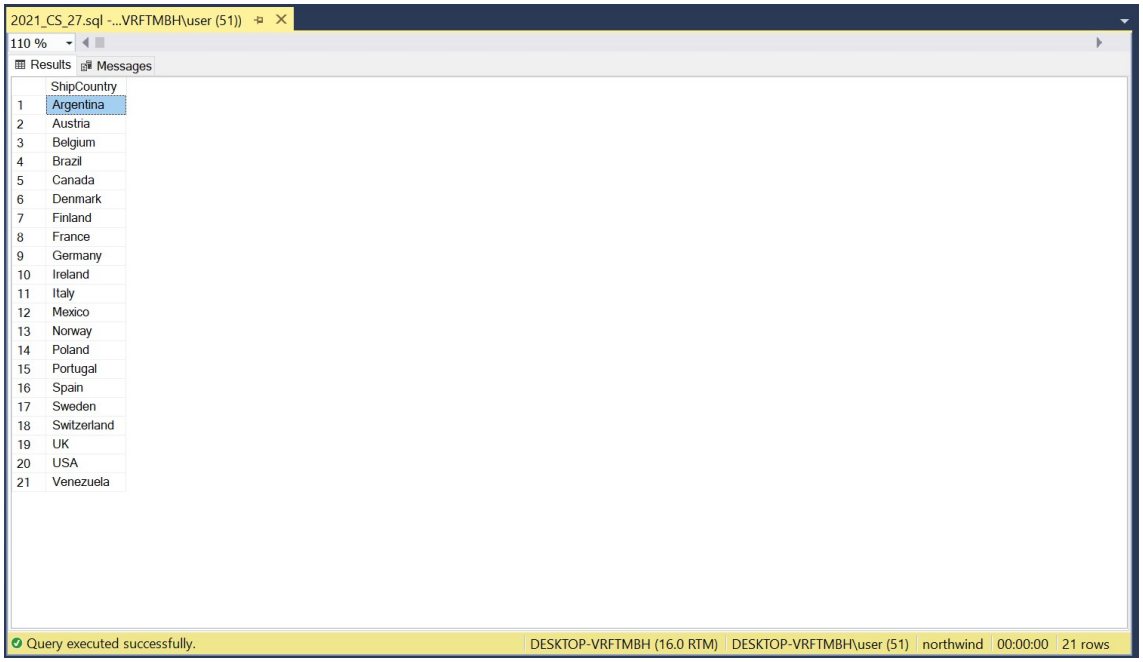
Output is:



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

```
SELECT DISTINCT ShipCountry
FROM Orders
JOIN (SELECT *
FROM [Order Details])O
ON Orders.OrderID = O.OrderID
JOIN (SELECT *
FROM Products)P
ON O.ProductID = P.ProductID
JOIN (SELECT *
FROM Categories)C
ON P.CategoryID = C.CategoryID
WHERE CategoryName IN (SELECT CategoryName
FROM Categories
WHERE CategoryName = 'Beverages')
```

Output is:



	ShipCountry
1	Argentina
2	Austria
3	Belgium
4	Brazil
5	Canada
6	Denmark
7	Finland
8	France
9	Germany
10	Ireland
11	Italy
12	Mexico
13	Norway
14	Poland
15	Portugal
16	Spain
17	Sweden
18	Switzerland
19	UK
20	USA
21	Venezuela