DataBase Systems

CS262L-Home Task

Supervisor
Mr.Nauman Babar

Reg No:

Amna Zafar   2021-CS-27
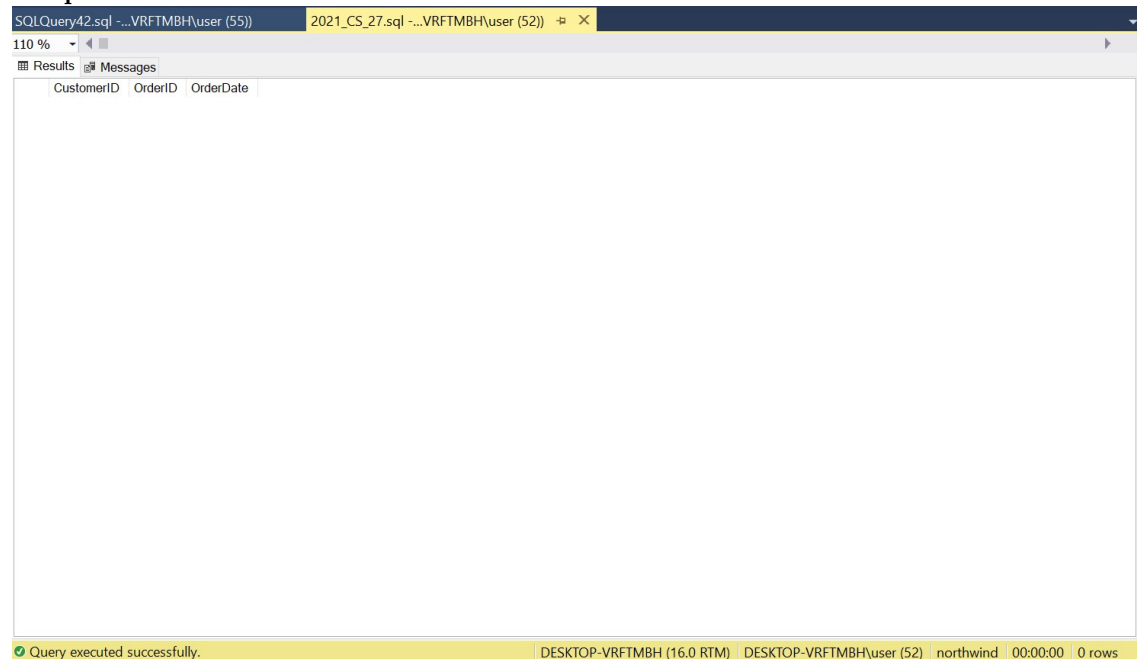
University of Engineering and Technology Lahore, Pakistan

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 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:

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:

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

SELECT CustomerID,COUNT(CustomerID) AS totalorders
FROM Orders
GROUP BY CustomerID
Output is:

	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

5

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 > 1996-07-04 AND Employees.HireDate < 1097-08-04

Output is:

EmployeeID	Date	

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(Orders.CustomerID) as totalquantity FROM Customers
JOIN Orders
ON Customers.CustomerID = Orders.CustomerID
WHERE Customers.Country ='USA'
Group By Customers.CustomerID;

Output is:

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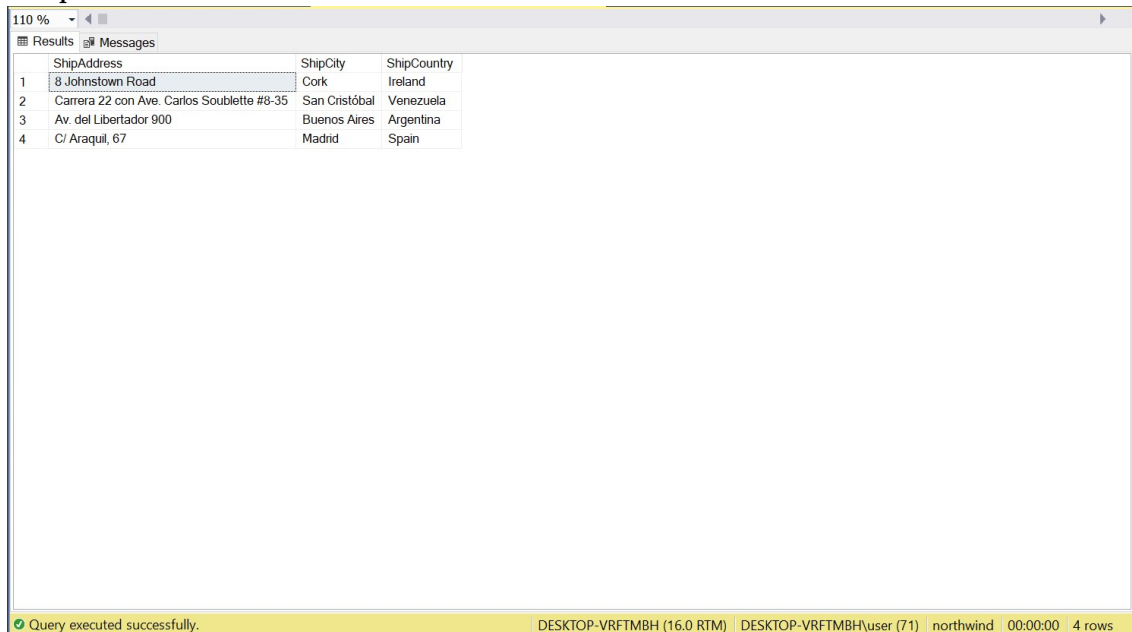
SELECT ShipAddress,ShipCity,ShipCountry
FROM Orders
JOIN Employees
ON Orders.EmployeeID = Employees.EmployeeID

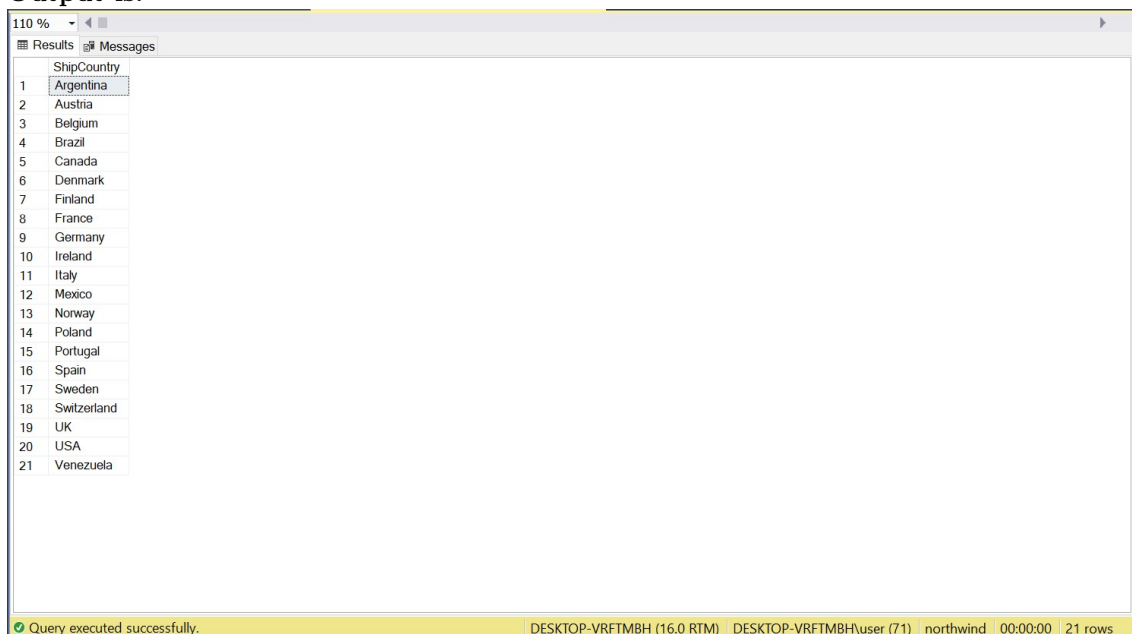WHERE Employees.FirstName = 'Anne' AND ShippedDate > RequiredDate

Output is:

	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

Query executed successfully.   DESKTOP-VRFTMBH (16.0 RTM)   DESKTOP-VRFTMBH\user (71)   northwind   00:00:00   4 rows

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:

	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

Query executed successfully.   DESKTOP-VRFTMBH (16.0 RTM)   DESKTOP-VRFTMBH\user (71)   northwind   00:00:00   21 rows