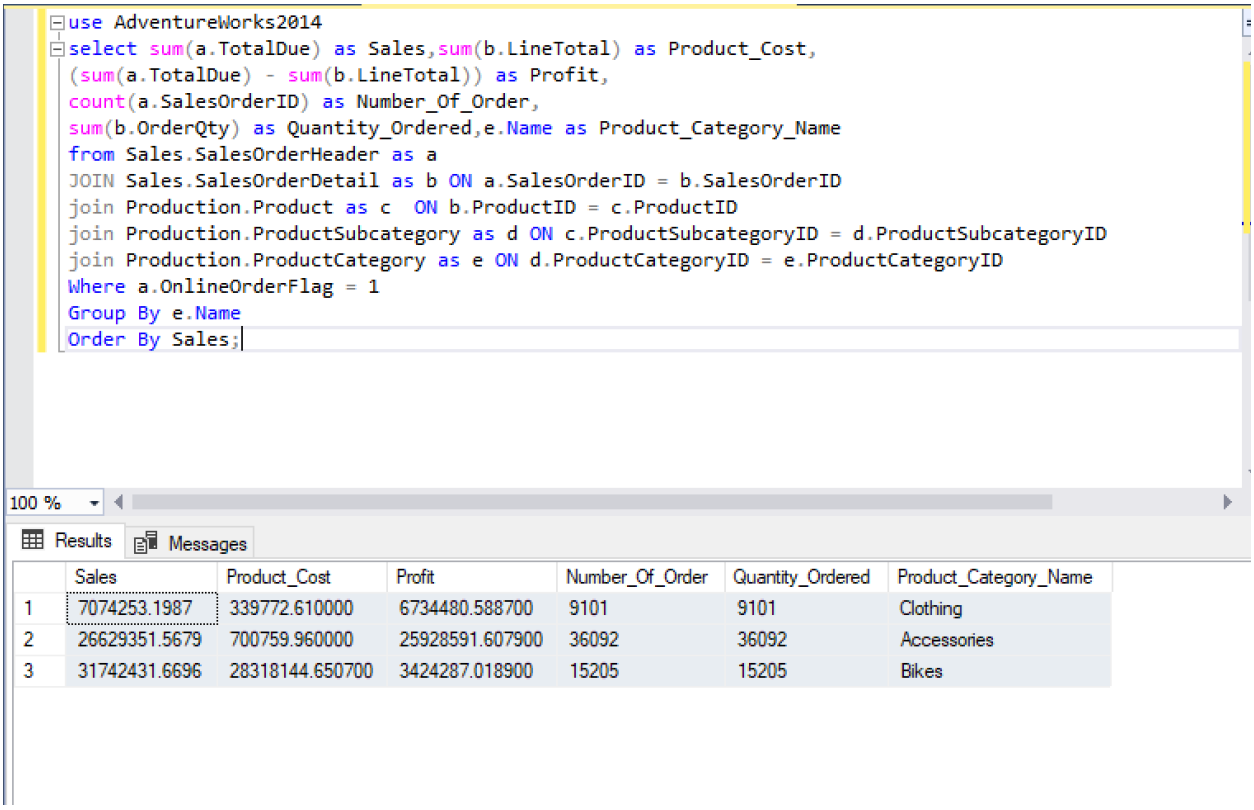
ADVENTURE WORK 2014

1.

```
use AdventureWorks2014
select sum(a.TotalDue) as Sales,sum(b.LineTotal) as Product_Cost,
(sum(a.TotalDue) - sum(b.LineTotal)) as Profit,
count(a.SalesOrderID) as Number_Of_Order,
sum(b.OrderQty) as Quantity_Ordered,e.Name as Product_Category_Name
from Sales.SalesOrderHeader as a
JOIN Sales.SalesOrderDetail as b ON a.SalesOrderID = b.SalesOrderID
join Production.Product as c  ON b.ProductID = c.ProductID
join Production.ProductSubcategory as d ON c.ProductSubcategoryID =
d.ProductSubcategoryID
join Production.ProductCategory as e ON d.ProductCategoryID = e.ProductCategoryID
Where a.OnlineOrderFlag = 1
Group By e.Name
Order By Sales;
```



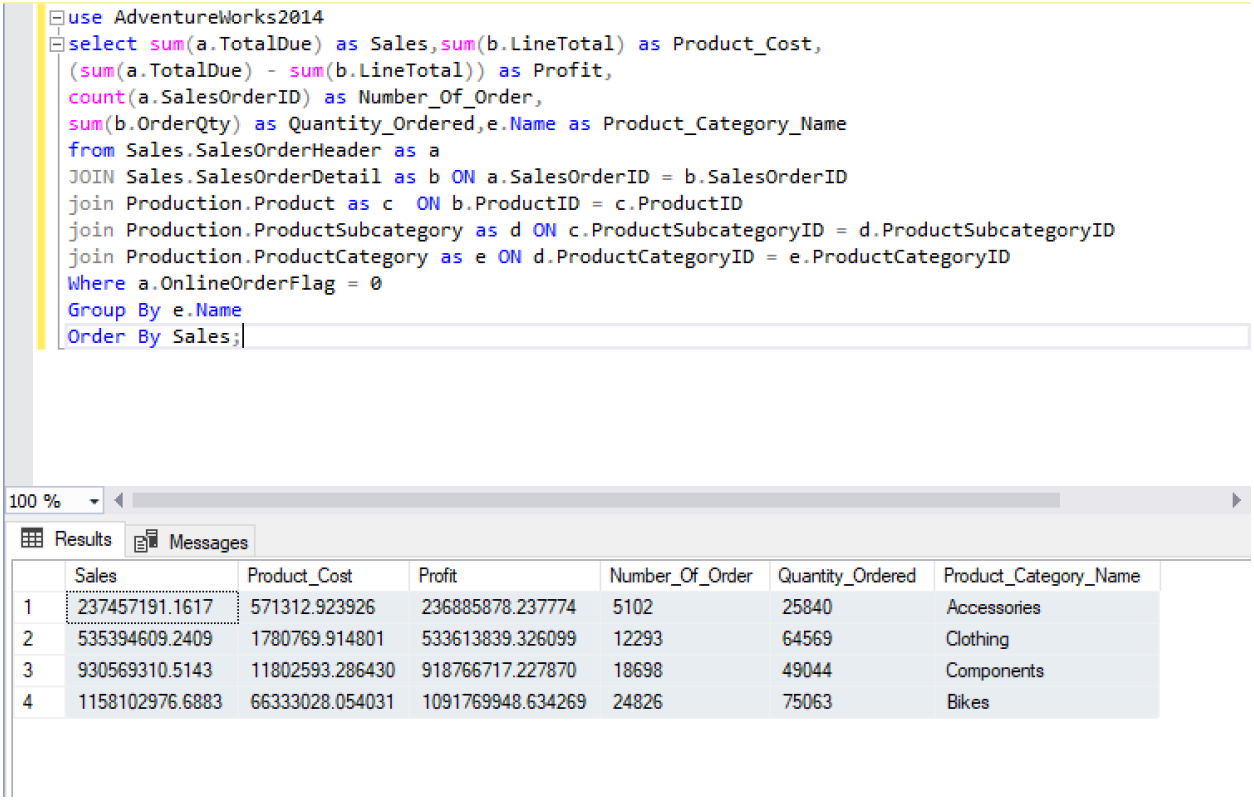
100 %

Results | Messages

	Sales	Product_Cost	Profit	Number_Of_Order	Quantity_Ordered	Product_Category_Name
1	7074253.1987	339772.610000	6734480.588700	9101	9101	Clothing
2	26629351.5679	700759.960000	25928591.607900	36092	36092	Accessories
3	31742431.6696	28318144.650700	3424287.018900	15205	15205	Bikes

2.

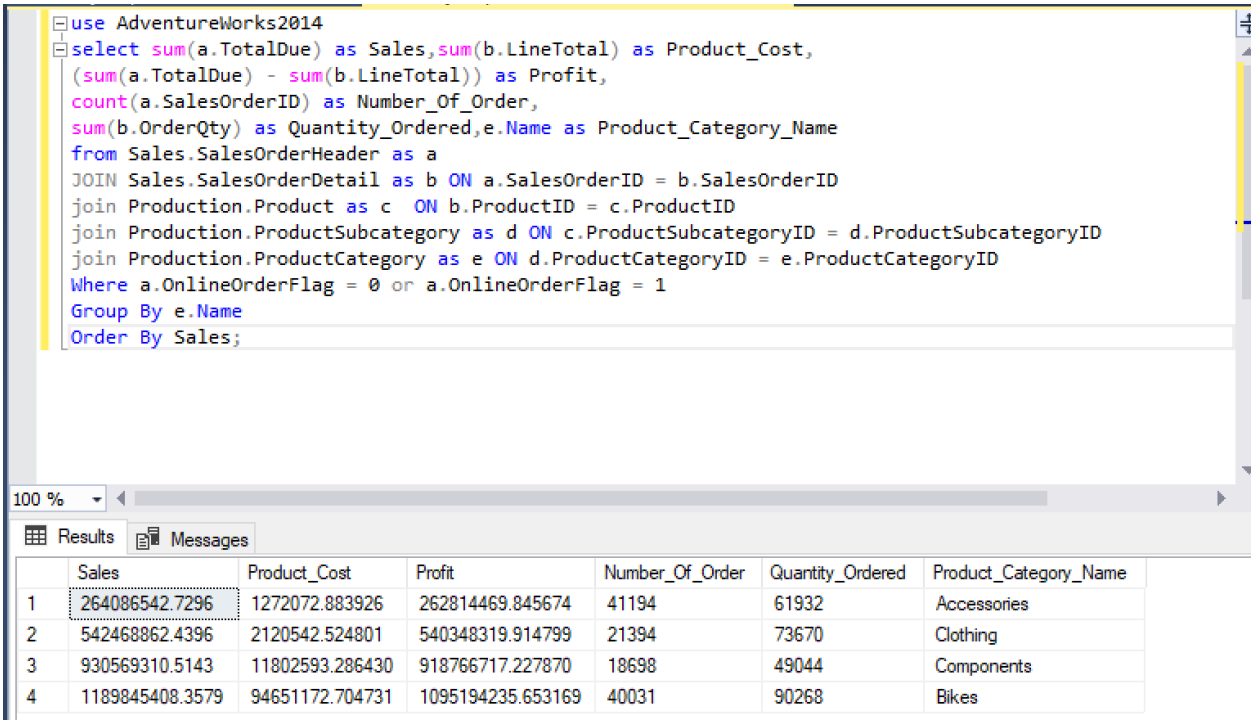
```
use AdventureWorks2014
select sum(a.TotalDue) as Sales,sum(b.LineTotal) as Product_Cost,
(sum(a.TotalDue) - sum(b.LineTotal)) as Profit,
count(a.SalesOrderID) as Number_Of_Order,
sum(b.OrderQty) as Quantity_Ordered,e.Name as Product_Category_Name
from Sales.SalesOrderHeader as a
JOIN Sales.SalesOrderDetail as b ON a.SalesOrderID = b.SalesOrderID
join Production.Product as c  ON b.ProductID = c.ProductID
join Production.ProductSubcategory as d ON c.ProductSubcategoryID =
d.ProductSubcategoryID
join Production.ProductCategory as e ON d.ProductCategoryID = e.ProductCategoryID
Where a.OnlineOrderFlag = 0
Group By e.Name
Order By Sales;
```



	Sales	Product_Cost	Profit	Number_Of_Order	Quantity_Ordered	Product_Category_Name
1	237457191.1617	571312.923926	236885878.237774	5102	25840	Accessories
2	535394609.2409	1780769.914801	533613839.326099	12293	64569	Clothing
3	930569310.5143	11802593.286430	918766717.227870	18698	49044	Components
4	1158102976.6883	66333028.054031	1091769948.634269	24826	75063	Bikes

3.

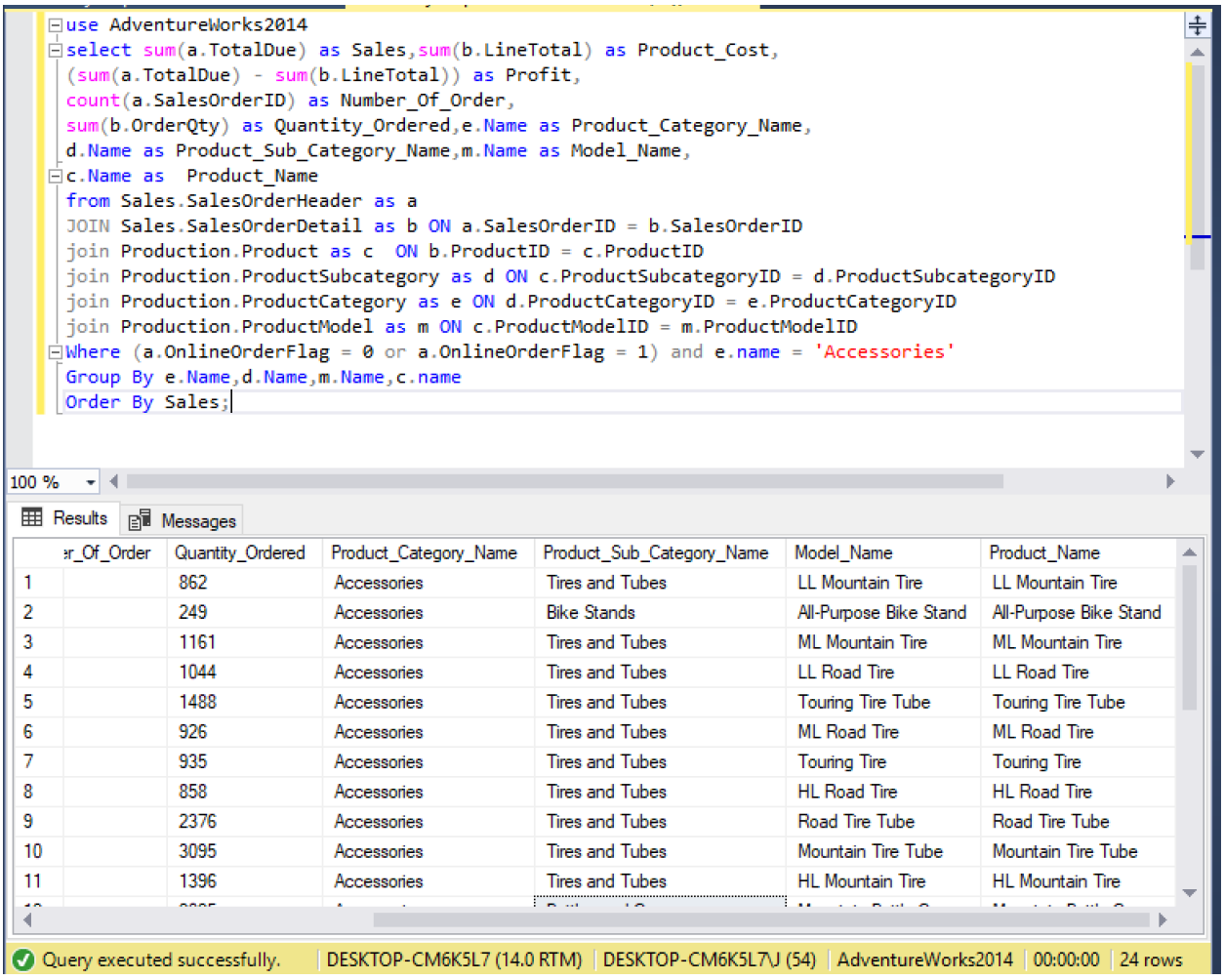
```
use AdventureWorks2014
select sum(a.TotalDue) as Sales,sum(b.LineTotal) as Product_Cost,
(sum(a.TotalDue) - sum(b.LineTotal)) as Profit,
count(a.SalesOrderID) as Number_Of_Order,
sum(b.OrderQty) as Quantity_Ordered,e.Name as Product_Category_Name
from Sales.SalesOrderHeader as a
JOIN Sales.SalesOrderDetail as b ON a.SalesOrderID = b.SalesOrderID
join Production.Product as c  ON b.ProductID = c.ProductID
join Production.ProductSubcategory as d ON c.ProductSubcategoryID =
d.ProductSubcategoryID
join Production.ProductCategory as e ON d.ProductCategoryID = e.ProductCategoryID
Where a.OnlineOrderFlag = 0 or a.OnlineOrderFlag = 1
Group By e.Name
Order By Sales;
```



	Sales	Product_Cost	Profit	Number_Of_Order	Quantity_Ordered	Product_Category_Name
1	264086542.7296	1272072.883926	262814469.845674	41194	61932	Accessories
2	542468862.4396	2120542.524801	540348319.914799	21394	73670	Clothing
3	930569310.5143	11802593.286430	918766717.227870	18698	49044	Components
4	1189845408.3579	94651172.704731	1095194235.653169	40031	90268	Bikes

4.

```
use AdventureWorks2014
select sum(a.TotalDue) as Sales,sum(b.LineTotal) as Product_Cost,
(sum(a.TotalDue) - sum(b.LineTotal)) as Profit,
count(a.SalesOrderID) as Number_Of_Order,
sum(b.OrderQty) as Quantity_Ordered,e.Name as Product_Category_Name,
d.Name as Product_Sub_Category_Name,m.Name as Model_Name,
c.Name as  Product_Name
from Sales.SalesOrderHeader as a
JOIN Sales.SalesOrderDetail as b ON a.SalesOrderID = b.SalesOrderID
join Production.Product as c  ON b.ProductID = c.ProductID
join Production.ProductSubcategory as d ON c.ProductSubcategoryID =
d.ProductSubcategoryID
join Production.ProductCategory as e ON d.ProductCategoryID = e.ProductCategoryID
join Production.ProductModel as m ON c.ProductModelID = m.ProductModelID
Where (a.OnlineOrderFlag = 0 or a.OnlineOrderFlag = 1) and e.name = 'Accessories'
Group By e.Name,d.Name,m.Name,c.name
Order By Sales;
```



100 %

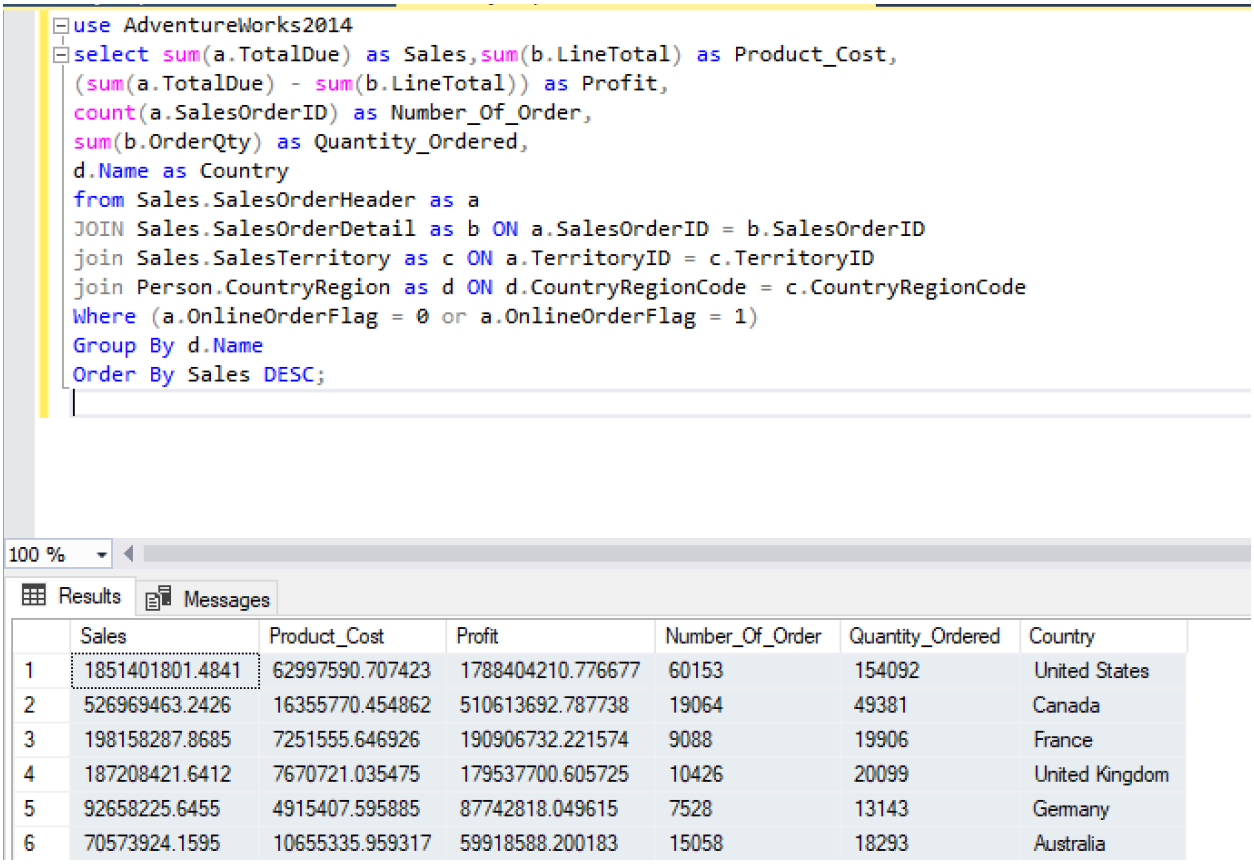
Results | Messages

	er_Of_Order	Quantity_Ordered	Product_Category_Name	Product_Sub_Category_Name	Model_Name	Product_Name
1		862	Accessories	Tires and Tubes	LL Mountain Tire	LL Mountain Tire
2		249	Accessories	Bike Stands	All-Purpose Bike Stand	All-Purpose Bike Stand
3		1161	Accessories	Tires and Tubes	ML Mountain Tire	ML Mountain Tire
4		1044	Accessories	Tires and Tubes	LL Road Tire	LL Road Tire
5		1488	Accessories	Tires and Tubes	Touring Tire Tube	Touring Tire Tube
6		926	Accessories	Tires and Tubes	ML Road Tire	ML Road Tire
7		935	Accessories	Tires and Tubes	Touring Tire	Touring Tire
8		858	Accessories	Tires and Tubes	HL Road Tire	HL Road Tire
9		2376	Accessories	Tires and Tubes	Road Tire Tube	Road Tire Tube
10		3095	Accessories	Tires and Tubes	Mountain Tire Tube	Mountain Tire Tube
11		1396	Accessories	Tires and Tubes	HL Mountain Tire	HL Mountain Tire

Query executed successfully. | DESKTOP-CM6K5L7 (14.0 RTM) | DESKTOP-CM6K5L7\J (54) | AdventureWorks2014 | 00:00:00 | 24 rows

5.

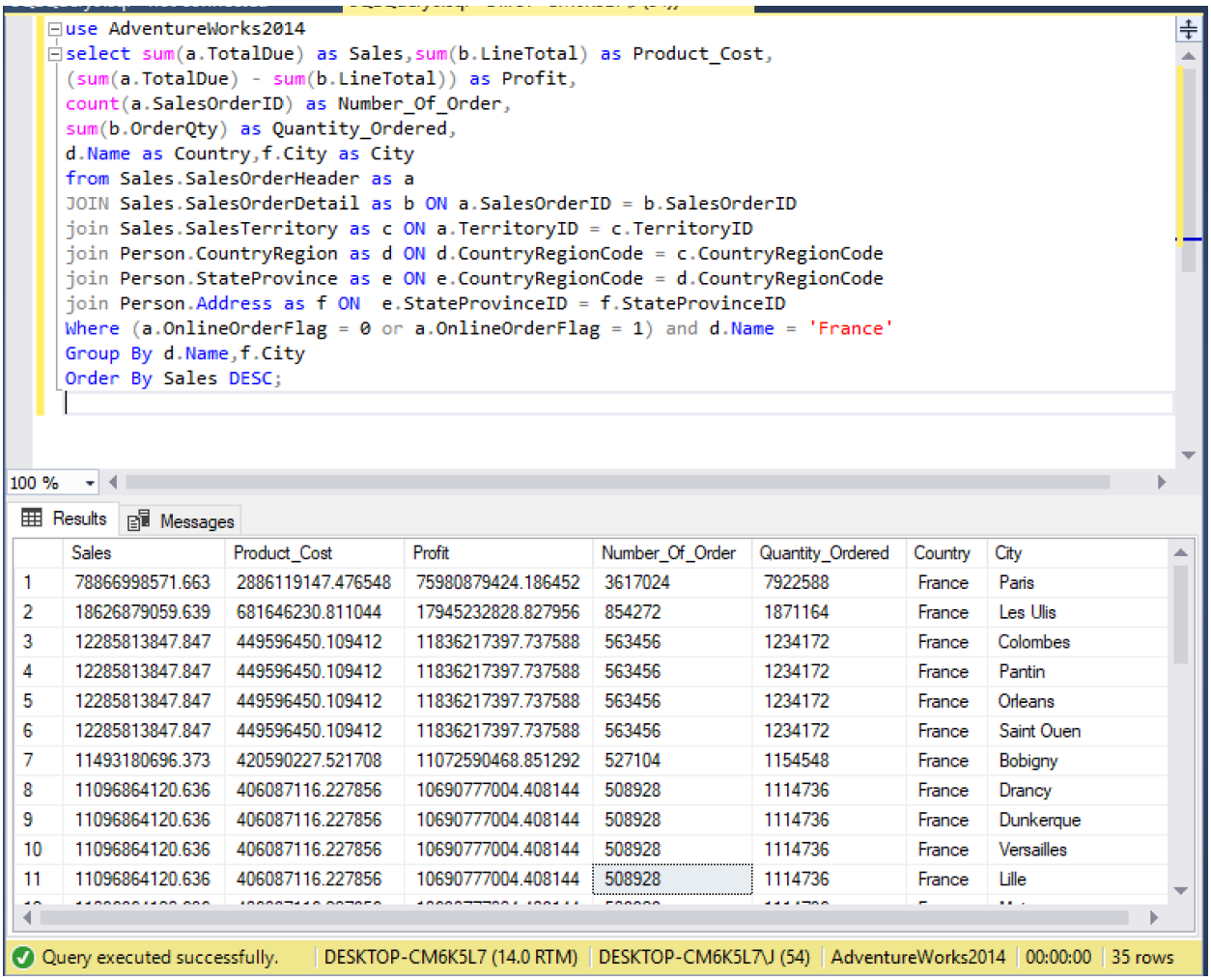
```
use AdventureWorks2014
select sum(a.TotalDue) as Sales,sum(b.LineTotal) as Product_Cost,
(sum(a.TotalDue) - sum(b.LineTotal)) as Profit,
count(a.SalesOrderID) as Number_Of_Order,
sum(b.OrderQty) as Quantity_Ordered,
d.Name as Country
from Sales.SalesOrderHeader as a
JOIN Sales.SalesOrderDetail as b ON a.SalesOrderID = b.SalesOrderID
join Sales.SalesTerritory as c ON a.TerritoryID = c.TerritoryID
join Person.CountryRegion as d ON d.CountryRegionCode = c.CountryRegionCode
Where (a.OnlineOrderFlag = 0 or a.OnlineOrderFlag = 1)
Group By d.Name
Order By Sales DESC;
```



	Sales	Product_Cost	Profit	Number_Of_Order	Quantity_Ordered	Country
1	1851401801.4841	62997590.707423	1788404210.776677	60153	154092	United States
2	526969463.2426	16355770.454862	510613692.787738	19064	49381	Canada
3	198158287.8685	7251555.646926	190906732.221574	9088	19906	France
4	187208421.6412	7670721.035475	179537700.605725	10426	20099	United Kingdom
5	92658225.6455	4915407.595885	87742818.049615	7528	13143	Germany
6	70573924.1595	10655335.959317	59918588.200183	15058	18293	Australia

6.

```
use AdventureWorks2014
select sum(a.TotalDue) as Sales,sum(b.LineTotal) as Product_Cost,
(sum(a.TotalDue) - sum(b.LineTotal)) as Profit,
count(a.SalesOrderID) as Number_Of_Order,
sum(b.OrderQty) as Quantity_Ordered,
d.Name as Country,f.City as City
from Sales.SalesOrderHeader as a
JOIN Sales.SalesOrderDetail as b ON a.SalesOrderID = b.SalesOrderID
join Sales.SalesTerritory as c ON a.TerritoryID = c.TerritoryID
join Person.CountryRegion as d ON d.CountryRegionCode = c.CountryRegionCode
join Person.StateProvince as e ON e.CountryRegionCode = d.CountryRegionCode
join Person.Address as f ON  e.StateProvinceID = f.StateProvinceID
Where (a.OnlineOrderFlag = 0 or a.OnlineOrderFlag = 1) and d.Name = 'France'
Group By d.Name,f.City
Order By Sales DESC;
```



100 %

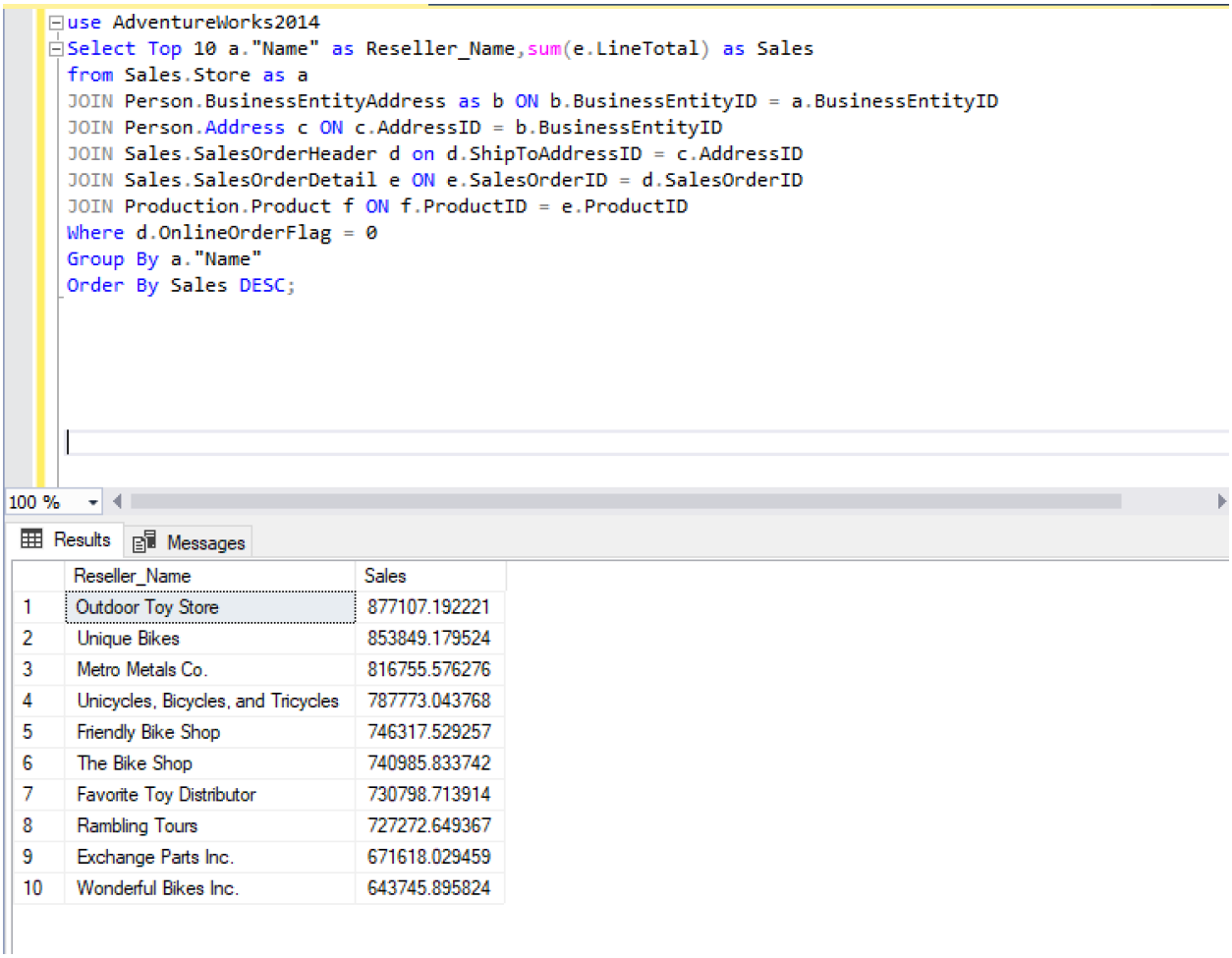
Results | Messages

	Sales	Product_Cost	Profit	Number_Of_Order	Quantity_Ordered	Country	City
1	78866998571.663	2886119147.476548	75980879424.186452	3617024	7922588	France	Paris
2	18626879059.639	681646230.811044	17945232828.827956	854272	1871164	France	Les Ulis
3	12285813847.847	449596450.109412	11836217397.737588	563456	1234172	France	Colombes
4	12285813847.847	449596450.109412	11836217397.737588	563456	1234172	France	Pantin
5	12285813847.847	449596450.109412	11836217397.737588	563456	1234172	France	Orleans
6	12285813847.847	449596450.109412	11836217397.737588	563456	1234172	France	Saint Ouen
7	11493180696.373	420590227.521708	11072590468.851292	527104	1154548	France	Bobigny
8	11096864120.636	406087116.227856	10690777004.408144	508928	1114736	France	Drancy
9	11096864120.636	406087116.227856	10690777004.408144	508928	1114736	France	Dunkerque
10	11096864120.636	406087116.227856	10690777004.408144	508928	1114736	France	Versailles
11	11096864120.636	406087116.227856	10690777004.408144	508928	1114736	France	Lille

Query executed successfully. | DESKTOP-CM6K5L7 (14.0 RTM) | DESKTOP-CM6K5L7\J (54) | AdventureWorks2014 | 00:00:00 | 35 rows

7.

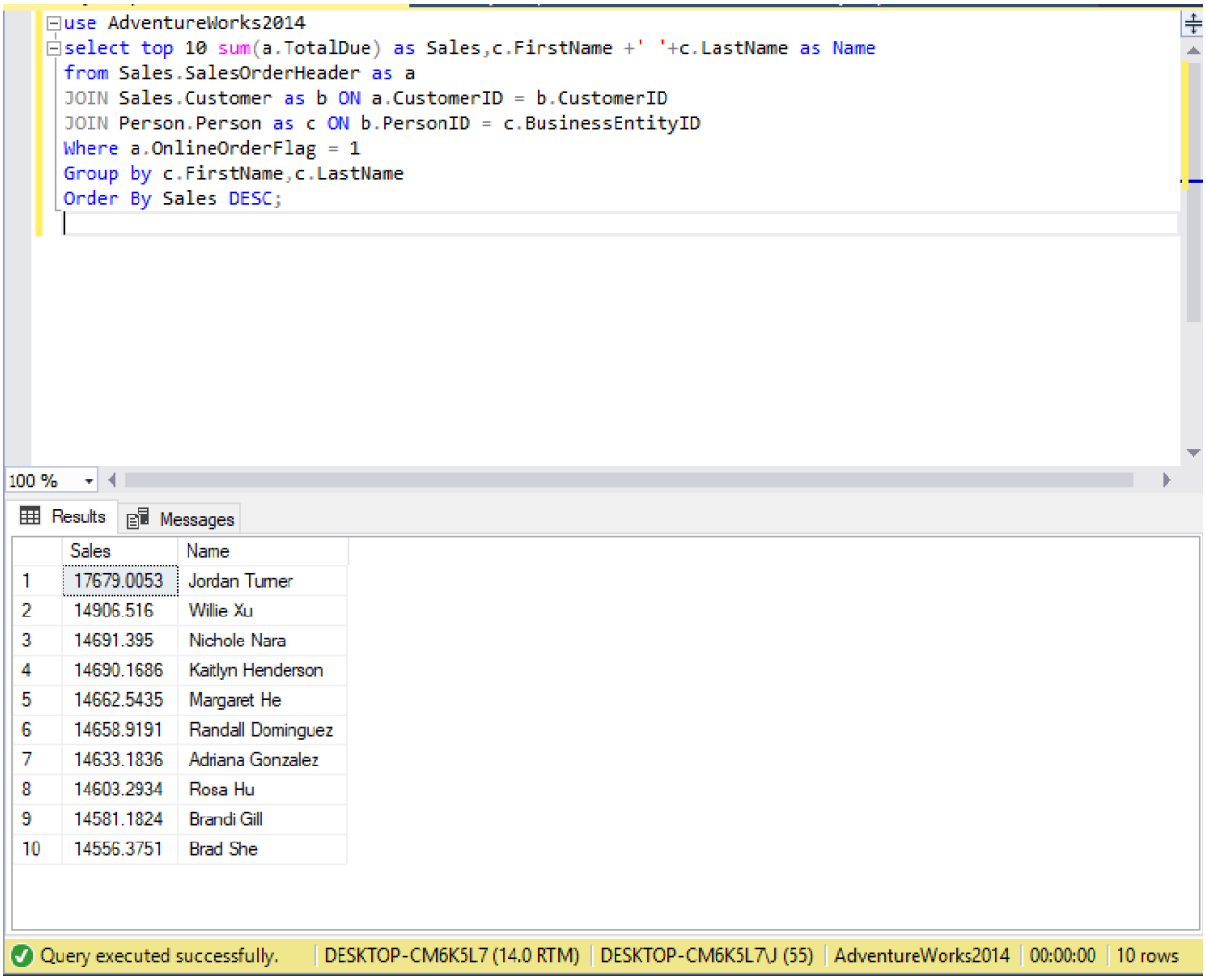
```
use AdventureWorks2014
Select Top 10 a."Name" as Reseller_Name,sum(e.LineTotal) as Sales
from Sales.Store as a
JOIN Person.BusinessEntityAddress as b ON b.BusinessEntityID = a.BusinessEntityID
JOIN Person.Address c ON c.AddressID = b.BusinessEntityID
JOIN Sales.SalesOrderHeader d on d.ShipToAddressID = c.AddressID
JOIN Sales.SalesOrderDetail e ON e.SalesOrderID = d.SalesOrderID
JOIN Production.Product f ON f.ProductID = e.ProductID
Where d.OnlineOrderFlag = 0
Group By a."Name"
Order By Sales DESC;
```



	Reseller_Name	Sales
1	Outdoor Toy Store	877107.192221
2	Unique Bikes	853849.179524
3	Metro Metals Co.	816755.576276
4	Unicycles, Bicycles, and Tricycles	787773.043768
5	Friendly Bike Shop	746317.529257
6	The Bike Shop	740985.833742
7	Favorite Toy Distributor	730798.713914
8	Rambling Tours	727272.649367
9	Exchange Parts Inc.	671618.029459
10	Wonderful Bikes Inc.	643745.895824

8.

```
use AdventureWorks2014
select top 10 sum(a.TotalDue) as Sales,c.FirstName +' '+c.LastName as Name
from Sales.SalesOrderHeader as a
JOIN Sales.Customer as b ON a.CustomerID = b.CustomerID
JOIN Person.Person as c ON b.PersonID = c.BusinessEntityID
Where a.OnlineOrderFlag = 1
Group by c.FirstName,c.LastName
Order By Sales DESC;
```



```
use AdventureWorks2014
select top 10 sum(a.TotalDue) as Sales,c.FirstName +' '+c.LastName as Name
from Sales.SalesOrderHeader as a
JOIN Sales.Customer as b ON a.CustomerID = b.CustomerID
JOIN Person.Person as c ON b.PersonID = c.BusinessEntityID
Where a.OnlineOrderFlag = 1
Group by c.FirstName,c.LastName
Order By Sales DESC;
```

100 %

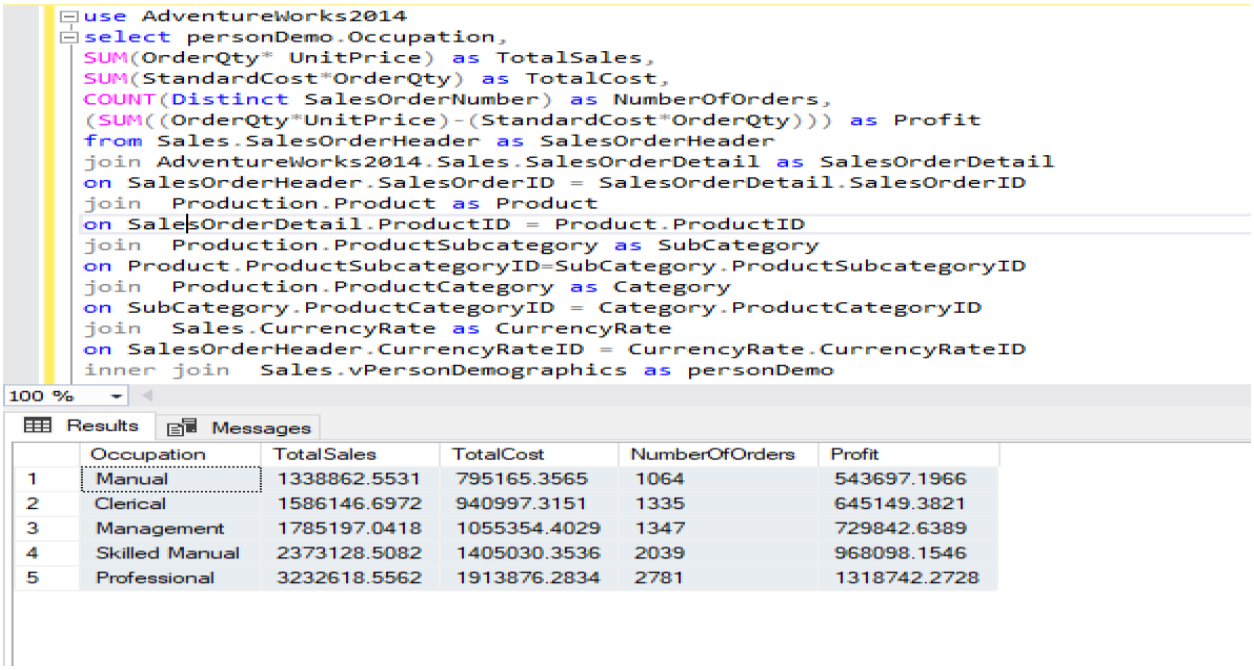
Results | Messages

	Sales	Name
1	17679.0053	Jordan Turner
2	14906.516	Willie Xu
3	14691.395	Nichole Nara
4	14690.1686	Kaitlyn Henderson
5	14662.5435	Margaret He
6	14658.9191	Randall Dominguez
7	14633.1836	Adriana Gonzalez
8	14603.2934	Rosa Hu
9	14581.1824	Brandi Gill
10	14556.3751	Brad She

Query executed successfully. | DESKTOP-CM6K5L7 (14.0 RTM) | DESKTOP-CM6K5L7\J (55) | AdventureWorks2014 | 00:00:00 | 10 rows

9.

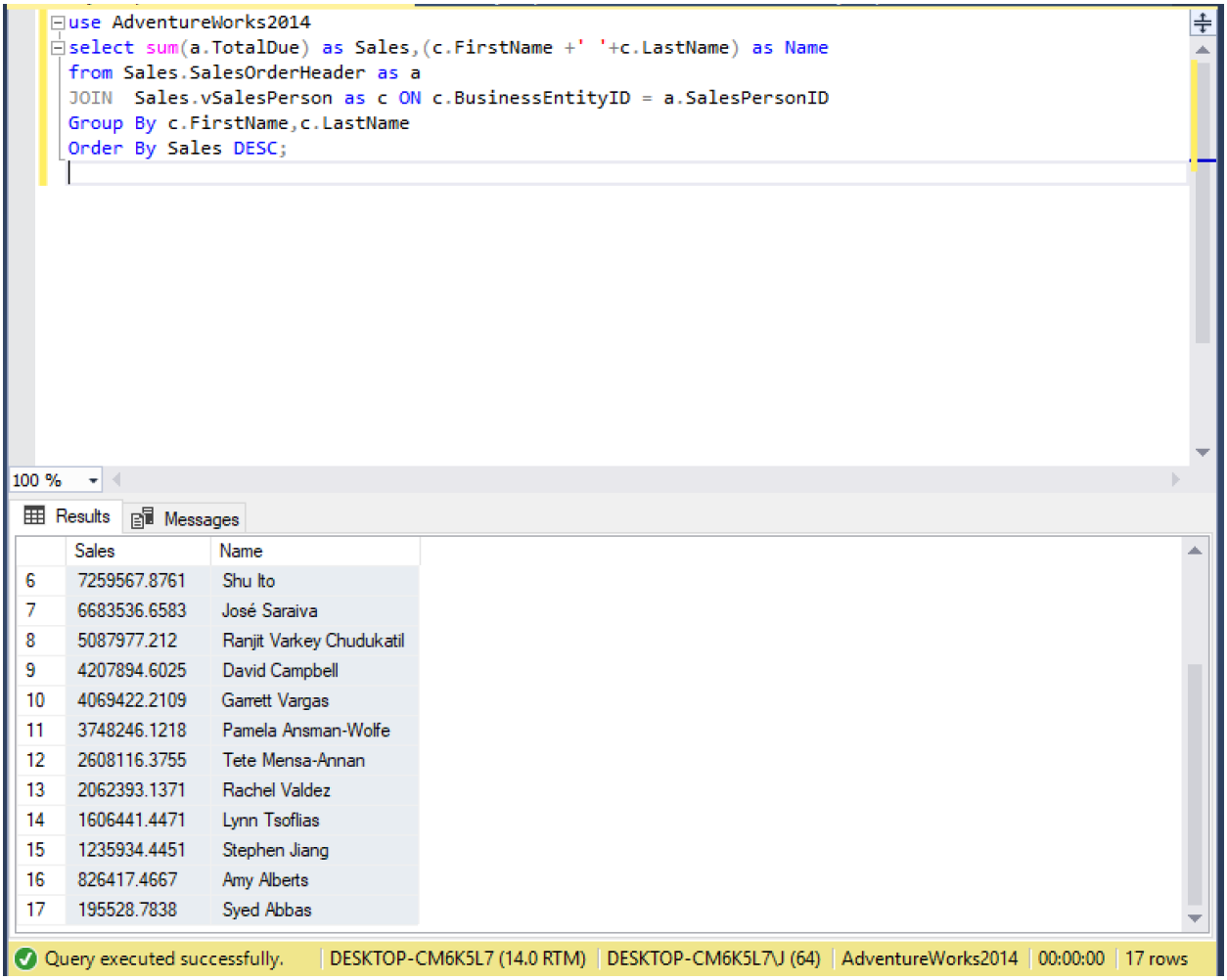
```
use AdventureWorks2014
select personDemo.Occupation,
SUM(OrderQty* UnitPrice) as TotalSales,
SUM(StandardCost*OrderQty) as TotalCost,
COUNT(Distinct SalesOrderNumber) as NumberOfOrders,
(SUM((OrderQty*UnitPrice)-(StandardCost*OrderQty))) as Profit
from Sales.SalesOrderHeader as SalesOrderHeader
join AdventureWorks2014.Sales.SalesOrderDetail as SalesOrderDetail
on SalesOrderHeader.SalesOrderID = SalesOrderDetail.SalesOrderID
join  Production.Product as Product
on SalesOrderDetail.ProductID = Product.ProductID
join  Production.ProductSubcategory as SubCategory
on Product.ProductSubcategoryID=SubCategory.ProductSubcategoryID
join  Production.ProductCategory as Category
on SubCategory.ProductCategoryID = Category.ProductCategoryID
join  Sales.CurrencyRate as CurrencyRate
on SalesOrderHeader.CurrencyRateID = CurrencyRate.CurrencyRateID
inner join  Sales.vPersonDemographics as personDemo
on personDemo.BusinessEntityID = SalesOrderHeader.CustomerID
where CurrencyRate.FromCurrencyCode = 'USD'
group by personDemo.Occupation
order by SUM(OrderQty* UnitPrice);
```



	Occupation	TotalSales	TotalCost	NumberOfOrders	Profit
1	Manual	1338862.5531	795165.3565	1064	543697.1966
2	Clerical	1586146.6972	940997.3151	1335	645149.3821
3	Management	1785197.0418	1055354.4029	1347	729842.6389
4	Skilled Manual	2373128.5082	1405030.3536	2039	968098.1546
5	Professional	3232618.5562	1913876.2834	2781	1318742.2728

10.

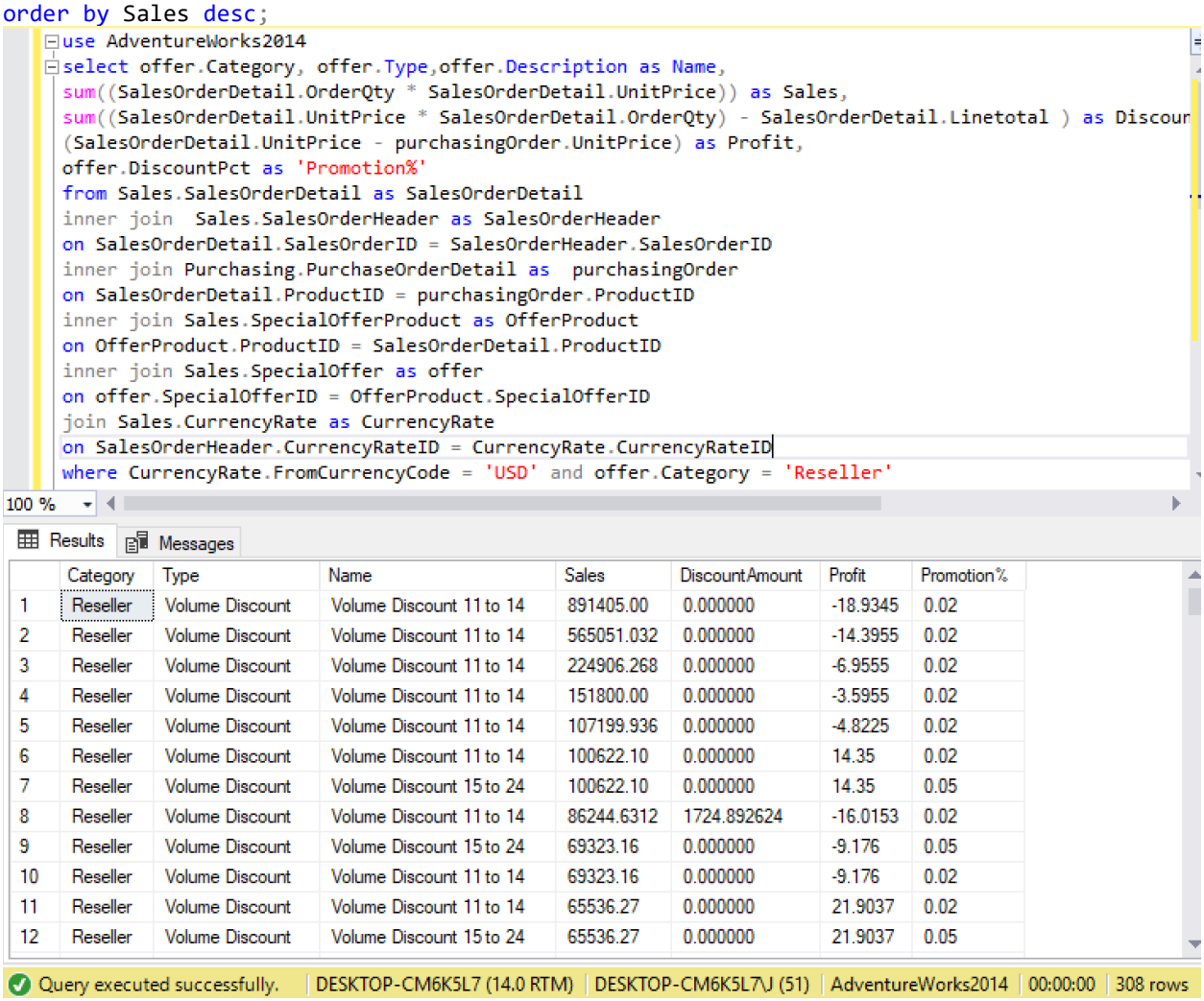
```
use AdventureWorks2014
select sum(a.TotalDue) as Sales,(c.FirstName +' '+c.LastName) as Name
from Sales.SalesOrderHeader as a
JOIN  Sales.vSalesPerson as c ON c.BusinessEntityID = a.SalesPersonID
Group By c.FirstName,c.LastName
Order By Sales DESC;
```



	Sales	Name
6	7259567.8761	Shu Ito
7	6683536.6583	José Saraiva
8	5087977.212	Ranjit Varkey Chudukatil
9	4207894.6025	David Campbell
10	4069422.2109	Garrett Vargas
11	3748246.1218	Pamela Ansman-Wolfe
12	2608116.3755	Tete Mensa-Annan
13	2062393.1371	Rachel Valdez
14	1606441.4471	Lynn Tsoflias
15	1235934.4451	Stephen Jiang
16	826417.4667	Amy Alberts
17	195528.7838	Syed Abbas

11.

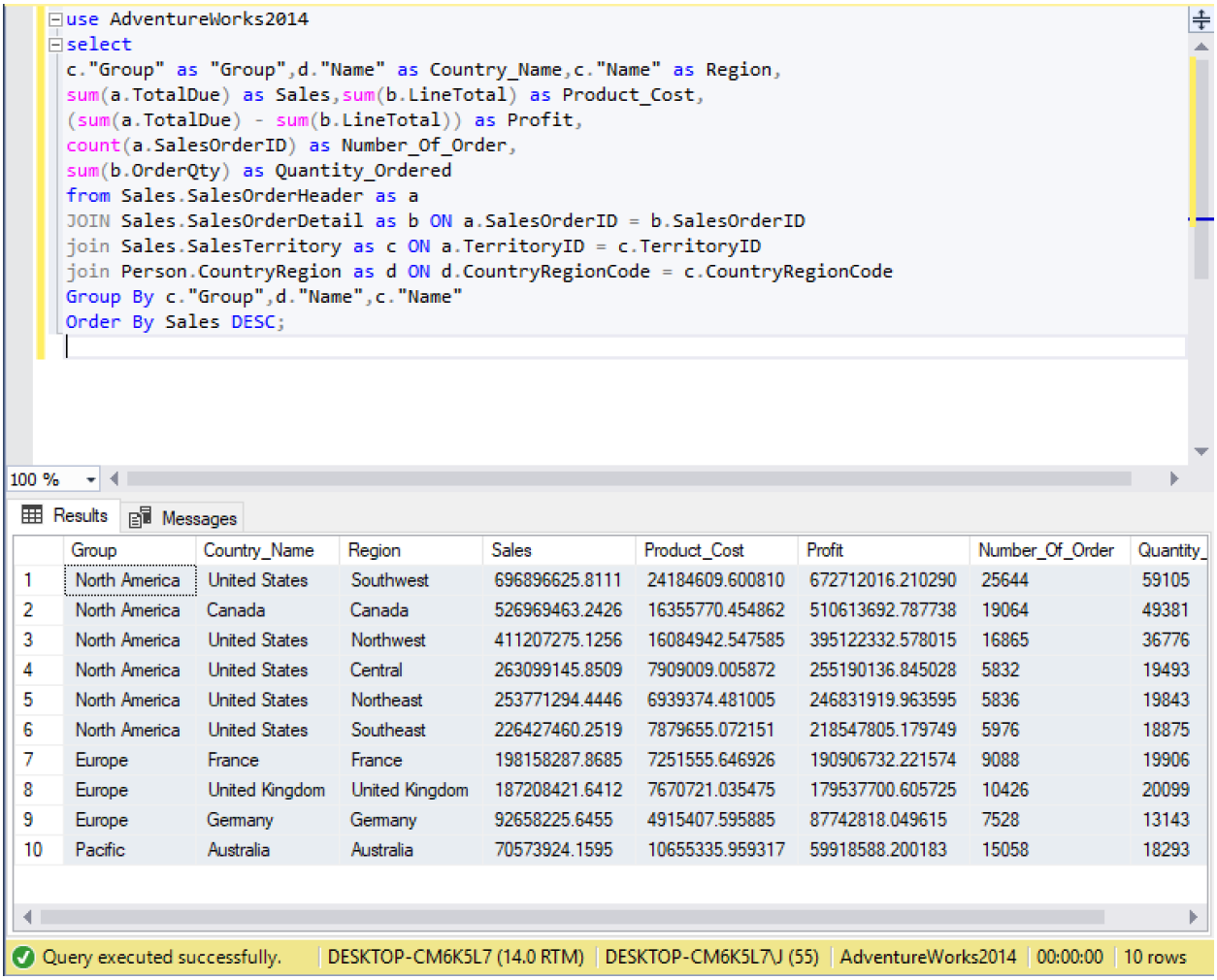
```
use AdventureWorks2014
select offer.Category, offer.Type,offer.Description as Name,
sum((SalesOrderDetail.OrderQty * SalesOrderDetail.UnitPrice)) as Sales,
sum((SalesOrderDetail.UnitPrice * SalesOrderDetail.OrderQty) - SalesOrderDetail.Linetotal
) as DiscountAmount,
(SalesOrderDetail.UnitPrice - purchasingOrder.UnitPrice) as Profit,
offer.DiscountPct as 'Promotion%'
from Sales.SalesOrderDetail as SalesOrderDetail
inner join  Sales.SalesOrderHeader as SalesOrderHeader
on SalesOrderDetail.SalesOrderID = SalesOrderHeader.SalesOrderID
inner join Purchasing.PurchaseOrderDetail as  purchasingOrder
on SalesOrderDetail.ProductID = purchasingOrder.ProductID
inner join Sales.SpecialOfferProduct as OfferProduct
on OfferProduct.ProductID = SalesOrderDetail.ProductID
inner join Sales.SpecialOffer as offer
on offer.SpecialOfferID = OfferProduct.SpecialOfferID
join Sales.CurrencyRate as CurrencyRate
on SalesOrderHeader.CurrencyRateID = CurrencyRate.CurrencyRateID
where CurrencyRate.FromCurrencyCode = 'USD' and offer.Category = 'Reseller'
group by offer.Category, offer.Type,offer.Description,offer.DiscountPct ,
(SalesOrderDetail.UnitPrice - purchasingOrder.UnitPrice)
order by Sales desc;
```



	Category	Type	Name	Sales	DiscountAmount	Profit	Promotion%
1	Reseller	Volume Discount	Volume Discount 11 to 14	891405.00	0.000000	-18.9345	0.02
2	Reseller	Volume Discount	Volume Discount 11 to 14	565051.032	0.000000	-14.3955	0.02
3	Reseller	Volume Discount	Volume Discount 11 to 14	224906.268	0.000000	-6.9555	0.02
4	Reseller	Volume Discount	Volume Discount 11 to 14	151800.00	0.000000	-3.5955	0.02
5	Reseller	Volume Discount	Volume Discount 11 to 14	107199.936	0.000000	-4.8225	0.02
6	Reseller	Volume Discount	Volume Discount 11 to 14	100622.10	0.000000	14.35	0.02
7	Reseller	Volume Discount	Volume Discount 15 to 24	100622.10	0.000000	14.35	0.05
8	Reseller	Volume Discount	Volume Discount 11 to 14	86244.6312	1724.892624	-16.0153	0.02
9	Reseller	Volume Discount	Volume Discount 15 to 24	69323.16	0.000000	-9.176	0.05
10	Reseller	Volume Discount	Volume Discount 11 to 14	69323.16	0.000000	-9.176	0.02
11	Reseller	Volume Discount	Volume Discount 11 to 14	65536.27	0.000000	21.9037	0.02
12	Reseller	Volume Discount	Volume Discount 15 to 24	65536.27	0.000000	21.9037	0.05

12.

```
use AdventureWorks2014
select
c."Group" as "Group",d."Name" as Country_Name,c."Name" as Region,
sum(a.TotalDue) as Sales,sum(b.LineTotal) as Product_Cost,
(sum(a.TotalDue) - sum(b.LineTotal)) as Profit,
count(a.SalesOrderID) as Number_Of_Order,
sum(b.OrderQty) as Quantity_Ordered
from Sales.SalesOrderHeader as a
JOIN Sales.SalesOrderDetail as b ON a.SalesOrderID = b.SalesOrderID
join Sales.SalesTerritory as c ON a.TerritoryID = c.TerritoryID
join Person.CountryRegion as d ON d.CountryRegionCode = c.CountryRegionCode
Group By c."Group",d."Name",c."Name"
Order By Sales DESC;
```



```
use AdventureWorks2014
select
c."Group" as "Group",d."Name" as Country_Name,c."Name" as Region,
sum(a.TotalDue) as Sales,sum(b.LineTotal) as Product_Cost,
(sum(a.TotalDue) - sum(b.LineTotal)) as Profit,
count(a.SalesOrderID) as Number_Of_Order,
sum(b.OrderQty) as Quantity_Ordered
from Sales.SalesOrderHeader as a
JOIN Sales.SalesOrderDetail as b ON a.SalesOrderID = b.SalesOrderID
join Sales.SalesTerritory as c ON a.TerritoryID = c.TerritoryID
join Person.CountryRegion as d ON d.CountryRegionCode = c.CountryRegionCode
Group By c."Group",d."Name",c."Name"
Order By Sales DESC;
```

100 %

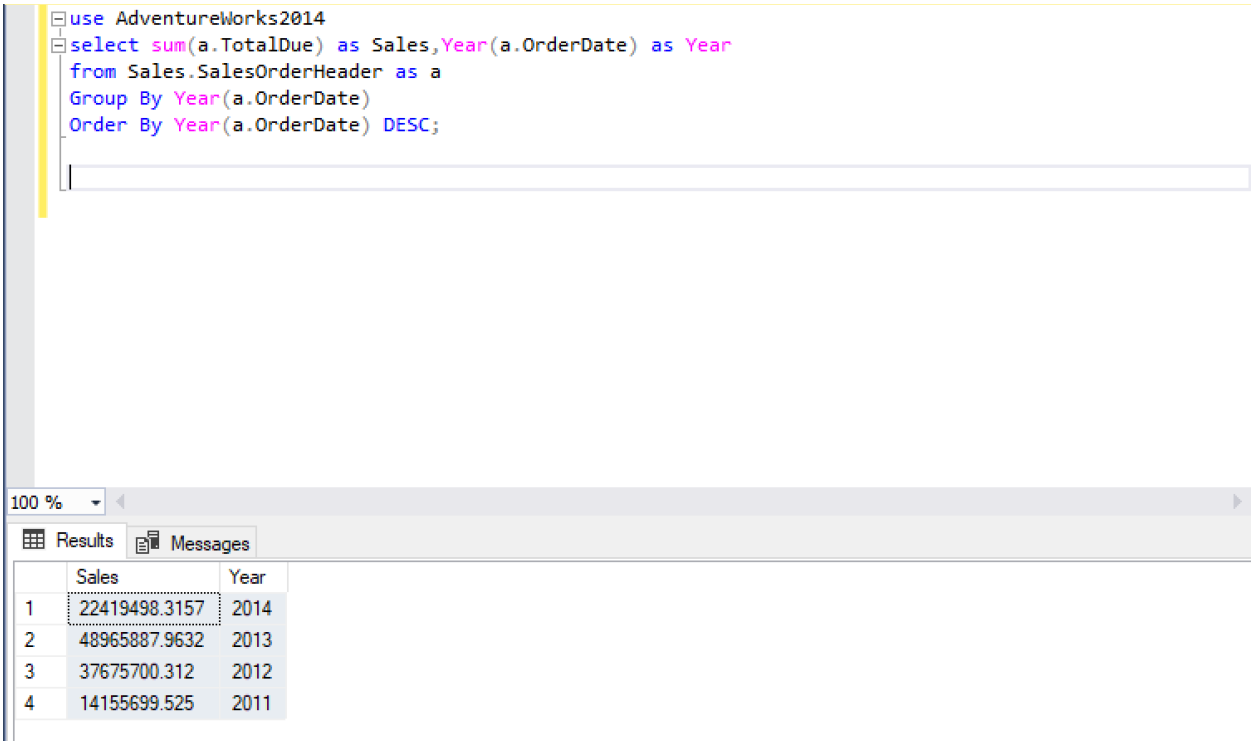
Results | Messages

	Group	Country_Name	Region	Sales	Product_Cost	Profit	Number_Of_Order	Quantity_
1	North America	United States	Southwest	696896625.8111	24184609.600810	672712016.210290	25644	59105
2	North America	Canada	Canada	526969463.2426	16355770.454862	510613692.787738	19064	49381
3	North America	United States	Northwest	411207275.1256	16084942.547585	395122332.578015	16865	36776
4	North America	United States	Central	263099145.8509	7909009.005872	255190136.845028	5832	19493
5	North America	United States	Northeast	253771294.4446	6939374.481005	246831919.963595	5836	19843
6	North America	United States	Southeast	226427460.2519	7879655.072151	218547805.179749	5976	18875
7	Europe	France	France	198158287.8685	7251555.646926	190906732.221574	9088	19906
8	Europe	United Kingdom	United Kingdom	187208421.6412	7670721.035475	179537700.605725	10426	20099
9	Europe	Germany	Germany	92658225.6455	4915407.595885	87742818.049615	7528	13143
10	Pacific	Australia	Australia	70573924.1595	10655335.959317	59918588.200183	15058	18293

Query executed successfully. | DESKTOP-CM6K5L7 (14.0 RTM) | DESKTOP-CM6K5L7\J (55) | AdventureWorks2014 | 00:00:00 | 10 rows

13.

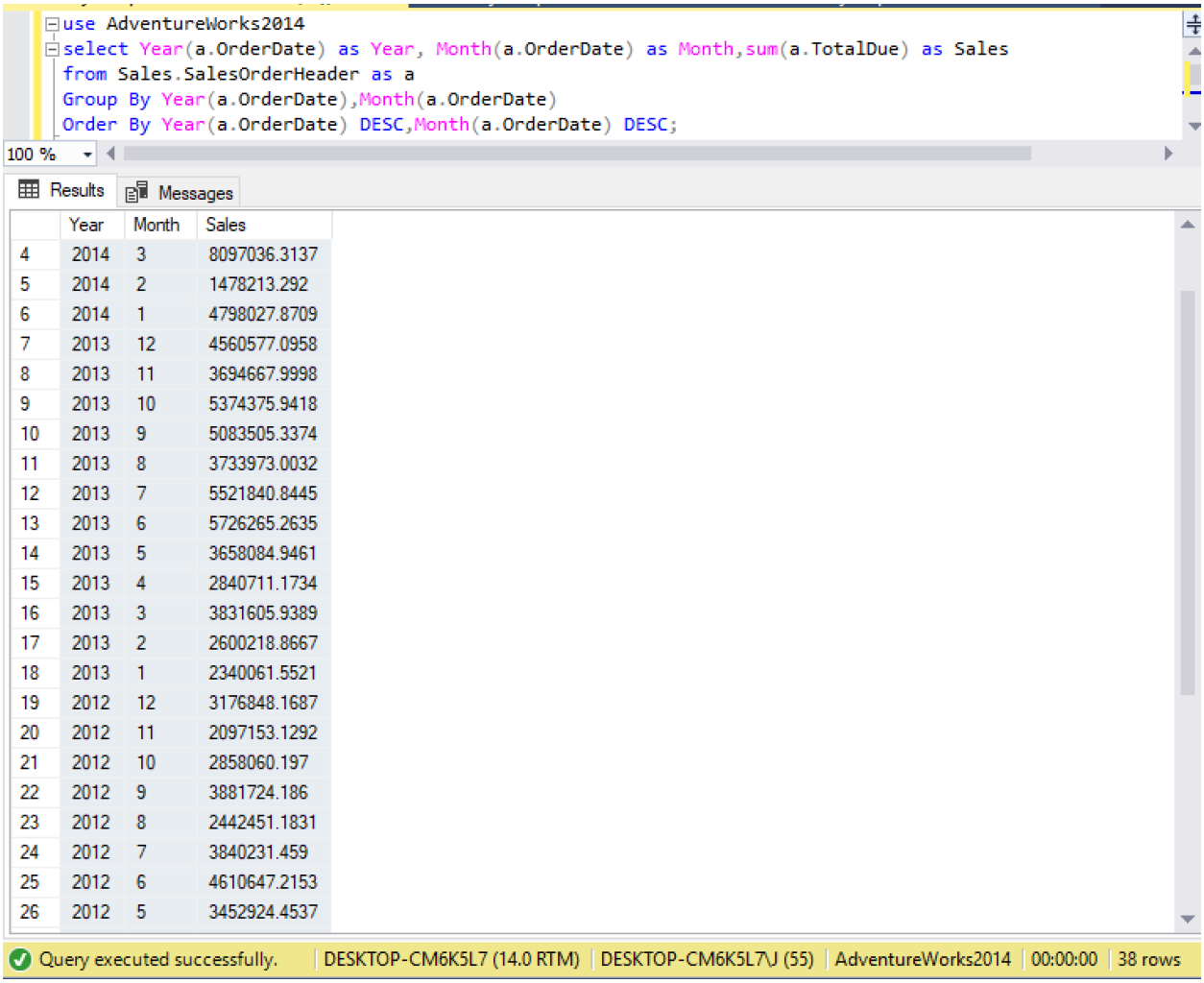
```
use AdventureWorks2014
select sum(a.TotalDue) as Sales,Year(a.OrderDate) as Year
from Sales.SalesOrderHeader as a
Group By Year(a.OrderDate)
Order By Year(a.OrderDate) DESC;
```



	Sales	Year
1	22419498.3157	2014
2	48965887.9632	2013
3	37675700.312	2012
4	14155699.525	2011

14.

```
use AdventureWorks2014
select Year(a.OrderDate) as Year, Month(a.OrderDate) as Month,sum(a.TotalDue) as Sales
from Sales.SalesOrderHeader as a
Group By Year(a.OrderDate),Month(a.OrderDate)
Order By Year(a.OrderDate) DESC,Month(a.OrderDate) DESC;
```



```
use AdventureWorks2014
select Year(a.OrderDate) as Year, Month(a.OrderDate) as Month,sum(a.TotalDue) as Sales
from Sales.SalesOrderHeader as a
Group By Year(a.OrderDate),Month(a.OrderDate)
Order By Year(a.OrderDate) DESC,Month(a.OrderDate) DESC;
```

100 %

Results | Messages

	Year	Month	Sales
4	2014	3	8097036.3137
5	2014	2	1478213.292
6	2014	1	4798027.8709
7	2013	12	4560577.0958
8	2013	11	3694667.9998
9	2013	10	5374375.9418
10	2013	9	5083505.3374
11	2013	8	3733973.0032
12	2013	7	5521840.8445
13	2013	6	5726265.2635
14	2013	5	3658084.9461
15	2013	4	2840711.1734
16	2013	3	3831605.9389
17	2013	2	2600218.8667
18	2013	1	2340061.5521
19	2012	12	3176848.1687
20	2012	11	2097153.1292
21	2012	10	2858060.197
22	2012	9	3881724.186
23	2012	8	2442451.1831
24	2012	7	3840231.459
25	2012	6	4610647.2153
26	2012	5	3452924.4537

Query executed successfully. | DESKTOP-CM6K5L7 (14.0 RTM) | DESKTOP-CM6K5L7\J (55) | AdventureWorks2014 | 00:00:00 | 38 rows

15.

AdventureWorkDW2014 uses a fact-dimension model in which the fact table contains the foreign key of all the dimensions related to it.

Whereas in AdventureWork2014 the table are linked in ER model way.

So, its much easier to locate the tables for joining in fact-dimension model

And its very convenient for locating the tables in AdventureDW2014 then in Adventure2014

In AdventureWork2014 flag 0,1 is used to record the order placed online and through reseller.

Because of flag we don’t have to join the table for Calculating the Sales for internet and reseller combined.

While in AdventureWorkDW2014 we have to use join to get the total sales for internet and reseller.