

I Groups and Sets



Groups

Simplifies large numbers of dimension members by combining them into higher-level categories.
Grouping prevents mess and simplifies our data set

- Open a new worksheet
- Double-click *Product-Subcategory* and *Sales* variables for adding them to the **view**
- Select *Binders* and *Scissors* products together by pressing “Control” and select highlighted option

iii Columns

Rows Product Sub-Catego..

Sheet 1

Product Sub-Catego..	
Appliances	456,723
Binders and Binder ..	638,582
Bookcases	507,494
Chairs & Chairmats	1,164,584
Computer Peripherals	490,841
Copiers and Fax	661,212
Envelopes	147,921
Labels	23,450
Office Furnishings	444,624
Office Machines	1,218,657
Paper	253,600
Pens & Art Supplies	103,252
Rubber Bands	8,664
Scissors, Rulers and ..	40,429
Storage & Organizat	
Tables	
Telephones and Com	

2 items selected · SUM(Sales): 679

Group Members

Scissors, Rulers and Trimmers

Sheet 1	
Product Sub-Category (group)	
Appliances	456,723
Binders and Binder Accessories & Scissors, Rulers and Trimmers	679,011
Bookcases	507,494
Chairs & Chairmats	1,164,584
Computer Peripherals	490,841
Copiers and Fax	661,212
Envelopes	147,921
Labels	23,450
Office Furnishings	444,624
Office Machines	1,218,657
Paper	253,600
Pens & Art Supplies	103,252
Rubber Bands	8,664
Storage & Organization	585,705
Tables	1,061,921
Telephones and Communication	1,144,273

Groups

1

Other ways for creating a group:

- Select two products again
- Right-click and select **Group**
- Right click on the variable
- Select **Create**
- Select **Group**

Columns	
Rows	Product Sub-Catego..

Sheet 1

Product Sub-Catego..	
Appliances	456,723
Binders and Binder ..	638,582
Bookcases	507,494
Chairs & Chairmats	1,164,584
Computer Peripherals	490,841
Copiers and Fax	661,212
Envelopes	147,921
Labels	23,450
Office Furnishings	444,624
Office Machines	1,218,657
Paper	253,600
Pens & Art Supplies	103,252
Rubber Bands	8,664
Scissors	40,429
Storage	585,705
Tables	1,061,921
Telephones	1,144,273

- ✓ Keep only
- ✗ Exclude
- Hide
- Group
- Format...
- Rotate Label
- Edit Alias...

2

Tableau - Book1

File Data Worksheet Dashboard Story Analysis Map Format Server Window Help

Data Analytics Pages

Orders (4.1.Sample - Su...
Sales (Sales (1))
Sheet1+ (Multiple Conne...

Search

Tables

- Product Category
- Product Container
- Product Name
- Product Sub-Category
- Region
- Row ID
- Ship Date
- Ship Mode
- State or Province
- Measure Names
- Discount
- Product Base Margin
- Profit
- Quantity ordered new
- Sales
- Shipping Cost
- Unit Price
- Latitude (generated)
- Longitude (generated)
- Orders (Count)
- Measure Values

Add to Sheet
Show Filter
Duplicate
Rename
Hide
Aliases...
Create
Transform
Convert to Measure
Change Data Type
Geographic Role
Default Properties
Group by
Folders
Hierarchy

Calculated Field...
Group...
Set...
Parameter...

Sheet 3

Product Sub-Category	
Appliances	456,723
Binders and Binder Acces..	638,582
Bookcases	507,494
Chairs & Chairmats	1,164,584
Computer Peripherals	490,841
Copiers and Fax	661,212
Envelopes	147,921
Labels	23,450
Office Furnishings	444,624
Office Machines	1,218,657
Paper	253,600
Pens & Art Supplies	103,252
Rubber Bands	8,664
Scissors	40,429
Storage	585,705
Tables	1,061,921
Telephones	1,144,273

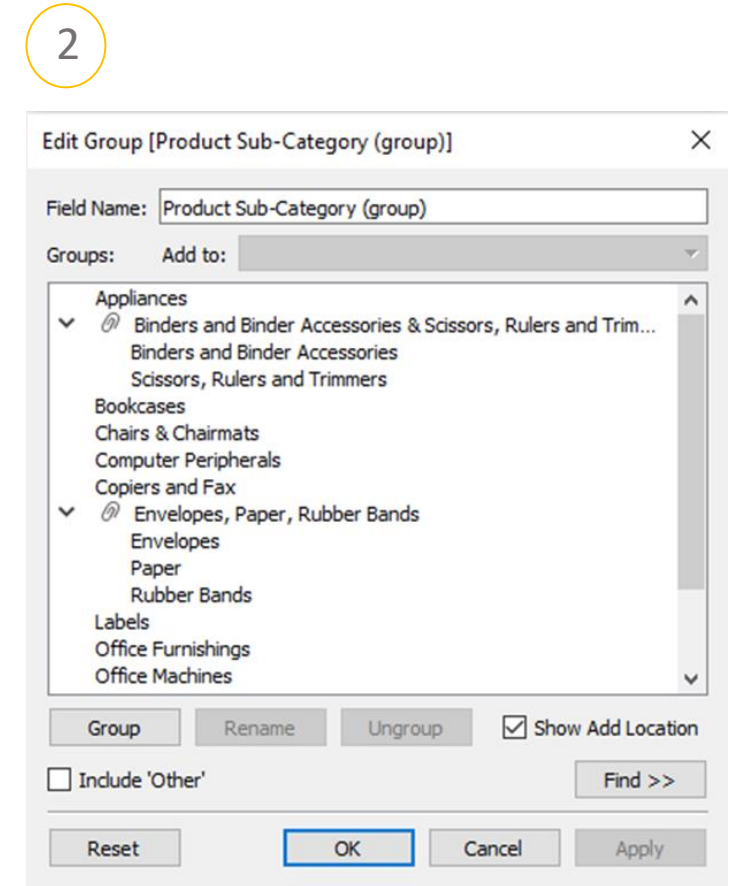
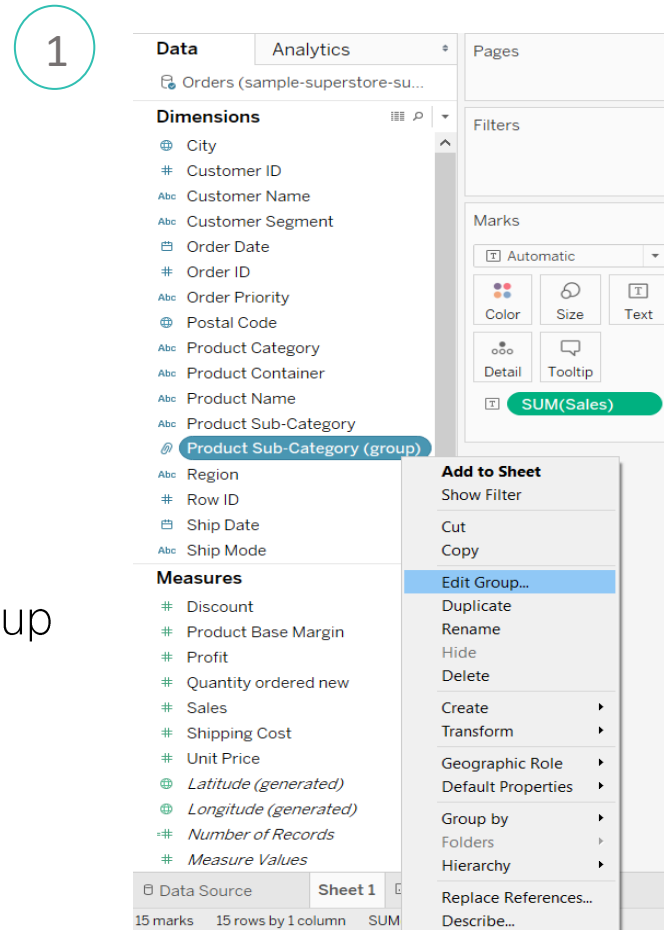
Groups

For editing groups:

- Go **Dimensions** area right-click Product Sub-Category (group), choose highlighted option

Here you can:

- Create new group in a group field
- Add new product to the group
- Remove members from an existing group
- Include “Other” group



Groups

Create new group in a group field	Add new product to the group:	Remove members from an existing group	Include “Other” group
<ul style="list-style-type: none">○ In the Edit Group field select members○ Click Group○ Click OK	<ul style="list-style-type: none">○ In the Edit Group field choose any product○ Add to the selected group name○ Click OK or Drag any product into the group	<ul style="list-style-type: none">○ In the Edit Group field select members, and then click Ungroup.○ The members are removed from the current group.○ Click OK.	<ul style="list-style-type: none">○ In the Edit Group field click on the “Include other” option.○ Click OK.○ Variables will be grouped by the “Other” category

Sets

Sets are custom fields that are created within Tableau Desktop based on dimensions from your data source.

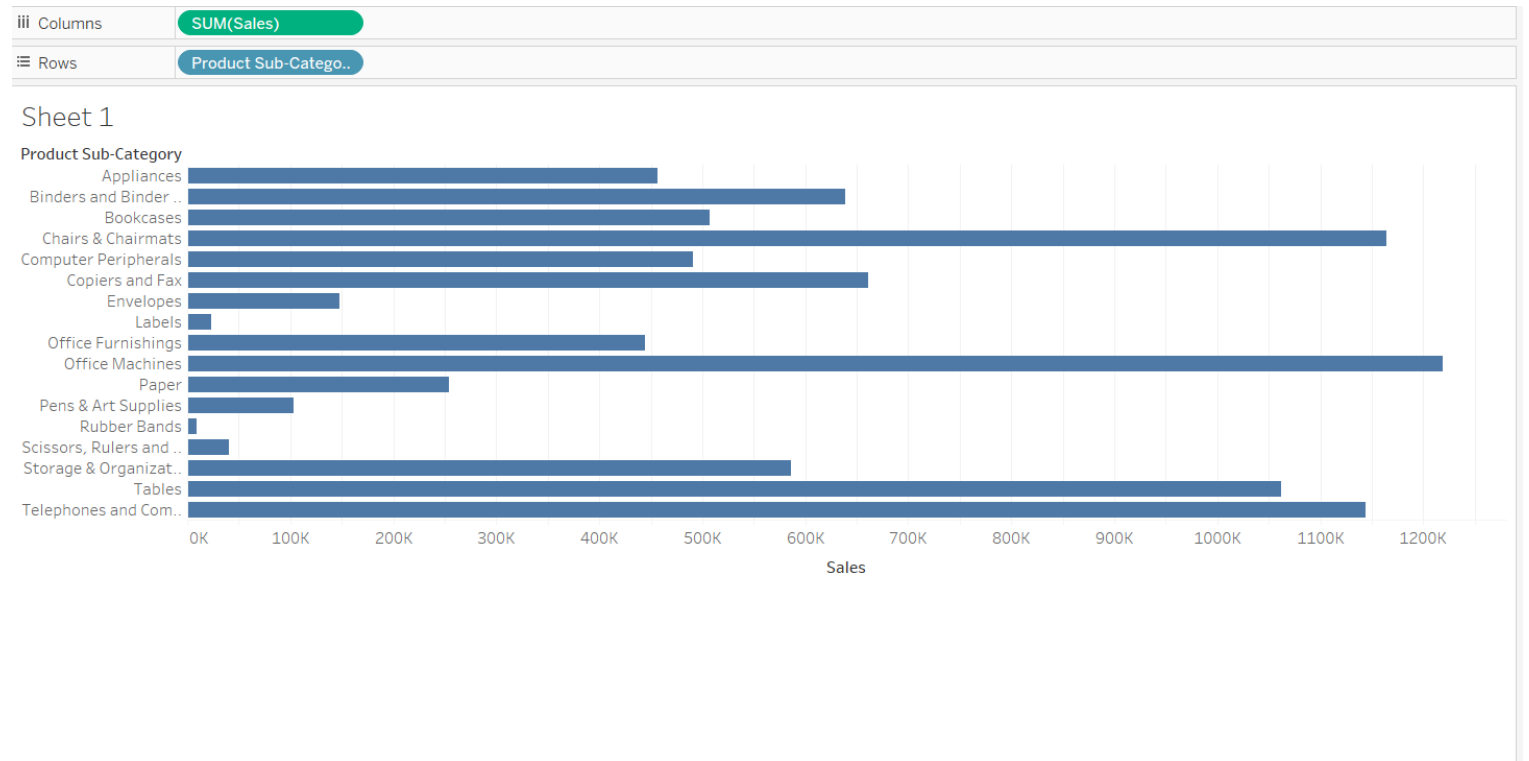


- In the visualization, select one or more marks in the view.
- Right-click the marks
- Select **Create Set**.
- Type a name for the set.
- Click **Ok**.

- In the Data pane, right-click a field and select **Create > Set**.
- In **General** tab select **Use all** options.
- Use the **Condition** tab to define rules for members in set.
- Use the **Top** tab to define limit for members.
- Click **Ok**.

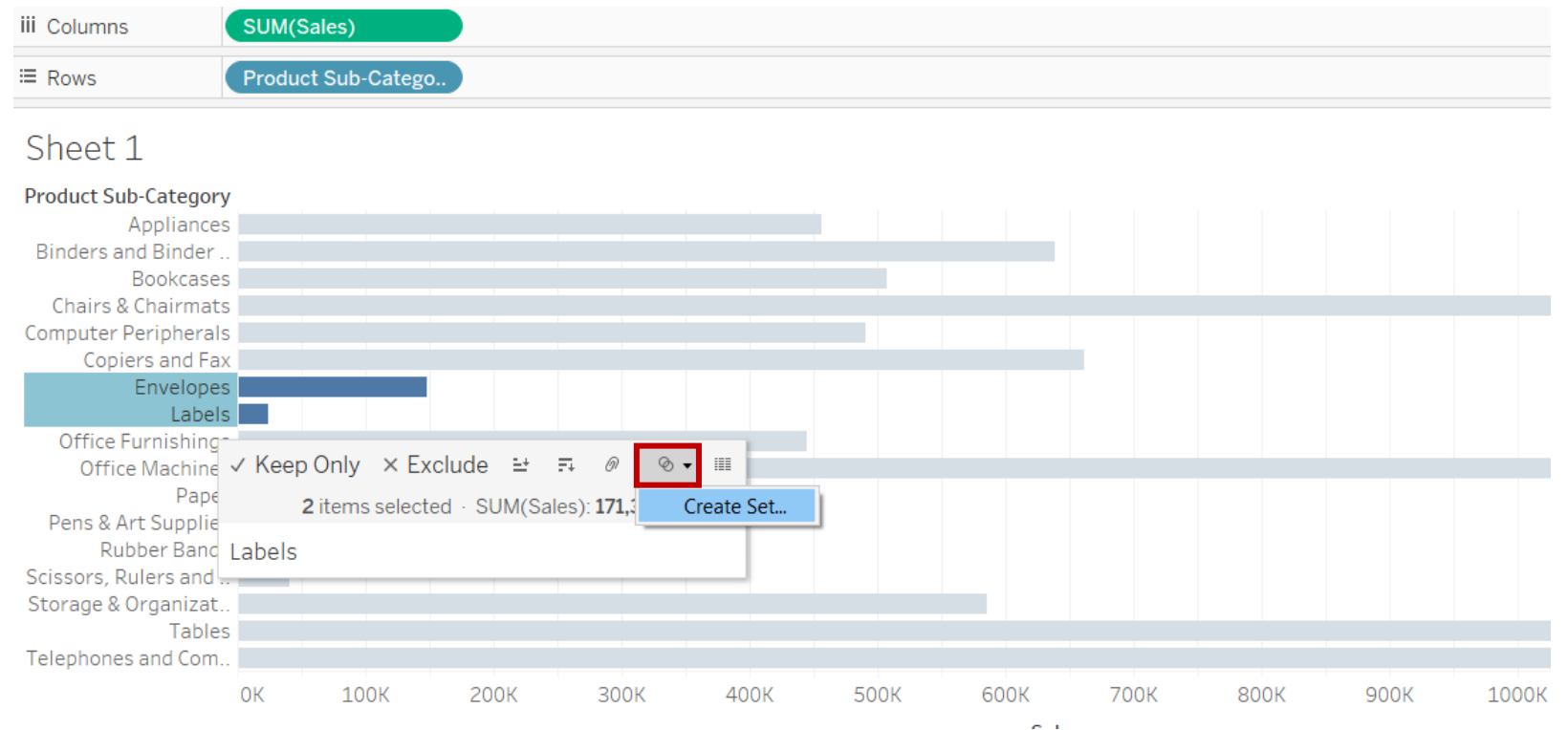
Sets

- Create a new worksheet
- Add *Product Sub -Category* to the Columns and *Sales* to the Rows
- Switch it to the **horizontal bars**



Fixed Set

- Select 2 products together
- Click highlighted area
- Select Create Set



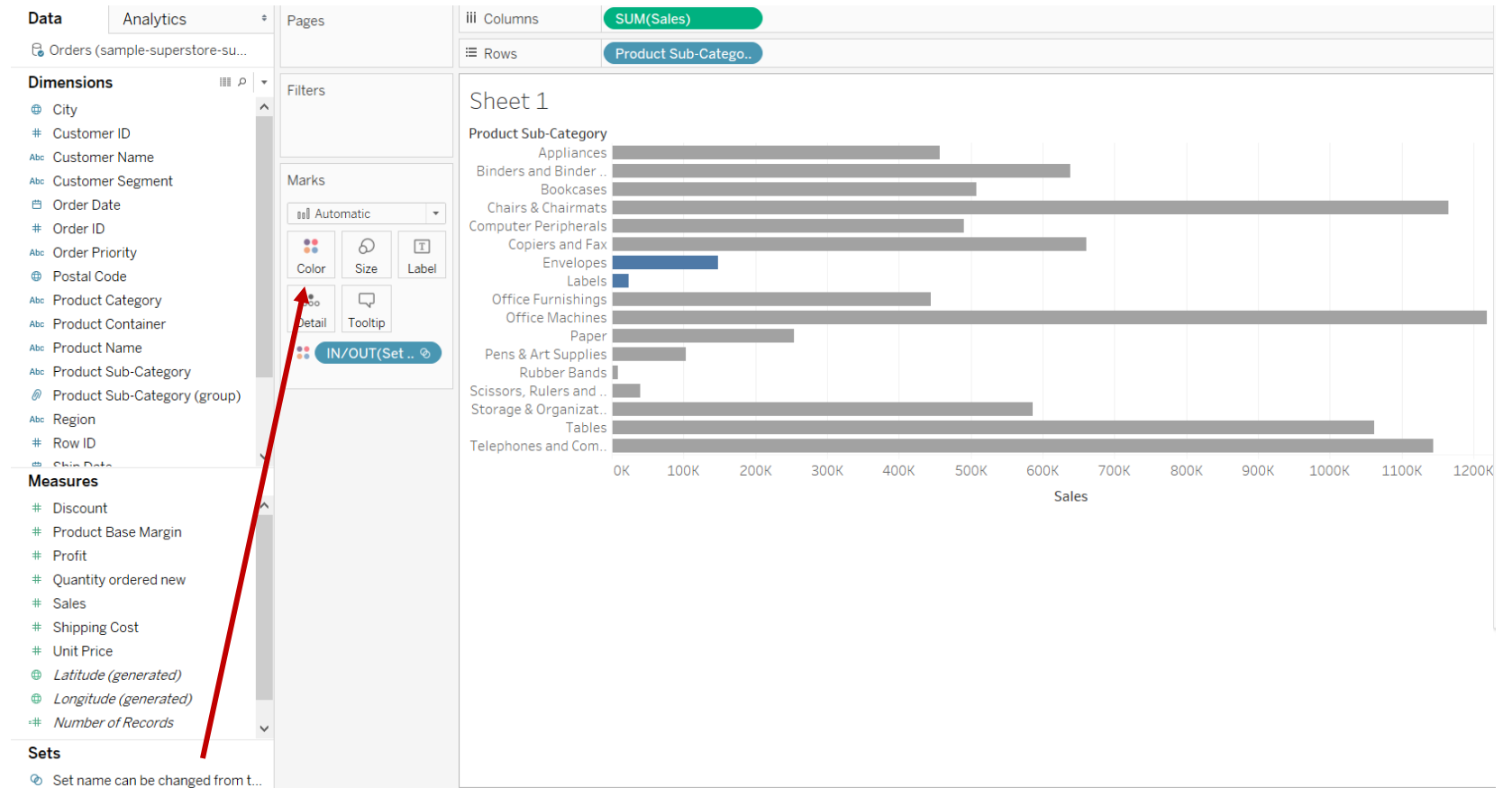
Fixed Set

- In the opened window click **OK**
- **Set** will be displayed in the highlighted area

The screenshot displays the Tableau Desktop interface. On the left, the 'Data' pane shows various dimensions and measures. The 'Sets' shelf at the bottom is highlighted with a red box, and a red arrow points to it. The 'Columns' shelf contains 'SUM(Sales)' and the 'Rows' shelf contains 'Product Sub-Category'. A 'Create Set' dialog box is open in the center, showing the name 'Set name can be changed from this area' and two members: 'Product Sub-Category' and 'Envelopes'. The background shows a bar chart of Sales by Product Sub-Category.

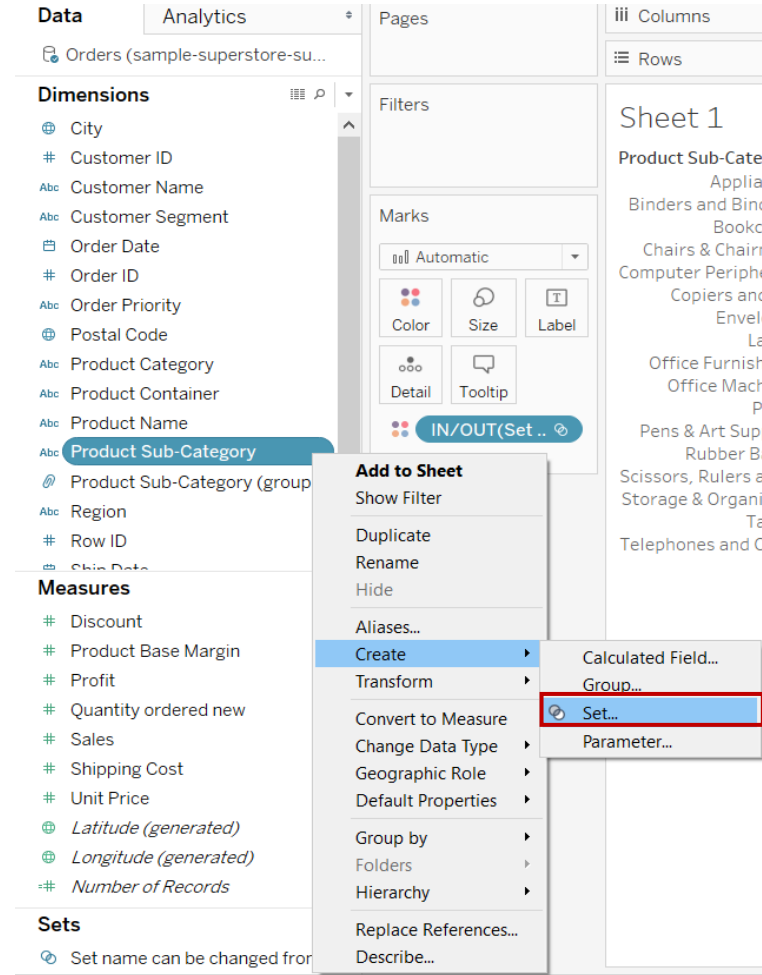
Fixed Set

- Drag set to *Color* section to differentiate our set



Dynamic Set

- Right-click *Product Sub-Category*
- Choose create
- Click **Set**



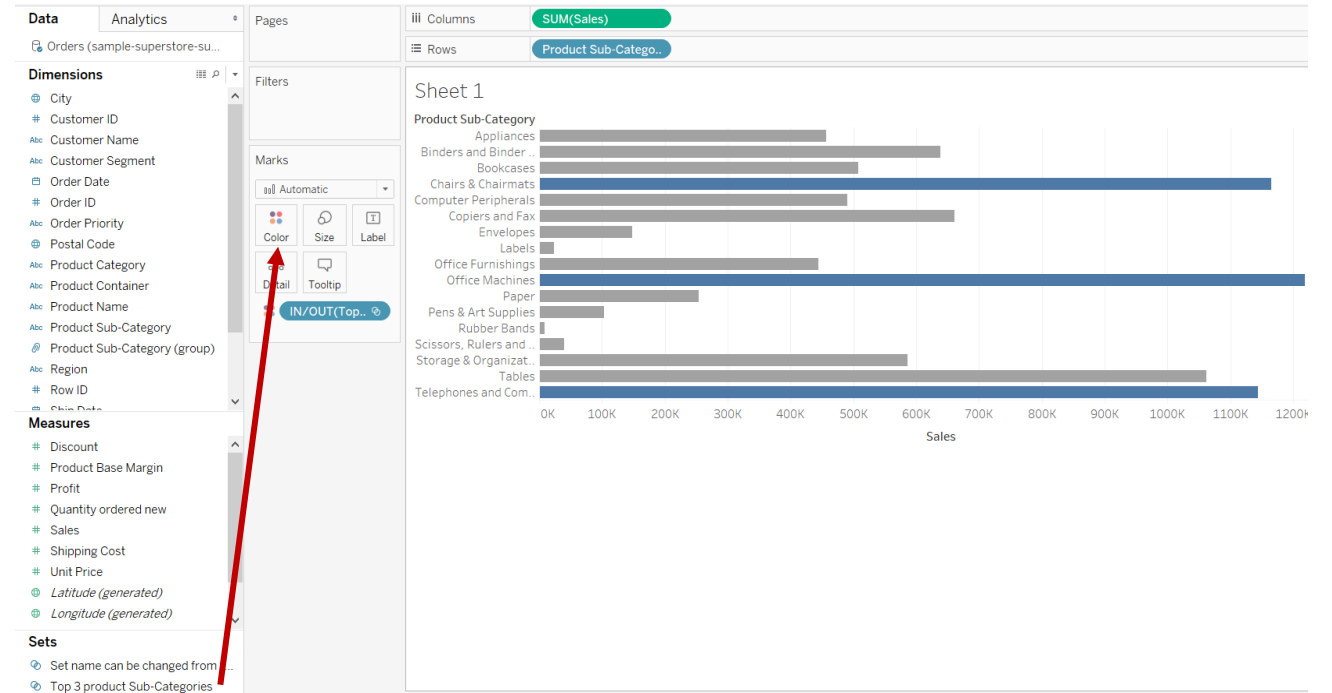
Dynamic Set

- Choose top section
- Choose By Field
- Select Top 3 by Sales Sum
- Set will contain top 3 *Product Sub-Categories* by sales

The screenshot shows the Tableau Desktop interface with the 'Edit Set' dialog box open. The dialog is titled 'Edit Set [Top 3 product Sub-Categories]'. The 'Name' field contains 'Set name can be changed from this area'. The 'General' tab is selected, and the 'Top' section is highlighted. Under 'By field:', the 'Top' dropdown is set to '3' and the 'by' dropdown is set to 'Sales Sum'. The 'By formula:' section is also visible with 'Top' set to '10'. The background shows the Tableau workspace with 'Columns' set to 'SUM(Sales)' and 'Rows' set to 'Product Sub-Category'. The 'Dimensions' pane on the left lists various fields like City, Customer ID, Order Date, etc. The 'Measures' pane lists fields like Discount, Profit, Sales, etc. The 'Sets' pane at the bottom shows the current set 'Top 3 product Sub-Categories'.

Dynamic Set

- Drag new set to the **color** section
- Top 3 product *sub-categories* will be colored



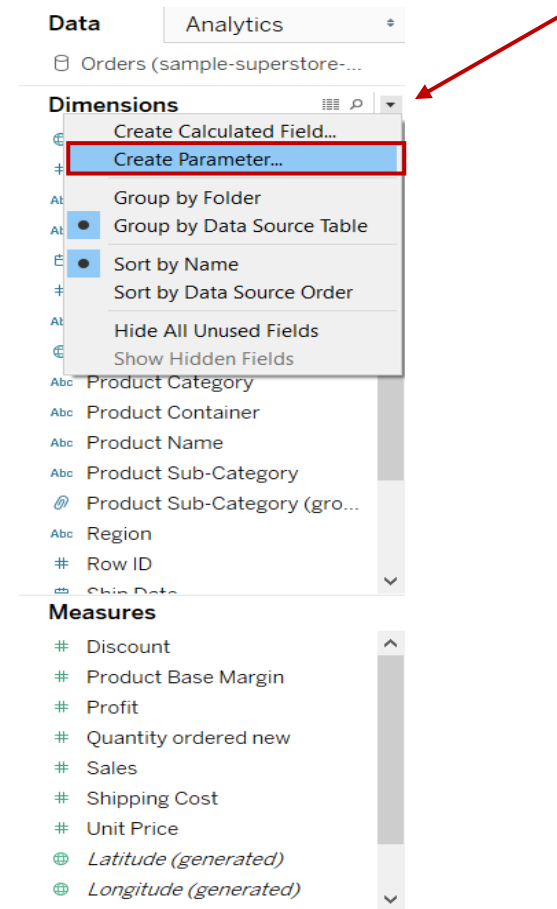
II Parameters



Parameter

Parameters are dynamic values that can replace constant values in calculations, filters, and reference lines.

- Click on arrow sign or right click on Dimensions
- Select Create Parameter



Parameter

- Change the name to **Top Products**
- Choose data type *Integer*
- Current value is 3
- Change *Allowable values* to *Range*
- Choose minimum=3, maximum=10
- Click OK

Create Parameter

Name: Comment >>

Properties

Data type:

Current value:

Display format:

Allowable values: ☐ All ☐ List ☒ Range

Range of values

☒ Minimum: Set from Parameter

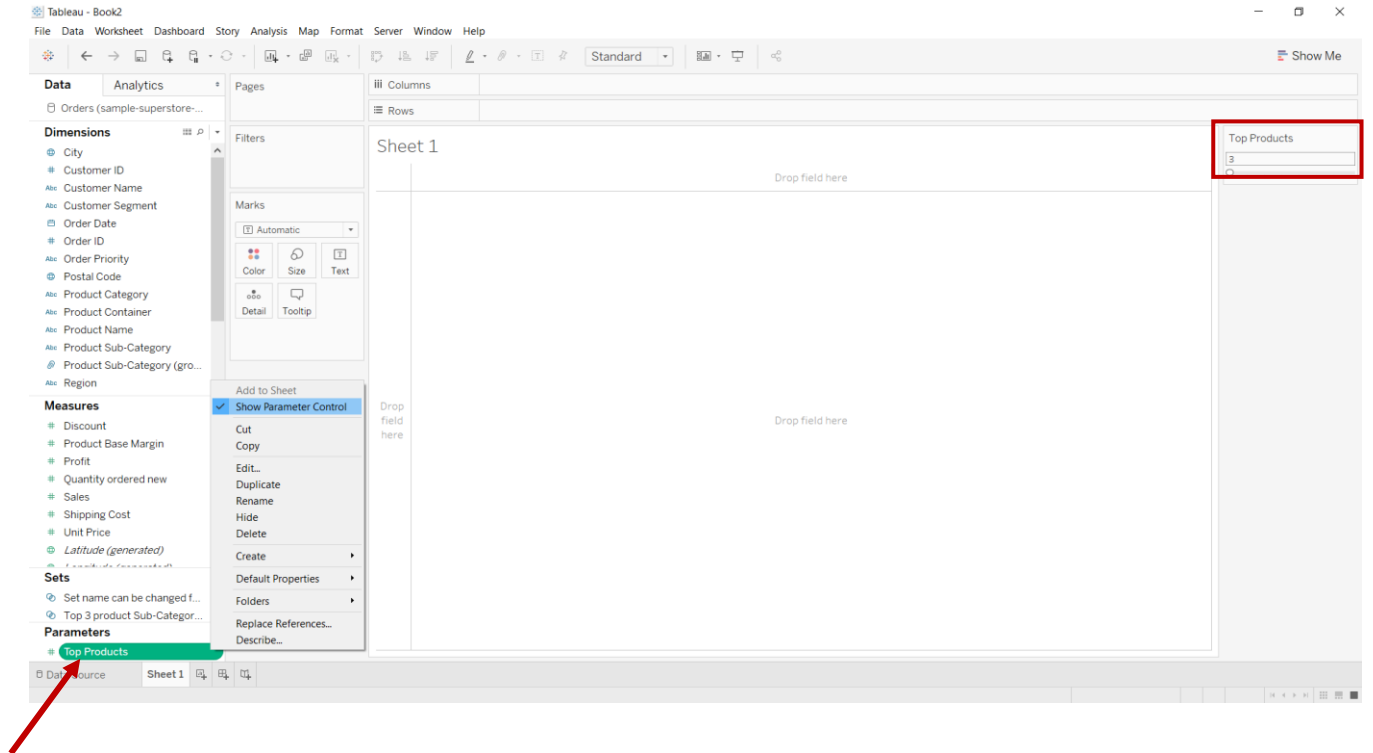
☒ Maximum: Set from Field

☐ Step size:

OK Cancel

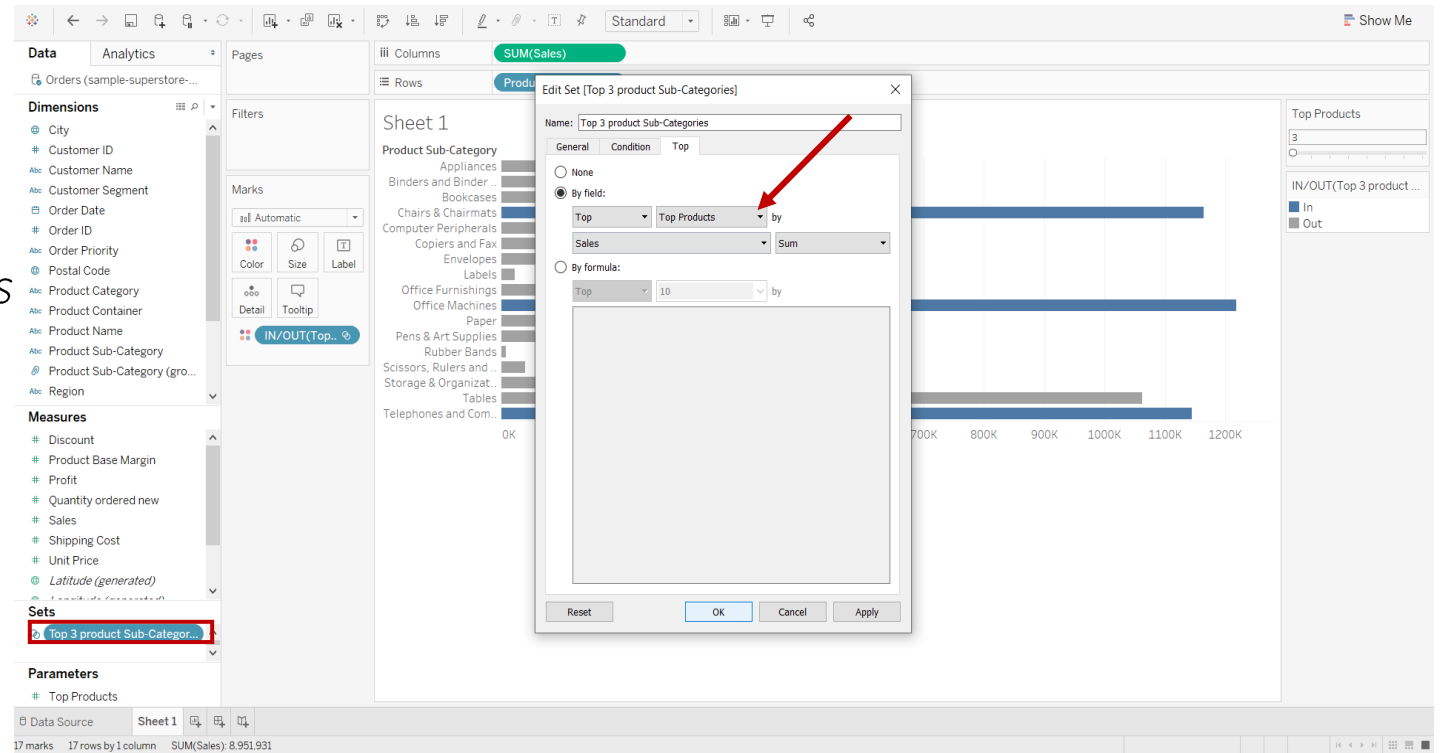
Parameter

- Right-Click to the **Top Products** Parameter
- Choose *Show Parameter Control* and Parameter Control will be displayed in the highlighted area



Sets with Parameter

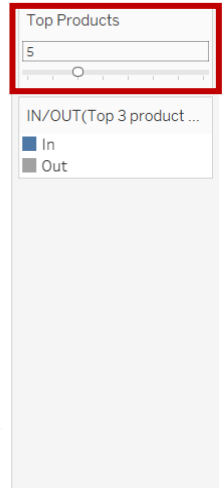
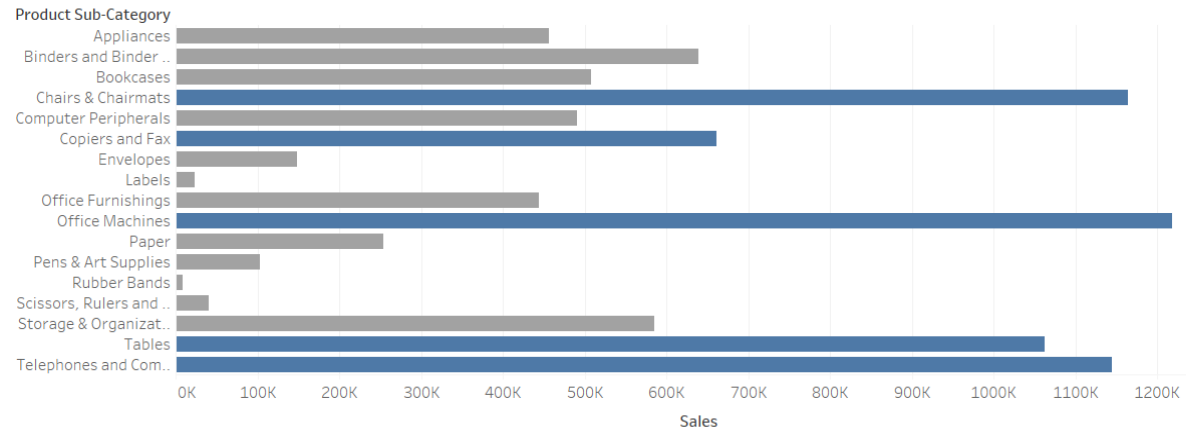
- Right-Click highlighted set
- Select edit set
- Change 3 from *By Field* to *Top Products*
- Click OK



Parameter

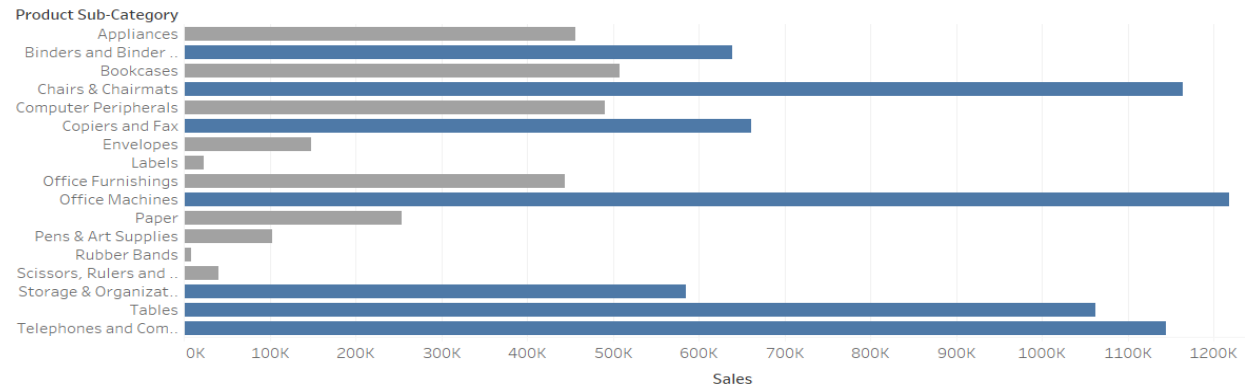
- As you see from here, it will be shown as top 5 products from parameter control

Sheet 1



- When it increases to 7 from highlighted area, it will be shown as top 7 products

Sheet 1



Filter with Parameter

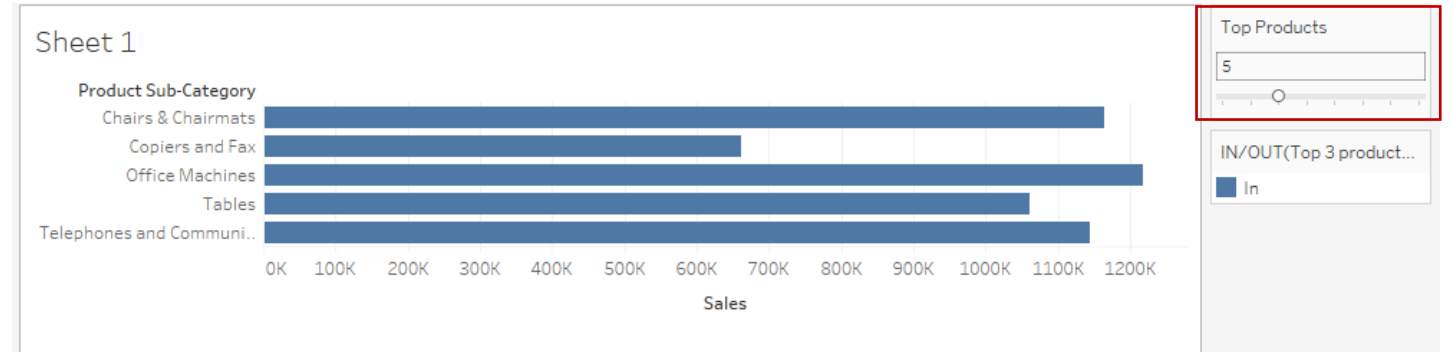
- Drag Product Sub-Category into the filter
- Click “Top”
- Select “Top Products”
- Click OK

The screenshot shows the Tableau interface with a bar chart titled 'Sheet 1'. The chart displays 'Product Sub-Category' on the y-axis and 'SUM(Sales)' on the x-axis. The x-axis has a scale from 0K to 200K. The y-axis lists various product categories, with 'Appliances' at the top. The chart is filtered by 'Product Sub-Category'. The 'Filter [Product Sub-Category]' dialog box is open, showing the 'Top' tab. The 'By field:' option is selected, and the 'Top Products' dropdown is set to 'Top' and 'Sum'. The 'OK' button is highlighted.

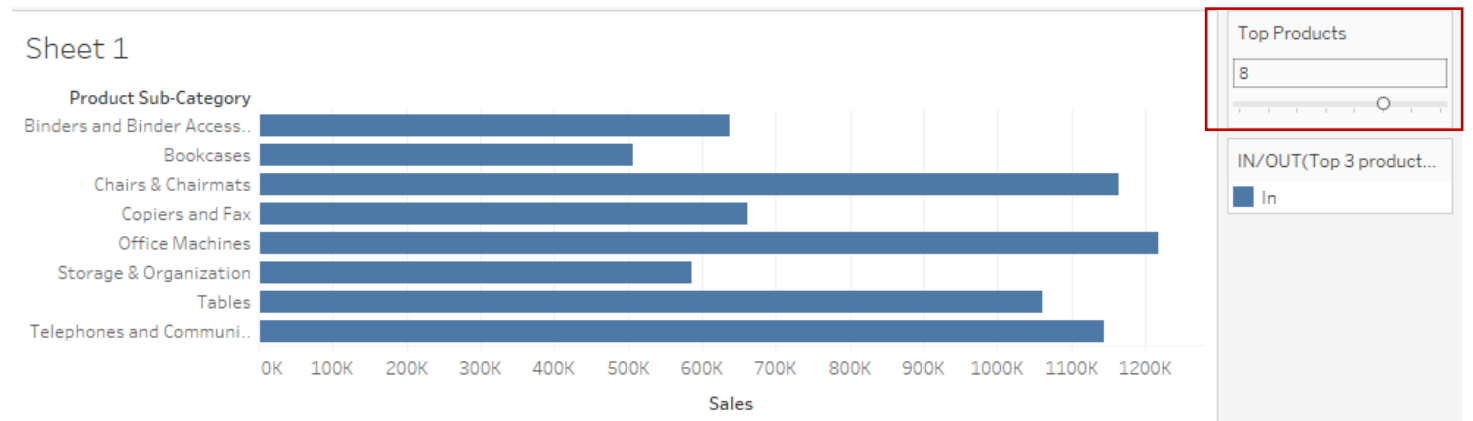
Product Sub-Category	Sales (Approximate)
Appliances	180K
Binders and Binder Access...	150K
Bookcases	120K
Chairs & Chairmats	100K
Computer Peripherals	80K
Copiers and Fax	60K
Envelopes	40K
Labels	20K
Office Furnishings	100K
Office Machines	100K
Paper	100K
Pens & Art Supplies	80K
Rubber Bands	20K
Scissors, Rulers and Trim..	20K
Storage & Organization	100K
Tables	100K
Telephones and Communi..	100K

Filter with Parameter

- As you see from here, it will be shown as top 5 products from parameter control

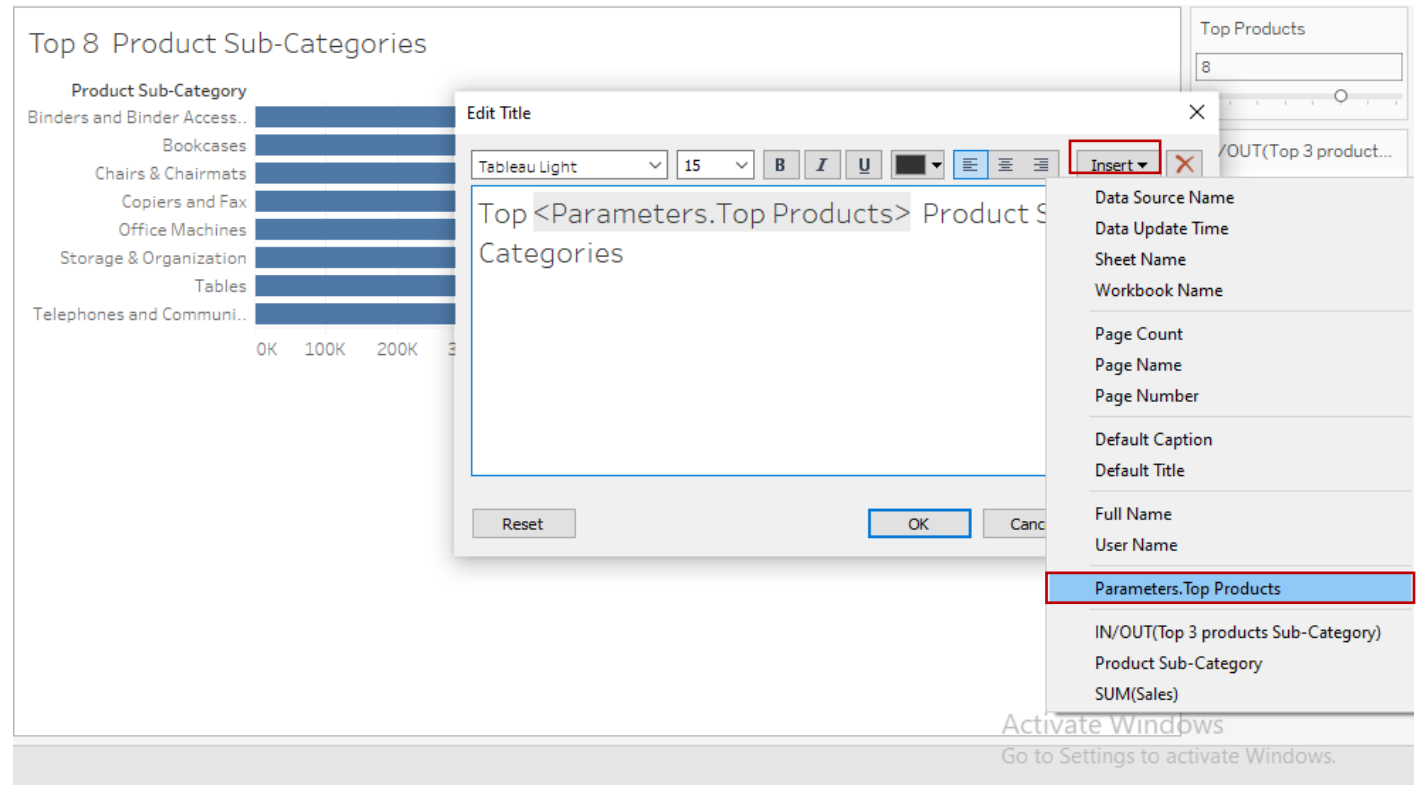


- When it increases to 8 from highlighted area, it will be shown as top 8 products



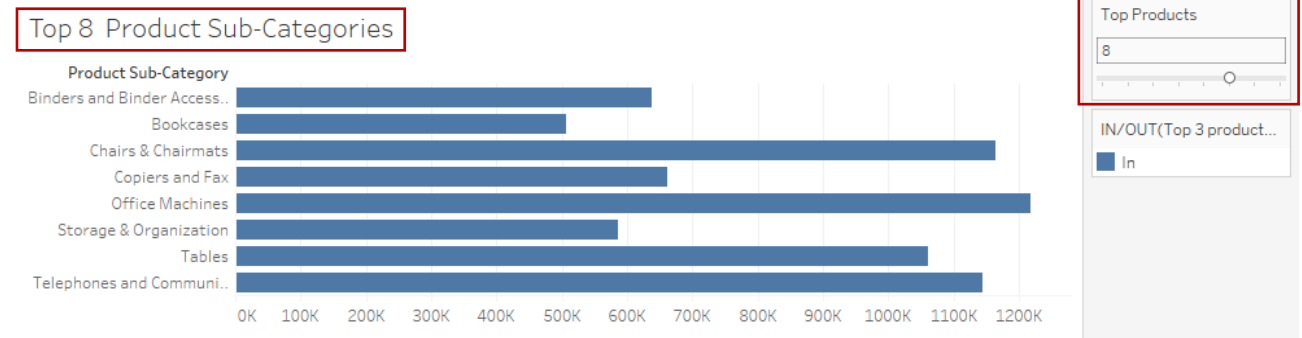
Title with Parameter

- Double click on the Title
- Write “Top”
- Select “Parameters. Top Products” from the “Insert” option
- Write “Product Sub-Categories”
- Click “OK”

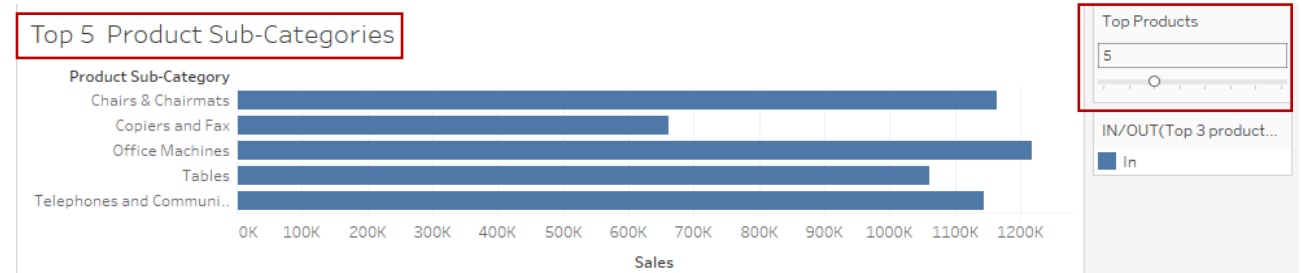


Title with Parameter

- As you see from here, the title will be shown as **Top 8 Product Sub-Categories** from parameter control



- When it decreases to 5 from highlighted area, it will be shown as **Top 5 Product Sub-Categories**



III

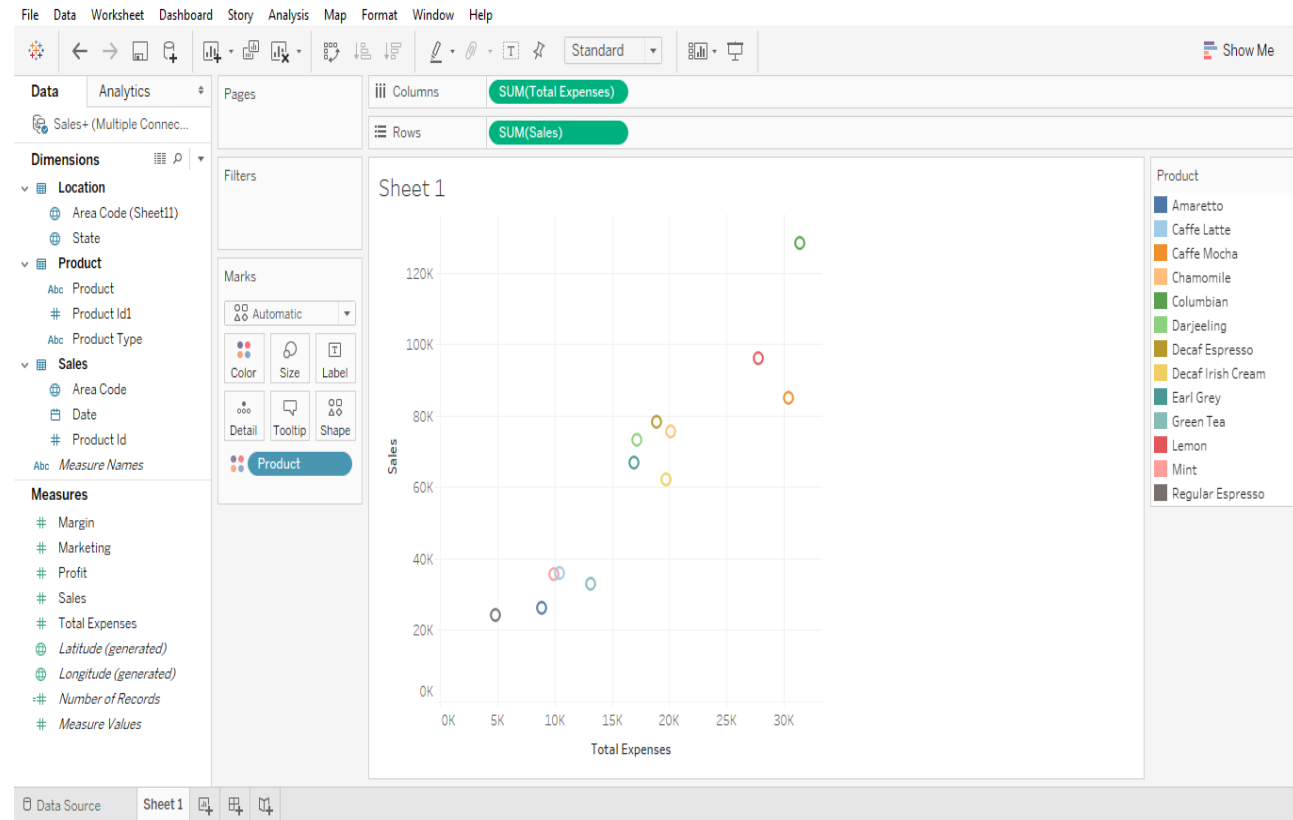
Scatter plot, Bubbles and Text Table



Scatter Plot

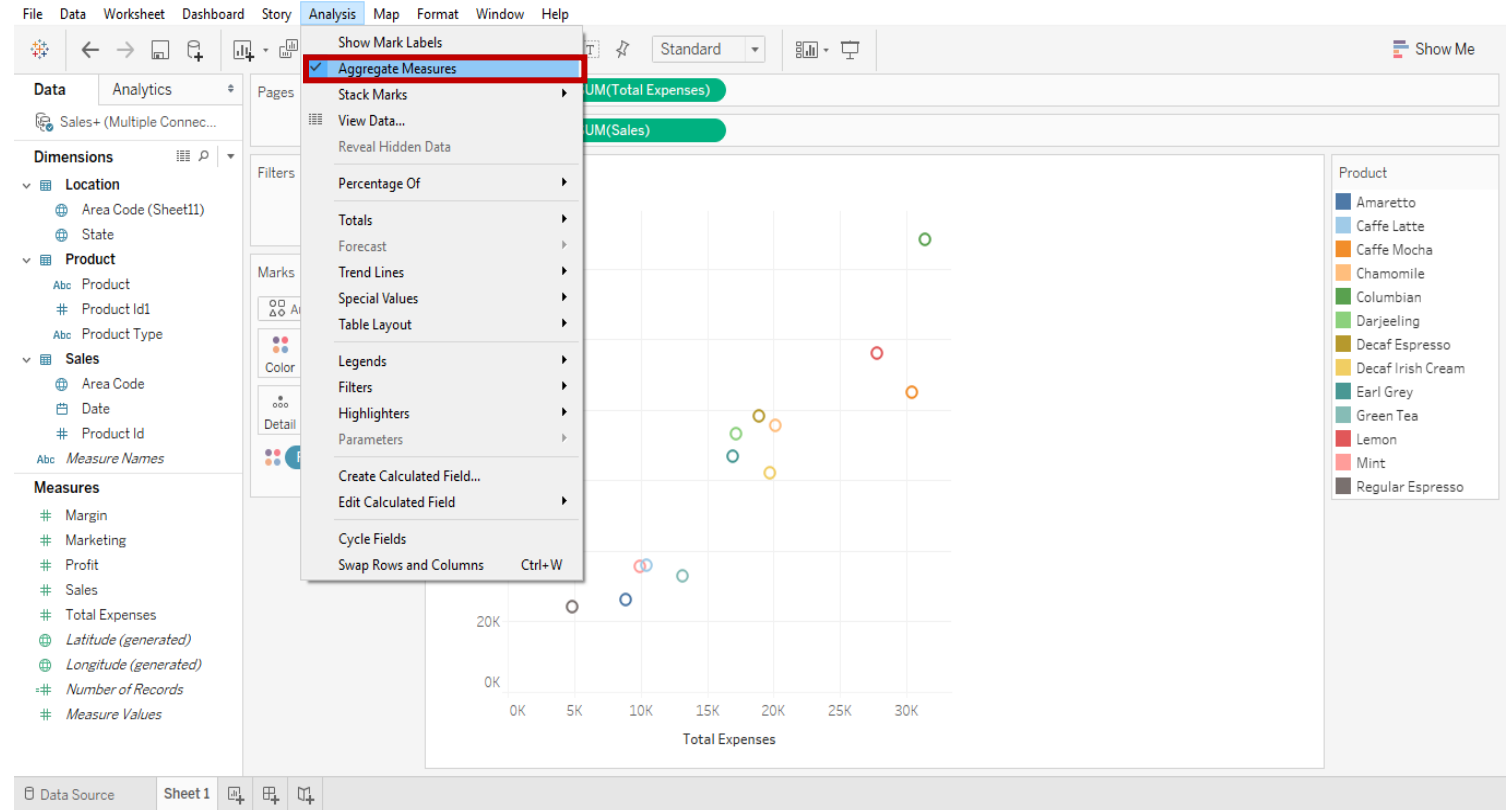
Scatter plots' primary uses are to observe and show relationships between two numeric variables. It is a two-dimensional graph where the position of a data point or dot is decided by two measure values; one on the x-axis and another on the y-axis.

- Clear the sheet
- Drag *Sales* to the **rows**, *Total Expenses* to the **columns**
- Drag *Product* to the **Colors**
- Scatter plot will be created

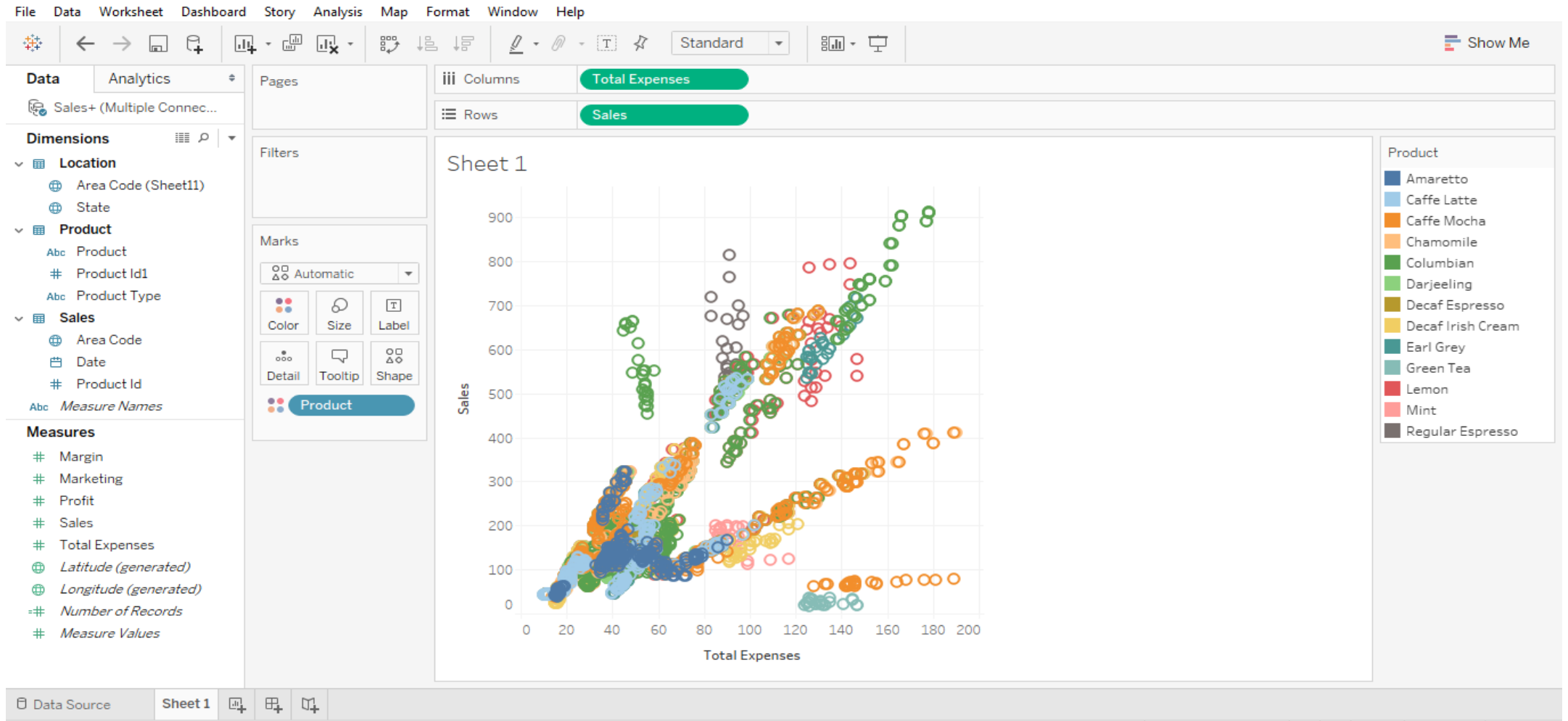


Scatter Plot

- From *Analysis* unselect **Aggregate Measures**
- View will be at the most detailed level of granularity.



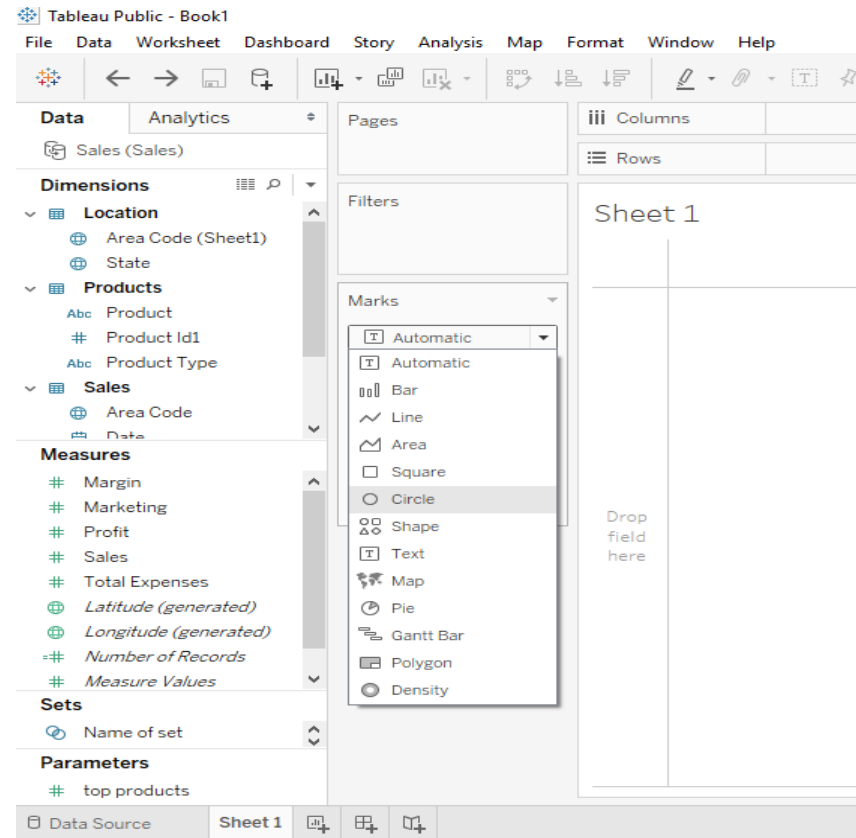
Scatter Plot



Bubbles

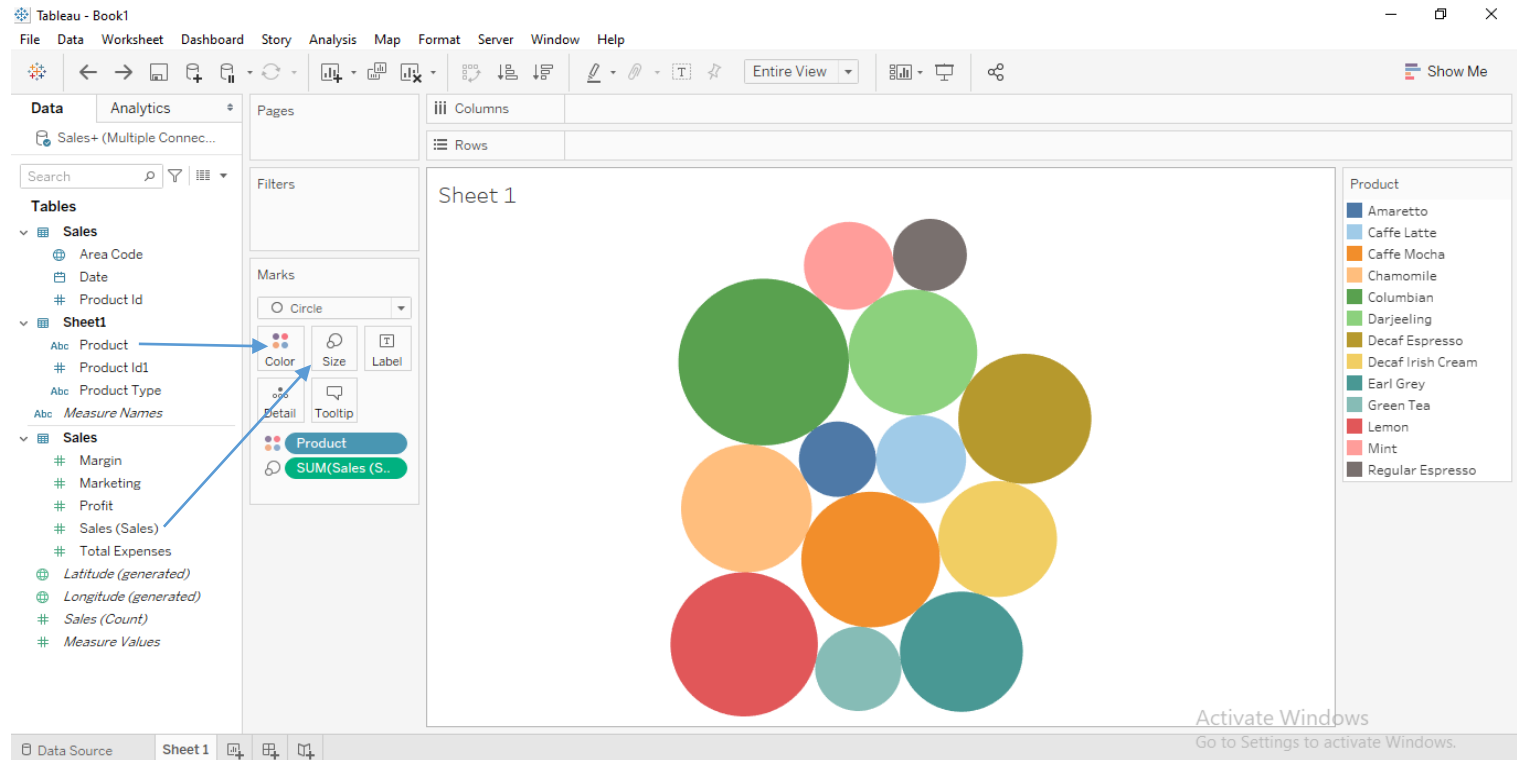
The packed bubbles view, also known as a bubble chart, is a means to show relational value without regards to axes. The bubbles are packed in as tightly as possible to make efficient use of space. It's particularly used with a data set that uses a large variety of fields.

- Create a new worksheet
- Open the dataset named “Sales” then add “Products” with left join
- Switch to **Circle** from Marks section



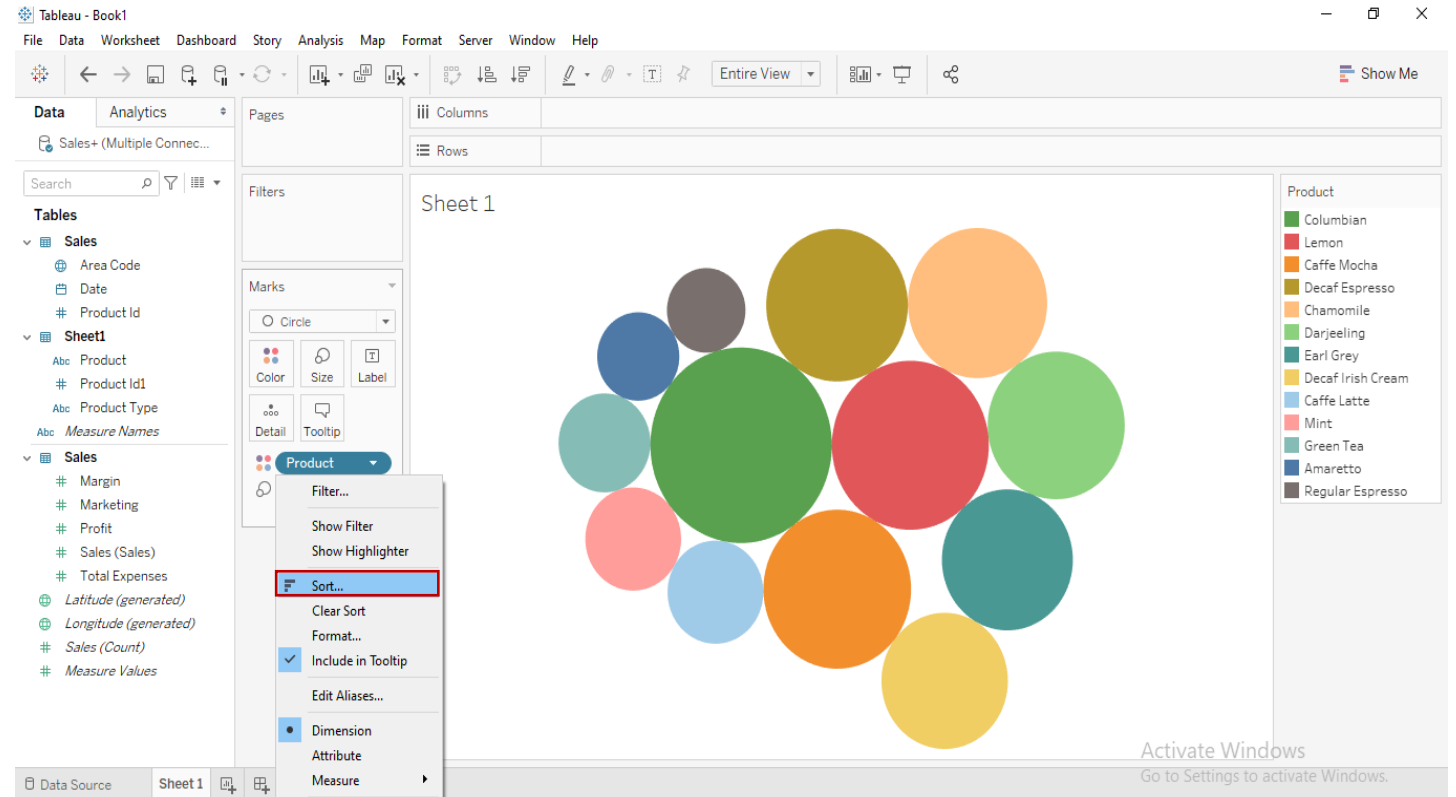
Bubbles

- Bring **Product** to Color
- Sales to **Size**.
- Change Fit to the Entire View



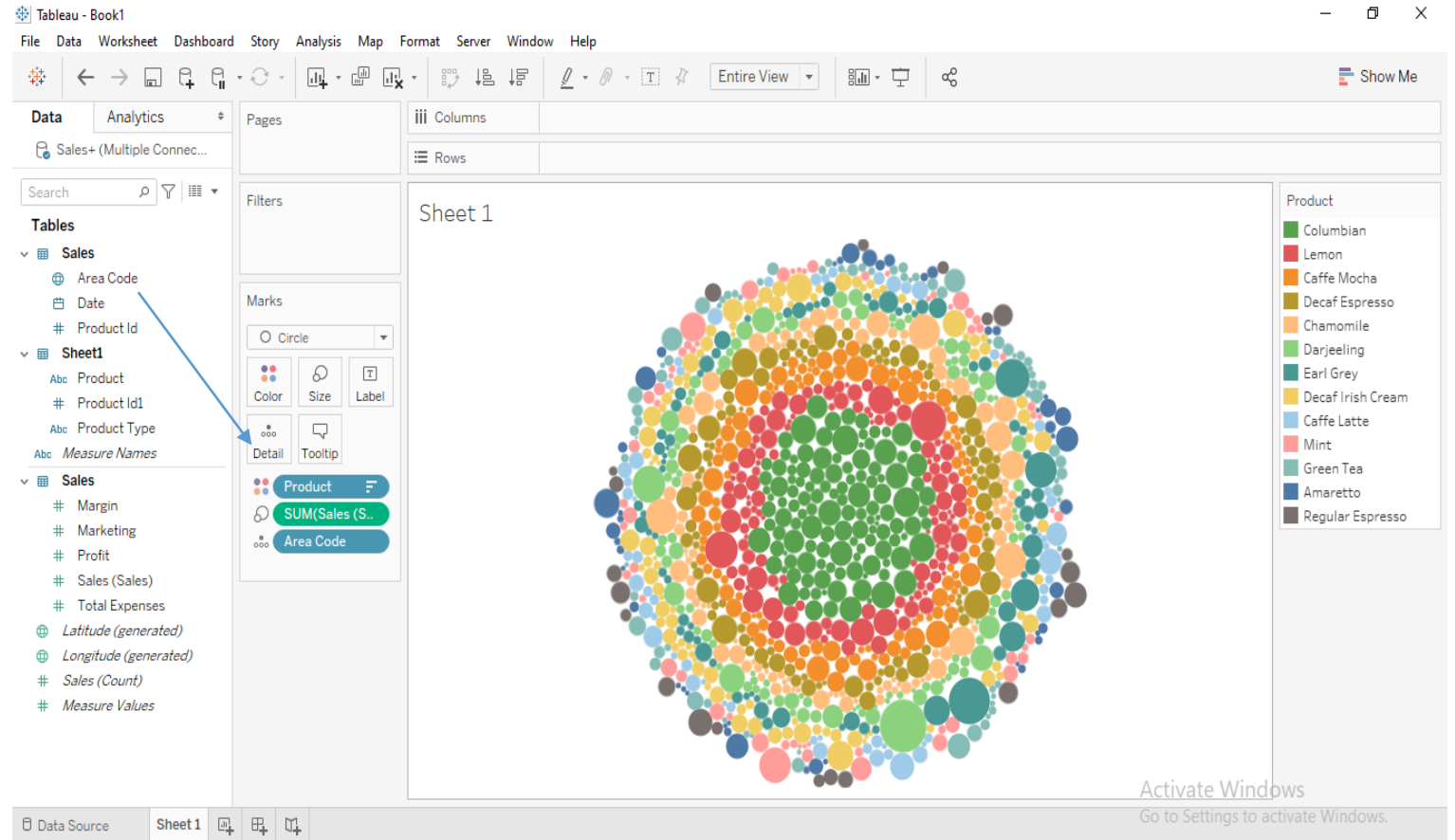
Bubbles

- Sort Product by Sales with descending order



Bubbles

- Drag Area code to the detail



Text Table

- Drag Measure Names into the column
- Drag Measure Names into the filter shelf
- Select Profit, Sales and Unit Price
- Click OK
- Drag Measure Values into the Text

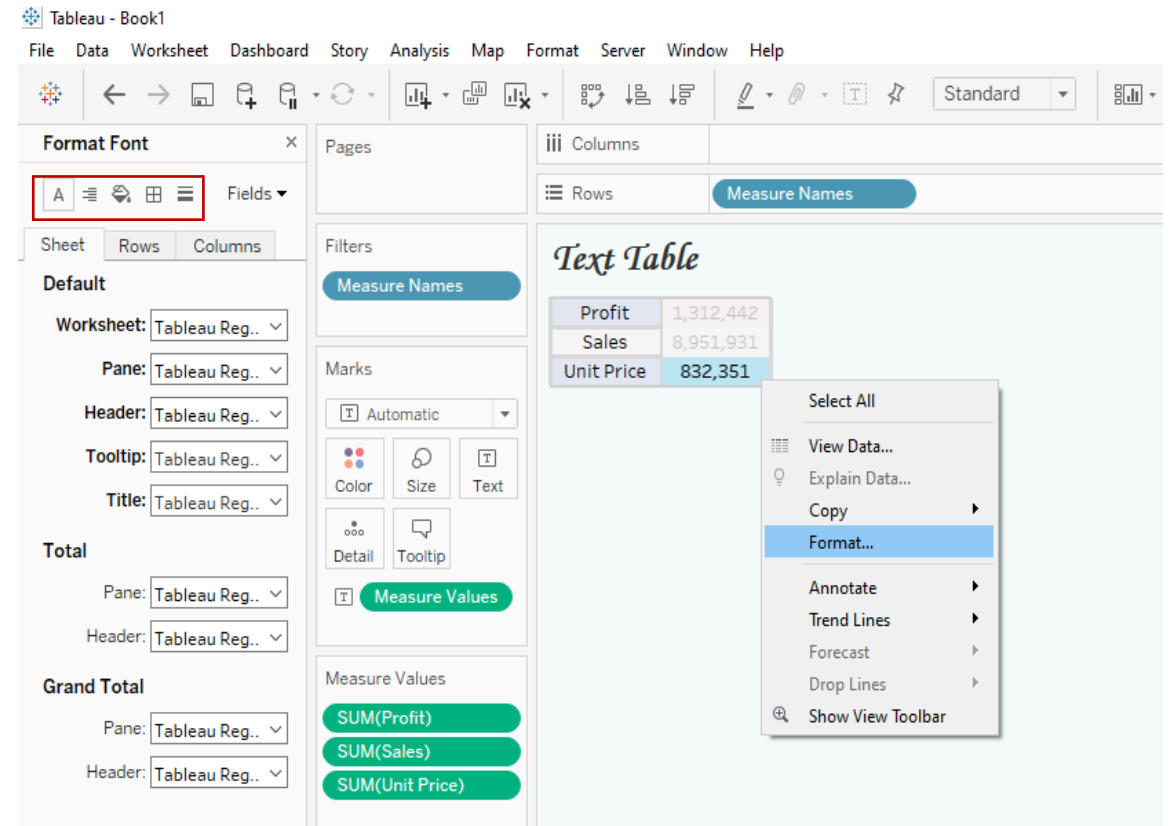
The screenshot shows the Tableau interface with the following components:

- Tableau - Book1** window title.
- Menu bar: File, Data, Worksheet, Dashboard, Story, Analysis, Map, Format, Server, Window, Help.
- Toolbar with various icons for navigation and analysis.
- Data** pane on the left showing a list of tables: Orders (4.1.Sample - Su...), Sales (Sales (1)), and a list of fields including Product Category, Product Container, Product Name, Product Sub-Category, Region, Row ID, Ship Date, Ship Mode, State or Province, Measure Names, Discount, Product Base Margin, Profit, Quantity ordered new, Sales, Shipping Cost, and Unit Price.
- Columns** shelf: Measure Names.
- Rows** shelf: Measure Names.
- Filters** shelf: Measure Names.
- Marks** shelf: Automatic (dropdown), Color, Size, Text, Detail, Tooltip, and Measure Values.
- Measure Values** shelf: SUM(Profit), SUM(Sales), and SUM(Unit Price).
- Sheet 2** view showing a table with the following data:

Sheet 2	
Profit	1,312,442
Sales	8,951,931
Unit Price	832,351

Text Table Formatting

- Right click on the text
- Select “Format”
- **Format Font**-customizes the text in the view.
- **Format Alignment**-customizes alignment of the text.
- **Format Shading**-customizes the background color.
- **Format Borders**-customizes the border style, width and color.
- **Format Lines**-customizes the appearance of the lines that are part of the view.
- Make the title name “Text Table”



Thank You!



Data Science
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