



Creating and Using Table Calculations

Quick Table Calculations

Quick table calculations, as the name suggests, allow you to quickly apply frequently used table calculations to the view using the most typical settings for that calculation type. They save you the effort of using the column fields from data to create calculations. They have inbuilt logic, so you can use them directly in the view. Some of the most commonly used table calculations are as follows:

- **Running Total**
- **Difference**
- **Percent of Total**
- **Percent Difference**
- **Percentile**
- **Rank**
- **Moving Average**

1. Running Total

Running Total, as the name suggests, is used to calculate the cumulative total of a measure across a specific dimension or table structure. It adds up the previous value with the current value to display that result in the current value's place in the running total. For example, consider that you are working on a project related to a car manufacturer. A common use case for this calculation, would be to calculate the month-by-month cumulative car sales for a year, to find out the total sales for that year. You can also further calculate it on a year-by-year basis to find out the overall car sales to date. The next exercise looks at this in detail.

Exercise 01: Creating a Running Total Calculation

In this exercise, you will calculate the cumulative profit earned across different years for a particular category using the **Running Total** calculation. This allows you to view all years together for the profits earned, rather than individual years. The following steps will help you complete this exercise:

1. Load the **Sample – Superstore** dataset in your Tableau instance. In the **Connect** pane, click on **Microsoft Excel** and navigate to **Documents | My Tableau Repository | Data Sources**, and then open the **Sample - Superstore.xls** file.



2. Create a view that shows **Category** against **YEAR(Order Date)** and **SUM(Profit)**, as follows:

Pages	Columns	YEAR(Order Date)
Filters	Rows	Category
Marks		
Automatic		
Color	Size	Text
Detail	Tooltip	
SUM(Profit)		

Category	Order Date			
	2016	2017	2018	2019
Furniture	5,458	3,015	6,960	3,018
Office Supplies	22,593	25,100	35,061	39,737
Technology	21,493	33,504	39,774	50,684

Figure 1: Running total initial view

3. Add a **Running Total** quick calculation to the view by selecting the following highlighted options:

SUM(Profit)	
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Dimension	Running Total
Attribute	Difference
Measure (Sum)	Percent Difference
Discrete	Percent of Total
Continuous	Rank
Edit in Shelf	Percentile
Add Table Calculation...	Moving Average
Quick Table Calculation	YTD Total
	Compound Growth Rate
	Year Over Year Growth

Figure 2: Accessing Quick Table Calculation | Running Total



4. The following view shows the final output:

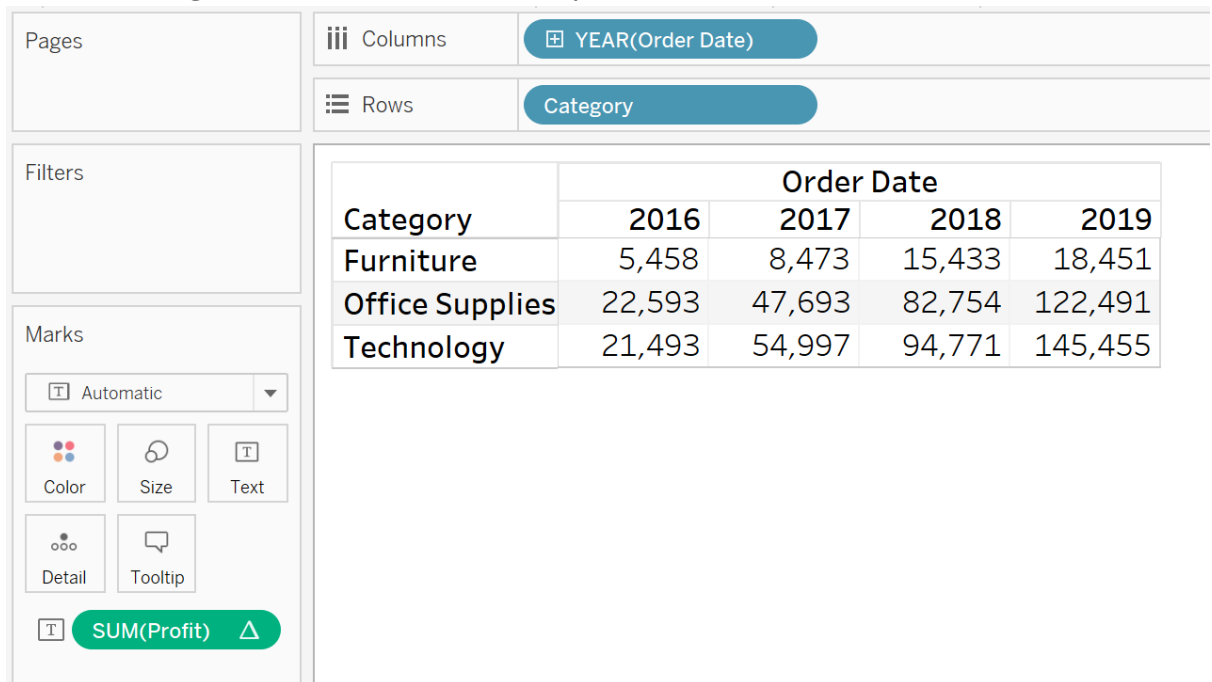


Figure 3: Final output

As you can see, by comparing the previous figure (final view) with the next one (initial view), the profit has been summed cumulatively by taking the previous year's profit, as well as the current year's profit. With **Furniture**, for example, the second value under the running total is computed using the previous value and the current value, that is, $5,458 + 3,015 = 8,473$, and this is done similarly for other values.

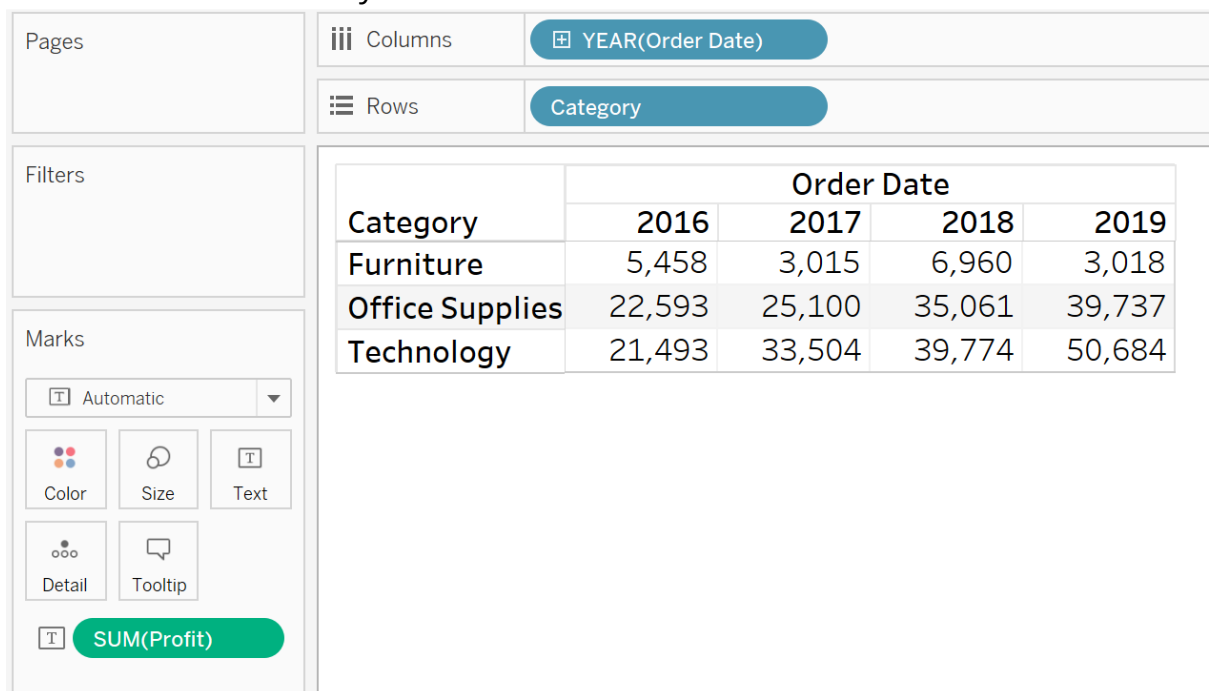


Figure 4: Initial view