UNDERSTANDING AGGREGATIONS

In Tableau, we can **aggregate measures** or **dimensions**, though it is more common to aggregate measures

Whenever a **measure** is added to a **view**, an **aggregation** is applied to that measure by default
The type of aggregation applied varies depending on the context of the view

Given below are the topics that will be covered:

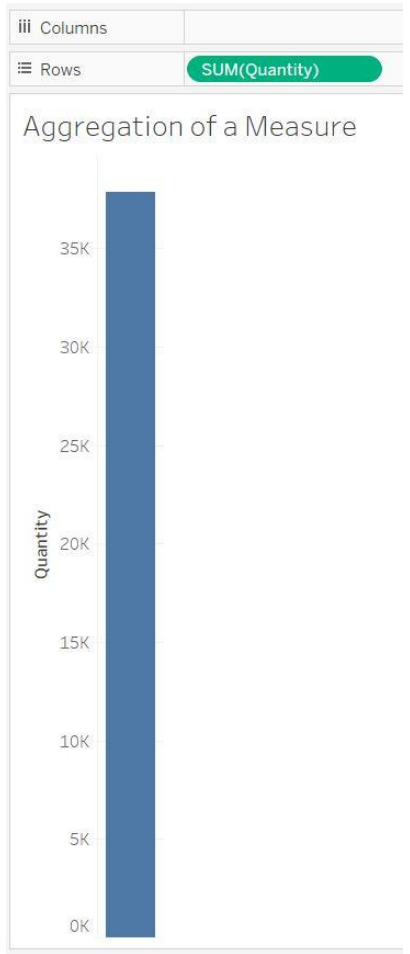
Change the Aggregation of a Measure in the View
Aggregating Dimensions
Set the Default Aggregation for a Measure
How to Disaggregate Data
How to Disaggregate Data in Scatter Plot
How Aggregated Data changes when Dimensions are added

CHANGE THE AGGREGATION OF A MEASURE IN THE VIEW

When a **measure** is dragged to the view, Tableau automatically **aggregates** its values
Sum, average, and median are common aggregations

The current aggregation appears as part of the measure's name in the view
For example, **Quantity** becomes **SUM(Quantity)**

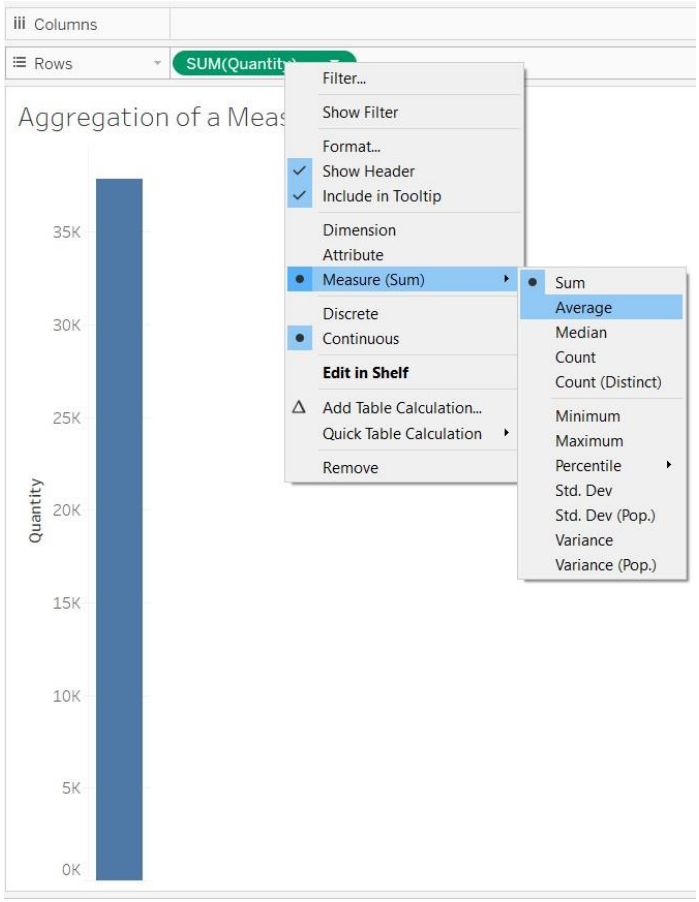
Every measure has a default aggregation which is set by Tableau when we connect to a data source
We can view or change the default aggregation for a measure

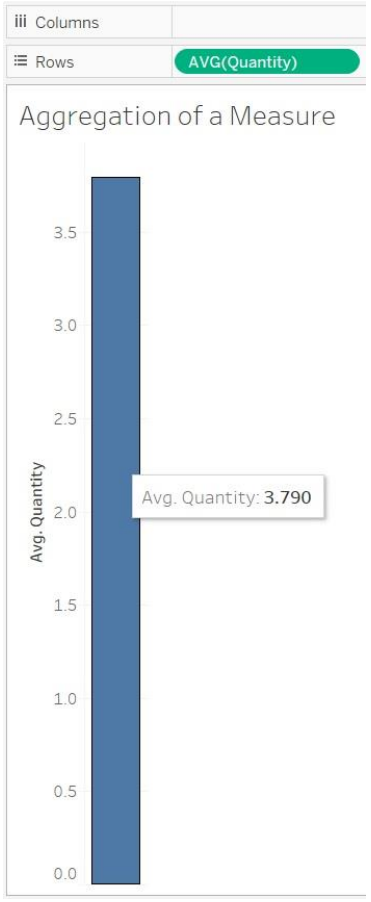


CHANGE THE AGGREGATION OF A MEASURE IN THE VIEW

The aggregation for a measure in the current view can be changed from the Measure pill

Right click (control-click on Mac) the measure or click on drop-down in measure pill > **Measure(Sum)** > **Average** (for example)





NOTE: This **aggregation** change will be applicable **only for that sheet or viz** and not to the whole workbook (all sheets)

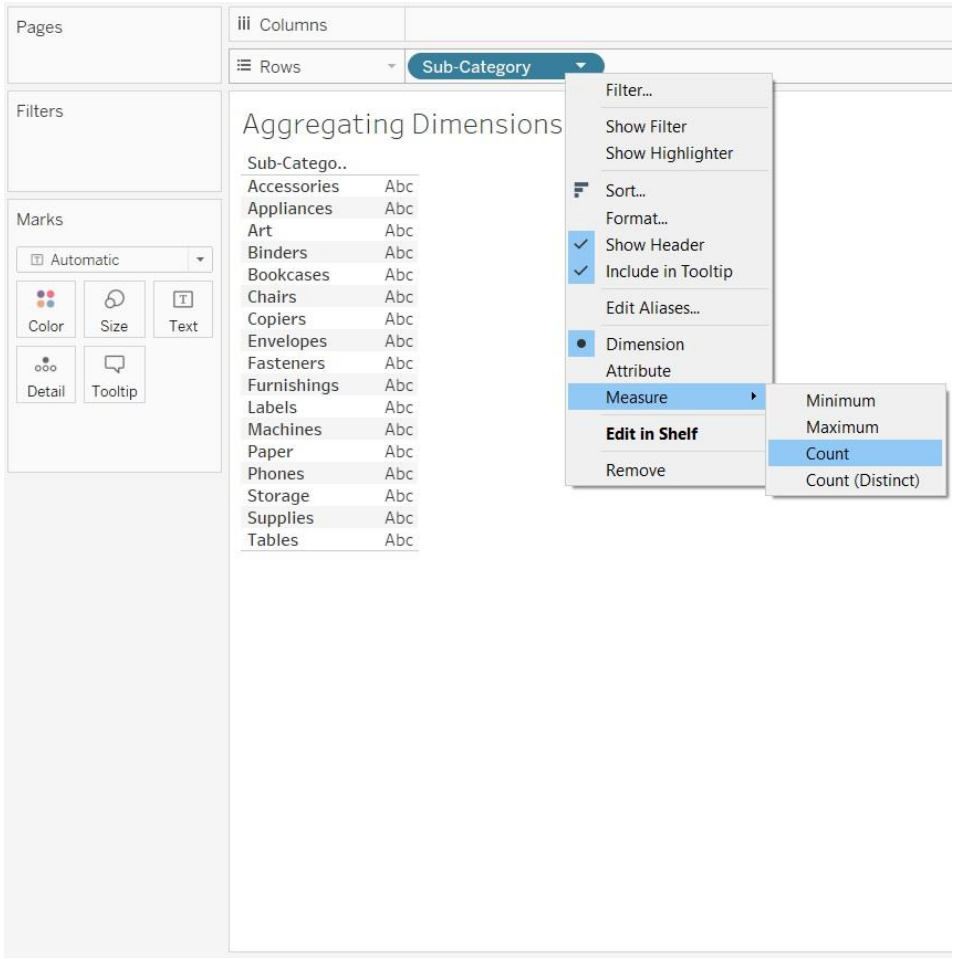
AGGREGATING DIMENSIONS

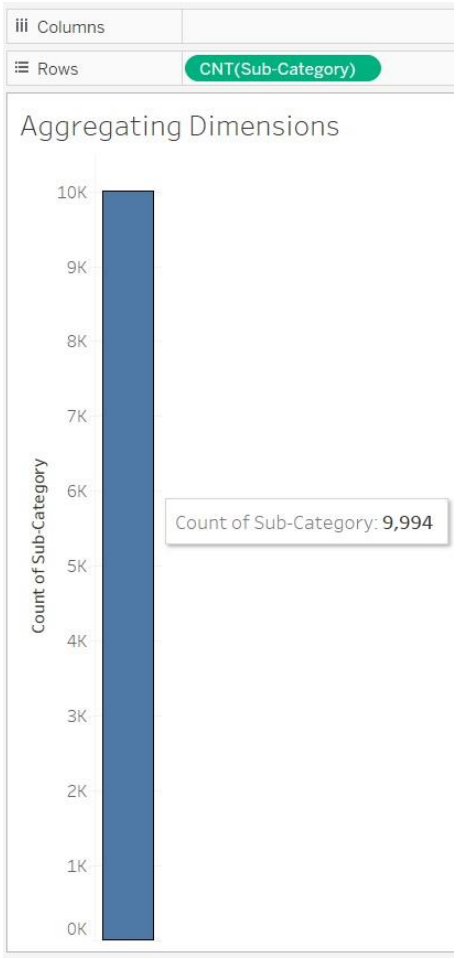
A **dimension** can be **aggregated** in the view as **Minimum**, **Maximum**, **Count**, or **Count (Distinct)**

When we aggregate a dimension, a **new temporary measure column** is created, so the **dimension** takes on the **characteristics of a measure**

AGGREGATING DIMENSIONS

Right click (control-click on Mac) the **dimension** or click on drop-down in **dimension pill > Measure > Count** (for example)





SET THE DEFAULT AGGREGATION FOR A MEASURE

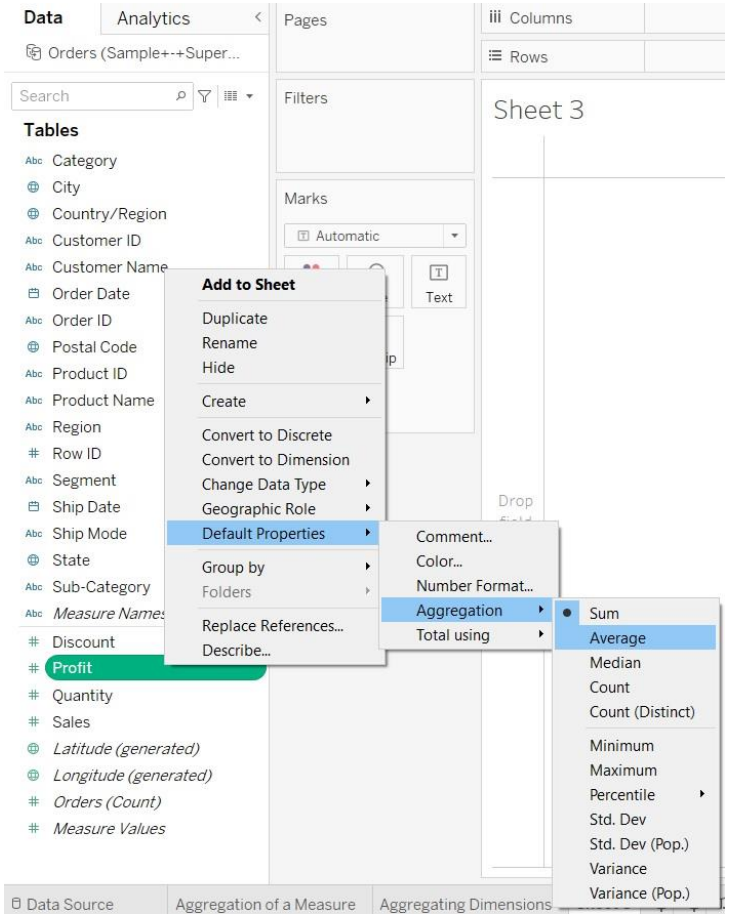
The **default aggregation** can be set for any measure that is not a calculated field that itself contains an aggregation, such as **AVG([Sales])**

A default aggregation is a preferred calculation for summarizing a continuous or discrete field

The **default aggregation** is automatically used when you **drag a measure** to a **view**

SET THE DEFAULT AGGREGATION FOR A MEASURE

Right-click (control-click on Mac) a **measure** in the **Data** pane and select **Default Properties** > **Aggregation**, and then select one of the aggregation options e.g.: **Average**

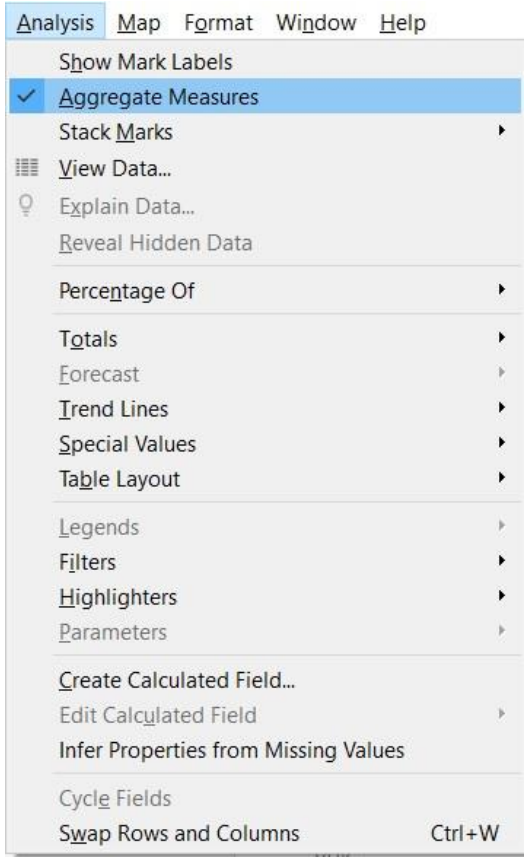


NOTE: This **aggregation** change will be applicable for the **whole workbook** (all sheets)

HOW TO DISAGGREGATE DATA

Whenever a **measure** is added to a **view**, an **aggregation** is applied to that **measure** by default

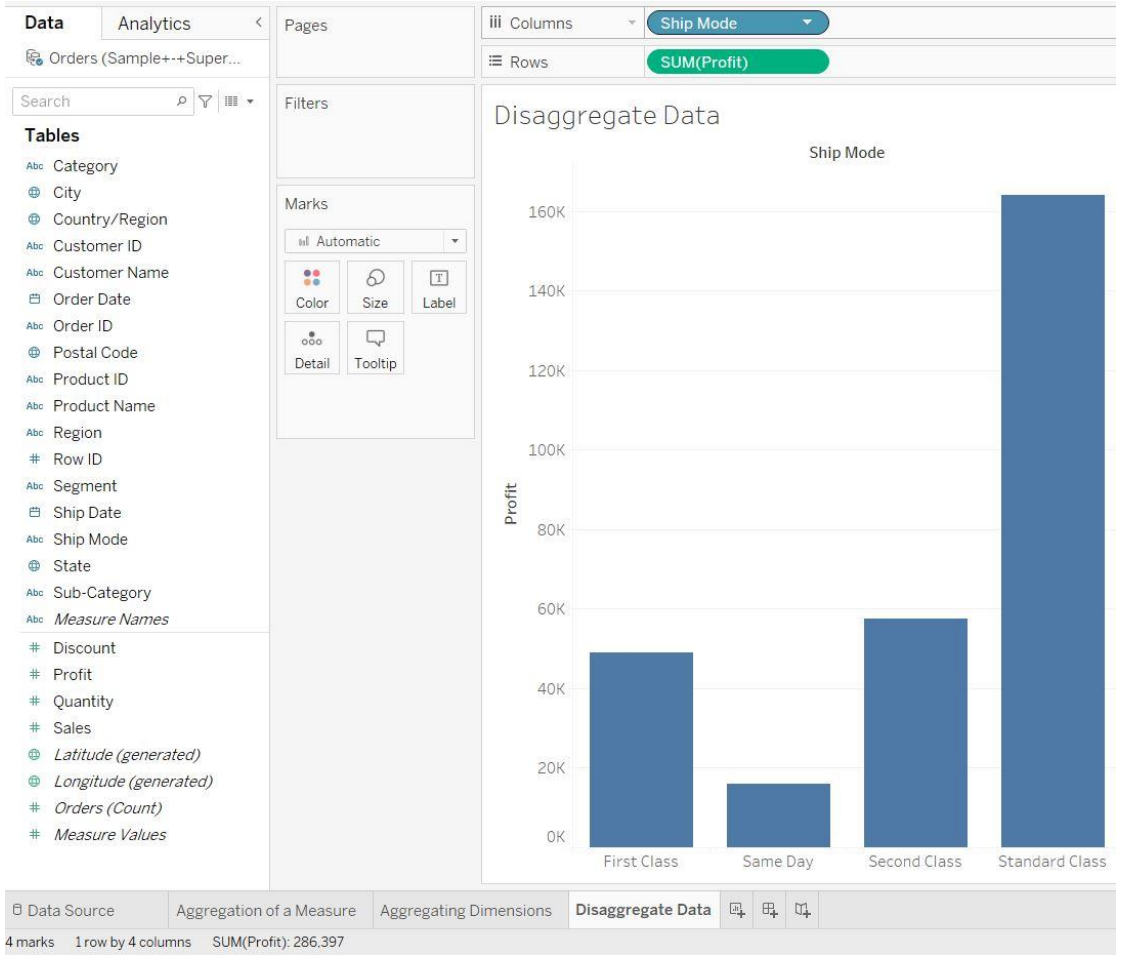
This default is controlled by the **Aggregate Measures** setting in the **Analysis** menu



HOW TO DISAGGREGATE DATA

The default **view** will be an **aggregated** one

The number of **marks** in the status bar is **4**



HOW TO DISAGGREGATE DATA

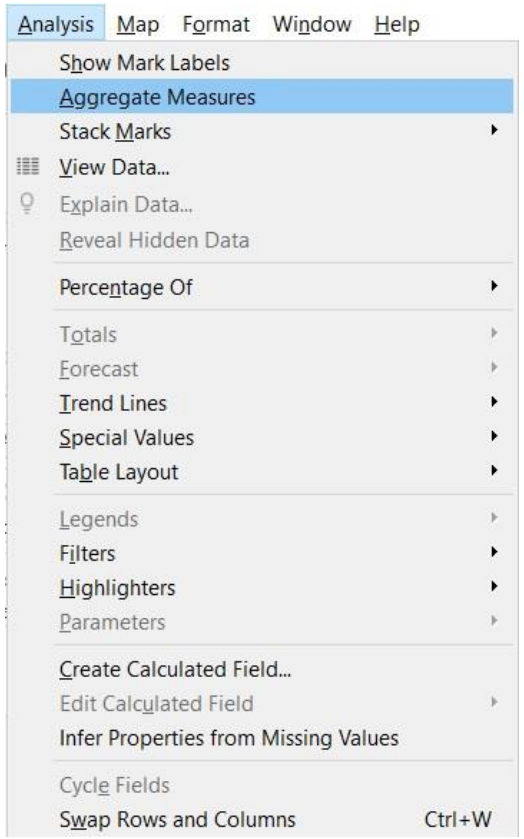
If there is a requirement to see all the marks in the view at the most detailed level of granularity, we can disaggregate the view

Disaggregating the data means that Tableau will display a separate mark for every data value in every row of the data source

HOW TO DISAGGREGATE DATA

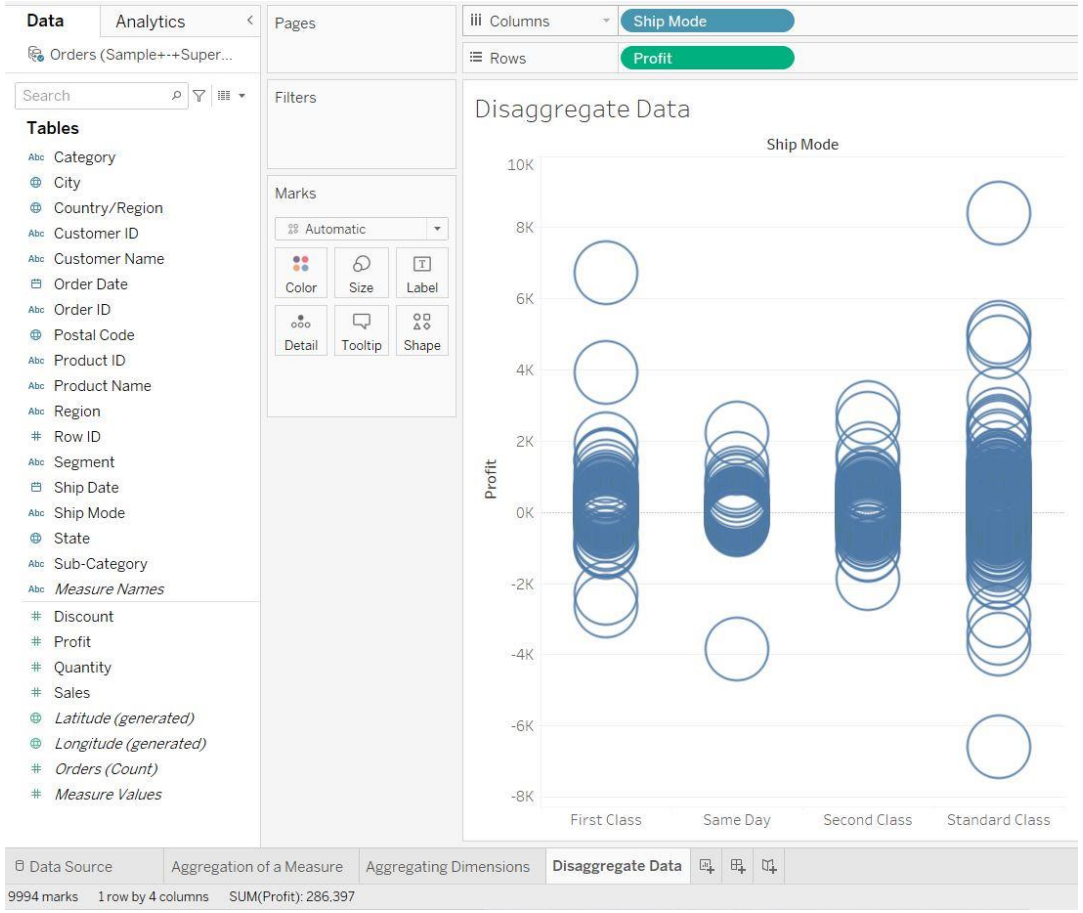
To disaggregate all measures in the view:

Clear the **Analysis** > **Aggregate Measures** option
If it is already selected, click Aggregate Measures once to deselect it



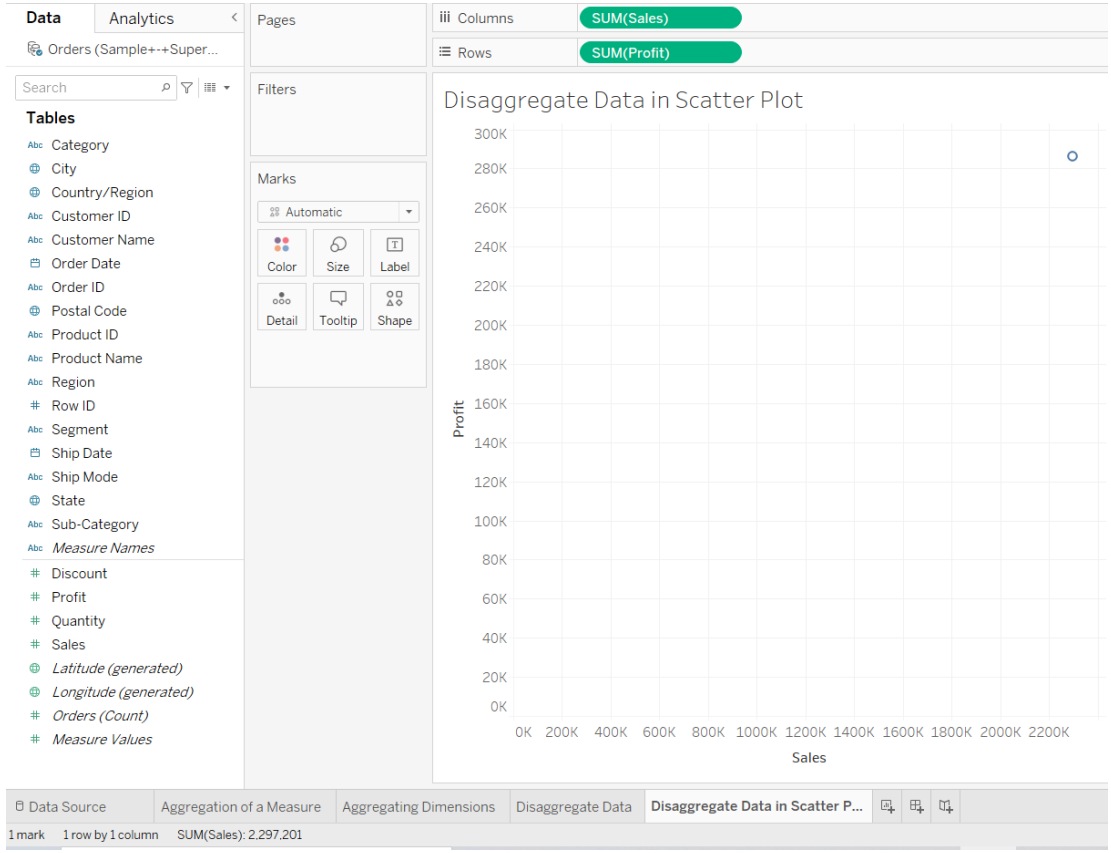
HOW TO DISAGGREGATE DATA

This **view** will now be a **disaggregated** one
The number of **marks** in the status bar is now **9994** (i.e., total number of rows in the data source)



HOW TO DISAGGREGATE DATA IN A SCATTER PLOT

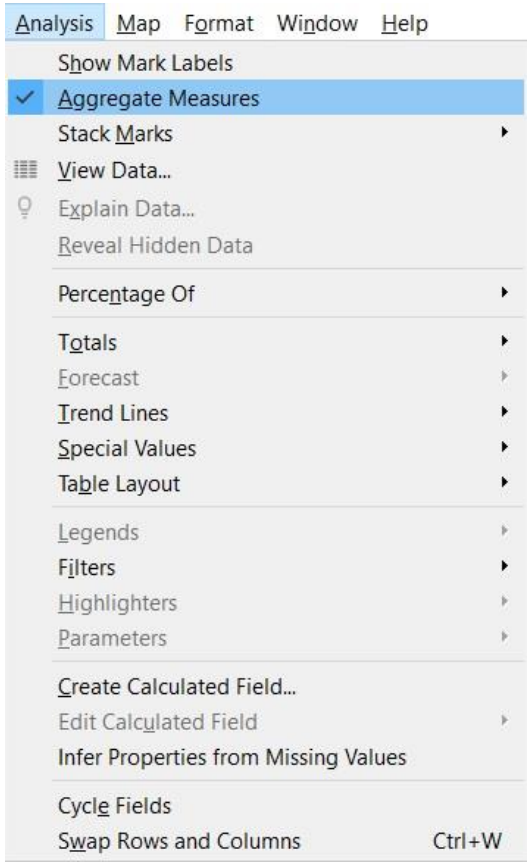
Assume that we have a **Scatter Plot** of **Sales Vs Profit**
By default, we will have a **one-mark scatter plot** since both **Sales** and **Profit** will be aggregated as **Sums**



HOW TO DISAGGREGATE DATA IN A SCATTER PLOT

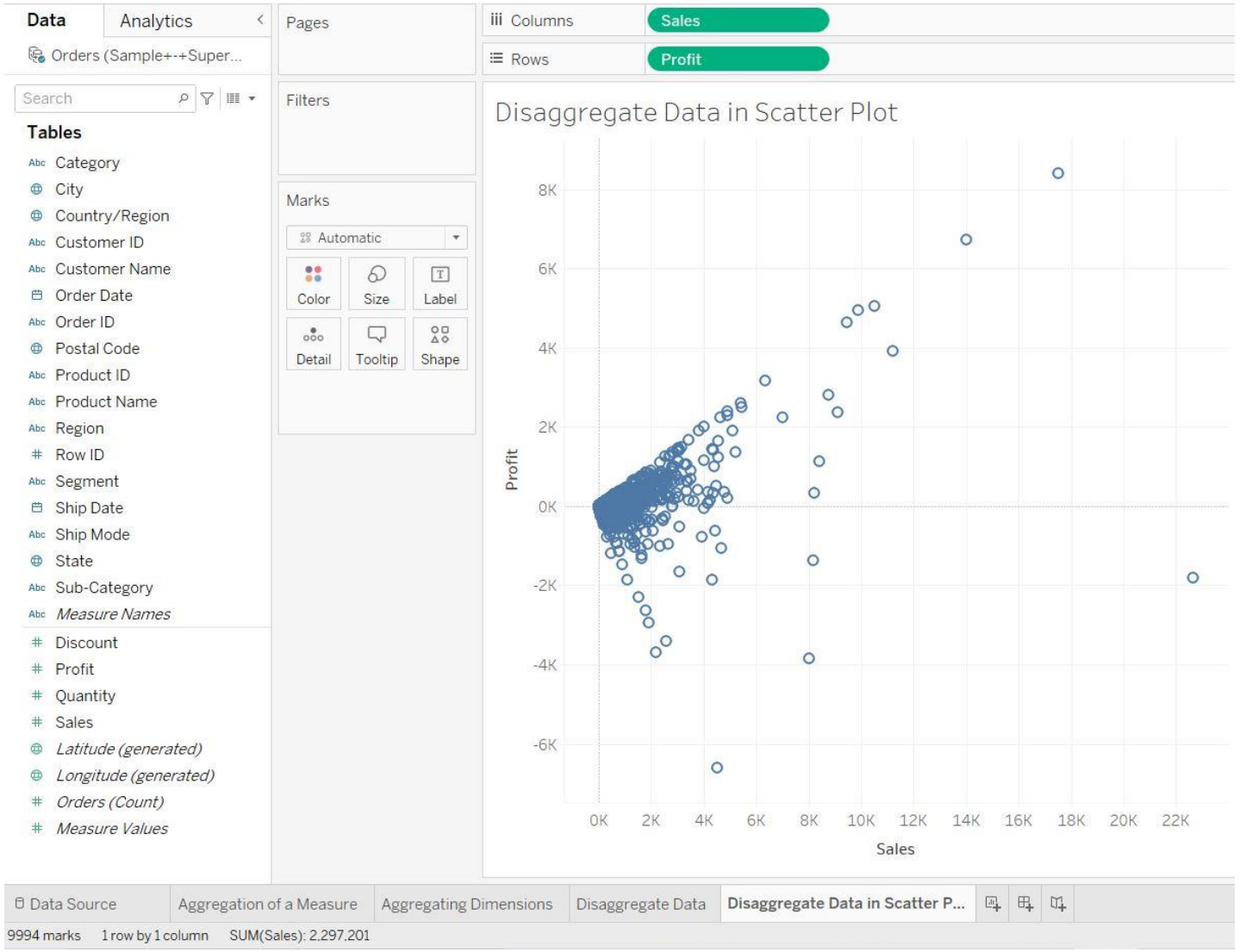
We can display more marks by disaggregating the data

Clear the **Analysis** > **Aggregate Measures** option
If it is already selected, click **Aggregate Measures** once to deselect it



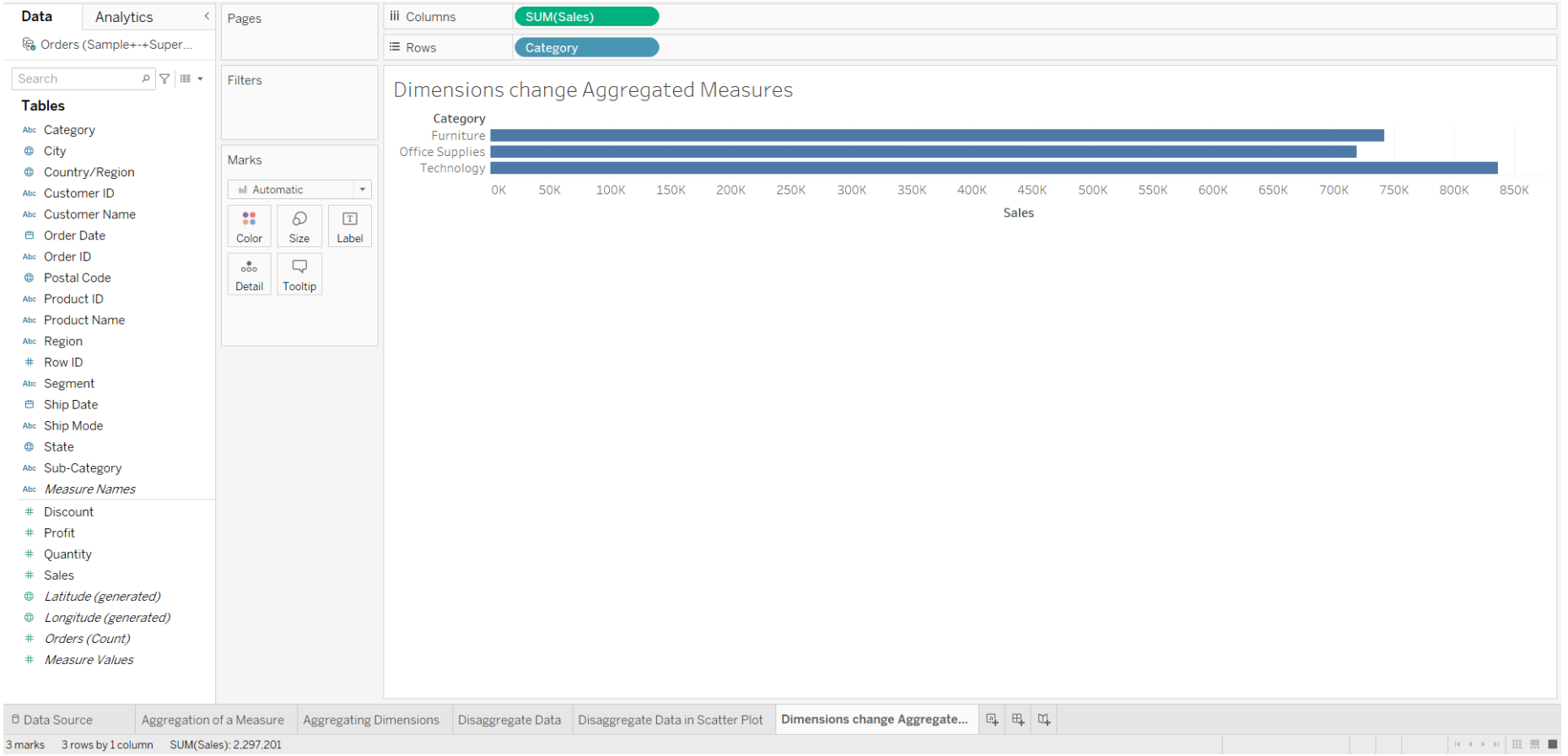
HOW TO DISAGGREGATE DATA IN A SCATTER PLOT

Now you see a lot of marks—one for each row in the original data source i.e., 9994



HOW TO AGGREGATED DATA CHANGES WHEN DIMENSIONS ARE ADDED

Assume that we have a **Bar Chart** of **Sales Vs Category**
The **Sales Axis** varies from 0K to 850K
There are 3 marks in this viz



HOW TO AGGREGATED DATA CHANGES WHEN DIMENSIONS ARE ADDED

Assume that we add a dimension **Sub-Category** in **Rows** shelf

The **Sales Axis** now varies from 0K to 340K

There are 17 marks in this viz i.e. More granular and less aggregated view