

Level of Detail (LOD)

Level of Detail (LOD) expressions serve the purpose of executing concerned queries that involve numerous dimensions at the data source level, rather than transferring all the data to the Tableau interface. A helpful example is the addition of a dimension to an aggregate value that has already been calculated.

Categories of LOD Expressions

There exist three primary categories of LOD expressions.

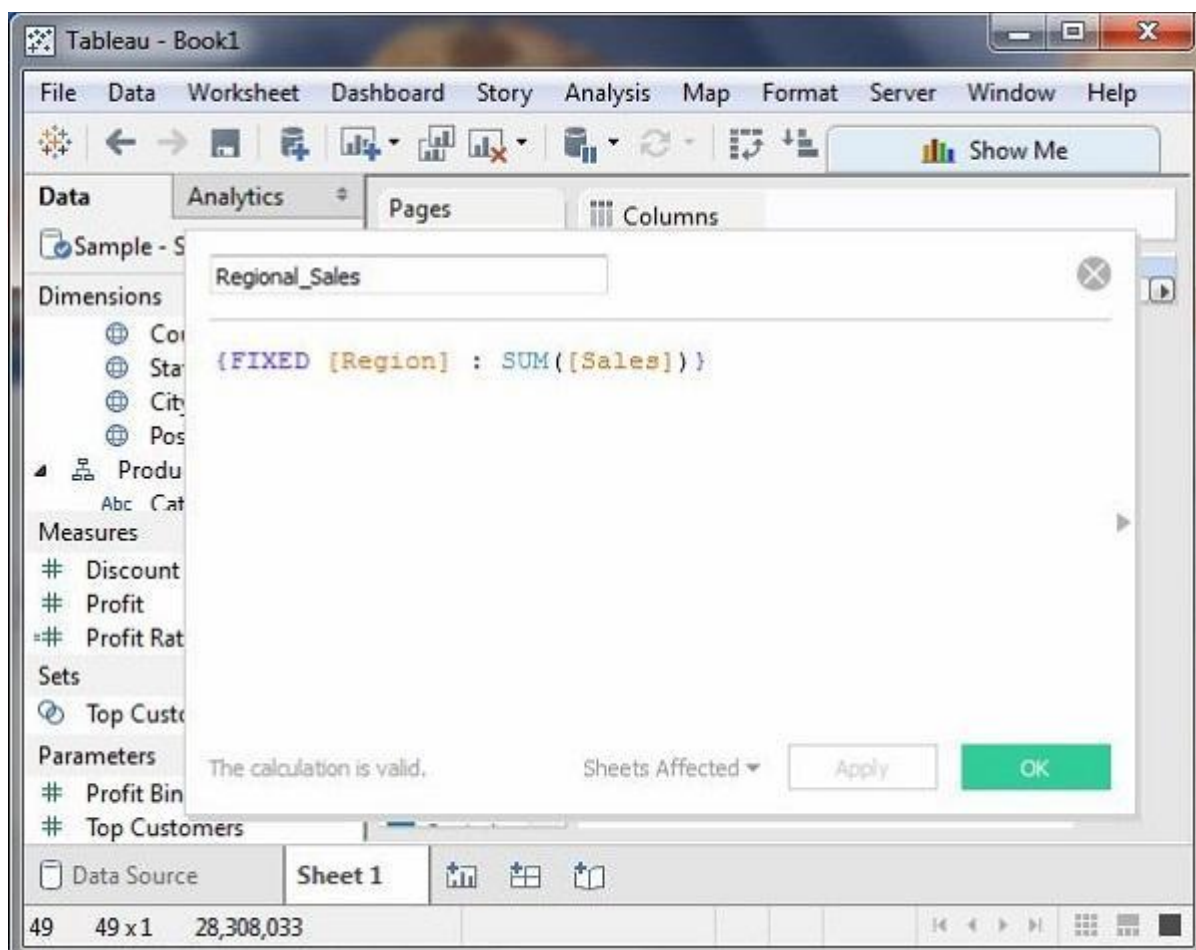
FIXED LOD: This type of expression calculates values using the specified dimensions, regardless of any other dimensions present in the view.

INCLUDE LOD: Expressions at this level of detail compute values using the specified dimensions in addition to any dimensions already present in the view.

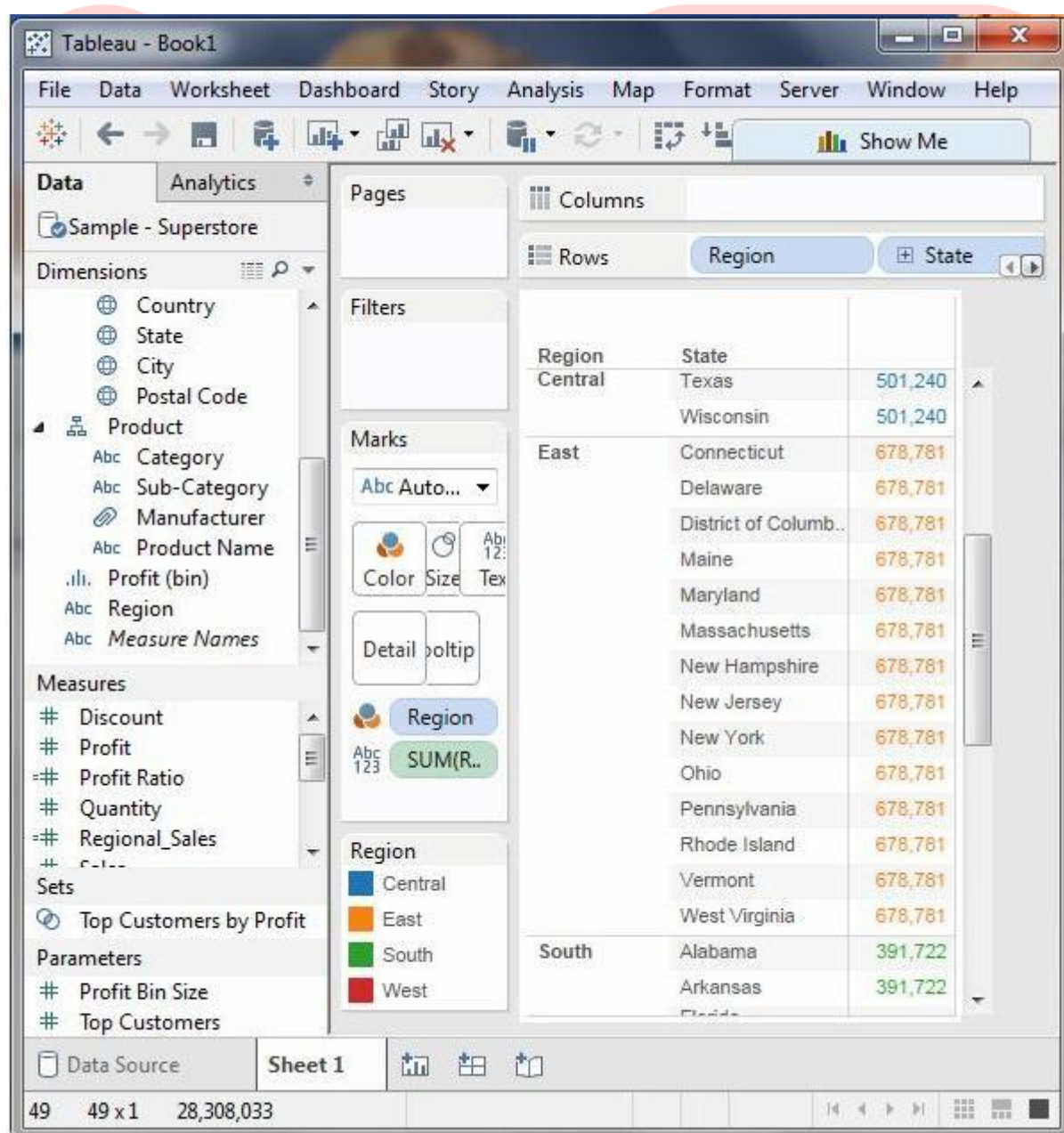
EXCLUDE LOD: These types of level of detail expressions remove dimensions from the view's level of detail.

FIXED Level of Detail:

Determine the sales total for every state within each region. To accomplish this, start by creating a formula field called "Regional Sales" using the formula depicted in the provided screenshot.



Following that, add the Region and State fields to the Rows shelf, and introduce the calculated field to the Text shelf under the Marks card. Additionally, include the Region field on the Color shelf. This will generate the displayed view, where distinct states exhibit a constant value. This consistency arises because we have set the region as a fixed dimension for the sales calculation.

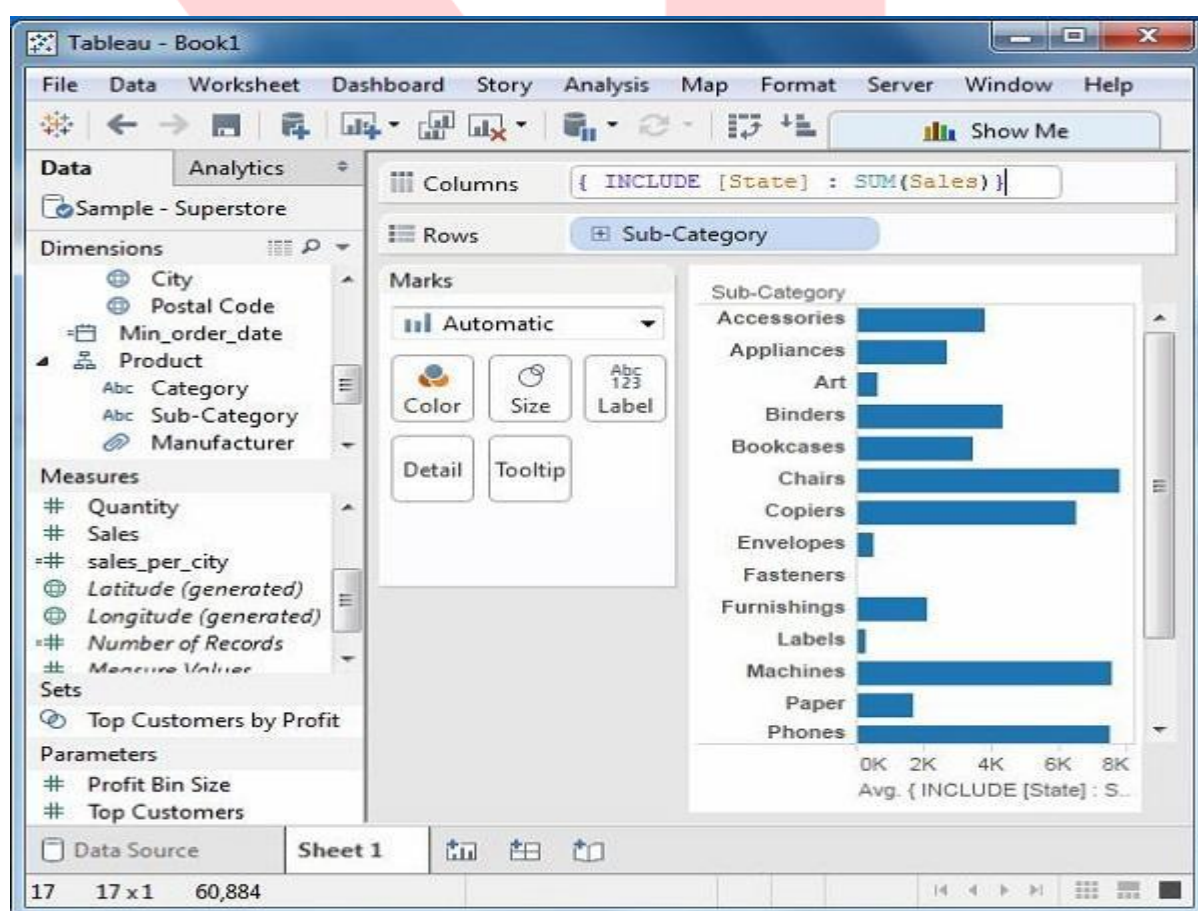


INCLUDE Level of Detail:

INCLUDE level of detail expressions calculate values by incorporating the specified dimensions alongside the dimensions currently present in the view. To determine the total sales per state for each product sub-category, follow these steps:

1. Add the Sub-Category field to the Rows shelf.
2. Write the expression in the Columns shelf, following the format illustrated in the provided screenshot.

By executing these steps, you will generate the displayed view, which takes into account both dimensions when performing the calculations.

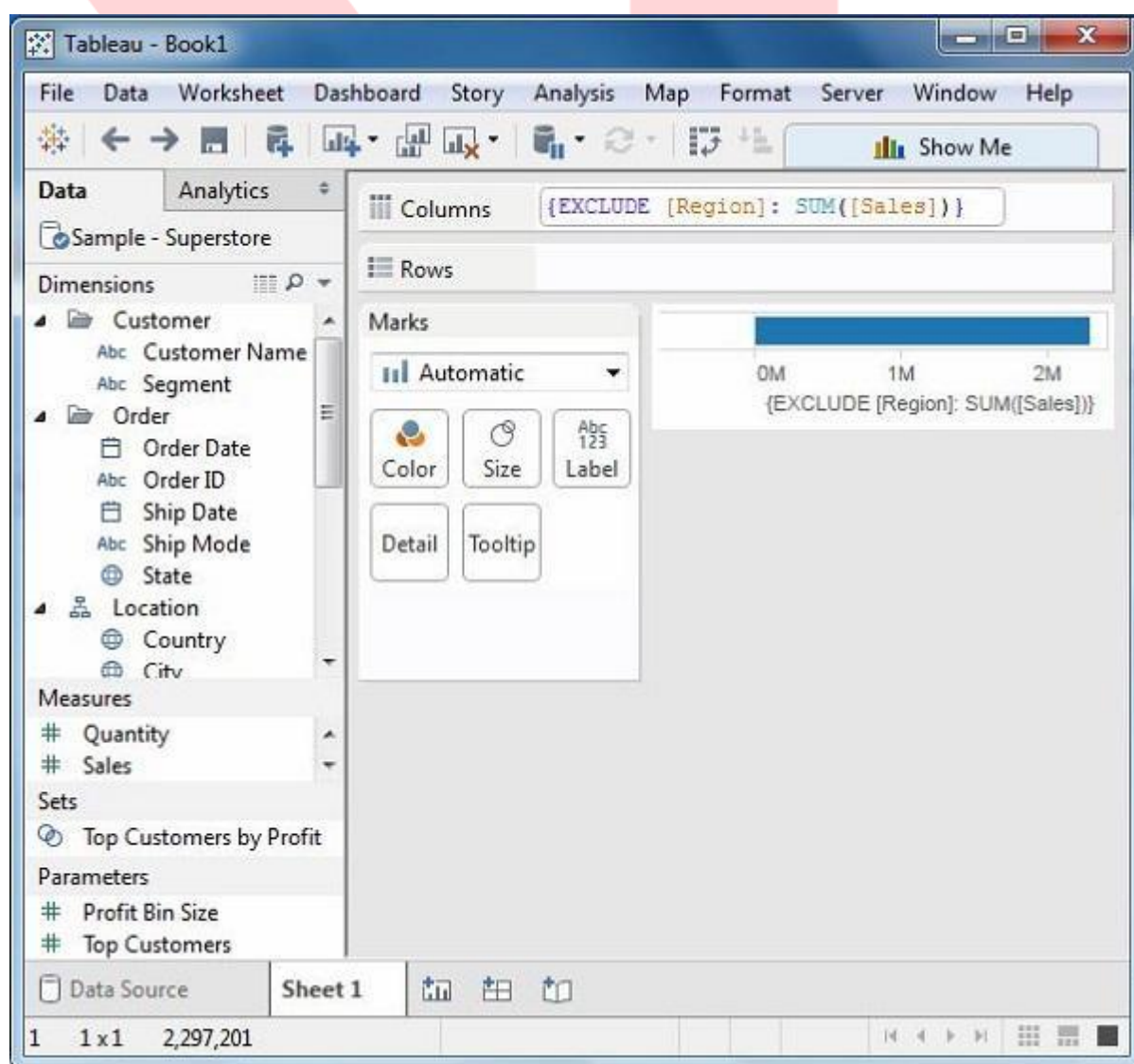


EXCLUDE Level of Detail:

EXCLUDE level of detail expressions enable you to specify dimensions that should be excluded from the view's level of detail. To exclude the "Region" dimension from the sales figures calculated for each month, follow these steps:

1. Create the formula in accordance with the format illustrated in the provided screenshot.

By doing so, you will effectively exclude the "Region" dimension from the sales calculations made for each month.



Once you have placed the appropriate fields onto their respective shelves as instructed, the final view for the EXCLUDE level of detail (LOD) will resemble the example presented in the provided screenshot.

