

Databases - T1

Syed Asghar Abbas Zaidi
07201, Fall 2025

1. List suppliers in the order of number of products supplied

Output: *CompanyName, No. of Products*

Result: 29 rows

```
-- Question 1 Asghar
select Suppliers.CompanyName, COUNT(Products.ProductID) as NoOfProducts
from Products
INNER JOIN Suppliers ON Products.SupplierID = Suppliers.SupplierID
Group by Suppliers.CompanyName
Order by NoOfProducts DESC
```

	CompanyName	NoOfProducts
1	Pavlova, Ltd.	5
2	Plutzer Lebensmittelgroßmärkte AG	5
3	Specialty Biscuits, Ltd.	4
4	New Orleans Cajun Delights	4
5	Norske Meierier	3
6	Formaggi Fortini s.r.l.	3
7	Mayumi's	3
8	Bigfoot Breweries	3
9	Exotic Liquids	3
10	G'day, Mate	3
11	Grandma Kelly's Homestead	3
12	Heli Süßwaren GmbH & Co. KG	3
13	Karkki Oy	3
14	Leka Trading	3
15	Svensk Sjöföda AB	3
16	Tokyo Traders	3
17	Zaanse Snoepfabriek	2
18	PB Knäckebröd AB	2
19	Aux joyeux ecclésiastiques	2
20	Lyngbysild	2
21	Ma Maison	2
22	Forêts d'érables	2
23	Cooperativa de Quesos "Las Cabr...	2
24	New England Seafood Cannery	2
25	Gai pâturage	2
26	Pasta Buttini s.r.l.	2
27	Nord-Ost-Fisch Handelsgesellsch...	1
28	Escargots Nouveaux	1
29	Refrescos Americanas LTDA	1

2. List number of products supplied by different suppliers in different categories

Output: *CompanyName, CategoryName, No. of Products, AveragePrice, Total Units in Stock*

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Result: 49 rows

```
-- Question 2
select Suppliers.CompanyName, CategoryName, COUNT(Products.ProductID) as NoOfProducts, AVG(Products.UnitPrice) as AveragePrice, COUNT(Products.UnitsInStock) as [Total Units in stock]
from Suppliers
INNER JOIN Products on Products.SupplierID = Suppliers.SupplierID
INNER JOIN Categories on Products.CategoryID = Categories.CategoryID
Group by Suppliers.CompanyName, Categories.CategoryName
```

	CompanyName	CategoryName	NoOfProducts	AveragePrice	Total Units in stock
19	Karkki Oy	Confections	2	18.125	2
20	Pavlova, Ltd.	Confections	1	17.45	1
21	Specialty Biscuits, Ltd	Confections	4	28.175	4
22	Zaanse Snoepfabriek	Confections	2	11.125	2
23	Cooperativa de Quesos 'Las Cabras'	Dairy Products	2	29.50	2
24	Fornaggi Fortini s.r.l.	Dairy Products	3	26.4333	3
25	Gai pâturage	Dairy Products	2	44.50	2
26	Norske Meierier	Dairy Products	3	20.00	3
27	G'day, Mate	Grains/Cereals	1	7.00	1
28	Leka Trading	Grains/Cereals	1	14.00	1
29	Pasta Buttiri s.r.l.	Grains/Cereals	2	28.75	2
30	PB Knäckebröd AB	Grains/Cereals	2	15.00	2
31	Plutzer Lebensmittelgroßmärkte AG	Grains/Cereals	1	33.25	1
32	G'day, Mate	Meat/Poultry	1	32.80	1
33	Ma Maison	Meat/Poultry	2	15.725	2
34	Pavlova, Ltd.	Meat/Poultry	1	39.00	1
35	Plutzer Lebensmittelgroßmärkte AG	Meat/Poultry	1	123.79	1
36	Tokyo Traders	Meat/Poultry	1	97.00	1
37	G'day, Mate	Produce	1	53.00	1
38	Grandma Kelly's Homestead	Produce	1	30.00	1
39	Mayumi's	Produce	1	23.25	1
40	Plutzer Lebensmittelgroßmärkte AG	Produce	1	45.60	1
41	Tokyo Traders	Produce	1	10.00	1
42	Escargots Nouveaux	Seafood	1	13.25	1
43	Lyngbøltd	Seafood	2	10.75	2
44	Mayumi's	Seafood	1	6.00	1
45	New England Seafood Cannery	Seafood	2	14.025	2
46	Nord-Ost-Fisch Handelsgesellscha...	Seafood	1	25.89	1
47	Pavlova, Ltd.	Seafood	1	62.50	1
48	Svensk Sjöföda AB	Seafood	3	20.00	3
49	Tokyo Traders	Seafood	1	31.00	1

3. Select suppliers supplying more than 4 products

Output: Supplier Name

Result: 2 rows

```
-- Question 3
select Suppliers.CompanyName, COUNT(Products.ProductID) as NoOfProducts
from Products
INNER JOIN Suppliers ON Products.SupplierID = Suppliers.SupplierID
Group by Suppliers.CompanyName
Having COUNT(Products.ProductID) > 4
Order by NoOfProducts DESC
```

	CompanyName	NoOfProducts
1	Pavlova, Ltd.	5
2	Plutzer Lebensmittelgroßmärkte AG	5

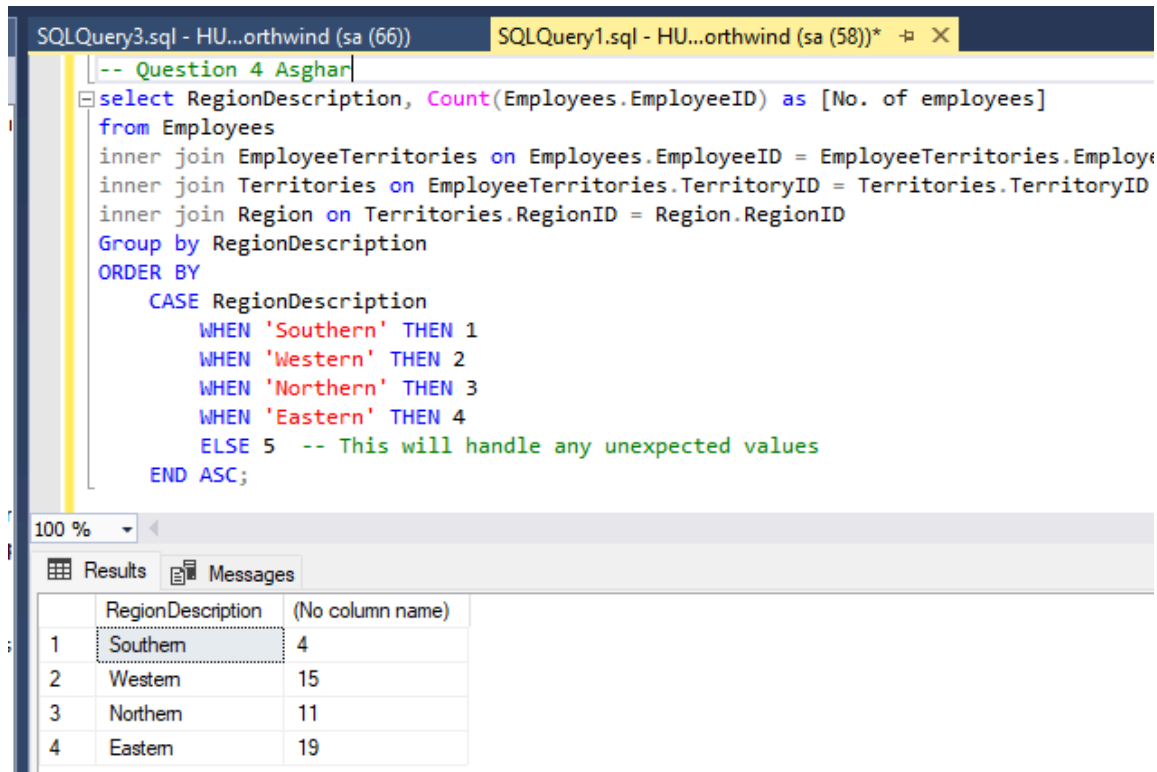
4. Fetch number of employees from the Employees Table who are working in each region, where the region is from the Region Table, in ascending order (Southern, Western, Northern, or Eastern)

Output: RegionDescription, No. of employees

Result: 4 rows

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The screenshot shows a SQL Server Enterprise Manager window with two tabs: 'SQLQuery3.sql - HU...orthwind (sa (66))' and 'SQLQuery1.sql - HU...orthwind (sa (58))'. The active tab displays a SQL query for 'Question 4 Asghar'. The query is a SELECT statement that counts the number of employees per region, joined with EmployeeTerritories and Territories tables. The results are ordered by region description using a CASE statement.

```
-- Question 4 Asghar
select RegionDescription, Count(Employees.EmployeeID) as [No. of employees]
from Employees
inner join EmployeeTerritories on Employees.EmployeeID = EmployeeTerritories.EmployeeID
inner join Territories on EmployeeTerritories.TerritoryID = Territories.TerritoryID
inner join Region on Territories.RegionID = Region.RegionID
Group by RegionDescription
ORDER BY
    CASE RegionDescription
        WHEN 'Southern' THEN 1
        WHEN 'Western' THEN 2
        WHEN 'Northern' THEN 3
        WHEN 'Eastern' THEN 4
        ELSE 5 -- This will handle any unexpected values
    END ASC;
```

Below the query editor, the 'Results' tab is active, showing a table with 4 rows and 3 columns: 'RegionDescription', '(No column name)', and a numeric value. The data is as follows:

	RegionDescription	(No column name)
1	Southern	4
2	Western	15
3	Northern	11
4	Eastern	19

5. Select the total amount of each order

(Total amount is calculated by summing up (Unit Price * Quantity) - Discount in order details.)

Output: OrderID, Total Amount

Result: 830 rows

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```
-- Question 5
select Orders.OrderID, sum((UnitPrice - (UnitPrice*Discount)) * Quantity)
from Orders
inner join [Order Details] on [Order Details].OrderID = Orders.OrderID
Group by Orders.OrderID
```

100 %

Results Messages

	OrderID	(No column name)
797	11044	591.599975585938
798	11045	1309.5
799	11046	1485.80001831055
800	11047	817.875030517578
801	11048	525
802	11049	273.599998474121
803	11050	810.000061035156
804	11051	36
805	11052	1332
806	11053	3055
807	11054	305
808	11055	1727.5
809	11056	3740
810	11057	45
811	11058	858
812	11059	1838
813	11060	266
814	11061	510
815	11062	406.399993896484
816	11063	1342.94995117188
817	11064	4330.39988708496
818	11065	189.419990539551
819	11066	928.749996185303
820	11067	86.8499984741211
821	11068	2027.07995605469
822	11069	360
823	11070	1629.97500610352
824	11071	484.5
825	11072	5218
826	11073	300
827	11074	232.085021972656
828	11075	498.10000038147
829	11076	792.75
830	11077	1255.72048187256

6. Find total number of products in each category

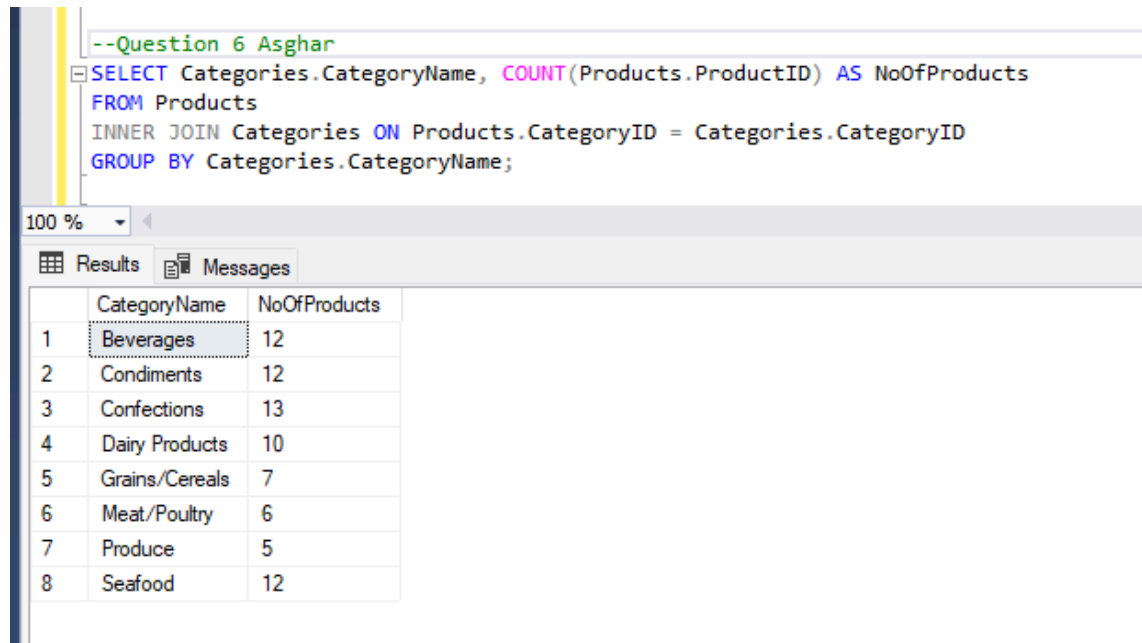
Output: Category Name, No. of Products

Result: 8 rows

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The screenshot shows a SQL query window with the following text:

```
--Question 6 Asghar
SELECT Categories.CategoryName, COUNT(Products.ProductID) AS NoOfProducts
FROM Products
INNER JOIN Categories ON Products.CategoryID = Categories.CategoryID
GROUP BY Categories.CategoryName;
```

Below the query window, the 'Results' tab is active, displaying a table with 8 rows and 2 columns: 'CategoryName' and 'NoOfProducts'.

	CategoryName	NoOfProducts
1	Beverages	12
2	Condiments	12
3	Confections	13
4	Dairy Products	10
5	Grains/Cereals	7
6	Meat/Poultry	6
7	Produce	5
8	Seafood	12

7. Find the number of orders placed by different customers for different suppliers, where ContactName is from the Customers Table and CompanyName is from the Suppliers Table

Output: ContactName, CompanyName, No. of orders

Result: 1236 rows

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```
--Question 7 Asghar
SELECT Customers.ContactName, Suppliers.CompanyName, COUNT(Orders.OrderID) AS OrdersFromSupplier
FROM Customers
INNER JOIN Orders ON Orders.CustomerID = Customers.CustomerID
INNER JOIN [Order Details] ON [Order Details].OrderID = Orders.OrderID
INNER JOIN Products ON Products.ProductID = [Order Details].ProductID
INNER JOIN Suppliers ON Suppliers.SupplierID = Products.SupplierID
GROUP BY Customers.ContactName, Suppliers.CompanyName, Customers.CustomerID
ORDER BY OrdersFromSupplier;
```

	ContactName	CompanyName	OrdersFromSupplier
1213	Palle Ibsen	Plutzer Lebensmittelgroßmärkte AG	6
1214	Jose Pavarotti	Gai pâturage	6
1215	Jose Pavarotti	New England Seafood Cannery	6
1216	Horst Kloss	Gai pâturage	6
1217	Horst Kloss	Plutzer Lebensmittelgroßmärkte AG	6
1218	Horst Kloss	Specialty Biscuits, Ltd.	6
1219	Horst Kloss	Exotic Liquids	6
1220	Paula Wilson	Formaggi Fortini s.r.l.	6
1221	Roland Mendel	Formaggi Fortini s.r.l.	6
1222	Roland Mendel	New Orleans Cajun Delights	6
1223	Roland Mendel	Norske Meierier	6
1224	Laurence Lebi...	Pavlova, Ltd.	6
1225	Christina Bergl...	Plutzer Lebensmittelgroßmärkte AG	6
1226	Carlos Hemán...	Plutzer Lebensmittelgroßmärkte AG	7
1227	Paula Wilson	Plutzer Lebensmittelgroßmärkte AG	7
1228	Jose Pavarotti	Pavlova, Ltd.	7
1229	Jose Pavarotti	Norske Meierier	7
1230	Jose Pavarotti	Specialty Biscuits, Ltd.	7
1231	Jose Pavarotti	Mayumi's	7
1232	Jose Pavarotti	Exotic Liquids	8
1233	Jose Pavarotti	Plutzer Lebensmittelgroßmärkte AG	9
1234	Horst Kloss	Leka Trading	9
1235	Roland Mendel	Plutzer Lebensmittelgroßmärkte AG	11
1236	Roland Mendel	Pavlova, Ltd.	12

8. Find number of orders handled by different employees in different years.

Output: EmployeeName, Year, No. of Orders.

Result contains 27 rows.

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```
--Question 8 Asghar
SELECT CONCAT(Employees.FirstName, ' ', Employees.LastName) AS EmployeeName, YEAR(Orders.OrderDate) AS Year, COUNT(Orders.OrderID) AS No_of_Orders
FROM Orders
JOIN Employees ON Orders.EmployeeID = Employees.EmployeeID
GROUP BY CONCAT(Employees.FirstName, ' ', Employees.LastName), YEAR(Orders.OrderDate)
ORDER BY EmployeeName, Year;
```

100 %

	EmployeeName	Year	No_of_Orders
1	Andrew Fuller	1996	16
2	Andrew Fuller	1997	41
3	Andrew Fuller	1998	39
4	Anne Dodsworth	1996	5
5	Anne Dodsworth	1997	19
6	Anne Dodsworth	1998	19
7	Janet Leverling	1996	18
8	Janet Leverling	1997	71
9	Janet Leverling	1998	38
10	Laura Callahan	1996	19
11	Laura Callahan	1997	54
12	Laura Callahan	1998	31
13	Margaret Peacock	1996	31
14	Margaret Peacock	1997	81
15	Margaret Peacock	1998	44
16	Michael Suyama	1996	15
17	Michael Suyama	1997	33
18	Michael Suyama	1998	19
19	Nancy Davolio	1996	26
20	Nancy Davolio	1997	55
21	Nancy Davolio	1998	42
22	Robert King	1996	11
23	Robert King	1997	36
24	Robert King	1998	25
25	Steven Buchanan	1996	11
26	Steven Buchanan	1997	18
27	Steven Buchanan	1998	13

9. Find number of orders, in descending order, handled by different employees under different managers.

Output: Manager Name, Employee Name, No. of orders.

Result contains 8 rows.

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```
--Question 9 Asghar
SELECT
    CONCAT(M.FirstName, ' ', M.LastName) AS [Manager Name],
    CONCAT(E.FirstName, ' ', E.LastName) AS [Employee Name],
    COUNT(DISTINCT Orders.OrderID) AS [No of Orders]
FROM Orders
INNER JOIN Employees E ON E.EmployeeID = Orders.EmployeeID
INNER JOIN Employees M ON M.ReportsTo = Orders.EmployeeID
GROUP BY
    CONCAT(M.FirstName, ' ', M.LastName),
    CONCAT(E.FirstName, ' ', E.LastName)
ORDER BY
    CONCAT(M.FirstName, ' ', M.LastName),
    CONCAT(E.FirstName, ' ', E.LastName)
```

100 %

Results Messages

	Manager Name	Employee Name	No of Orders
1	Anne Dodsworth	Steven Buchanan	42
2	Janet Leverling	Andrew Fuller	96
3	Laura Callahan	Andrew Fuller	96
4	Margaret Peacock	Andrew Fuller	96
5	Michael Suyama	Steven Buchanan	42
6	Nancy Davolio	Andrew Fuller	96
7	Robert King	Steven Buchanan	42
8	Steven Buchanan	Andrew Fuller	96

10. Fetch no. of employees in each region from Region Table. If there is no employee in any region, even then the region name should appear in the list with employee count of 0.

Output: Region Name, No. of employees

Result contains 4 rows.

```
--Question 10 Asghar
SELECT Region.RegionDescription, COALESCE(COUNT(DISTINCT Employees.EmployeeID), 0) AS NumberOfEmployees
FROM Region
LEFT JOIN Territories ON Region.RegionID = Territories.RegionID
LEFT JOIN EmployeeTerritories ON Territories.TerritoryID = EmployeeTerritories.TerritoryID
LEFT JOIN Employees ON EmployeeTerritories.EmployeeID = Employees.EmployeeID
GROUP BY Region.RegionDescription
```

100 %

Results Messages

	RegionDescription	NumberOfEmployees
1	Eastern	4
2	Northern	2
3	Southern	1
4	Western	2

11. Find all combinations of employees and customer ordered by employee ID.

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Output: Employee Full Name, Customer Name. Note that the Full name is generated by concatenating First Name and Last Name.

Result contains 819 rows.

```
-- Question 11 Asghar
SELECT CONCAT(Employees.FirstName, ' ', Employees.LastName) AS [Employee Full Name], Customers.ContactName AS CustomerName
FROM Employees
CROSS JOIN Customers
ORDER BY Employees.EmployeeID
```

	Employee Full Name	CustomerName
802	Anne Dodsworth	Dominique Perrier
803	Anne Dodsworth	Art Braunschweig...
804	Anne Dodsworth	Pascale Cartrain
805	Anne Dodsworth	Liz Nixon
806	Anne Dodsworth	Liu Wong
807	Anne Dodsworth	Karin Josephs
808	Anne Dodsworth	Miguel Angel Pa...
809	Anne Dodsworth	Anabela Doming...
810	Anne Dodsworth	Helvetius Nagy
811	Anne Dodsworth	Palle Ibsen
812	Anne Dodsworth	Mary Saveley
813	Anne Dodsworth	Paul Henriot
814	Anne Dodsworth	Rita Müller
815	Anne Dodsworth	Pirkko Koskitalo
816	Anne Dodsworth	Paula Parente
817	Anne Dodsworth	Karl Jablonski
818	Anne Dodsworth	Matti Karttunen
819	Anne Dodsworth	Zbyszek Piestrze...

12. Get CustomerID and ContactName from Customers alphabetically, by Country and name.

Output: CustomerID, ContactName

Result contains 90 rows.

```
-- Question 12 Asghar
SELECT Customers.CustomerID, Customers.ContactName
FROM Customers
ORDER BY Customers.ContactName, Customers.Country ASC
```

	CustomerID	ContactName
86	BSBEV	Victoria Ashworth
87	CHOPS	Yang Wang
88	HUNGC	Yoshi Latimer
89	LAUGB	Yoshi Tannamuri
90	OCEAN	Yvonne Moncada
91	WOLZA	Zbyszek Piestrzeni...

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13. Display the number of employees and customers from each city that has employees in it ordered by City.

Output: Number of Employees, Customers

Result contains 5 rows.

```
-- Question 13 Asghar
select COUNT(DISTINCT Employees.EmployeeID) AS [Number of Employees], COUNT(DISTINCT Customers.CustomerID) AS [Number of Customers]
from Customers
right join Employees ON Employees.City = Customers.City
group by Employees.City
order by Employees.City
```

	Number of Employees	Number of Customers
1	1	1
2	4	6
3	1	0
4	2	1
5	1	0

14. Display the number of employees and customers from each city.

Output: Number of Employees, Customers

Result contains 71 rows.

```
-- Question 14 Asghar
SELECT COUNT(DISTINCT Employees.EmployeeID) AS [Number of Employees], COUNT(DISTINCT Customers.CustomerID) AS [Number of Customers],
COALESCE(Employees.City, Customers.City) AS City
from Customers
full outer join Employees ON Employees.City = Customers.City
group by Employees.City, Customers.City
```

	Number of Employees	Number of Customers	City
66	0	1	Warszawa
67	1	1	Kirkland
68	4	6	London
69	1	0	Redmond
70	2	1	Seattle
71	1	0	Tacoma

15. Display the order ids and the associated employee names for orders that shipped after the required date.

Output: OrderID, Employee Full Name

Result contains 37 rows.

```
-- Question 15 Asghar
select Orders.OrderID, CONCAT(Employees.FirstName, ' ', Employees.LastName) AS [Employee Full Name]
from Employees
inner join Orders ON Orders.EmployeeID = Employees.EmployeeID
where Orders.ShippedDate > Orders.RequiredDate
```

	OrderID	Employee Full Name
32	10828	Anne Dodsworth
33	10847	Margaret Peacock
34	10924	Janet Leverling
35	10927	Margaret Peacock
36	10960	Janet Leverling
37	10970	Anne Dodsworth

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16. Display the total quantity of products (from the Order Details table) ordered. Only show records for products for which the quantity ordered is fewer than 200.

Output: OrderID, Employee Full Name

Result contains 5 rows.

```
-- Question 16 Asghar
select [Order Details].ProductID, SUM([Order Details].Quantity) AS [Total Ordered Quantity]
from [Order Details]
group by [Order Details].ProductID
having SUM([Order Details].Quantity) < 200
```

	ProductID	Total Ordered Quantity
1	15	122
2	9	95
3	67	184
4	48	138
5	37	125

17. Display the total number of orders by Customer since December 31, 1996. The report should only return rows for which the total number of orders is greater than 15. it should display CustomerID and Total Number of Orders.

Output: CustomerID, Total Number of Orders.

Result contains 5 rows

```
-- Question 17 Asghar
select Orders.CustomerID, COUNT(DISTINCT Orders.OrderID) as [No of Orders]
from Orders
where Orders.OrderDate > '1996-12-31'
group by Orders.CustomerID
having COUNT(DISTINCT Orders.OrderID) > 15
```

	CustomerID	No of Orders
1	ERNSH	24
2	FOLKO	16
3	HILAA	16
4	QUICK	22
5	SAVEA	28

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Code:

```
--Code:
--select * from Suppliers
--select * from Products
--where ProductsID.Products =

-- Question 1 Asghar
select Suppliers.CompanyName, COUNT(Products.ProductID) as
NoOfProducts
from Products
INNER JOIN Suppliers ON Products.SupplierID = Suppliers.SupplierID
Group by Suppliers.CompanyName
Order by NoOfProducts DESC

-- Question 2
select Suppliers.CompanyName, CategoryName, COUNT(Products.ProductID)
as NoOfProducts, AVG(Products.UnitPrice) as AveragePrice,
COUNT(Products.UnitsInStock) as [Total Units in stock]
from Suppliers
INNER JOIN Products on Products.SupplierID = Suppliers.SupplierID
INNER JOIN Categories on Products.CategoryID = Categories.CategoryID
Group by Suppliers.CompanyName, Categories.CategoryName

-- Question 3
select Suppliers.CompanyName, COUNT(Products.ProductID) as
NoOfProducts
from Products
INNER JOIN Suppliers ON Products.SupplierID = Suppliers.SupplierID
Group by Suppliers.CompanyName
Having COUNT(Products.ProductID) > 4
Order by NoOfProducts DESC

-- Question 4 Asghar
select RegionDescription, Count(Employees.EmployeeID) as [No. of
employees]
from Employees
inner join EmployeeTerritories on Employees.EmployeeID =
EmployeeTerritories.EmployeeID
inner join Territories on EmployeeTerritories.TerritoryID =
Territories.TerritoryID
inner join Region on Territories.RegionID = Region.RegionID
```

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```
Group by RegionDescription
ORDER BY
    CASE RegionDescription
    WHEN 'Southern' THEN 1
    WHEN 'Western' THEN 2
    WHEN 'Northern' THEN 3
    WHEN 'Eastern' THEN 4
    ELSE 5 -- This will handle any unexpected values
    END ASC;

-- Question 5
select Orders.OrderID, sum((UnitPrice -(UnitPrice*Discount)) *
Quantity)
from Orders
inner join [Order Details] on [Order Details].OrderID =
Orders.OrderID
Group by Orders.OrderID

--Question 6 Asghar
select Categories.CategoryName, COUNT(Products.ProductID) as
NoOfProducts
from Products
inner join Categories on Products.CategoryID = Categories.CategoryID
group by Categories.CategoryName;

--Question 7 Asghar
SELECT Customers.ContactName, Suppliers.CompanyName,
COUNT(Orders.OrderID) AS OrdersFromSupplier
FROM Customers
INNER JOIN Orders ON Orders.CustomerID = Customers.CustomerID
INNER JOIN [Order Details] ON [Order Details].OrderID =
Orders.OrderID
INNER JOIN Products ON Products.ProductID = [Order Details].ProductID
INNER JOIN Suppliers ON Suppliers.SupplierID = Products.SupplierID
GROUP BY Customers.ContactName, Suppliers.CompanyName,
Customers.CustomerID
ORDER BY OrdersFromSupplier;

--Question 8 Asghar
SELECT CONCAT(Employees.FirstName, ' ', Employees.LastName) AS
EmployeeName, YEAR(Orders.OrderDate) AS Year, COUNT(Orders.OrderID)
```

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```
AS No_of_Orders
FROM Orders
JOIN Employees ON Orders.EmployeeID = Employees.EmployeeID
GROUP BY CONCAT(Employees.FirstName, ' ', Employees.LastName),
YEAR(Orders.OrderDate)
ORDER BY EmployeeName, Year;

--Question 9 Asghar
select
    CONCAT(M.FirstName, ' ', M.LastName) as [Manager Name],
    CONCAT(E.FirstName, ' ', E.LastName) as [Employee Name],
    COUNT(DISTINCT Orders.OrderID) as [No of Orders]
from Orders
inner join Employees E on E.EmployeeID = Orders.EmployeeID
inner join Employees M on M.ReportsTo = Orders.EmployeeID
group by CONCAT(M.FirstName, ' ', M.LastName), CONCAT(E.FirstName, ' ', E.LastName)
order by CONCAT(M.FirstName, ' ', M.LastName), CONCAT(E.FirstName, ' ', E.LastName)

--Question 10 Asghar
SELECT Region.RegionDescription, COALESCE(COUNT(DISTINCT
Employees.EmployeeID), 0) AS NumberOfEmployees
FROM Region
LEFT JOIN Territories ON Region.RegionID = Territories.RegionID
LEFT JOIN EmployeeTerritories ON Territories.TerritoryID =
EmployeeTerritories.TerritoryID
LEFT JOIN Employees ON EmployeeTerritories.EmployeeID =
Employees.EmployeeID
GROUP BY Region.RegionDescription

-- Question 11 Asghar
SELECT CONCAT(Employees.FirstName, ' ', Employees.LastName) AS
[Employee Full Name], Customers.ContactName AS CustomerName
FROM Employees
CROSS JOIN Customers
ORDER BY Employees.EmployeeID

-- Question 12 Asghar
SELECT Customers.CustomerID, Customers.ContactName
FROM Customers
```

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```
ORDER BY Customers.ContactName, Customers.Country ASC
```

```
-- Question 13 Asghar
```

```
select COUNT(DISTINCT Employees.EmployeeID) AS [Number of Employees],  
COUNT(DISTINCT Customers.CustomerID) AS [Number of Customers]  
from Customers  
right join Employees ON Employees.City = Customers.City  
group by Employees.City  
order by Employees.City
```

```
-- Question 14 Asghar
```

```
SELECT COUNT(DISTINCT Employees.EmployeeID) AS [Number of Employees],  
COUNT(DISTINCT Customers.CustomerID) AS [Number of Customers],  
COALESCE(Employees.City, Customers.City) AS City  
from Customers  
full outer join Employees ON Employees.City = Customers.City  
group by Employees.City, Customers.City
```

```
-- Question 15 Asghar
```

```
select Orders.OrderID, CONCAT(Employees.FirstName, ' ',  
Employees.LastName) AS [Employee Full Name]  
from Employees  
inner join Orders ON Orders.EmployeeID = Employees.EmployeeID  
where Orders.ShippedDate > Orders.RequiredDate
```

```
-- Question 16 Asghar
```

```
select [Order Details].ProductID, SUM([Order Details].Quantity) AS  
[Total Ordered Quantity]  
from [Order Details]  
group by [Order Details].ProductID  
having SUM([Order Details].Quantity) < 200
```

```
-- Question 17 Asghar
```

```
select Orders.CustomerID, COUNT(DISTINCT Orders.OrderID) as [No of  
Orders]  
from Orders  
where Orders.OrderDate > '1996-12-31'  
group by Orders.CustomerID  
having COUNT(DISTINCT Orders.OrderID) > 15
```