

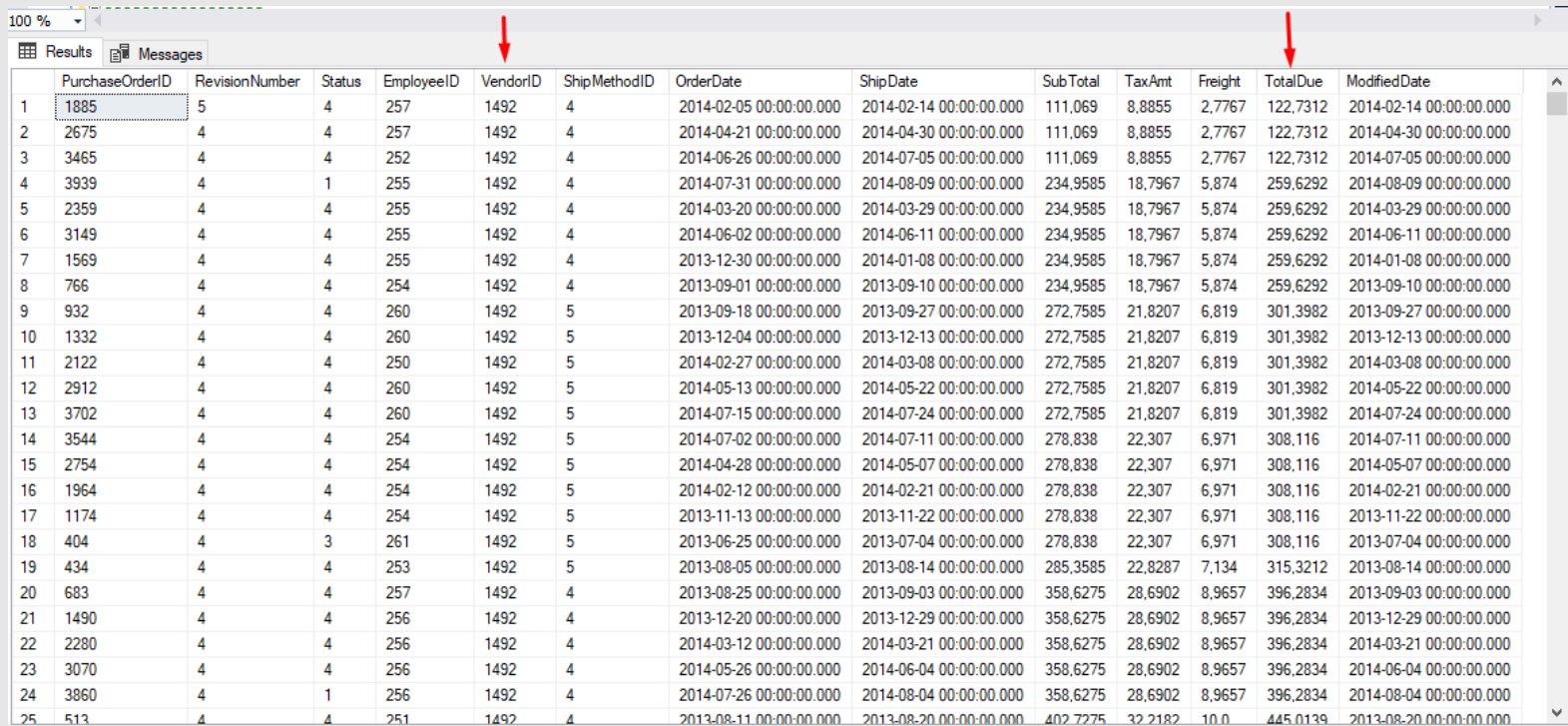
Window Functions

PARTITION BY

Ejemplo 1

USE AdventureWorks2019

```
SELECT * FROM [Purchasing].[PurchaseOrderHeader]
ORDER BY [VendorID], [TotalDue]
```



	PurchaseOrderID	RevisionNumber	Status	EmployeeID	VendorID	ShipMethodID	OrderDate	ShipDate	SubTotal	TaxAmt	Freight	TotalDue	ModifiedDate
1	1885	5	4	257	1492	4	2014-02-05 00:00:00.000	2014-02-14 00:00:00.000	111,069	8,8855	2,7767	122,7312	2014-02-14 00:00:00.000
2	2675	4	4	257	1492	4	2014-04-21 00:00:00.000	2014-04-30 00:00:00.000	111,069	8,8855	2,7767	122,7312	2014-04-30 00:00:00.000
3	3465	4	4	252	1492	4	2014-06-26 00:00:00.000	2014-07-05 00:00:00.000	111,069	8,8855	2,7767	122,7312	2014-07-05 00:00:00.000
4	3939	4	1	255	1492	4	2014-07-31 00:00:00.000	2014-08-09 00:00:00.000	234,9585	18,7967	5,874	259,6292	2014-08-09 00:00:00.000
5	2359	4	4	255	1492	4	2014-03-20 00:00:00.000	2014-03-29 00:00:00.000	234,9585	18,7967	5,874	259,6292	2014-03-29 00:00:00.000
6	3149	4	4	255	1492	4	2014-06-02 00:00:00.000	2014-06-11 00:00:00.000	234,9585	18,7967	5,874	259,6292	2014-06-11 00:00:00.000
7	1569	4	4	255	1492	4	2013-12-30 00:00:00.000	2014-01-08 00:00:00.000	234,9585	18,7967	5,874	259,6292	2014-01-08 00:00:00.000
8	766	4	4	254	1492	4	2013-09-01 00:00:00.000	2013-09-10 00:00:00.000	234,9585	18,7967	5,874	259,6292	2013-09-10 00:00:00.000
9	932	4	4	260	1492	5	2013-09-18 00:00:00.000	2013-09-27 00:00:00.000	272,7585	21,8207	6,819	301,3982	2013-09-27 00:00:00.000
10	1332	4	4	260	1492	5	2013-12-04 00:00:00.000	2013-12-13 00:00:00.000	272,7585	21,8207	6,819	301,3982	2013-12-13 00:00:00.000
11	2122	4	4	250	1492	5	2014-02-27 00:00:00.000	2014-03-08 00:00:00.000	272,7585	21,8207	6,819	301,3982	2014-03-08 00:00:00.000
12	2912	4	4	260	1492	5	2014-05-13 00:00:00.000	2014-05-22 00:00:00.000	272,7585	21,8207	6,819	301,3982	2014-05-22 00:00:00.000
13	3702	4	4	260	1492	5	2014-07-15 00:00:00.000	2014-07-24 00:00:00.000	272,7585	21,8207	6,819	301,3982	2014-07-24 00:00:00.000
14	3544	4	4	254	1492	5	2014-07-02 00:00:00.000	2014-07-11 00:00:00.000	278,838	22,307	6,971	308,116	2014-07-11 00:00:00.000
15	2754	4	4	254	1492	5	2014-04-28 00:00:00.000	2014-05-07 00:00:00.000	278,838	22,307	6,971	308,116	2014-05-07 00:00:00.000
16	1964	4	4	254	1492	5	2014-02-12 00:00:00.000	2014-02-21 00:00:00.000	278,838	22,307	6,971	308,116	2014-02-21 00:00:00.000
17	1174	4	4	254	1492	5	2013-11-13 00:00:00.000	2013-11-22 00:00:00.000	278,838	22,307	6,971	308,116	2013-11-22 00:00:00.000
18	404	4	3	261	1492	5	2013-06-25 00:00:00.000	2013-07-04 00:00:00.000	278,838	22,307	6,971	308,116	2013-07-04 00:00:00.000
19	434	4	4	253	1492	5	2013-08-05 00:00:00.000	2013-08-14 00:00:00.000	285,3585	22,8287	7,134	315,3212	2013-08-14 00:00:00.000
20	683	4	4	257	1492	4	2013-08-25 00:00:00.000	2013-09-03 00:00:00.000	358,6275	28,6902	8,9657	396,2834	2013-09-03 00:00:00.000
21	1490	4	4	256	1492	4	2013-12-20 00:00:00.000	2013-12-29 00:00:00.000	358,6275	28,6902	8,9657	396,2834	2013-12-29 00:00:00.000
22	2280	4	4	256	1492	4	2014-03-12 00:00:00.000	2014-03-21 00:00:00.000	358,6275	28,6902	8,9657	396,2834	2014-03-21 00:00:00.000
23	3070	4	4	256	1492	4	2014-05-26 00:00:00.000	2014-06-04 00:00:00.000	358,6275	28,6902	8,9657	396,2834	2014-06-04 00:00:00.000
24	3860	4	1	256	1492	4	2014-07-26 00:00:00.000	2014-08-04 00:00:00.000	358,6275	28,6902	8,9657	396,2834	2014-08-04 00:00:00.000
25	513	4	4	251	1492	4	2013-08-11 00:00:00.000	2013-08-20 00:00:00.000	402,7275	32,2182	10,0	445,0139	2013-08-20 00:00:00.000

SELECT * FROM [Purchasing].[Vendor]

	BusinessEntityID	AccountNumber	Name	CreditRating	PreferredVendorStatus	ActiveFlag	PurchasingWebServiceURL	ModifiedDate
1	1492	AUSTRALI0001	Australia Bike Retailer	1	1	1	NULL	2011-12-23 00:00:00.000
2	1494	ALLENSON0001	Allenson Cycles	2	1	1	NULL	2011-04-25 00:00:00.000
3	1496	ADVANCED0001	Advanced Bicycles	5	1	0	NULL	2022-09-13 21:11:25.410
4	1498	TRIKES0001	Trikes, Inc.	2	1	1	NULL	2012-02-03 00:00:00.000
5	1500	MORGANB0001	Morgan Bike Accessories	5	1	0	NULL	2022-09-13 21:11:25.410
6	1502	CYCLING0001	Cycling Master	1	1	1	NULL	2011-12-24 00:00:00.000
7	1504	CHICAGO0002	Chicago Rent-All	2	1	1	NULL	2011-12-24 00:00:00.000
8	1506	GREENWOO0001	Greenwood Athletic Company	1	1	1	NULL	2012-01-25 00:00:00.000
9	1508	COMPETE0001	Compete Enterprises, Inc	1	1	1	NULL	2011-12-24 00:00:00.000
10	1510	INTERNAT0001	International	1	1	1	NULL	2012-01-25 00:00:00.000
11	1512	LIGHTSP0001	Light Speed	1	1	1	NULL	2011-12-23 00:00:00.000
12	1514	TRAINING0001	Training Systems	1	1	1	NULL	2012-02-03 00:00:00.000
13	1516	GARDNER0001	Gardner Touring Cycles	1	0	0	NULL	2012-01-25 00:00:00.000
14	1518	INTERNAT0004	International Trek Center	1	1	1	NULL	2011-12-24 00:00:00.000
15	1520	G&KBIO001	G & K Bicycle Corp.	1	1	1	NULL	2011-12-24 00:00:00.000
16	1522	FIRSTNA0001	First National Sport Co.	1	1	1	NULL	2012-01-25 00:00:00.000
17	1524	RECREATI0001	Recreation Place	4	1	1	NULL	2012-02-02 00:00:00.000
18	1526	INTERNAT0002	International Bicycles	1	1	1	NULL	2012-01-25 00:00:00.000
19	1528	IMAGEMA0001	Image Makers Bike Center	1	1	1	NULL	2012-02-03 00:00:00.000
20	1530	COMFORT0001	Comfort Road Bicycles	1	1	1	NULL	2011-12-24 00:00:00.000
21	1532	KNOFLER0001	Knopfler Cycles	1	1	1	NULL	2012-01-29 00:00:00.000
22	1534	READYRE0001	Ready Rentals	1	1	1	NULL	2012-02-02 00:00:00.000
23	1536	CRUGERB0001	Cruger Bike Company	1	1	1	NULL	2012-01-17 00:00:00.000
24	1538	VISTARO0001	Vista Road Bikes	3	1	1	NULL	2012-02-18 00:00:00.000
25	1540	BERGERON0001	Berneron Off-Roads	1	1	1	NULL	2011-12-23 00:00:00.000

```

SELECT
    [v].[Name],
    [poh].[ShipMethodID]
,MIN(poh.TotalDue)      AS MinTotal
,MAX(poh.TotalDue)      AS MaxTotal
,COUNT(poh.TotalDue)    AS CountTotal
,AVG(poh.TotalDue)      AS AVGTotl

FROM [Purchasing].[PurchaseOrderHeader] AS [poh]
INNER JOIN [Purchasing].[Vendor] AS [v]
ON [v].[BusinessEntityID] = [poh].[VendorID]

GROUP BY [poh].[ShipMethodID], [v].[Name]
ORDER BY [v].[Name], [poh].[ShipMethodID]

```

	Name	ShipMethodID	MinTotal	MaxTotal	CountTotal	AVGTotal
1	Advanced Bicycles	4	123,2533	844,43	24	436,515
2	Advanced Bicycles	5	300,6721	2286,5395	27	667,6196
3	Allenson Cycles	2	9776,2665	9776,2665	51	9776,2665
4	American Bicycles and Wheels	5	189,0395	189,0395	51	189,0395
5	American Bikes	4	22539,0165	22539,0165	51	22539,0165
6	Anderson's Custom Bikes	3	16164,0229	16164,0229	51	16164,0229
7	Aurora Bike Center	4	252,0759	2055,731	26	573,7842
8	Aurora Bike Center	5	301,0501	2370,704	25	612,4393
9	Australia Bike Retailer	4	122,7312	1654,7486	26	465,8274
10	Australia Bike Retailer	5	301,3982	855,2203	25	517,9411
11	Beaumont Bikes	5	299,24	1984,6192	51	1556,564
12	Bergeron Off-Roads	4	137,4201	3373,0208	42	795,9091
13	Bergeron Off-Roads	5	309,1602	858,353	9	577,1044
14	Bicycle Specialists	5	38281,8686	38281,8686	51	38281,8686
15	Bike Satellite Inc.	3	1748,0327	1748,0327	8	1748,0327
16	Bike Satellite Inc.	4	284,6209	2032,6535	43	1707,4381
17	Bloomington Multisport	5	161,6461	161,6461	51	161,6461
18	Burnett Road Warriors	5	113,3332	113,3332	51	113,3332
19	Business Equipment Center	5	166,6235	166,6235	51	166,6235
20	Capital Road Cycles	5	15104,7146	15104,7146	51	15104,7146
21	Carlson Specialties	5	3242,6667	18114,5192	51	11010,7861
22	Chicago City Saddles	2	31319,7885	168602,3089	30	79352,1854
23	Chicago City Saddles	4	24880,9811	81081,7508	14	46436,81
24	Chicago City Saddles	5	43380,5873	56200,7696	7	45212,0419
25	Chicago Rent-All	1	609,8274	609,8274	51	609,8274

```

SELECT
    [poh].[ShipMethodID]
    ,MIN(poh.TotalDue)      AS MinTotal
    ,MAX(poh.TotalDue)      AS MaxTotal
    ,COUNT(poh.TotalDue)   AS CountTotal
    ,AVG(poh.TotalDue)      AS AVGTotal

FROM [Purchasing].[PurchaseOrderHeader] AS [poh]
INNER JOIN [Purchasing].[Vendor] AS [v]
ON [v].[BusinessEntityID] = [poh].[VendorID]

GROUP BY [poh].[ShipMethodID]
ORDER BY [poh].[ShipMethodID]

```

	ShipMethodID	MinTotal	MaxTotal	CountTotal	AVGTotal
1	1	462,9398	41230,0639	589	5655,194
2	2	40,9684	168602,3089	655	22709,3156
3	3	222,1492	1097448,00	160	50018,3687
4	4	122,7312	81081,7508	1085	11027,8259
5	5	113,3332	100685,3348	1523	21211,8787

NO utilizamos GROUP BY, si no, particionamos por el campo ShipMethodID. A diferencia del ejemplo anterior, acá se hace un detalle más específico

```
SELECT
    [poh].[VendorID],
    [v].[Name],
    [poh].[ShipMethodID],
    MIN(poh.TotalDue) OVER(PARTITION BY [poh].[ShipMethodID]) AS [MinTotal],
    MAX(poh.TotalDue) OVER(PARTITION BY [poh].[ShipMethodID]) AS [MaxTotal],
    COUNT(poh.TotalDue) OVER(PARTITION BY [poh].[ShipMethodID]) AS [CountTotal],
    AVG(poh.TotalDue) OVER(PARTITION BY [poh].[ShipMethodID]) AS [AVGTotal]

FROM [Purchasing].[PurchaseOrderHeader] AS [poh]
INNER JOIN [Purchasing].[Vendor] AS [v]
ON [v].[BusinessEntityID] = [poh].[VendorID]
```

Devuelve todas las ventas de cada vendedor según el ShipMethodID, repitiendo para cada venta el Mínimo, Máximo, Cantidad y Promedio:

	VendorID	Name	ShipMethodID	MinTotal	MaxTotal	CountTotal	AVGTotal
1	1508	Compete Enterprises, Inc	1	462,9398	41230,0639	589	5655,194
2	1694	Compete, Inc.	1	462,9398	41230,0639	589	5655,194
3	1504	Chicago Rent-All	1	462,9398	41230,0639	589	5655,194
4	1544	Circuit Cycles	1	462,9398	41230,0639	589	5655,194
5	1600	Federal Sport	1	462,9398	41230,0639	589	5655,194
6	1522	First National Sport Co.	1	462,9398	41230,0639	589	5655,194
7	1516	Gardner Touring Cycles	1	462,9398	41230,0639	589	5655,194
8	1644	International Sport Assoc.	1	462,9398	41230,0639	589	5655,194
9	1500	Morgan Bike Accessories	1	462,9398	41230,0639	589	5655,194
10	1572	National Bike Association	1	462,9398	41230,0639	589	5655,194
11	1590	SUPERSALES INC.	1	462,9398	41230,0639	589	5655,194
12	1508	Compete Enterprises, Inc	1	462,9398	41230,0639	589	5655,194
13	1694	Compete, Inc.	1	462,9398	41230,0639	589	5655,194
14	1504	Chicago Rent-All	1	462,9398	41230,0639	589	5655,194
15	1544	Circuit Cycles	1	462,9398	41230,0639	589	5655,194
16	1600	Federal Sport	1	462,9398	41230,0639	589	5655,194
17	1522	First National Sport Co.	1	462,9398	41230,0639	589	5655,194
18	1516	Gardner Touring Cycles	1	462,9398	41230,0639	589	5655,194
19	1644	International Sport Assoc.	1	462,9398	41230,0639	589	5655,194
20	1500	Morgan Bike Accessories	1	462,9398	41230,0639	589	5655,194
21	1572	National Bike Association	1	462,9398	41230,0639	589	5655,194

Ejemplo 2

USE AdventureWorks2019

SELECT * FROM [Production].[ProductInventory]

Results		Messages						
	ProductID	LocationID	Shelf	Bin	Quantity	rowguid	ModifiedDate	
1	1	1	A	1	408	47A24246-6C43-48EB-968F-025738A8A410	2014-08-08 00:00:00.000	
2	1	6	B	5	324	D4544D7D-CAF5-46B3-AB22-5718DCC26B5E	2014-08-08 00:00:00.000	
3	1	50	A	5	353	BFF7DC60-96A8-43CA-81A7-D6D2ED3000A8	2014-08-08 00:00:00.000	
4	2	1	A	2	427	F407C07A-CA14-4684-A02C-608BD00C2233	2014-08-08 00:00:00.000	
5	2	6	B	1	318	CA1FF2F4-48FB-4960-8D92-3940B633E4C1	2014-08-08 00:00:00.000	
6	2	50	A	6	364	D38CFBEE-6347-47B1-B033-0E278CCA03E2	2014-08-08 00:00:00.000	
7	3	1	A	7	585	E18A519B-FB5E-4051-874C-58CD58436C95	2008-03-31 00:00:00.000	
8	3	6	B	9	443	3C860C96-15FF-4DF4-91D7-B237FF64480F	2008-03-31 00:00:00.000	
9	3	50	A	10	324	1339E5E3-1F8E-4B82-A447-A8666A264F0C	2008-03-31 00:00:00.000	
10	4	1	A	6	512	6BEAF0A0-971A-4CE1-96FE-692807D5DC00	2014-08-08 00:00:00.000	
11	4	6	B	10	422	2C82427A-63F1-4877-A1F6-A27B4D201EB6	2014-08-08 00:00:00.000	
12	4	50	A	11	388	FD912E69-EFA2-4AB7-82A4-03F5101AF11C	2014-08-08 00:00:00.000	
13	316	5	A	11	532	1EE3BDB3-2A7E-47DC-AF99-1B585575EFB9	2008-03-31 00:00:00.000	
14	316	10	B	1	388	CB2A24D7-9B70-4140-8836-9EB7592621D3	2008-03-31 00:00:00.000	
15	316	50	B	8	441	36B375A3-022A-45BF-B425-DBFFAAC3145A	2008-03-31 00:00:00.000	
16	317	1	C	1	283	C04FC1CF-1D2B-4480-BA13-64C6EF780F4B	2014-08-09 00:00:00.000	
17	317	5	A	1	158	83332A73-48A9-401D-95F4-385C944D716F	2014-08-09 00:00:00.000	
18	317	50	A	21	152	4072C90C-A867-4F64-882F-EC45ADA1B79C	2014-08-09 00:00:00.000	
19	318	1	C	2	136	F287EFD3-CCC5-4344-9F4A-E588BBF29801	2014-08-09 00:00:00.000	
20	318	5	A	2	171	B62232E8-90B5-4DA1-BFE1-453AA1917EFC	2014-08-09 00:00:00.000	
21	318	50	A	22	132	D758C516-D9BF-4AA6-8E57-F5BD6D568F97	2014-08-09 00:00:00.000	
22	319	1	C	3	308	7367821F-BB8B-4102-86ED-A7FB7054F8E1	2014-08-09 00:00:00.000	
23	319	5	A	3	184	BFB760AC-0767-4F76-8670-49488D0F731D	2014-08-09 00:00:00.000	
24	319	50	A	23	305	FEBBCC76-2764-48A3-A086-77D1E883137C	2014-08-09 00:00:00.000	
25	320	1	C	4	481	BD134FCD-D4DA-406C-A7CF-7EC40F9BCE34	2014-08-09 00:00:00.000	

Results		Messages	
	LocationID	Bin	(No column name)
1	1	1	3838
2	1	2	4436
3	1	3	4549
4	1	4	4909
5	1	5	4384
6	1	6	4763
7	1	7	5142
8	1	8	4567
9	1	9	4015
10	1	10	4058
11	1	11	3475
12	1	12	3031
13	1	13	2003
14	1	14	1967
15	1	15	2032
16	1	16	2276
17	1	17	1815
18	1	18	1869
19	1	19	1693
20	1	20	999
21	1	21	450
22	1	22	448
23	1	23	625
24	1	24	465
25	1	25	757

SELECT [LocationID], [Bin], SUM([Quantity])

FROM [Production].[ProductInventory]

GROUP BY [LocationID], [Bin]

ORDER BY [LocationID], [Bin]

```

SELECT [ProductID],
       [LocationID],
       [Bin],
       [Quantity],
       SUM(Quantity) OVER(PARTITION BY [LocationID], [Bin]) AS [Partition]
FROM   [Production].[ProductInventory]

ORDER BY [LocationID], [Bin]

```

Se detalla para cada producto se agrupa los campos LocationID y Bin y indica la cantidad para ese registro en específico:

	ProductID	LocationID	Bin	Quantity	Partition
1	1	1	1	408	3838
2	317	1	1	283	3838
3	325	1	1	569	3838
4	386	1	1	148	3838
5	402	1	1	316	3838
6	422	1	1	620	3838
7	433	1	1	617	3838
8	489	1	1	612	3838
9	949	1	1	265	3838
10	950	1	2	272	4436
11	490	1	2	593	4436
12	462	1	2	310	4436
13	423	1	2	619	4436
14	434	1	2	620	4436
15	403	1	2	313	4436
16	387	1	2	524	4436
17	326	1	2	622	4436
18	318	1	2	136	4436
19	2	1	2	427	4436
20	319	1	3	308	4549
21	388	1	3	292	4549
22	404	1	3	310	4549
23	435	1	3	624	4549
24	445	1	3	616	4549
25	424	1	3	617	4549

ROW_NUMBER

RANK

DENSE_RANK

NTILE

Ejemplo 1

USE AdventureWorks2019

```
SELECT [SalesOrderID], [CustomerID], [TaxAmt]
FROM [Sales].[SalesOrderHeader]
WHERE CustomerID = 29869
```

	SalesOrderID	CustomerID	TaxAmt
1	46985	29869	300,3658
2	48009	29869	761,2794
3	49134	29869	381,4952
4	50224	29869	381,4952
5	51742	29869	317,9605
6	57056	29869	211,2121
7	63161	29869	18,1974
8	69436	29869	199,4927

```
SELECT [SalesOrderID]
,[CustomerID]
,[TaxAmt]
,ROW_NUMBER() OVER(ORDER BY [TaxAmt] ASC) AS [RowNumber]
,RANK() OVER(ORDER BY [TaxAmt] ASC) AS [rnk]
,DENSE_RANK() OVER(ORDER BY [TaxAmt] ASC) AS [densernk]
,NTILE(2) OVER(ORDER BY [TaxAmt] ASC) AS [ntile]
FROM [Sales].[SalesOrderHeader]
WHERE CustomerID = 29869
```

ROW_NUMBER es un índice consecutivo de números.

	SalesOrderID	CustomerID	TaxAmt	RowNumber	rnk	densernk	ntile
1	63161	29869	18,1974	1	1	1	1
2	69436	29869	199,4927	2	2	2	1
3	57056	29869	211,2121	3	3	3	1
4	46985	29869	300,3658	4	4	4	1
5	51742	29869	317,9605	5	5	5	2
6	49134	29869	381,4952	6	6	6	2
7	50224	29869	381,4952	7	6	6	2
8	48009	29869	761,2794	8	8	7	2

En NTILE dado que colocamos como argumento "2", divide la cantidad de registros devueltos en 2 grupos. Si hubiésemos puesto "4" divide la cantidad de registros devueltos en 4 grupos.

Diferencia entre RANK y DENSE_RANK

Ejemplo 2

```

SELECT [BusinessEntityID]
      ,[LoginID]
      ,[Gender]
      ,[VacationHours]
      ,[OrganizationLevel]
      ,[JobTitle]
FROM [HumanResources].[Employee]

```

Results		Messages				
	BusinessEntityID	LoginID	Gender	VacationHours	OrganizationLevel	JobTitle
1	1	adventure-works\ken0	M	99	NULL	Chief Executive Officer
2	2	adventure-works\tem0	F	1	1	Vice President of Engineering
3	3	adventure-works\roberto0	M	2	2	Engineering Manager
4	4	adventure-works\rob0	M	48	3	Senior Tool Designer
5	5	adventure-works\gail0	F	5	3	Design Engineer
6	6	adventure-works\jossef0	M	6	3	Design Engineer
7	7	adventure-works\dylan0	M	61	3	Research and Development Manager
8	8	adventure-works\diane1	F	62	4	Research and Development Engineer
9	9	adventure-works\gigi0	F	63	4	Research and Development Engineer
10	10	adventure-works\michael6	M	16	4	Research and Development Manager
11	11	adventure-works\ovidiu0	M	7	3	Senior Tool Designer
12	12	adventure-works\thierry0	M	9	4	Tool Designer
13	13	adventure-works\janice0	F	8	4	Tool Designer
14	14	adventure-works\michael8	M	3	3	Senior Design Engineer
15	15	adventure-works\sharon0	F	4	3	Design Engineer
16	16	adventure-works\david0	M	40	1	Marketing Manager
17	17	adventure-works\kevin0	M	42	2	Marketing Assistant
18	18	adventure-works\john5	M	48	2	Marketing Specialist

```

WITH CTEVacations AS (SELECT BusinessEntityID
                          ,LoginID
                          ,JobTitle
                          ,OrganizationLevel
                          ,VacationHours
                          ,DENSE_RANK() OVER(ORDER BY OrganizationLevel ASC) AS [Group]
                          ,DENSE_RANK() OVER(PARTITION BY OrganizationLevel
                                              ORDER BY VacationHours DESC) AS [Position]
FROM [HumanResources].[Employee]
WHERE [Gender] = 'M' AND VacationHours > 0)

```

Encontrar a todos los trabajadores según **OrganizationLevel** quienes tienen el mayor número de vacaciones acumuladas.

```

SELECT * FROM CTEVacations
WHERE [Position] = 1

```

Results

Messages

	BusinessEntityID	LoginID	JobTitle	OrganizationLevel	VacationHours	Group	Position
1	1	adventure-works\ken0	Chief Executive Officer	NULL	99	1	1
2	25	adventure-works\james1	Vice President of Production	1	64	2	1
3	227	adventure-works\gary1	Facilities Manager	2	86	3	1
4	121	adventure-works\pilar0	Shipping and Receiving Supervisor	3	93	4	1
5	117	adventure-works\chad0	Production Technician - WC50	4	99	5	1

Vamos a revisar la query que está contenido en el WITH:

```

SELECT BusinessEntityID
      ,LoginID
      ,JobTitle
      ,OrganizationLevel
      ,VacationHours
      ,DENSE_RANK() OVER(ORDER BY OrganizationLevel ASC) AS [Group]
      ,DENSE_RANK() OVER(PARTITION BY OrganizationLevel
                        ORDER BY VacationHours DESC) AS [Position]

FROM [HumanResources].[Employee]
WHERE [Gender] = 'M' AND VacationHours > 0

```

	BusinessEntityID	LoginID	JobTitle	OrganizationLevel	VacationHours	Group	Position
1	1	adventure-works\ken0	Chief Executive Officer	NULL	99	1	1
2	25	adventure-works\james1	Vice President of Production	1	64	2	1
3	16	adventure-works\david0	Marketing Manager	1	40	2	2
4	273	adventure-works\brian3	Vice President of Sales	1	10	2	3
5	227	adventure-works\gary1	Facilities Manager	2	86	3	1
6	211	adventure-works\hazem0	Quality Assurance Manager	2	80	3	2
7	268	adventure-works\ramesh0	Application Specialist	2	73	3	3
8	269	adventure-works\dan0	Application Specialist	2	72	3	4
9	270	adventure-works\françois0	Database Administrator	2	67	3	5
10	271	adventure-works\dan1	Database Administrator	2	66	3	6
11	241	adventure-works\david6	Accounts Manager	2	57	3	7
12	262	adventure-works\david5	Assistant to the Chief Financial Officer	2	56	3	8
13	18	adventure-works\john5	Marketing Specialist	2	48	3	9
14	22	adventure-works\sariya0	Marketing Specialist	2	45	3	10
15	21	adventure-works\terry0	Marketing Specialist	2	44	3	11
16	222	adventure-works\ascott0	Master Scheduler	2	44	3	11
17	26	adventure-works\peter0	Production Control Manager	2	43	3	12
18	17	adventure-works\kevin0	Marketing Assistant	2	42	3	13
19	285	adventure-works\syed0	Pacific Sales Manager	2	20	3	14
20	274	adventure-works\stephen0	North American Sales Manager	2	14	3	15
21	3	adventure-works\roberto0	Engineering Manager	2	2	3	16
22	121	adventure-works\pilar0	Shipping and Receiving Supervisor	3	93	4	1
23	228	adventure-works\christia...	Maintenance Supervisor	3	92	4	2
24	233	adventure-works\magnus0	Facilities Administrative Assistant	3	87	4	3
25	212	adventure-works\penn0	Quality Assurance Supervisor	3	81	4	4