

# SQL Server Tutorial

## Part 112 - Calculate running total in SQL Server 2012

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# In this session we will learn

- How to calculate running total in SQL Server 2012 and later versions

**Link to Dot Net Basics, ASP.NET, C#, ADO.NET and SQL Server video series**

<http://www.youtube.com/user/kudvenkat/playlists>

## **Suggested Videos**

**Part 109 - Row\_Number function in SQL Server**

**Part 110 - RANK and DENSE\_RANK in SQL Server**

**Part 111 - Difference between rank dense\_rank and row\_number in SQL**

# Running Total in SQL Server 2012

If you are in need of the DVD with all the videos and PPT's, please visit  
<http://pragimtech.com/order.aspx>

## SQL Query to compute running total without partitions

Id	Name	Gender	Salary		Name	Gender	Salary	RunningTotal
1	Mark	Male	5000		Mark	Male	5000	5000
2	John	Male	4500		John	Male	4500	9500
3	Pam	Female	5500		Pam	Female	5500	15000
4	Sara	Female	4000		Sara	Female	4000	19000
5	Todd	Male	3500	→	Todd	Male	3500	22500
6	Mary	Female	5000		Mary	Female	5000	27500
7	Ben	Male	6500		Ben	Male	6500	34000
8	Jodi	Female	7000		Jodi	Female	7000	41000
9	Tom	Male	5500		Tom	Male	5500	46500
10	Ron	Male	5000		Ron	Male	5000	51500

```
SELECT Name, Gender, Salary,  
       SUM(Salary) OVER (ORDER BY ID) AS RunningTotal  
FROM Employees
```

# Running Total in SQL Server 2012

## SQL Query to compute running total with partitions

Id	Name	Gender	Salary
1	Mark	Male	5000
2	John	Male	4500
3	Pam	Female	5500
4	Sara	Female	4000
5	Todd	Male	3500
6	Mary	Female	5000
7	Ben	Male	6500
8	Jodi	Female	7000
9	Tom	Male	5500
10	Ron	Male	5000



Name	Gender	Salary	RunningTotal
Pam	Female	5500	5500
Sara	Female	4000	9500
Mary	Female	5000	14500
Jodi	Female	7000	21500
Mark	Male	5000	5000
John	Male	4500	9500
Todd	Male	3500	13000
Ben	Male	6500	19500
Tom	Male	5500	25000
Ron	Male	5000	30000

```
SELECT Name, Gender, Salary,  
       SUM(Salary) OVER (PARTITION BY Gender ORDER BY ID) AS RunningTotal  
FROM Employees
```

# Running Total in SQL Server 2012

## What happens if I use order by on Salary column

If you have duplicate values in the Salary column, all the duplicate values will be added to the running total at once. In the example below notice that we have 5000 repeated 3 times. So 15000 (i.e 5000 + 5000 + 5000) is added to the running total at once

Id	Name	Gender	Salary		Name	Gender	Salary	RunningTotal
1	Mark	Male	5000		Todd	Male	3500	3500
2	John	Male	4500		Sara	Female	4000	7500
3	Pam	Female	5500		John	Male	4500	12000
4	Sara	Female	4000		Mark	Male	5000	27000
5	Todd	Male	3500	→	Mary	Female	5000	27000
6	Mary	Female	5000		Ron	Male	5000	27000
7	Ben	Male	6500		Tom	Male	5500	38000
8	Jodi	Female	7000		Pam	Female	5500	38000
9	Tom	Male	5500		Ben	Male	6500	44500
10	Ron	Male	5000		Jodi	Female	7000	51500

```
SELECT Name, Gender, Salary,  
       SUM(Salary) OVER (ORDER BY Salary) AS RunningTotal  
FROM Employees
```

So when computing running total, it is better to use a column that has unique data in the ORDER BY clause.

# Additional Resources

## PRAGIM Home Page:

[www.PragimTech.com](http://www.PragimTech.com)

## Resources:

C#, ADO.NET, ASP.NET, SQL Server & MVC youtube Playlists

<http://www.youtube.com/user/kudvenkat/playlists>

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