

Pivot y Unpivot

PIVOT

UNPIVOT

Ejemplo 1

USE AdventureWorks2019

```
SELECT YEAR(OrderDate) as YearRef, SUM(TotalDue) as Total
FROM [Sales].[SalesOrderHeader]
GROUP BY YEAR(OrderDate)
```

Results		Messages
	YearRef	Total
1	2013	48965887,9632
2	2014	22419498,3157
3	2011	14155699,525
4	2012	37675599,8176

PIVOT

```
SELECT YEAR([soh].[OrderDate]) AS [SalesYear],
        [soh].[TotalDue] AS [TotalSales]
FROM [Sales].[SalesOrderHeader] AS [soh]
```

Results		Messages
	SalesYear	TotalSales
1	2011	23153,2339
2	2011	1457,3288
3	2011	36865,8012
4	2011	32474,9324
5	2011	472,3108
6	2011	27510,4109
7	2011	16158,6961
8	2011	5694,8564
9	2011	6876,3649
10	2011	40487,7233
11	2011	807,2585

```

SELECT * FROM (SELECT YEAR([soh].[OrderDate]) AS [SalesYear],
                    [soh].[TotalDue] AS [TotalSales]
                FROM [Sales].[SalesOrderHeader] AS [soh]) AS [Sales]
PIVOT (SUM([TotalSales])
FOR [SalesYear] IN ([2011],[2012],[2013],[2014])) AS [pvt]

```

	2011	2012	2013	2014
1	14155699,525	37675599,8176	48965887,9632	22419498,3157

UNPIVOT

```

SELECT SalesYear, TotalSales
FROM (SELECT * FROM (SELECT YEAR([soh].[OrderDate]) AS [SalesYear],
                    [soh].[TotalDue] AS [TotalSales]
                FROM [Sales].[SalesOrderHeader] AS [soh]) AS [Sales]
      PIVOT (SUM([TotalSales]) FOR [SalesYear] IN ([2011],[2012],
                                                    [2013],[2014])) AS [pvt]
      ) AS [T]
UNPIVOT([TotalSales] FOR [SalesYear] IN ([2011],[2012],
                                          [2013],[2014])) AS [upvt]

```

	SalesYear	TotalSales
1	2011	12641672,2129
2	2012	33524301,326
3	2013	43622479,0537
4	2014	20057928,8113

Ejemplo 2

PIVOT

USE AdventureWorks2019

```
SELECT * FROM (SELECT DAY([soh].[OrderDate]) AS [SalesDaily],
                    [soh].[TotalDue] AS [TotalSales]
                FROM [Sales].[SalesOrderHeader] AS [soh]
                WHERE [soh].[OrderDate] >= '2011-06-01'
                    AND [soh].[OrderDate] <= '2011-06-30'
                ) AS [Sales]
PIVOT (SUM([TotalSales]) FOR [SalesDaily] IN ([01],[02])) AS [pvt]
```

Results			Messages		
	01	02			
1	15394,3298	16588,4572			

Ejemplo 3

Results		Messages	
	OrderDate		
1	2011-06-27 00:00:00.000		
2	2011-06-04 00:00:00.000		
3	2011-06-15 00:00:00.000		
4	2011-06-21 00:00:00.000		
5	2011-06-01 00:00:00.000		
6	2011-06-24 00:00:00.000		
7	2011-06-07 00:00:00.000		
8	2011-06-18 00:00:00.000		
9	2011-06-02 00:00:00.000		
10	2011-06-10 00:00:00.000		
11	2011-06-13 00:00:00.000		
12	2011-06-19 00:00:00.000		
13	2011-06-16 00:00:00.000		
14	2011-06-22 00:00:00.000		
15	2011-06-30 00:00:00.000		
16	2011-06-25 00:00:00.000		
17	2011-06-08 00:00:00.000		
18	2011-06-17 00:00:00.000		
19	2011-06-28 00:00:00.000		
20	2011-06-11 00:00:00.000		
21	2011-06-05 00:00:00.000		
22	2011-06-14 00:00:00.000		
23	2011-06-12 00:00:00.000		
24	2011-06-06 00:00:00.000		
25	2011-06-23 00:00:00.000		

USE AdventureWorks2019

```
DECLARE @columns AS VARCHAR(MAX)
DECLARE @startDate AS VARCHAR(10) = '2011-06-01'
DECLARE @endDate AS VARCHAR(10) = '2011-06-30'
```

```
SELECT DISTINCT [OrderDate]
FROM [Sales].[SalesOrderHeader] AS [soh]
WHERE [soh].[OrderDate] >= @startDate
    AND [soh].[OrderDate] <= @endDate
```

```

DECLARE @columns AS VARCHAR(MAX)
DECLARE @startDate AS VARCHAR(10) = '2011-06-01'
DECLARE @endDate AS VARCHAR(10) = '2011-06-30'

SELECT @columns = STUFF(
    (SELECT ', ' + QUOTENAME(LTRIM(DAY([OrderDate])))
      FROM (SELECT DISTINCT [OrderDate]
            FROM [Sales].[SalesOrderHeader] AS [soh]
            WHERE [soh].[OrderDate] >= @startDate
              AND [soh].[OrderDate] <= @endDate) AS [T]
      ORDER BY [OrderDate]
      FOR XML PATH('')
    ), 1, 1, '');

SELECT @columns

```

Results		Messages
	(No column name)	
1	[1].[2].[3].[4].[5].[6].[7].[8].[9].[10].[11].[12].[13].[14].[15].[16].[17].[18].[19].[20].[21].[22].[23].[24].[25].[26].[27].[28].[29].[30]	

```

DECLARE @columns AS VARCHAR(MAX)
DECLARE @startDate AS VARCHAR(10) = '2011-06-01'
DECLARE @endDate AS VARCHAR(10) = '2011-06-30'

SELECT @columns = STUFF(
    (SELECT ', ' + QUOTENAME(LTRIM(DAY([OrderDate])))
      FROM (SELECT DISTINCT [OrderDate]
            FROM [Sales].[SalesOrderHeader] AS [soh]
            WHERE [soh].[OrderDate] >= @startDate
              AND [soh].[OrderDate] <= @endDate) AS [T]
      ORDER BY [OrderDate]
      FOR XML PATH('')
    ), 1, 1, '');

SELECT @columns

DECLARE @sql NVARCHAR(MAX)

SET @sql =
'SELECT * FROM (SELECT DAY([soh].[OrderDate]) AS [SalesDaily],
                    [soh].[TotalDue] AS [TotalSales]
                  FROM [Sales].[SalesOrderHeader] AS [soh]
                  WHERE [soh].[OrderDate] >= '' + CHAR(39) + @startDate
                    + CHAR(39) + ''
                    AND [soh].[OrderDate] <= '' + CHAR(39) + @endDate
                    + CHAR(39) + ''
                  ) AS [Sales]
 PIVOT (SUM([TotalSales]) FOR [SalesDaily] IN (' + @columns + '))
       ) AS [pvt]'

EXEC sp_executesql @sql

```

