

DataBase Systems

CS262L-Home Task



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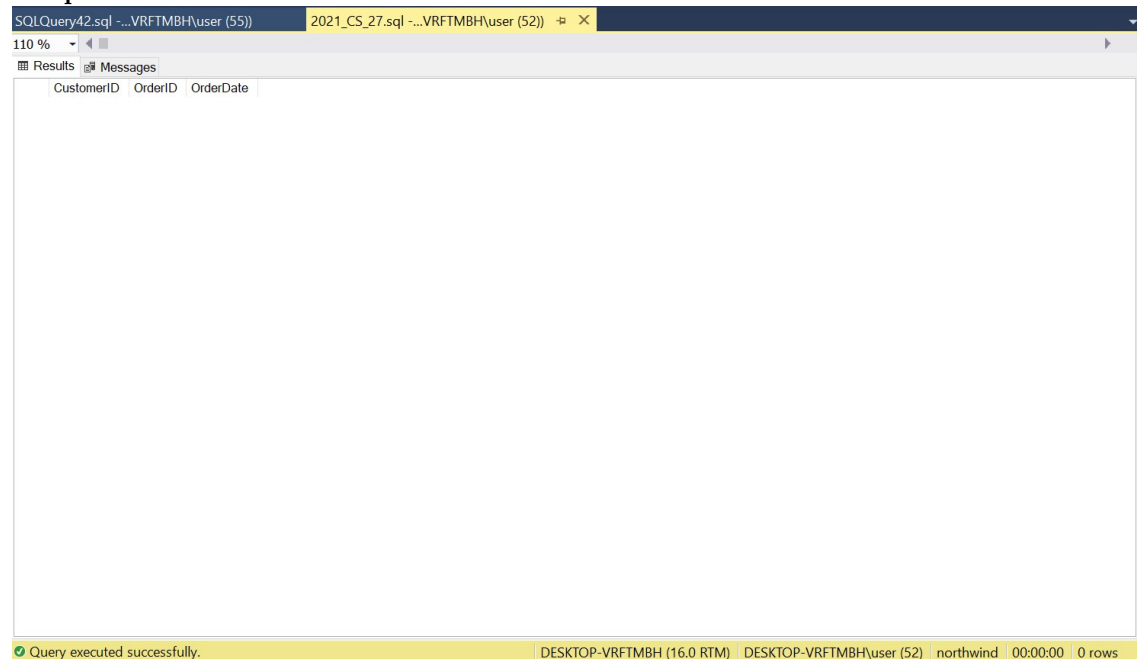
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1 Queries

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

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

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 IS NULL
```

Output is:

SQLQuery42.sql -...VRFTMBH(user (55)) 2021_CS_27.sql -...VRFTMBH(user (52))

110 %

Results Messages

CustomerID	OrderID	OrderDate
------------	---------	-----------

Query executed successfully. DESKTOP-VRFTMBH (16.0 RTM) DESKTOP-VRFTMBH(user (52)) northwind 00:00:00 0 rows

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

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

Output is:

SQLQuery42.sql -...VRFTMBH(user (55)) 2021_CS_27.sql -...VRFTMBH(user (52))

110 %

Results Messages

CustomerID	OrderID	OrderDate
WELLI	10585	1997-07-01 00:00:00.000
REGGC	10586	1997-07-02 00:00:00.000
QUEDE	10587	1997-07-02 00:00:00.000
QUICK	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
VAFFE	10591	1997-07-07 00:00:00.000
LEHMS	10592	1997-07-08 00:00:00.000
LEHMS	10593	1997-07-09 00:00:00.000
OLDWO	10594	1997-07-09 00:00:00.000
ERNSH	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
RATTC	10598	1997-07-14 00:00:00.000
BSBEV	10599	1997-07-15 00:00:00.000
HUNGC	10600	1997-07-16 00:00:00.000
HILAA	10601	1997-07-16 00:00:00.000
VAFFE	10602	1997-07-17 00:00:00.000
SAVEA	10603	1997-07-18 00:00:00.000
FURIB	10604	1997-07-18 00:00:00.000
MEREP	10605	1997-07-21 00:00:00.000
TRADH	10606	1997-07-22 00:00:00.000
SAVEA	10607	1997-07-22 00:00:00.000
TOMSP	10608	1997-07-23 00:00:00.000
DUMON	10609	1997-07-24 00:00:00.000
LAMAI	10610	1997-07-25 00:00:00.000
WOLZA	10611	1997-07-25 00:00:00.000
SAVEA	10612	1997-07-28 00:00:00.000

Query executed successfully. DESKTOP-VRFTMBH (16.0 RTM) DESKTOP-VRFTMBH(user (52)) northwind 00:00:00 33 rows

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

```
SELECT CustomerID,COUNT(CustomerID) AS totalorders
FROM Orders
GROUP BY CustomerID
```

Output is:

110 %

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 (52) 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:

	EmployeeID	LastName	FirstName	Title	TitleOfCourtesy	BirthDate	HireDate	Address	City	Region
1	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
2	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
3	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
4	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
5	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
6	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
7	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
8	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
9	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
10	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
11	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
12	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
13	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
14	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
15	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
16	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
17	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
18	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
19	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
20	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
21	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
22	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
23	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
24	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
25	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
26	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

```
SELECT EmployeeID ,Employees.HireDate as Date
FROM Employees
WHERE Employees.HireDate > 1996-07-04 AND Employees.HireDate < 1097-08-04
```

```
SELECT Customers.CustomerID,COUNT(Customers.CustomerID) as TotalOrders,COUNT(Orders.CustomerID)
as totalquantity FROM Customers
JOIN Orders
ON Customers.CustomerID = Orders.CustomerID
WHERE Customers.Country = 'USA'
Group By Customers.CustomerID;
```

	CustomerID	TotalOrders	totalquantity
1	GREAL	10	10
2	HUNGC	4	4
3	LAZYK	1	1
4	LETSS	3	3
5	LONEP	7	7
6	OLDWO	9	9
7	RATTC	13	13
8	SAVEA	25	25
9	SPLIR	7	7
10	THEBI	3	3
11	THECR	3	3
12	TRAIH	3	3
13	WHITC	13	13

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 Orders
ON Customers.CustomerID = Orders.CustomerID
WHERE MONTH(OrderDate) = 7 AND YEAR(OrderDate) = 1997 AND DATE(OrderDate) = 4
```

Output is:

	CustomerID	CompanyName	OrderID	OrderDate
1	GREAL	Great Lakes Food Market	10589	1997-07-04 00:00:00.000

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

```
SELECT Concat(Employees.FirstName,' ',
Employees.LastName) [EmployeeName],year(GETDATE())
- year(Employees.BirthDate) AS Age ,YEAR(GETDATE()) -YEAR(A.BirthDate) [Manager Age]
FROM Employees ,(SELECT BirthDate FROM Employees
WHERE Title like '
WHERE Employees.BirthDate < A.BirthDate;
```

Output is:

Total Employee older than their managers	
1	2

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

```

SELECT ProductName, OrderDate
FROM Products
JOIN [Order Details]
ON Products.ProductID = [Order Details].ProductID
JOIN Orders
ON [Order Details].OrderID = Orders.OrderID
WHERE YEAR(OrderDate) = 1997 AND MONTH(OrderDate) = 8 AND DATE(OrderDate) = 8

```

Output is:

	EmployeeName	Age	Manager Age
1	Andrew Fuller	71	68
2	Margaret Peacock	86	68

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

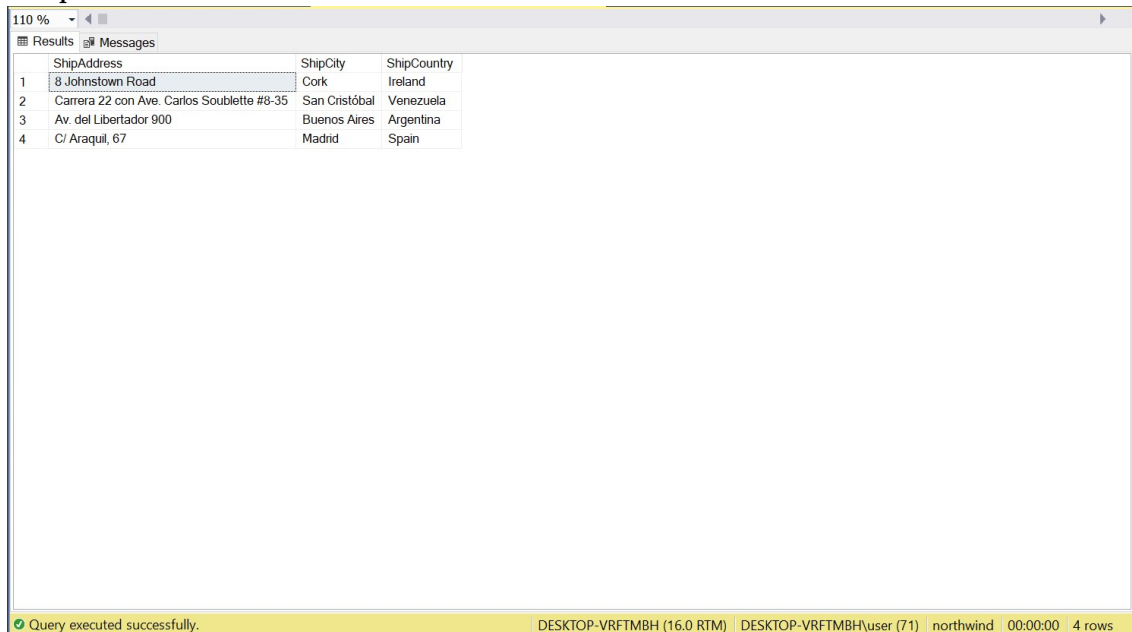
```

SELECT ShipAddress, ShipCity, ShipCountry
FROM Orders
JOIN Employees
ON Orders.EmployeeID = Employees.EmployeeID

```


WHERE Employees.FirstName = 'Anne' AND ShippedDate > RequiredDate

Output is:



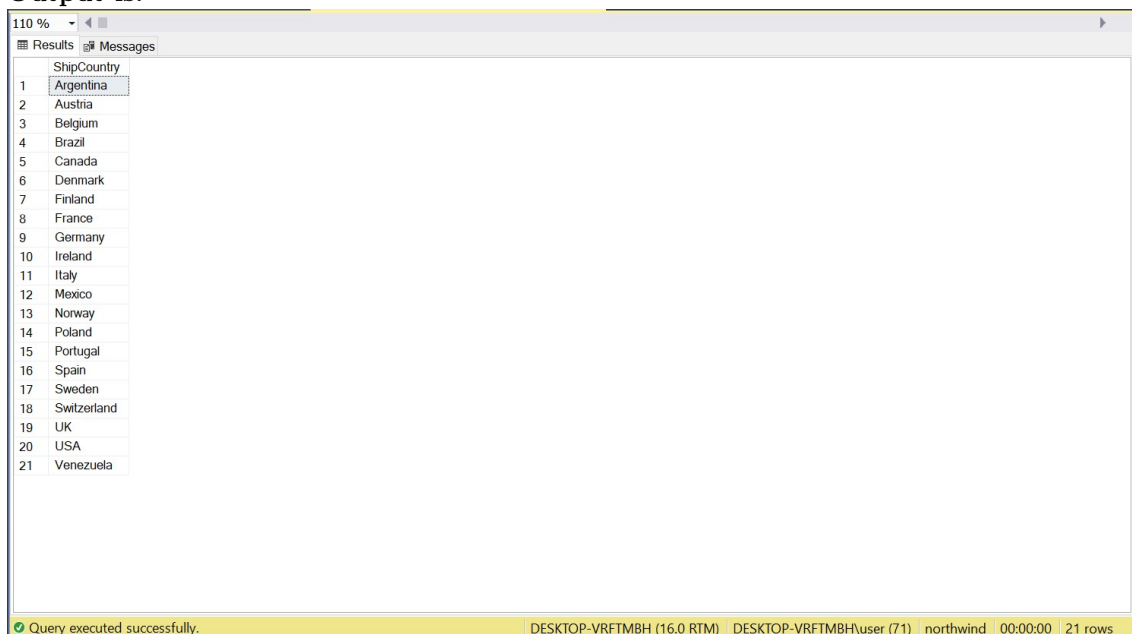
The screenshot shows a SQL Server Enterprise Manager window with a query results grid. The grid has four columns: ShipAddress, ShipCity, and ShipCountry. The first row is highlighted. The status bar at the bottom indicates the query was executed successfully and returned 4 rows.

	ShipAddress	ShipCity	ShipCountry
1	8 Johnstown Road	Cork	Ireland
2	Carrera 22 con Ave. Carlos Soublette #8-35	San Cristóbal	Venezuela
3	Av. del Libertador 900	Buenos Aires	Argentina
4	C/ Araquil, 67	Madrid	Spain

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

```
SELECT DISTINCT ShipCountry
FROM Orders
JOIN [Order Details]
ON Orders.OrderID = [Order Details].OrderID
JOIN Products
ON [Order Details].ProductID = Products.ProductID
JOIN Categories
ON Products.CategoryID = Categories.CategoryID
WHERE CategoryName = 'Beverages'
```

Output is:



The screenshot shows a SQL Server Enterprise Manager window with a query results grid. The grid has one column: ShipCountry. The first row is highlighted. The status bar at the bottom indicates the query was executed successfully and returned 21 rows.

	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