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Transforming Data into Decisions

Tableau – VSTV Training

SARAJEVO

NOVEMBER 2025

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Training plan – high level

Description	Date
Day 1 – Basic training	07.11.2025
Day 2 – Hands On	13.11.2025
Day 3 – Hands On Dashboards, VSTV dashboard clone	17.11.2025
Day 4 – Hands on Dashboards 2, Mapping with Tableau	18.11.2025

This presentation can be downloaded from

https://edukacija.heea-consulting.com/

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Day 1 agenda

- ✓9:00 – 11:00 Tableau basic part 1
- ✓**11:00-11:45 – Lunch break**
- ✓11:45: 13:00 - Tableau basic part 2
- ✓**13:00: 13:10 – coffee break**
- ✓13:10: 14:10 – Tableau basic part 3
- ✓**14:10: 14:20 – coffee break**
- ✓14:20: 15:00 – Tableau basic part 4

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Introduction

- Tableau- pronunciation “ta·blow”
- Introduction of trainers and their background
  - Sadik Crnovrsanin, BS SC, MBA, IT expert, Certification “Tableau Desktop Specialist”
  - Edis Brkic, MBA, MSc, LLB
- Introduction of attendees, their current HJPC position, experience with IT in general and specific with Tableau
- Overview of the training course

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Objectives – Day 1

Getting started
- How to download and what to install
- Tableau Feature Comparison
- Licenses
- Tableau Environment and Workspace

Tableau Concept
- Workspace
- Dimensions and Measures
- Discrete and Continues
- Export options (charts, images, files)

Connecting to Data Source
- Connections options
- Connections vs Extracts
- Joints and Relationships
- Aliases
- Data Type
- Default Properties

Formatting
- Colors
- Fonts
- Shapes
- Viz animations
- Legends

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Objectives – Day 1 (continue)

Exploring and Analyzing Data

- Create Bar Chart
- Create Line Chart
- Create a scatterplot
- Combined Axis Chart
- Dual Axis Chart
- Density Map

Data

- Filters & Advance filters
- Context Filters
- Sorting
- Quick Tabe Calculations
- Calculated fields
- Parameters

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Software Versions

Tableau Desktop: allows to create and publish workbooks

Tableau Online: Same as Tableau Desktop but not all functionality (online editing)

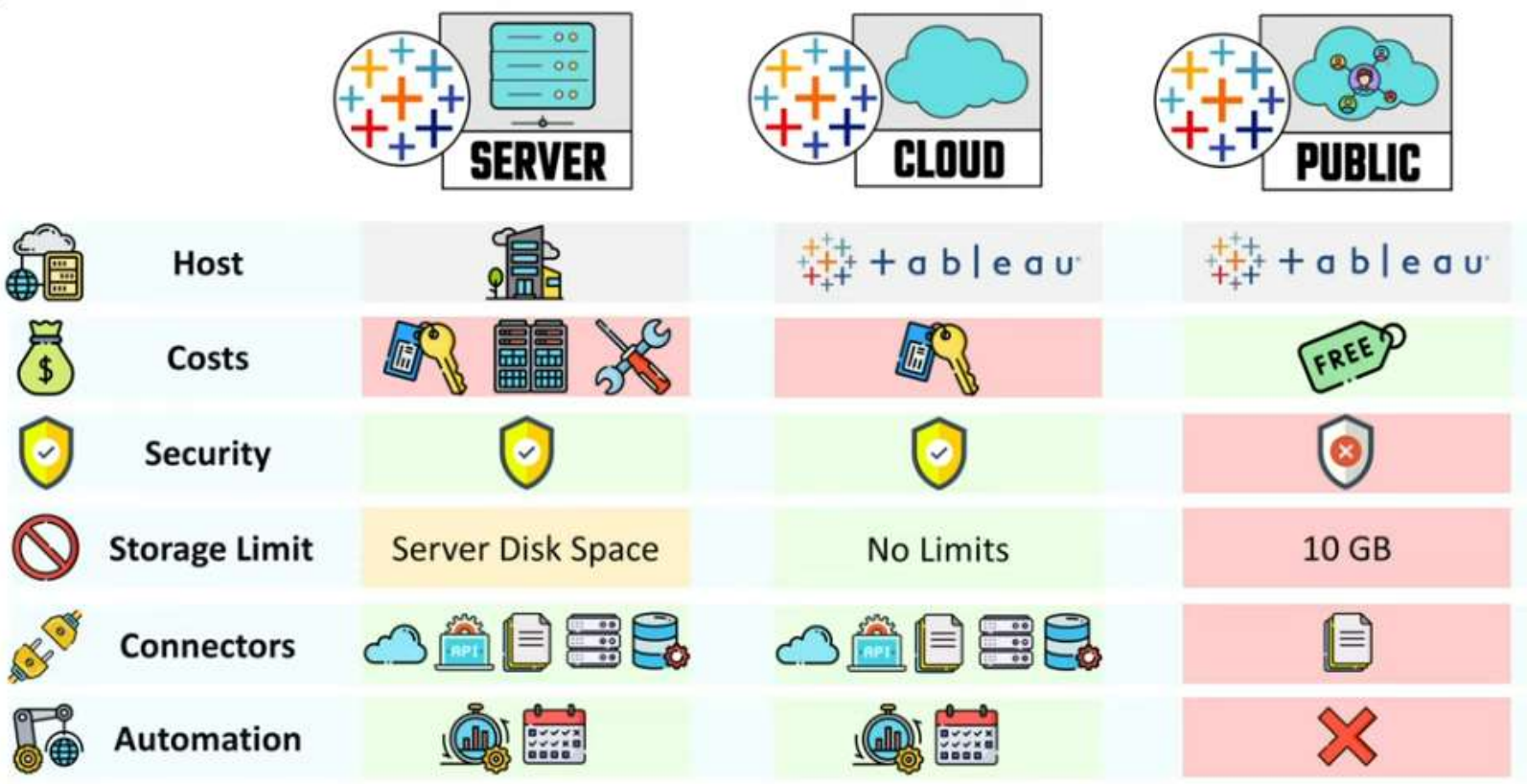
Tableau Public: allows you to create workbooks and publish on Tableau Public portal (need URL)

Tableau Servers: allows you to publish and share workbooks

Tableau Readers: reads Tableau workbooks, can NOT create or modify workbooks

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License



License cost



Tableau Creator

$75.00 user/month (billed annually)

Discover insights with a powerful suite of products that support your end-to-end analytics workflow.



Tableau Viewer

$15.00 user/month (billed annually)

View and interact with dashboards and visualizations in a secure, easy-to-use platform.

Tableau Public is a free platform to explore, create, and share data visualizations using publicly available data online.

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Operating Systems

Windows

Microsoft Windows 8/8.1, Windows 10 (x64), Windows 11

Minimum System Requirements

- Intel Core i3 or AMD Ryzen 3 (Dual Core)
- 4GB memory or larger
- 2GB HDD free or larger
- CPUs must support SSE4.2 and POPCNT instruction sets

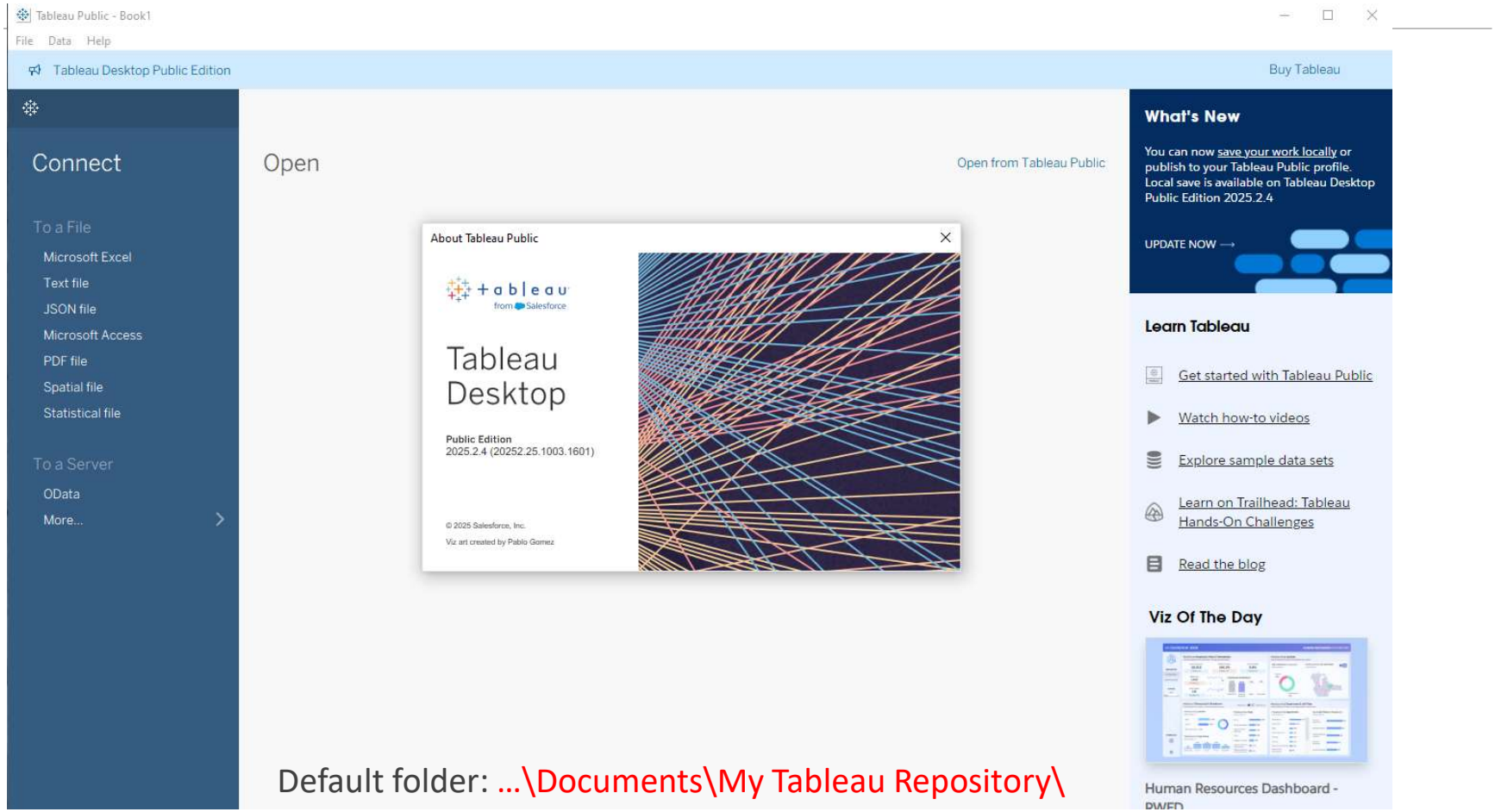
Recommended Requirements

- Intel Core i7 or AMD Ryzen 7 (Quad Core)
- 16GB memory or larger
- 2GB SSD free or larger

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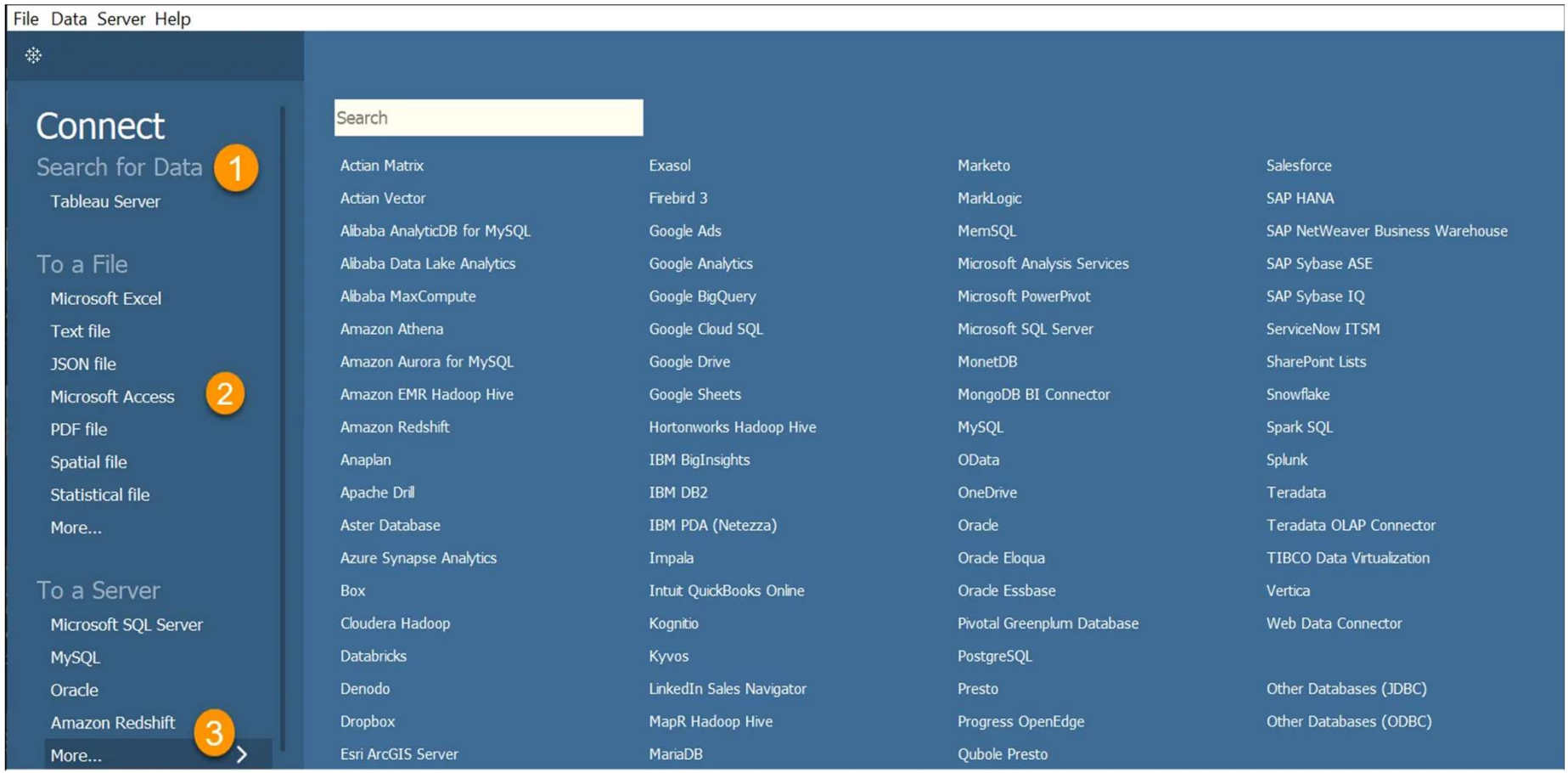
Welcome screen



Default folder: …\Documents\My Tableau Repository\

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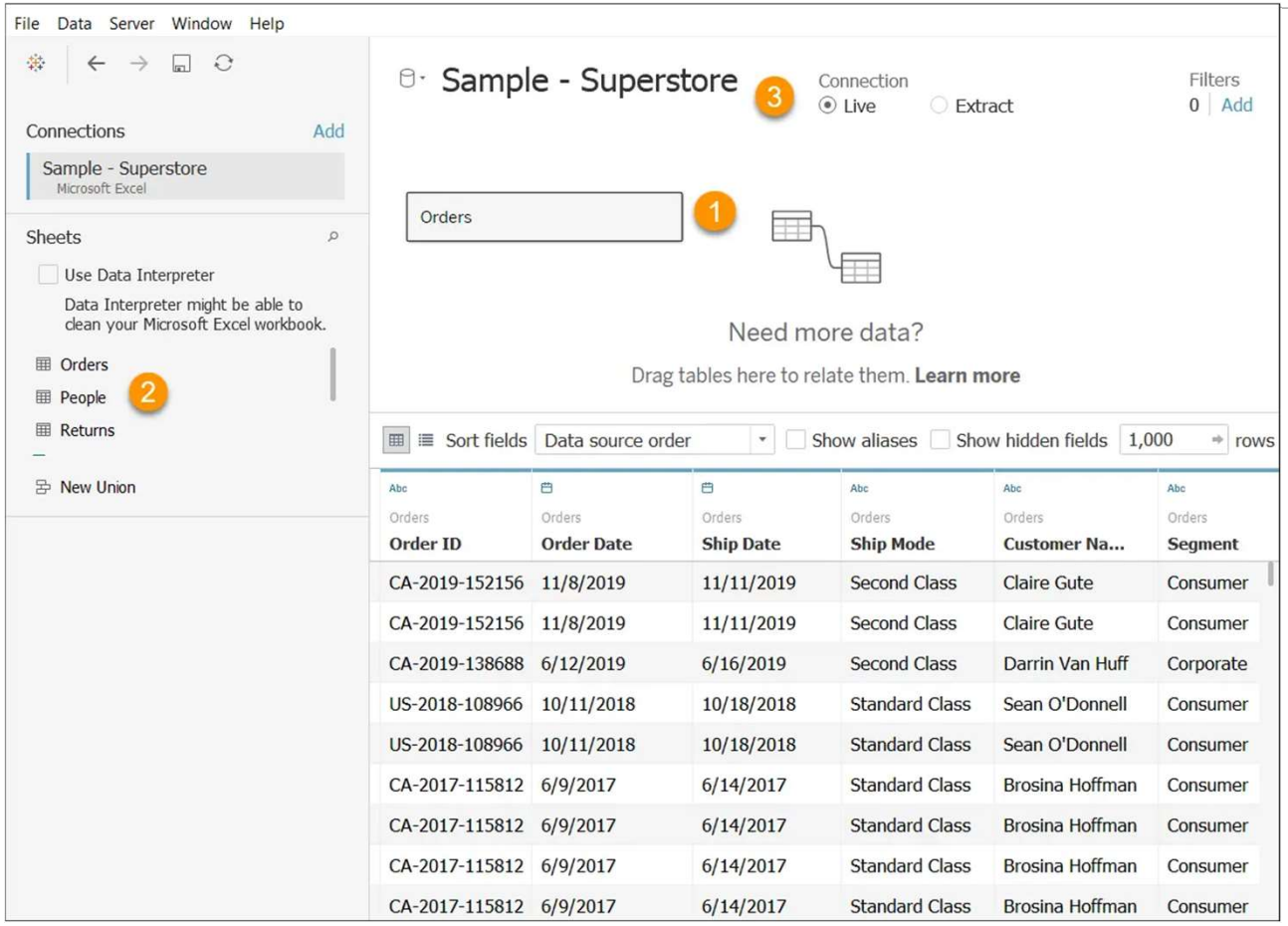
Data connections options



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Data Connections Types



Live:

- Tableau relies on database for each queries
- Real time data
- SLOW

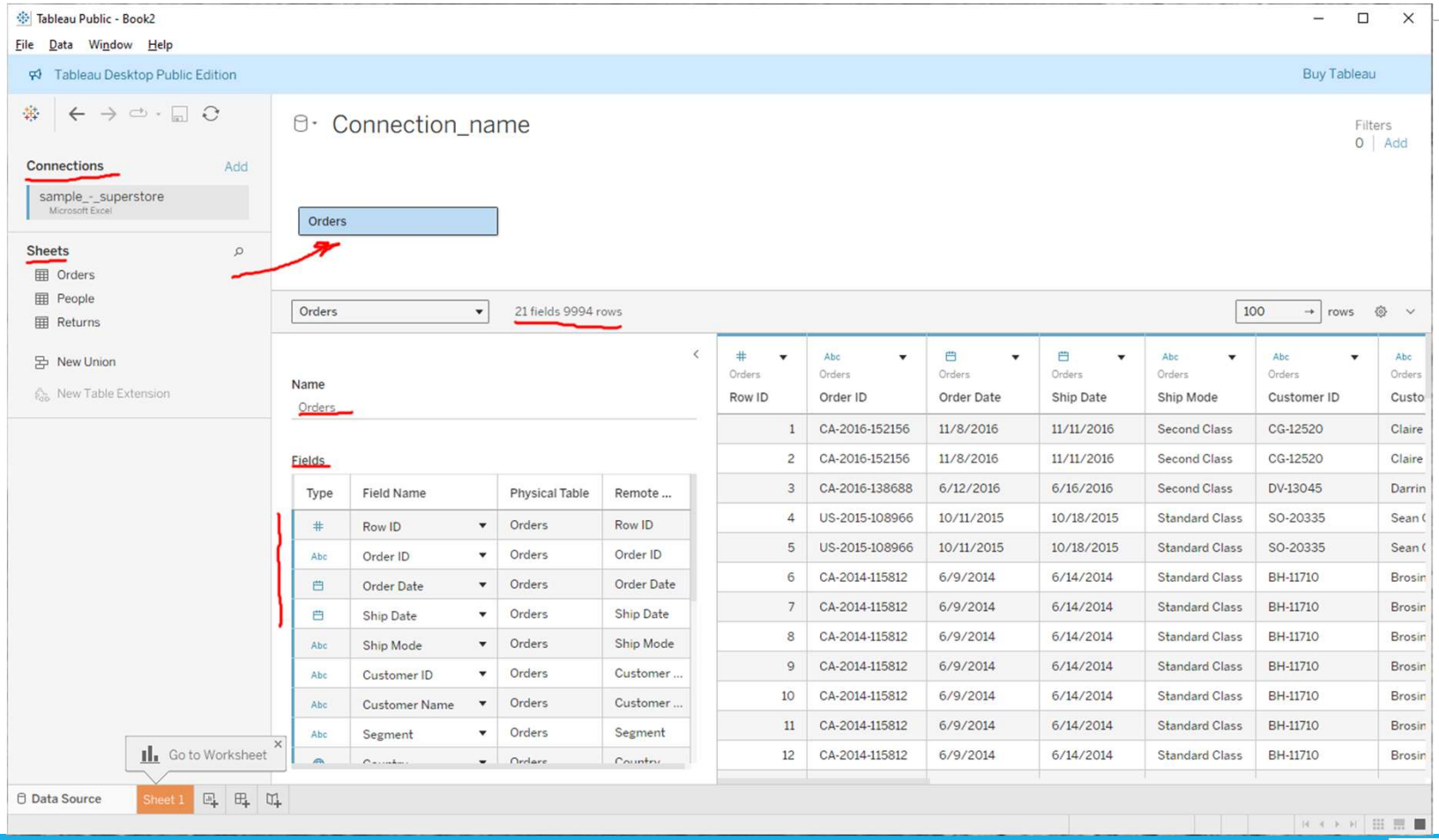
Extract:

- Snapshots of data
- Saved in memory
- FASTER visual
- Must refresh the extract
- *.hyper file

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Connections - view



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Data types

Icon	Data type
Abc	Text (string) values
	Date values
	Date & Time values
#	Numerical values (integer or decimal)
T|F	Boolean values (relational only)
	Geographic values (used with maps)
	Image role (used with image link URLs)
	Cluster Group (used with Find Clusters in Data)

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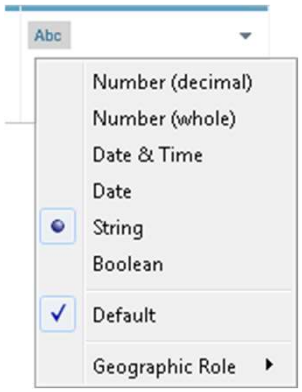
Change data types - manual

Sometimes Tableau incorrectly interprets the data type of a field.

For example, Tableau might interpret a field that contains dates as an integer data type, rather than a date data type.

You can change the data type for a field that was part of the original data source on the **Data Source** page.

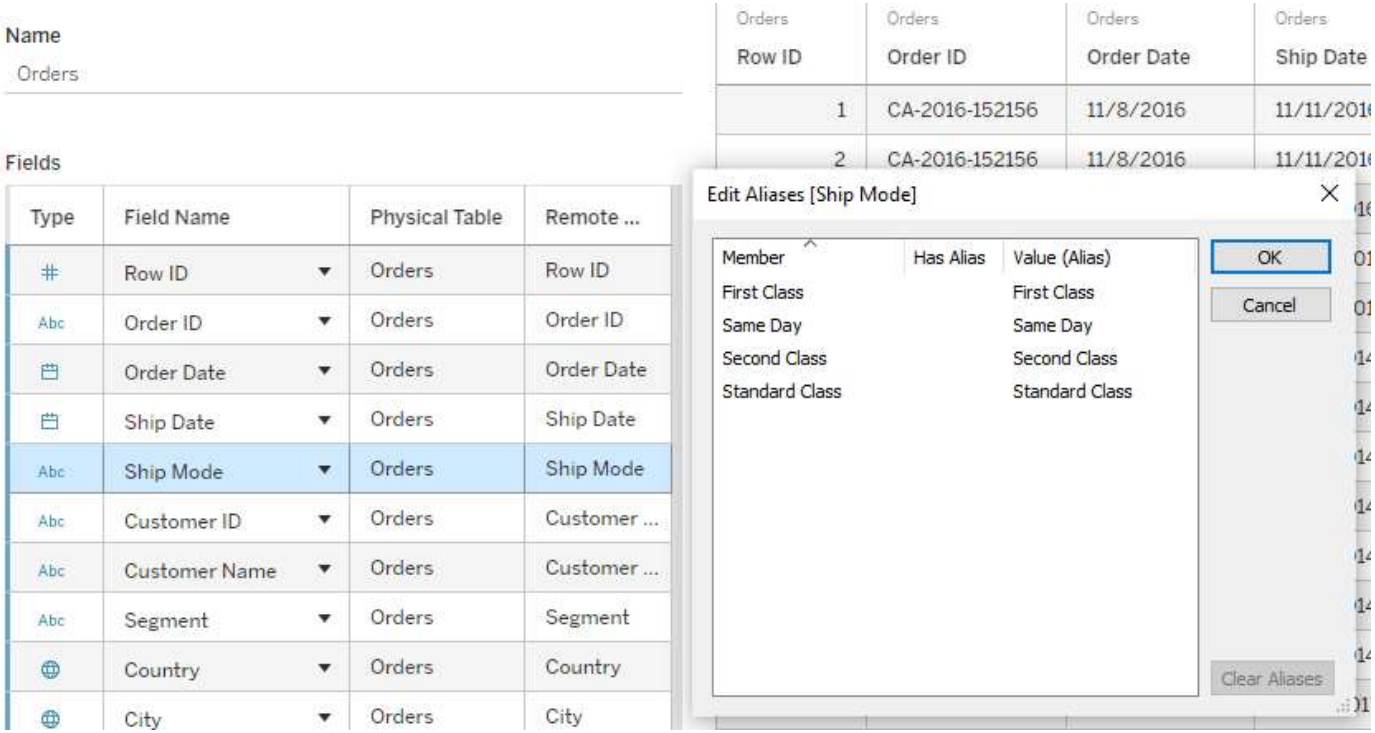
1. Click the data type icon for the field (as shown in the table above).
2. Choose a new data type from the drop-down list:



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Aliases



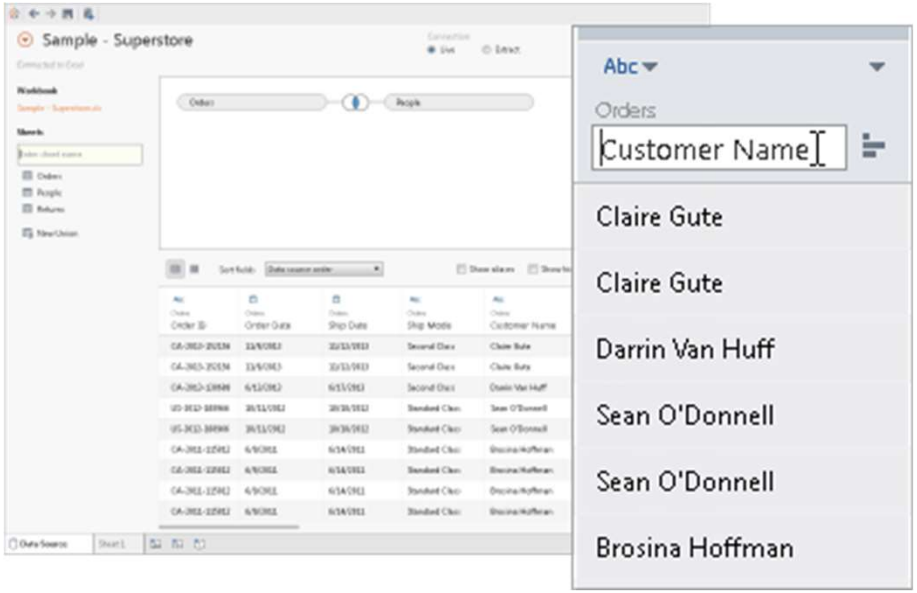
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Rename

To rename a column in Tableau:

- Locate the column whose name you wish to change.
- Double-click on the current name of the column.
- Enter the desired new name for the field.
- Press Enter or click outside the field to save the changes



Note: Do **NOT** rename column names in original Excel files

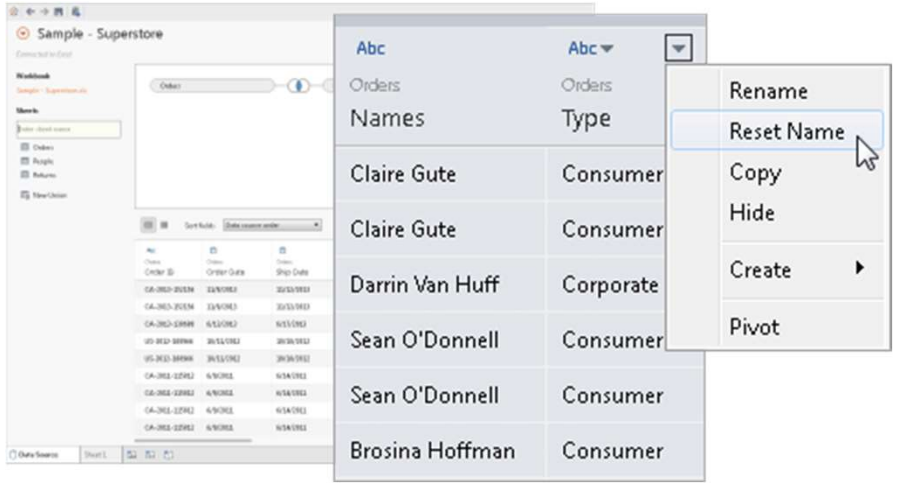
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Reset - rename

Tableau provides a reset option:

- Click on the column dropdown menu.
- Select the Reset Name.



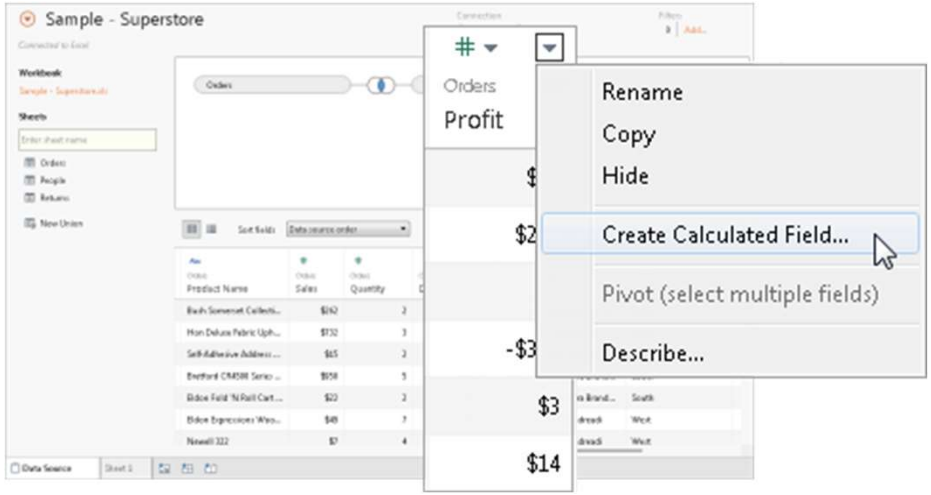
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Create calculations

Calculations allow you to perform complex data manipulations and get new insights from your existing dataset. Tableau offers three primary types of calculations:

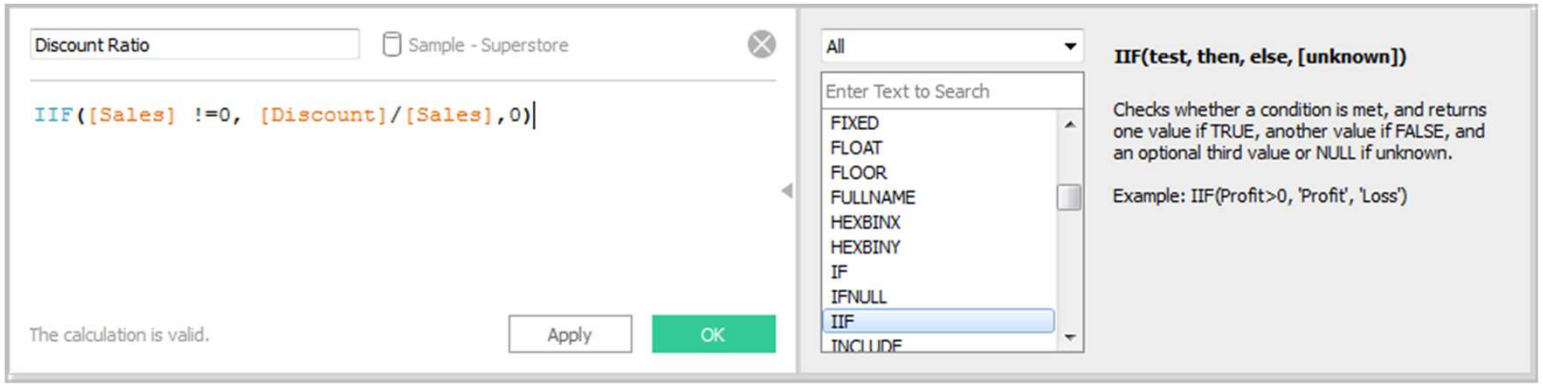
- Basic expressions
- Level of Detail (LOD) expressions
- Table calculations



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Create calculations



Number Functions
String Functions
Date Functions
Type Conversion
Logical Functions
Aggregate Functions
Pass-Through Functions (RAWSQL)
User Functions

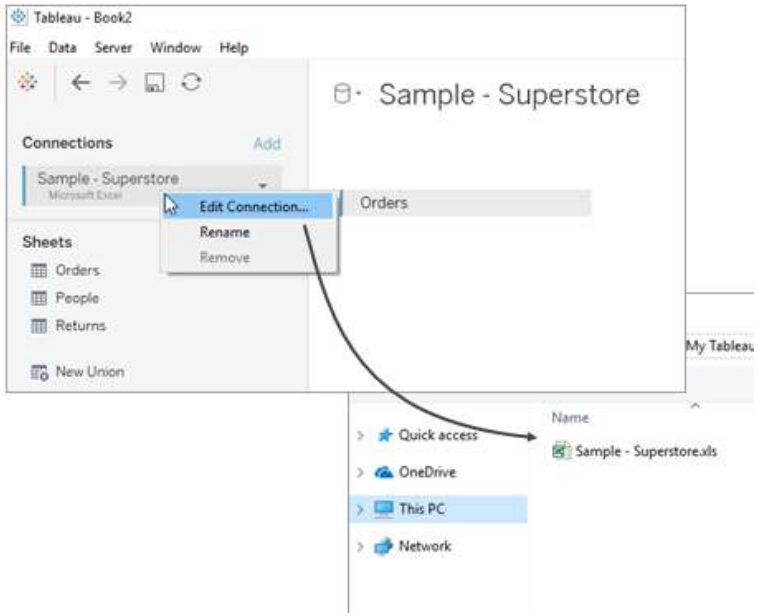
Table Calculation Functions
Spatial Functions
Predictive Modeling Functions
Additional Functions
FORMAT() Function Workarounds in Tableau
All Functions (Categorical)
All Functions (Alphabetical)

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Change the location of a data source

Right-click the Data from top menu, then on data source you wish to edit in the data pane.

- From the menu, select Edit Connection.
- In the Edit Connection dialog box, you have two options:
- Navigate to the new location of the data source by browsing your computer's file system.
- Select a new data source altogether by clicking on the Browse button and choosing a different file.
- After you have selected the new location or data source, select OK to save the changes.



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Data field roles and types - Dimensions

Dimensions group or segment the data. Dimensions typically contain qualitative values (such as names, dates, or geographical data). You can use dimensions to categorize your data. Dimensions affect the level of detail in the view.

- We can watch through our data with the help of a dimension.
- It can be any information, such as qualitative or categorical information.
- Let's take an example of a sample super store database; if we try to display "profit" for each data, we need a "state" as a dimension. As mentioned earlier state is the independent variable
- The major point to remember is we can not sum the dimension of the data, such as state, ID, category,

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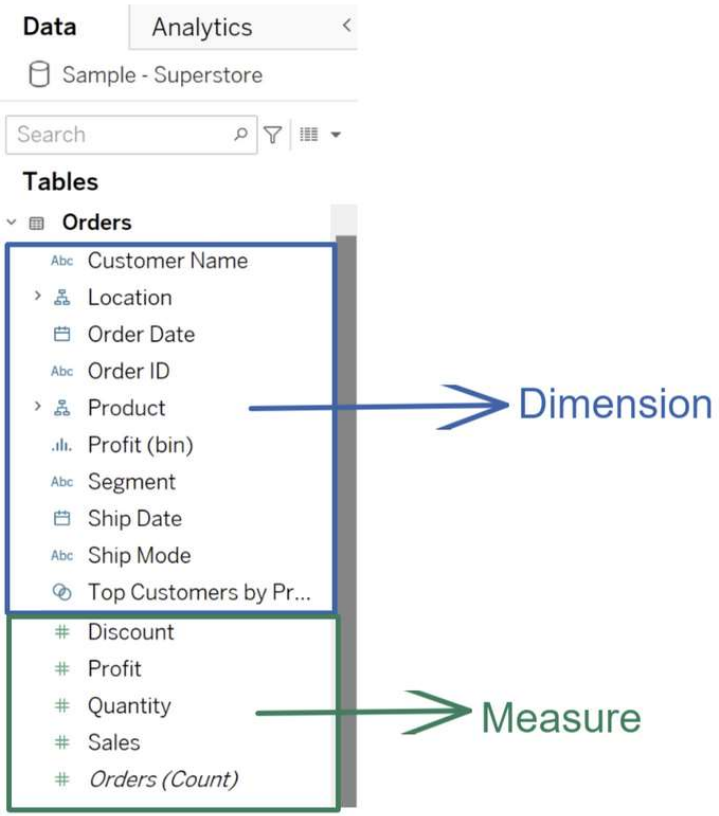
Data field roles and types - Measures

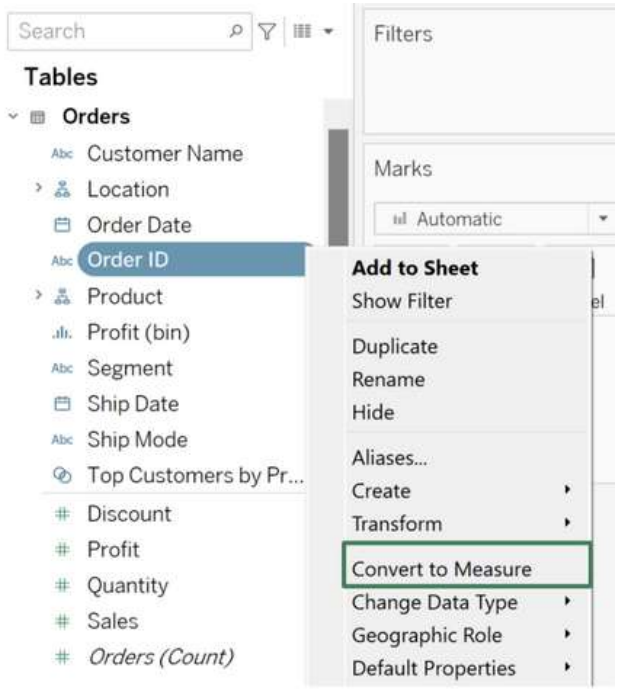
Measures are aggregated. Measures typically contain numeric, quantitative values that you can measure.

- Measure name itself brief about it; we can measure our data because it contains the numeric value which will help us to identify data
- It is a dependent variable in the tableau;
- If data or fields contain a numeric value, then it is treated as the measure
- It can be any value such as profit, discount or sales, etc.
- Let's take an example of a sample superstore database; if we try to display profit for each "State", we need a "profit" as a measure.
- We can SUM, AGGREGATE, MIN or MAX, etc of the measure because it contains a numeric

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Blue vs Green data type





Hint: Measure = numbers ; Dimensions = Text + Dates

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Continuous Vs discrete fields

Continuous means (neprekinute vrijednosti) "forming an unbroken whole, without interruption". These fields are colored green. When a continuous field is put on the Rows or Columns shelf, an axis is created in the view.

Discrete means (diskretne vrijedosti) "individually separate and distinct." These fields are colored blue. When a discrete field is put on the Rows or Columns shelf, a header is created in the view.

Discrete Dimensions	Product Name
Continuous Dimensions*	YEAR(Order Date)
Discrete Measures	SUM(Profit)
Continuous Measures	SUM(Profit)

Dimensions with a data type of String or Boolean can't be continuous. Dates are the most common continuous dimension

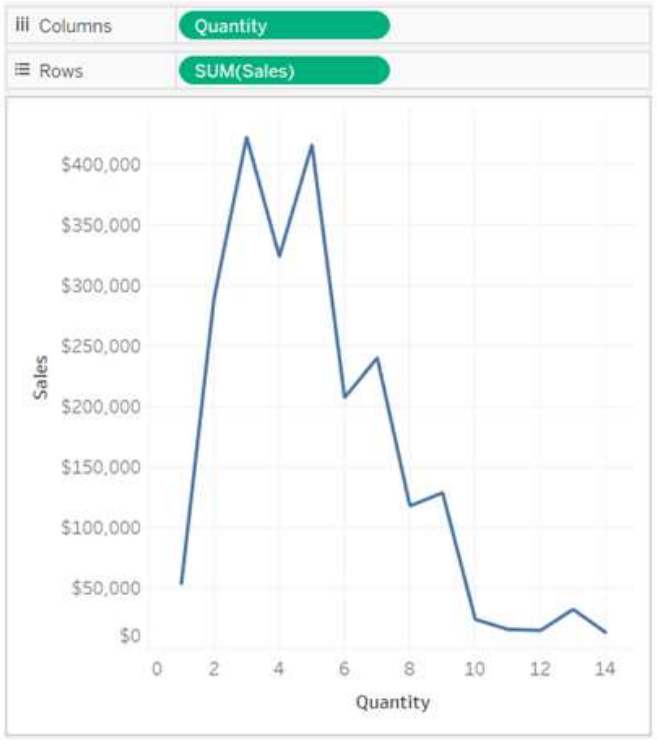
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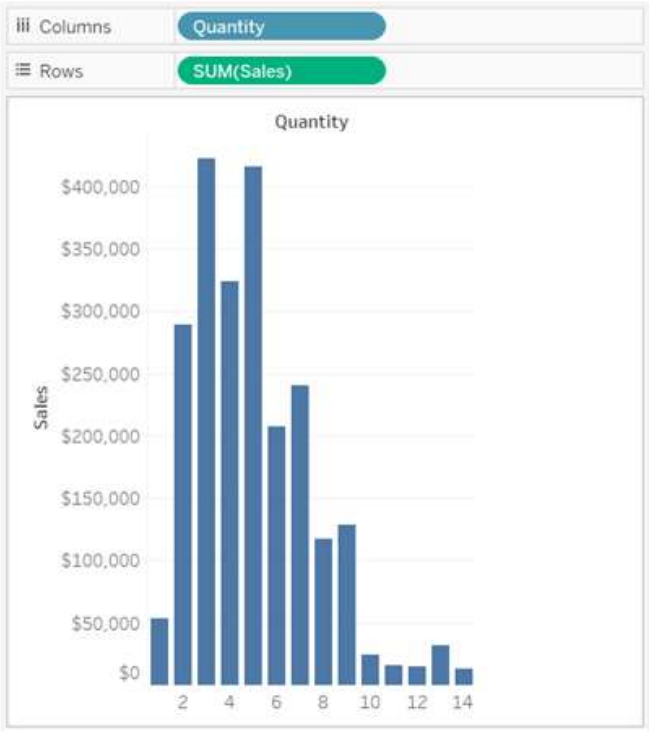
In the example on the left, because the Quantity field is **Continuous**, it creates a horizontal axis along the bottom of the view. The green field and the axis help you to see that it's a continuous field.

In the example on the right, the **Quantity** field is Discrete. It creates a horizontal headers instead of an axis. The blue field and the horizontal headers help you to see that it's discrete.

Continuous Quantity field



Discrete Quantity field

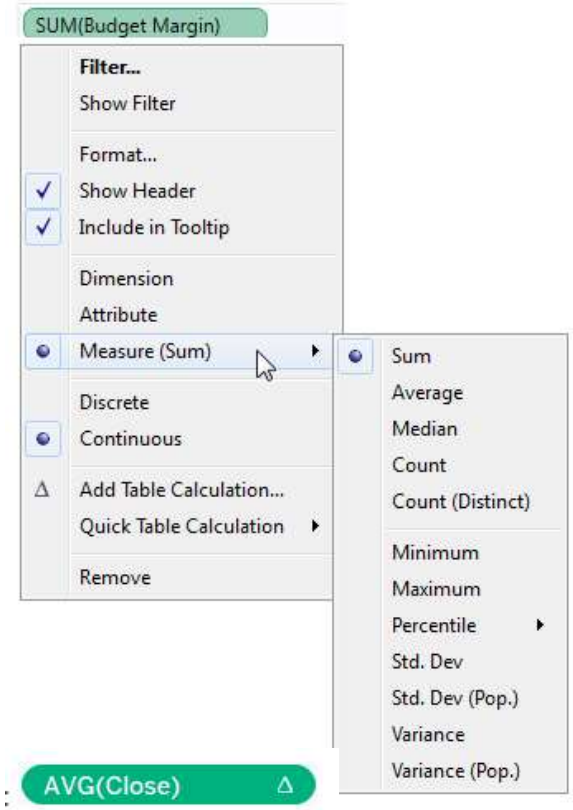


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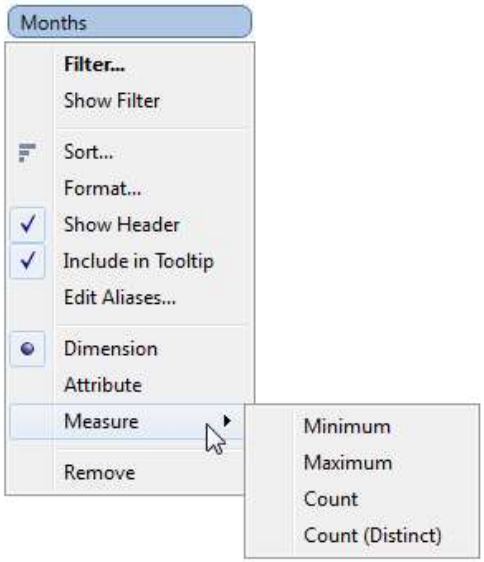
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Aggregation

Aggregation of a Measure



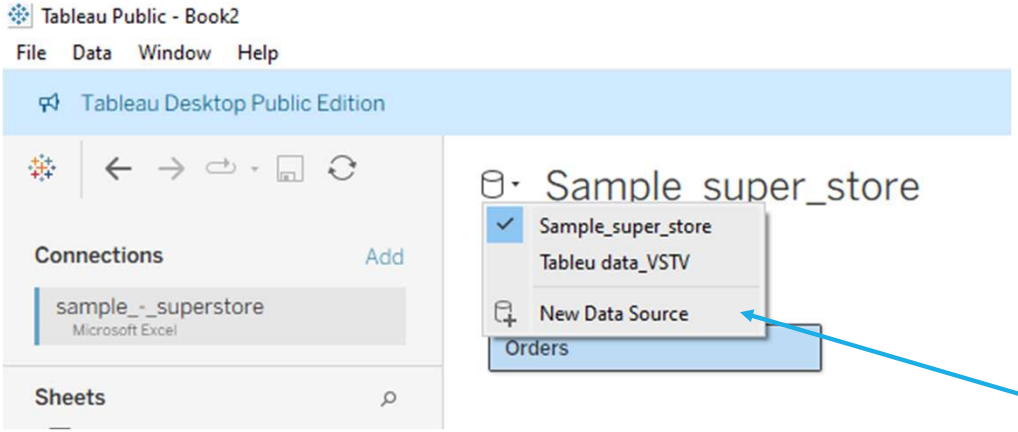
You can aggregate a dimension in the view as Minimum, Maximum, Count, or Count (Distinct)

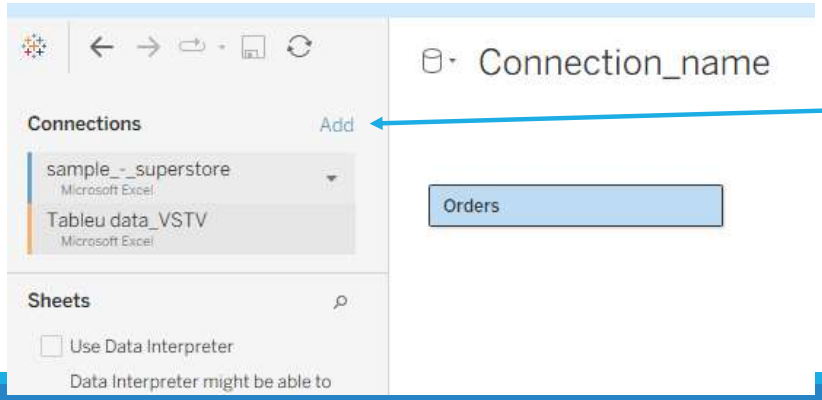


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Combine Data

Single database & Multiple databases





In order to relate tables across different databases, they must be added as **data new connections** within the same data source, not a new data source.
Data connections are added from the Add link in the Left pane.

Note:
New data source when you want to keep the two sources separate.

Add a **new connection** within a data source when you want to define a join, union, or relationship between the two connection

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Combine Data

Relationships are the default way to combine data in Tableau. Relationships are a dynamic, flexible way to combine data from multiple tables for analysis. If necessary, tables can also be joined or unioned. Data sources can also be blended.

Relationships	Establish the potential for joins between two tables based on related fields. Does not merge data together to create a new, fixed table. During analysis, queries the relevant tables automatically using the contextually-appropriate joins to generate a custom table of data for that analysis. Maintains the appropriate level of detail, does not lose data, keeps appropriate aggregations, and handles nulls.
Joins	Merge two tables of data based on a join clause and join type to form a new, fixed table of data. Often used to add new columns of data across the same basic row structure. May cause data loss with some join types if fields are not present in all tables. May cause data duplication if tables are at different levels of detail.
Unions	Merge two or more tables of data to form a new, fixed table of data. Used to append (add new rows of) data across the same basic column structure.
Blends	Work across two or more separate Tableau data sources. Data remains separate. Tableau queries the data sources independently and visualizes the results together in the view, based on the linking fields established for that sheet. Mimics the behavior of a left join and may filter data from secondary data sources

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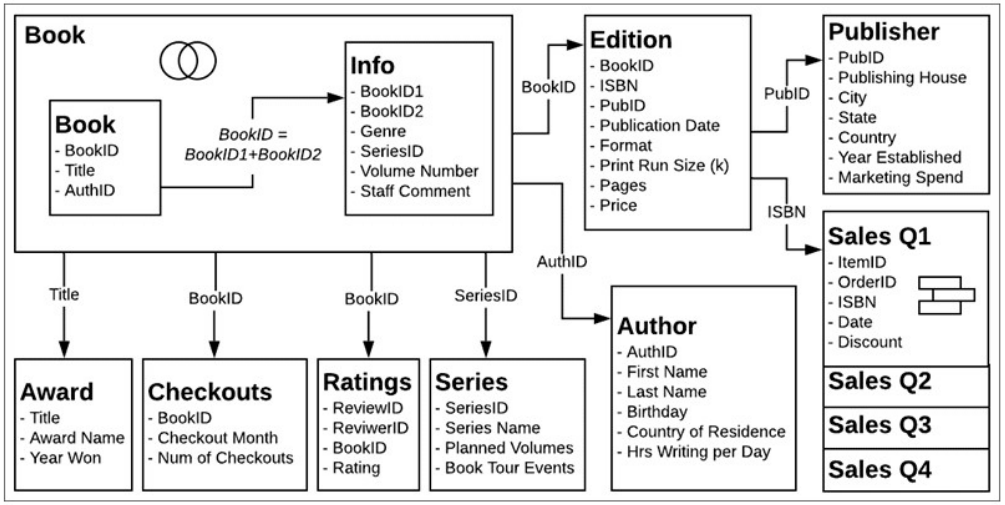
Relationships: Data modeling

With the Tableau 2020.2 release, Tableau introduced some new data modeling capabilities, with relationships.

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database



You define relationships based on matching fields, so that during analysis, Tableau brings in the right data from the right tables at the right aggregation—handling level of detail for you. A data source with relationships acts like a custom data source for every viz

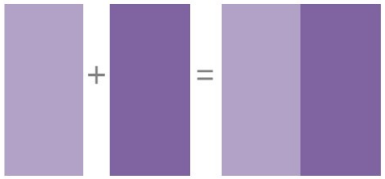
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Join

Join Type	Result
Inner 	When you use an inner join to combine tables, the result is a table that contains values that have matches in both tables. When a value doesn't match across both tables, it is dropped entirely.
Left 	When you use a left join to combine tables, the result is a table that contains all values from the left table and corresponding matches from the right table. When a value in the left table doesn't have a corresponding match in the right table, you see a null value in the data grid.
Right 	When you use a right join to combine tables, the result is a table that contains all values from the right table and corresponding matches from the left table. When a value in the right table doesn't have a corresponding match in the left table, you see a null value in the data grid.
Full outer 	When you use a full outer join to combine tables, the result is a table that contains all values from both tables. When a value from either table doesn't have a match with the other table, you see a null value in the data grid.

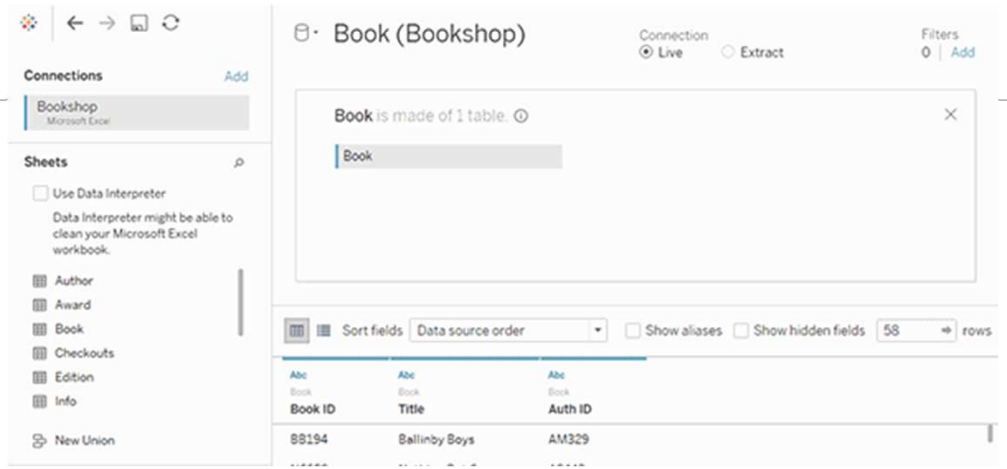
Joining is a method for combining tables related by common fields. The result of combining data using a join is a table that extends horizontally by adding columns of data.

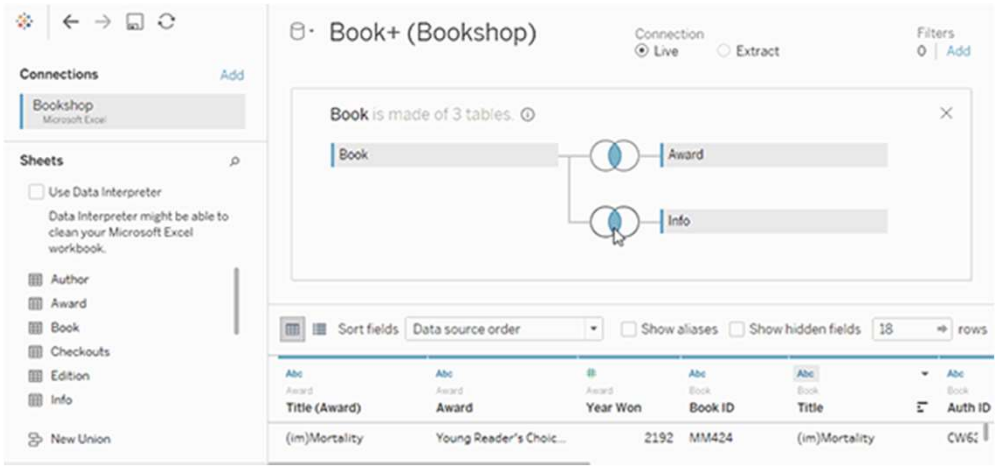


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Join

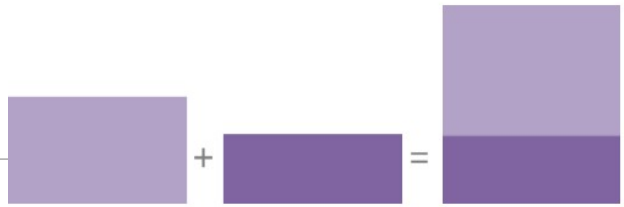




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Unions



Unions is a method for appending values (rows) to tables. You can union tables if they have the same columns. The result of combining data using a union is a virtual table that has the same columns but extends vertically by adding rows of data.

May2016

DAY	CUSTOMER	PURCHASES	TYPE
4	Lane	5	Credit
10	Chris	6	Credit
28	Juan	1	Credit

June2016

DAY	CUSTOMER	PURCHASES	TYPE
1	Lisa	3	Credit
28	Isaac	4	Cash
28	Sam	2	Credit

July2016

DAY	CUSTOMER	PURCHASES	TYPE
2	Mario	2	Credit
15	Wei	1	Cash
21	Jim	7	Cash

DAY	CUSTOMER	PURCHASES	TYPE
4	Lane	5	Credit
10	Chris	6	Credit
28	Juan	1	Credit
1	Lisa	3	Credit
28	Isaac	4	Cash
28	Sam	2	Credit
2	Mario	2	Credit
15	Wei	1	Cash
21	Jim	7	Cash

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Data Bleding



When you use data blending to combine your data, you combine data in what is called a primary data source with common fields from one or more secondary data sources.

The result of combining data using data blending is a virtual table that extends horizontally by adding columns of data. The data from each data source will be aggregated to a common level before being displayed together in the visualization.

Blends query each data source independently, aggregate the results to the appropriate level, then present the results together visually in the view

User ID	District	Level	Type
1	2	3	G
2	3	4	J
4	5	6	M
1	2	3	W

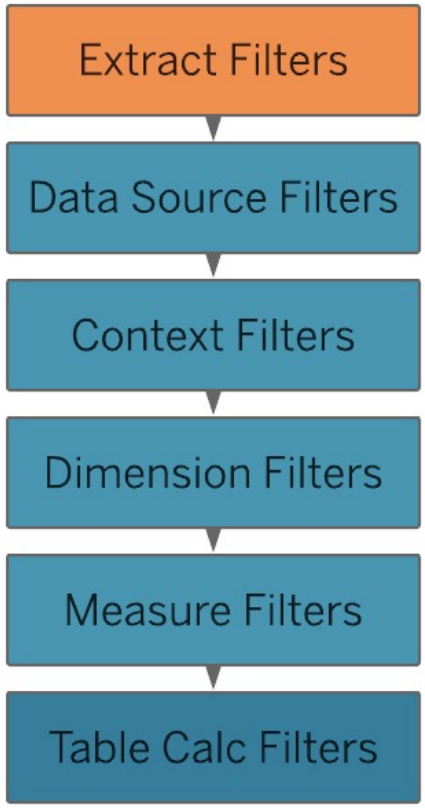
Branch	Patron ID	District	Level
A001	1	2	3
B001	2	3	4
C001	1	2	3

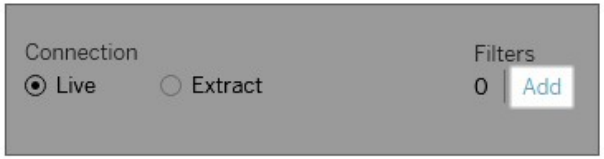
User ID	District	Level	Branch	Type
1	2	3	*	G
2	3	4	B001	J
4	5	6	*null*	M
1	2	3	*	W

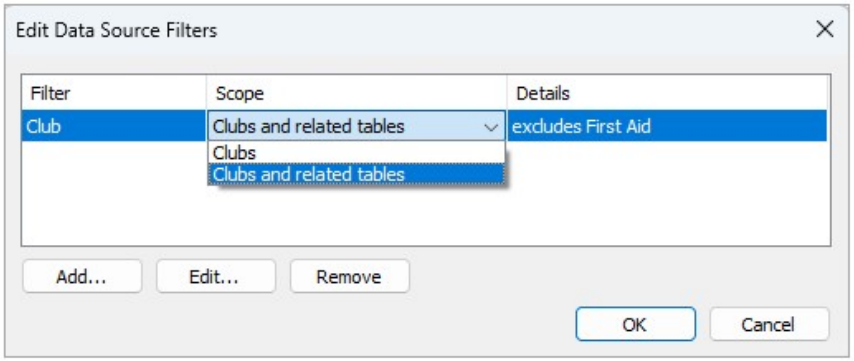
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Order of data preparation







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File types

File Type	File Extension	Description
Tableau Workbook	.twb	An XML file containing information about worksheets, dashboards, stories, and how they are built. It does not include the data itself.
Tableau Packaged Workbook	.twbx	A compressed file containing a .twb file and all the data that the workbook uses, including local file data and images.
Tableau Data Source	.tds	Contains information for connecting to a data source but does not include the data itself.
Tableau Packaged Data Source	.tdsx	A compressed file containing a .tds file along with local file data, such as extract files or Excel files.
Tableau Data Extract	.hyper **(newer)** or .tde **(older)**	A snapshot of the data used for faster performance. The .hyper format is the newer, more efficient version.

Other file types

Tableau Bookmark: **.tbm** - Used to save a single worksheet from a workbook.
Tableau Map Source: **.tms** - Used to connect to non-supported map servers.
Tableau Preference: **.tps** - Stores user preferences, such as custom color

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Exports options

Data export

- **Cross-tab to Excel/CSV:** Export the data from a view as a cross-tab, which can then be saved as a .csv file
- **Data to Clipboard:** Copy data directly to the clipboard to paste into other applications.
- **Data to Microsoft Access:** Export data from a worksheet to a Microsoft Access database.
- **Data extract:** Create an extract file from your flow output in a .hyper or .csv file.

Image export

- **Copy as image:** Copy a view as an image to paste into another application.
- **Export to image (PNG):** Export the view as a .png image file.

PDF export

- **Export entire workbook or active sheet:** Export the entire workbook or the active sheet as a PDF.
- **Export as PDF:** Export the visualization as a PDF file.

Other options

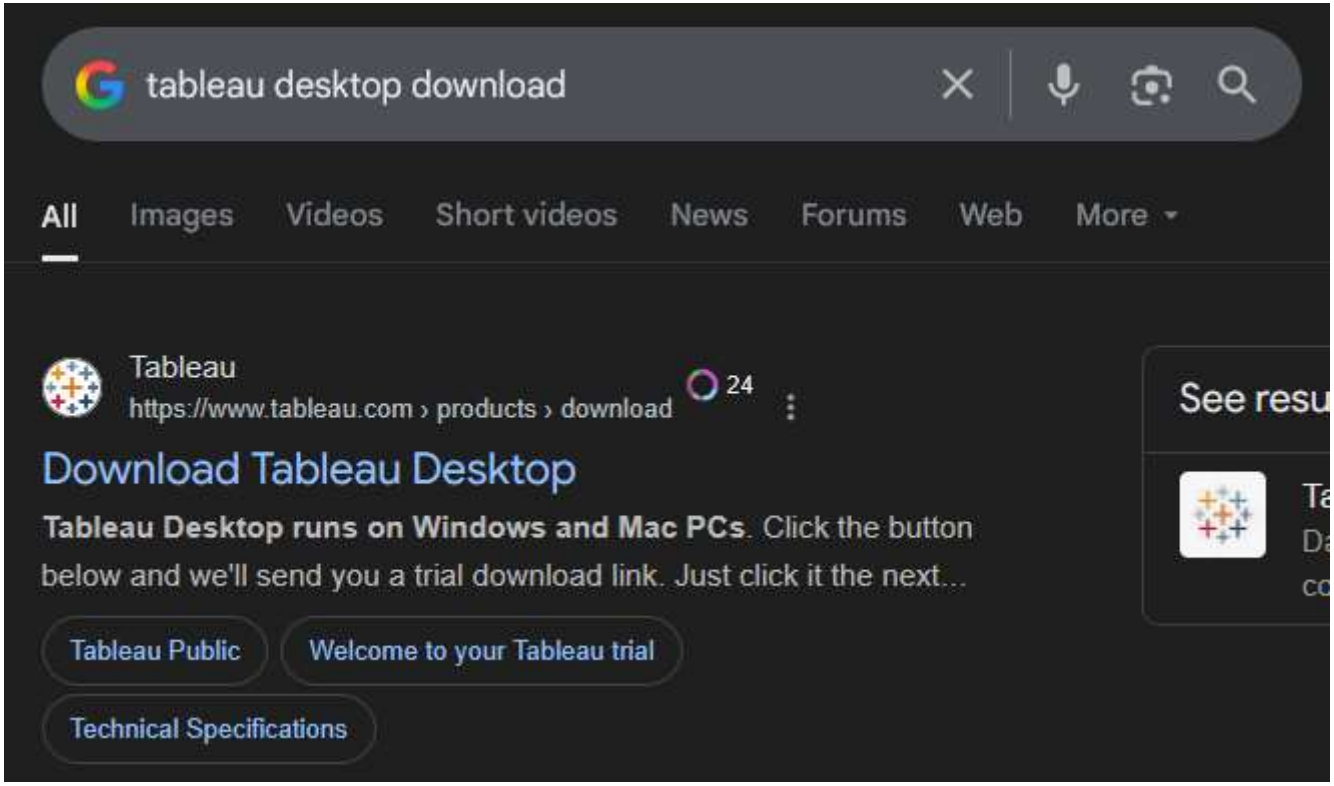
- **PowerPoint:** Export a view as a PowerPoint file, which includes the title, date, and an image of the page.

Share Tableau

- Share file with other users (share *.twbx files)
- Share Tableau files with Tableau Viewer (need license)
- Share Tableau over Tableau public (PUBLIC)

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How to download

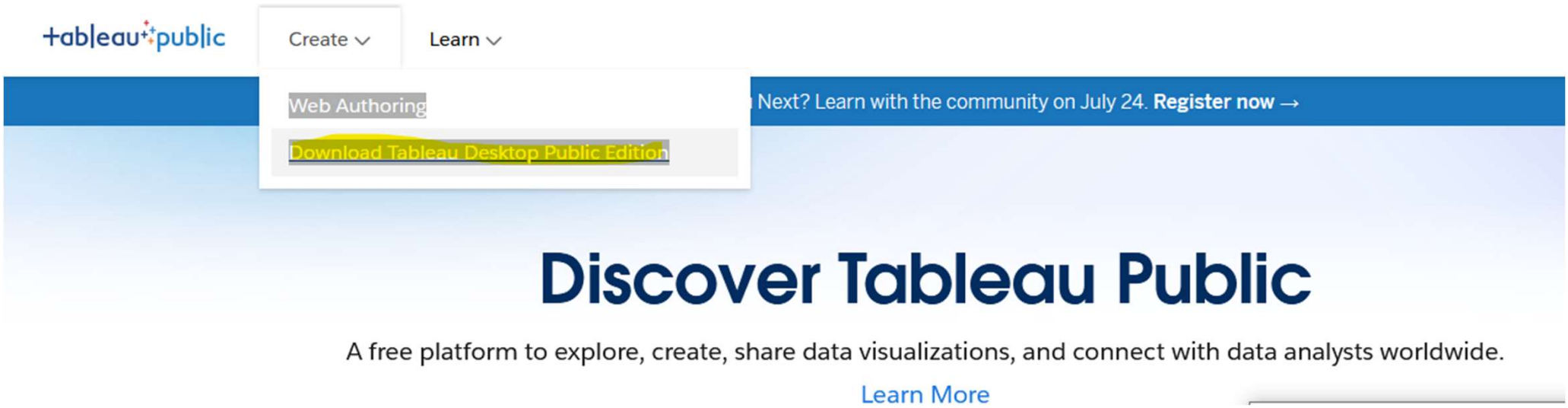


tableau

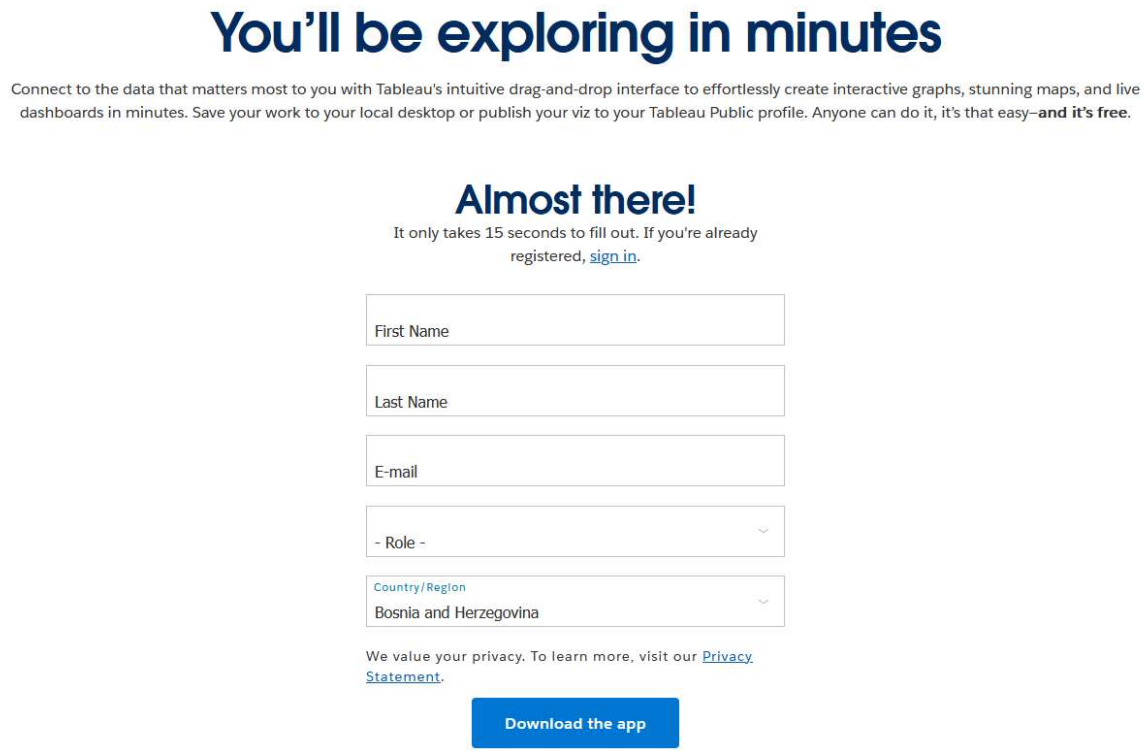
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Public

https://public.tableau.com/



Register for public



HEEA

A. Workbook name. A workbook contains sheets(worksheet, dashboard)

B. Cards and shelves - Drag fields to the cards and shelves in the workspace to add data to your view.

C. Toolbar - Use the toolbar to access commands and analysis and navigation tools.

D. View - This is the canvas in the workspace where you create a visualization “viz".

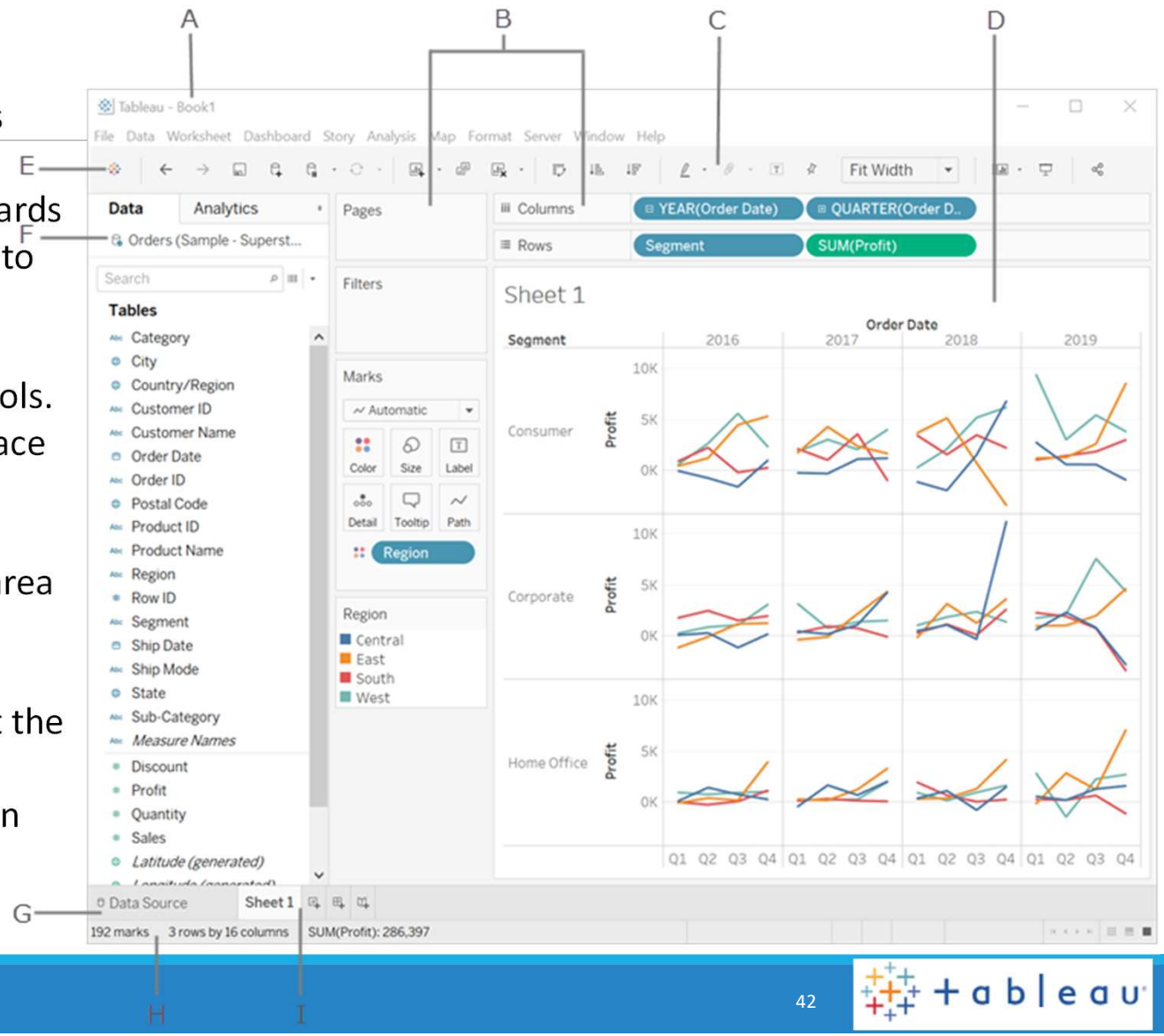
E. Start page

F. Side Bar - In a worksheet, the side bar area contains the Data pane.

G. Data Source page and view your data.

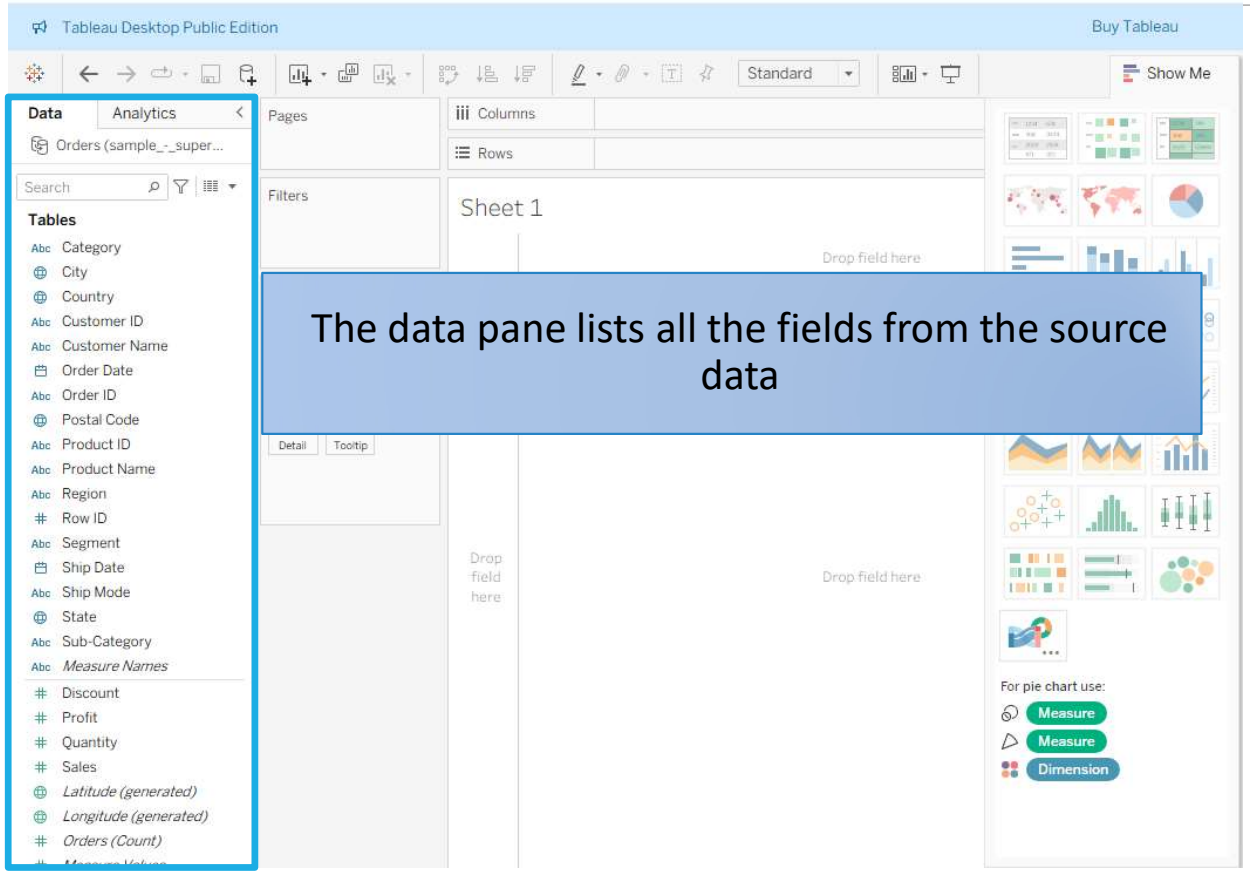
H. Status bar - Displays information about the current view.

I. Sheet tabs - Tabs represent each sheet in your workbook.



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Data pane

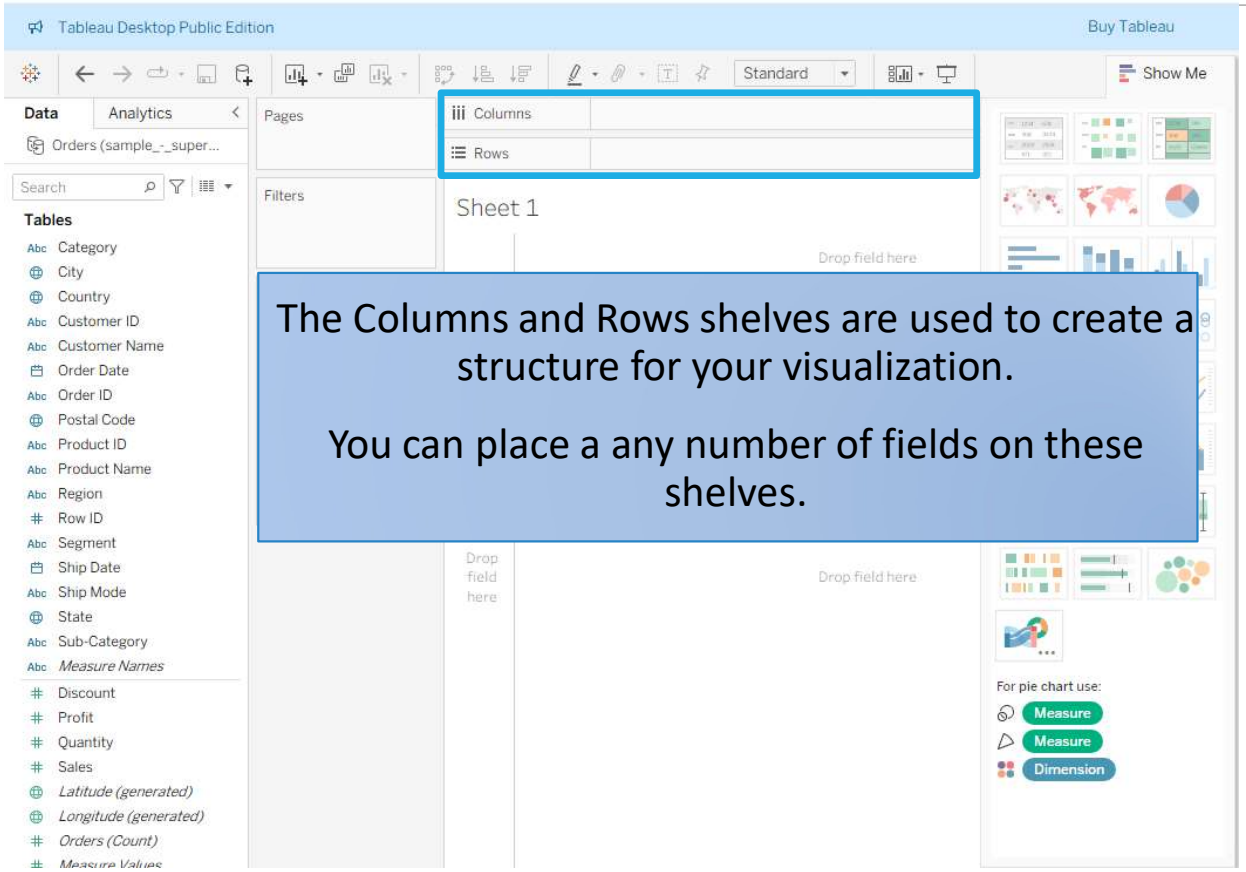


The data pane lists all the fields from the source data

tableau

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Columns and Rows



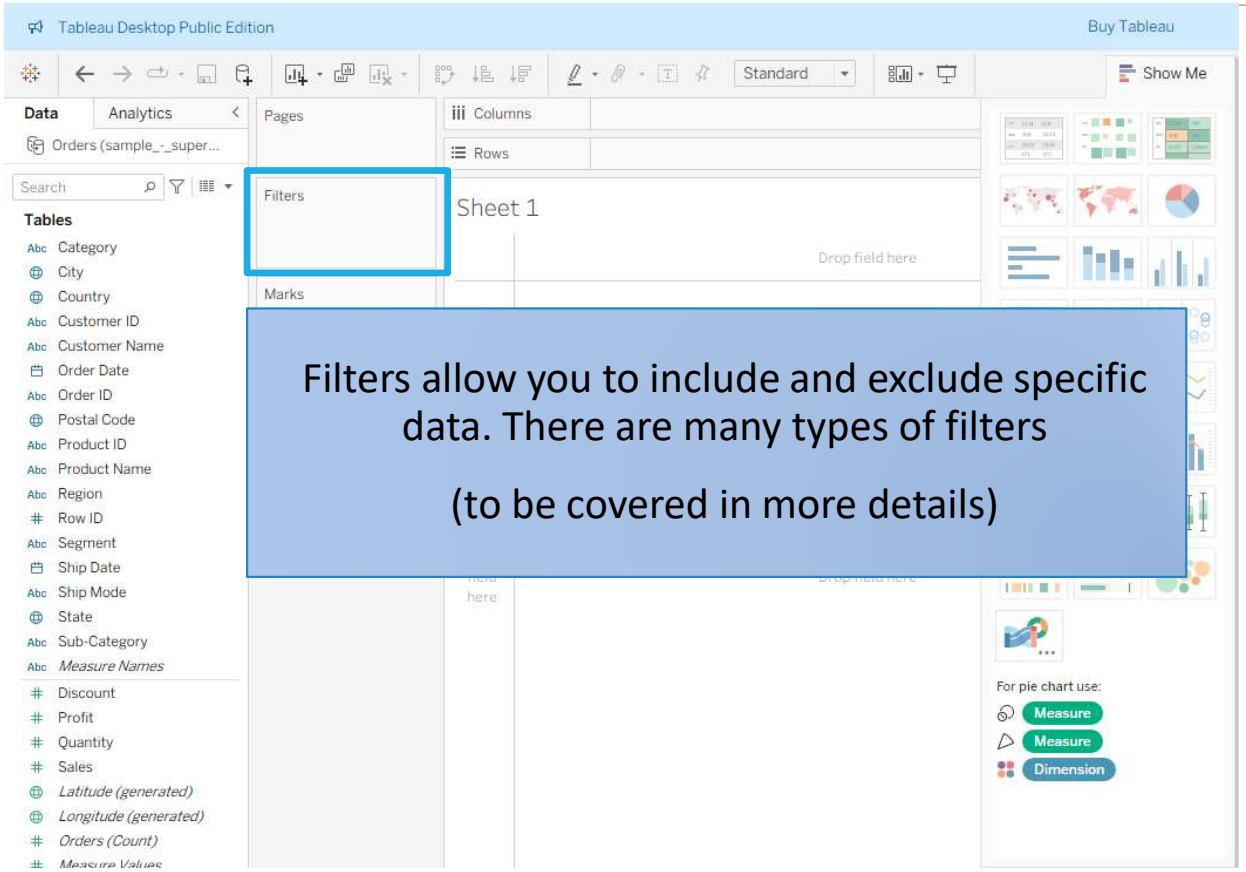
The Columns and Rows shelves are used to create a structure for your visualization.

You can place a any number of fields on these shelves.

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Filters



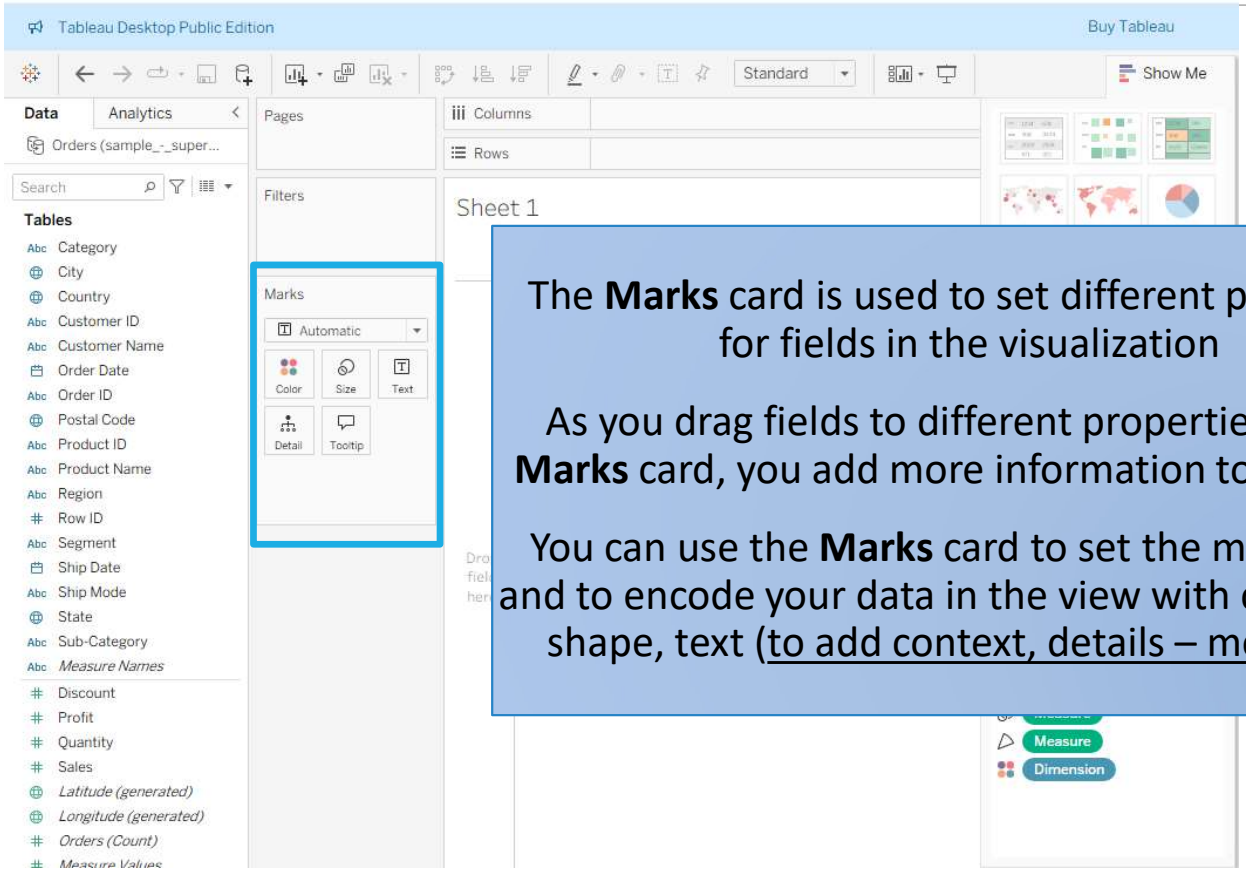
Filters allow you to include and exclude specific data. There are many types of filters

(to be covered in more details)

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Marks card



The **Marks** card is used to set different properties for fields in the visualization

As you drag fields to different properties on the **Marks** card, you add more information to the view.

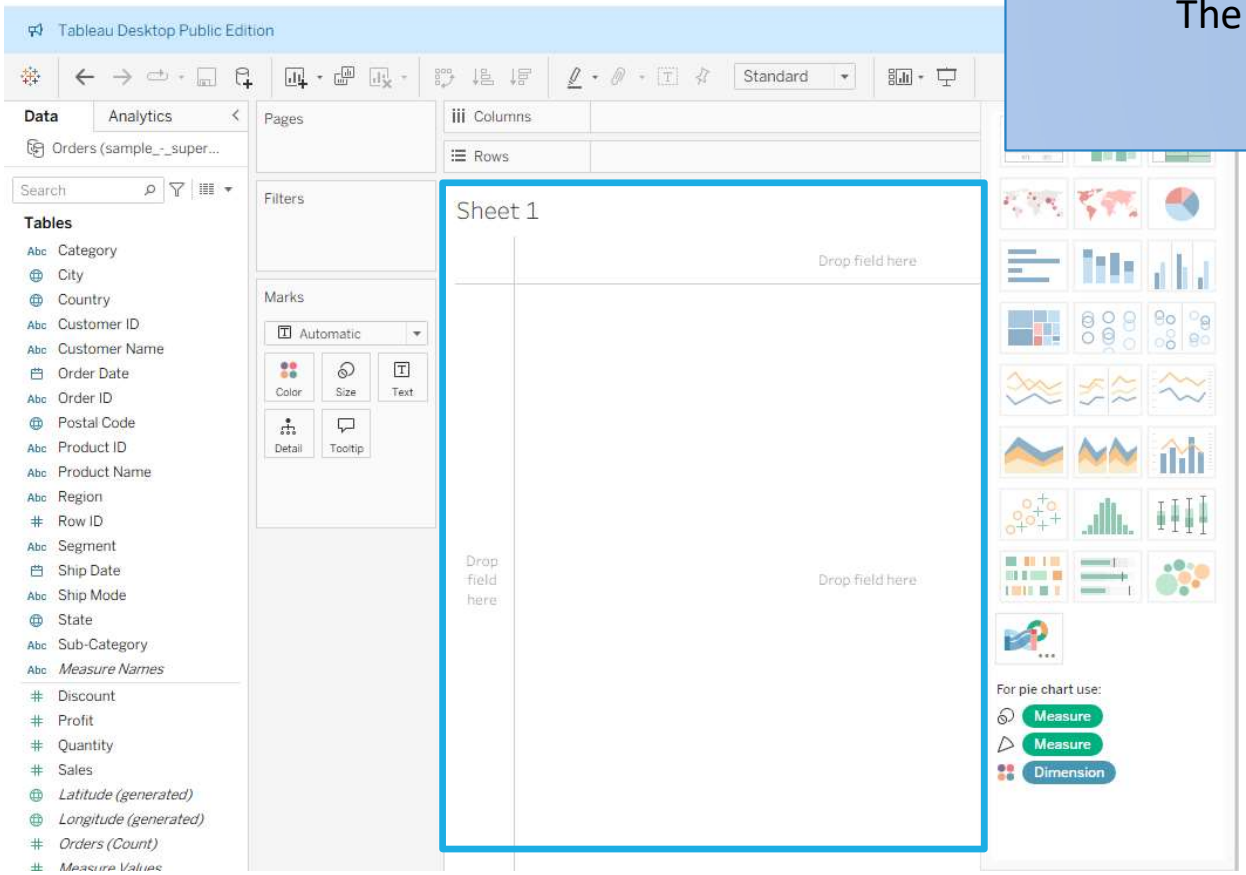
You can use the **Marks** card to set the mark type and to encode your data in the view with color, size, shape, text (to add context, details – meaning)

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View

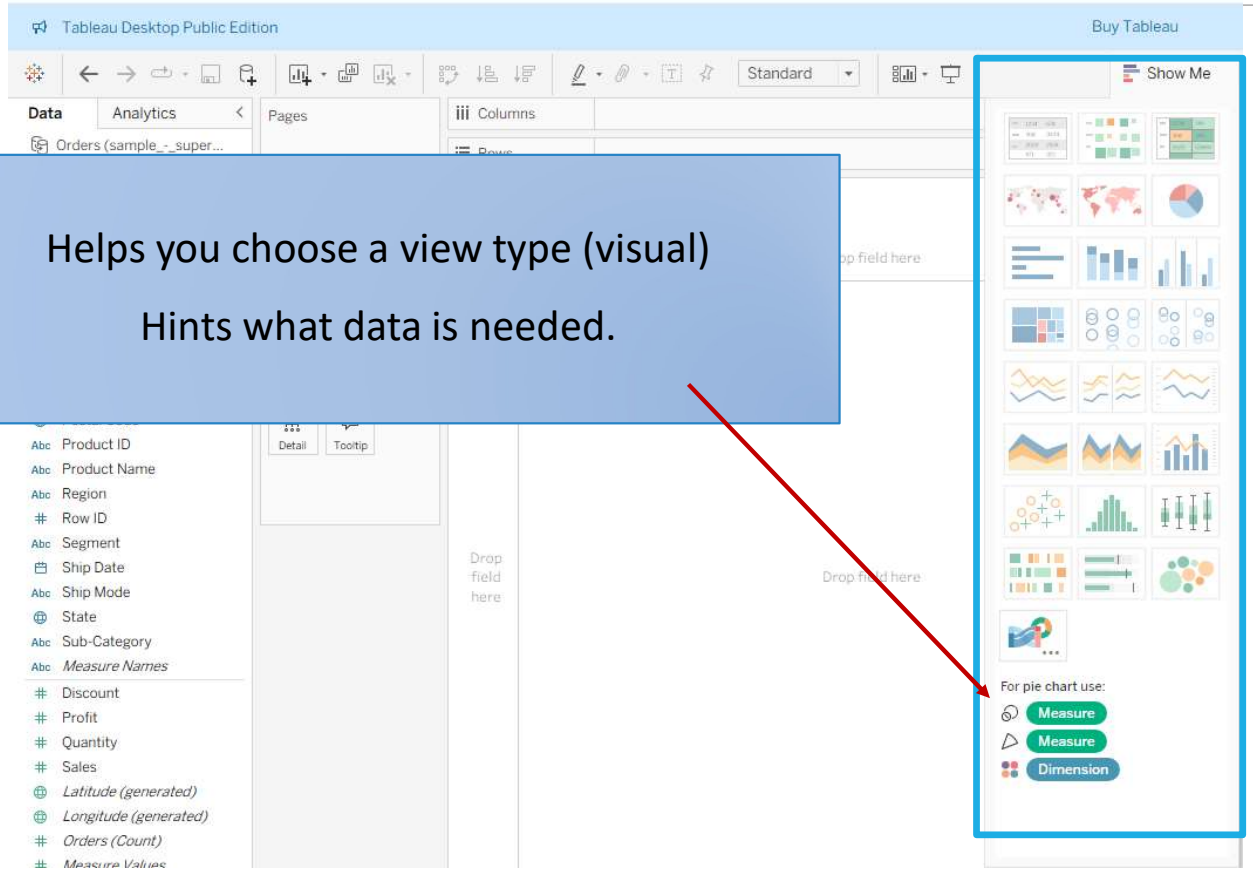
The view shows your visualization.



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Show Me



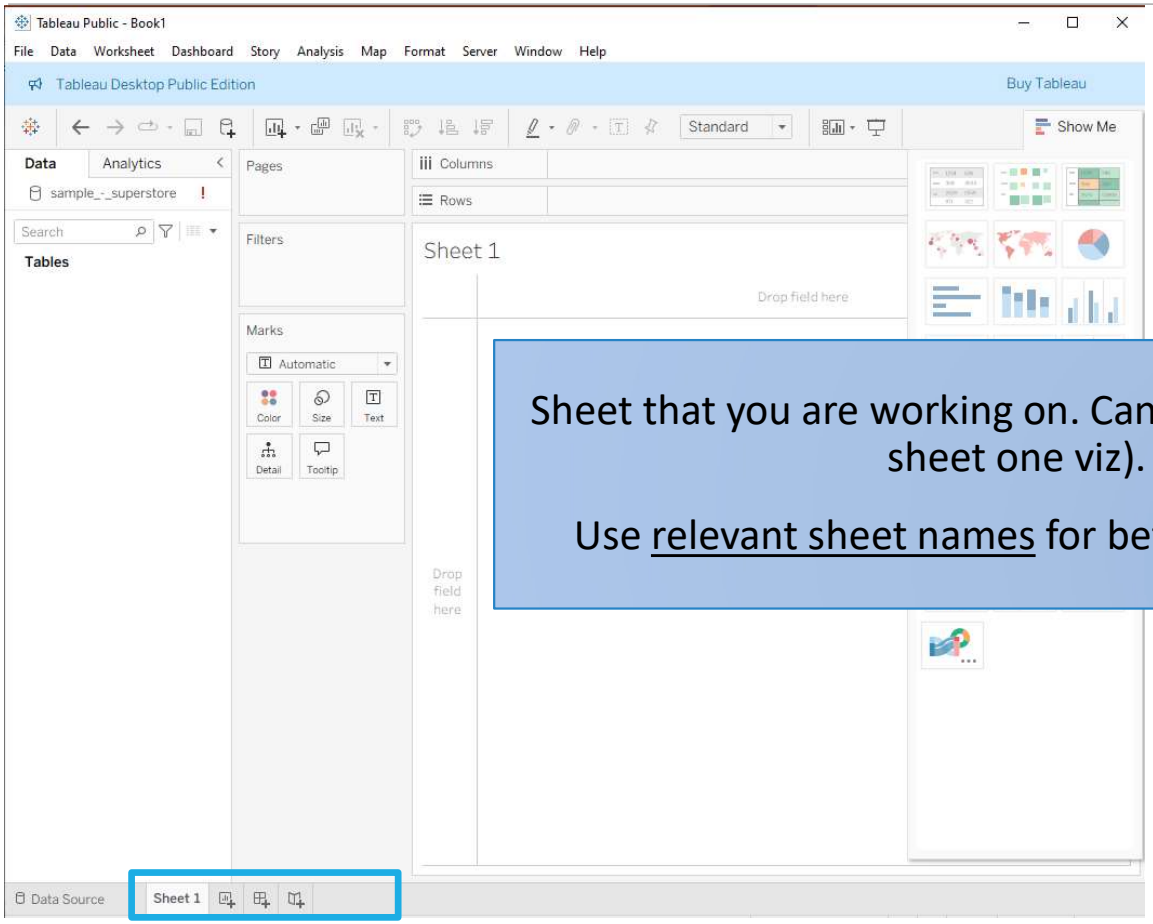
Helps you choose a view type (visual)

Hints what data is needed.

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Sheets



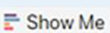
Sheet that you are working on. Can have multiple (one sheet one viz).

Use relevant sheet names for better organization.

tableau

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Tableau Toolbar Button Reference

Toolbar Button	Description
	Tableau icon: Navigates to the start page.
	Undo: Reverses the most recent action in the workbook.
	Redo: Repeats the last action you reversed with the Undo button.
	Save:
	New Data Source: In Tableau Desktop, opens the Connect pane
	Run Update: Runs a manual query of the data to update the view
	New Worksheet: Creates a new blank worksheet,
	Duplicate:
	Clear: Clears the current worksheet.
	Swap: Moves the fields on the Rows shelf to the Columns
	Presentation Mode:
	Download:
	Show Me: Helps you choose a view type

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Default Properties



Text filed options:

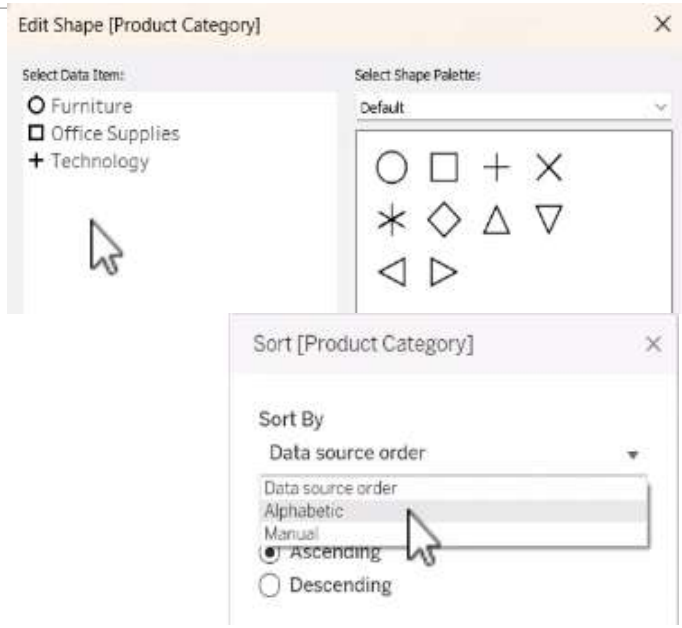
- Comments (hover over text)
- Color – default color for each value
- Shape – default shape for each value
- Sort – Sort order

Date field:

- Date Format (formatting date)
- Fiscal Year start

Number field:

- Number Format (decimal format)
- Aggregation
- Total using



tableau

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Sample data used for next part of presentation

https://public.tableau.com/app/learn/sample-data

Superstore Sales

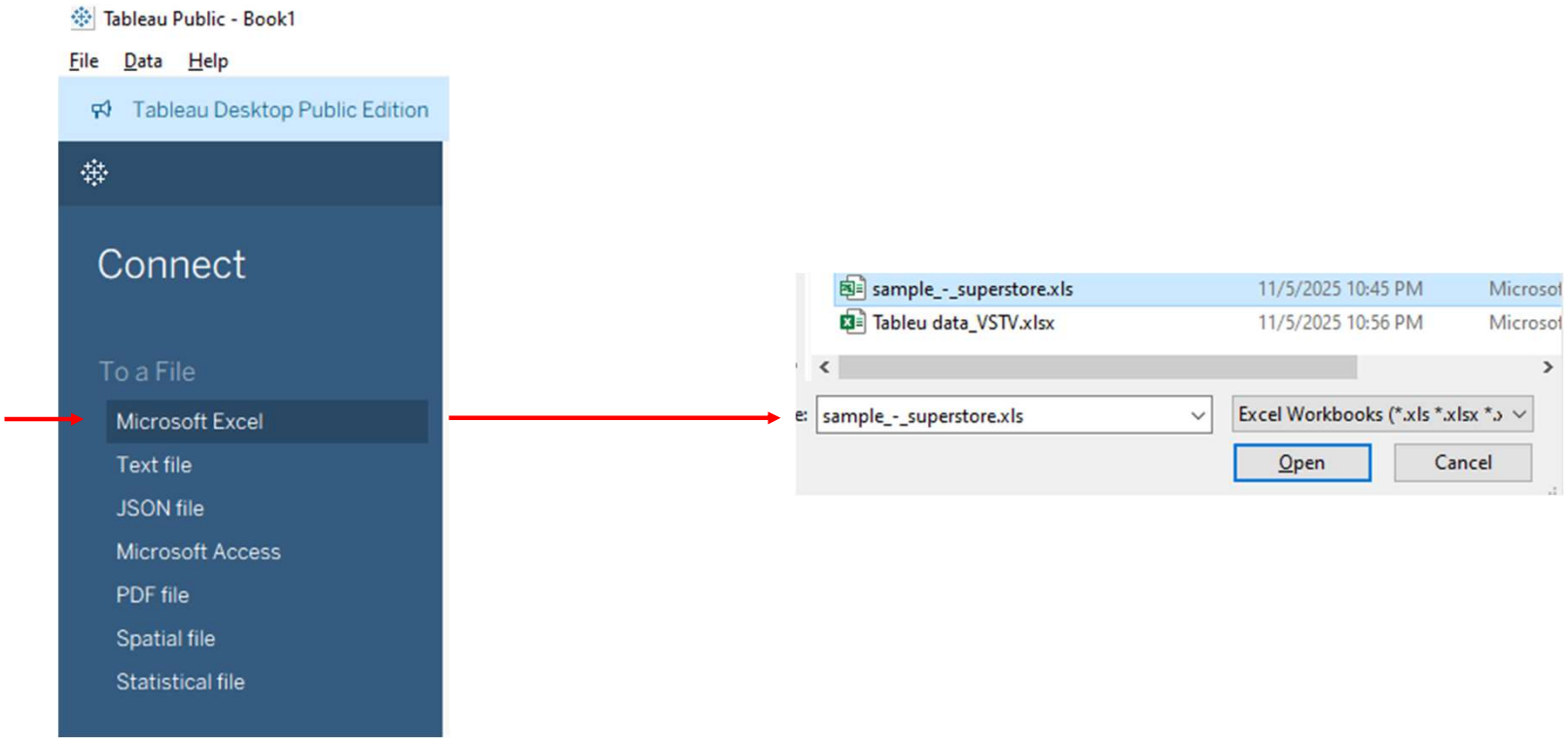
Contains information about products, sales, and profits that you can use to identify key areas of improvement within this fictitious company

Excel file: https://public.tableau.com/app/sample-data/sample_-_superstore.xls

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Get connected

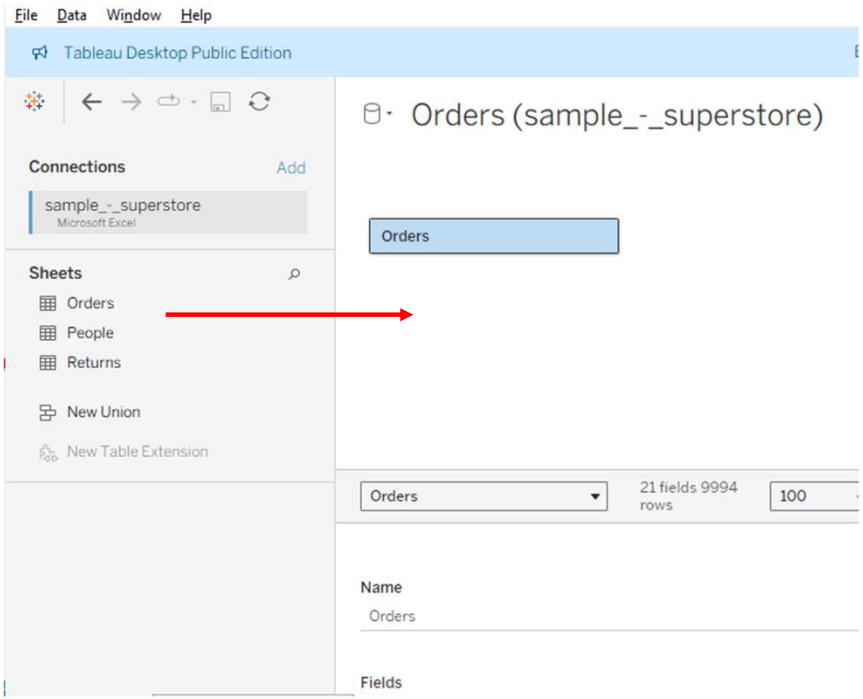
- open Tableau Desktop



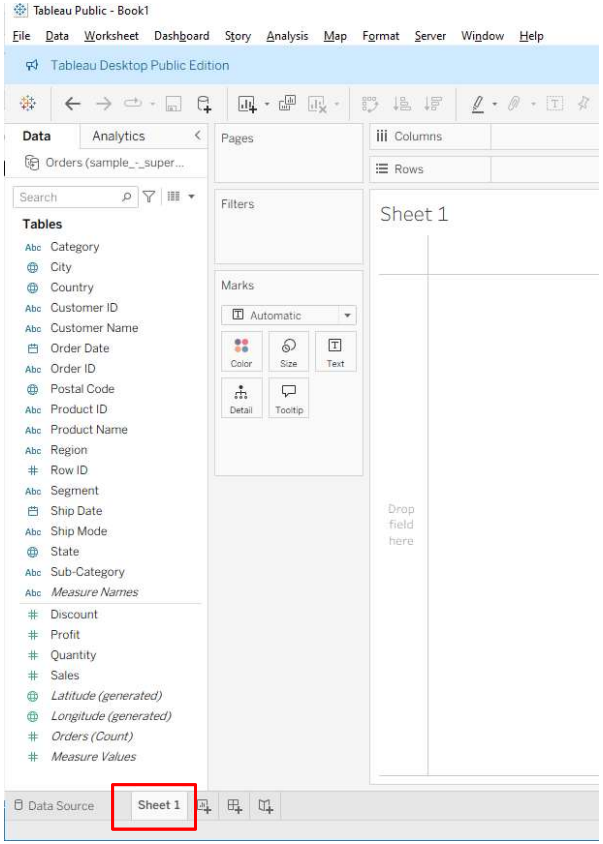
HEEA

Get connected

- Pull Orders table to right side



- Select Sheet 1 (bottom)



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Bar Charts

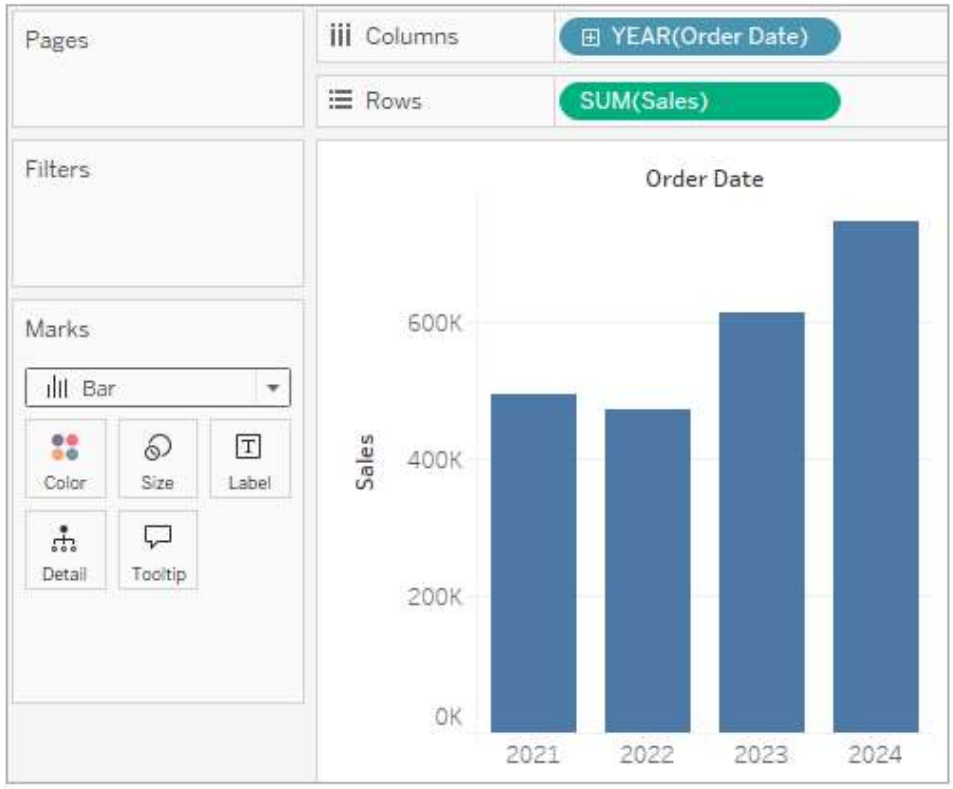
Bar chart are one of the most popular and effective charts

Easy to compare a measure over different categorical values

- Drag the Order Date dimension to Columns and drag the Sales measure to Rows.

Marks:

- Bar

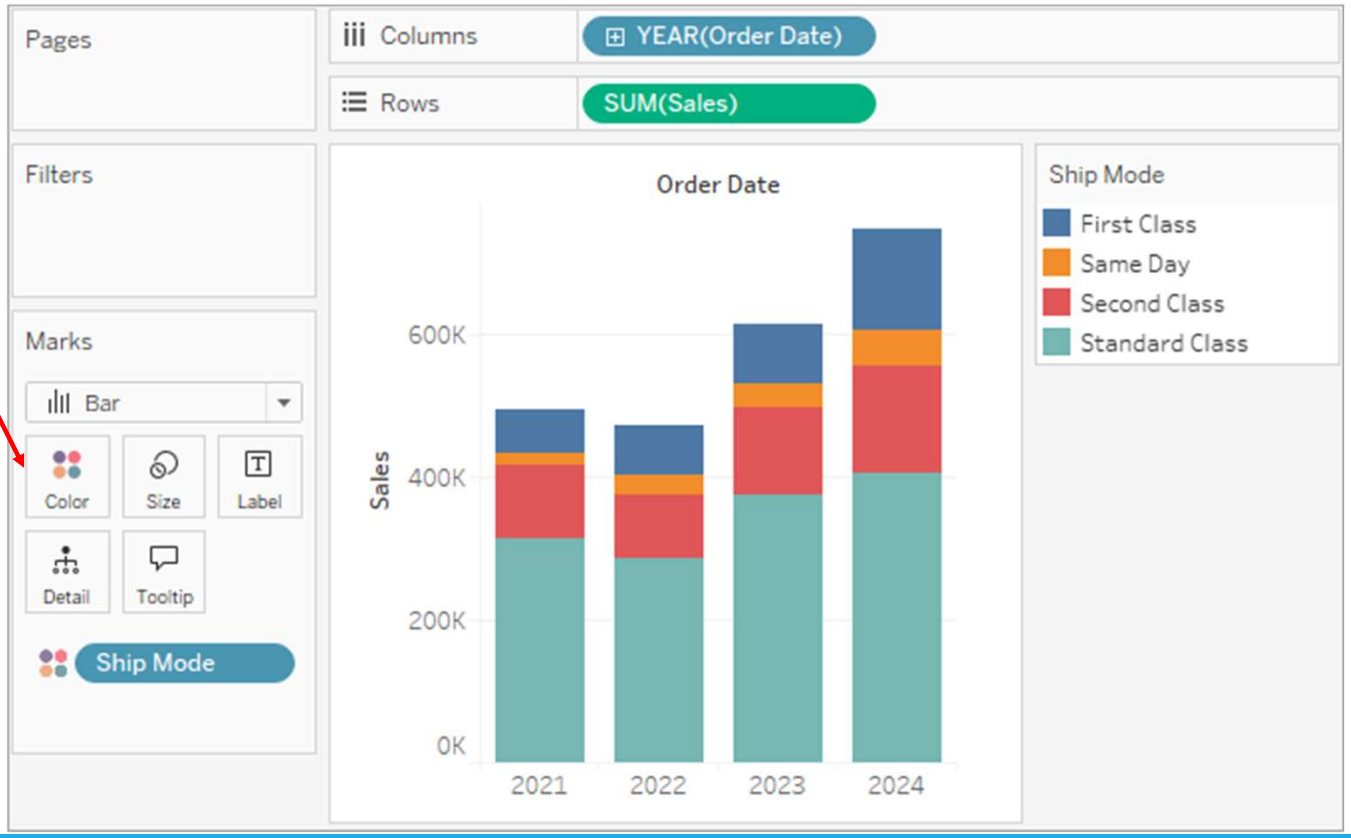


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Bar Charts - Color

For horizontal bars try
0 or more Dimensi..
1 or more Measu..

Drag the Ship Mode dimension to Color on the **Marks** card.

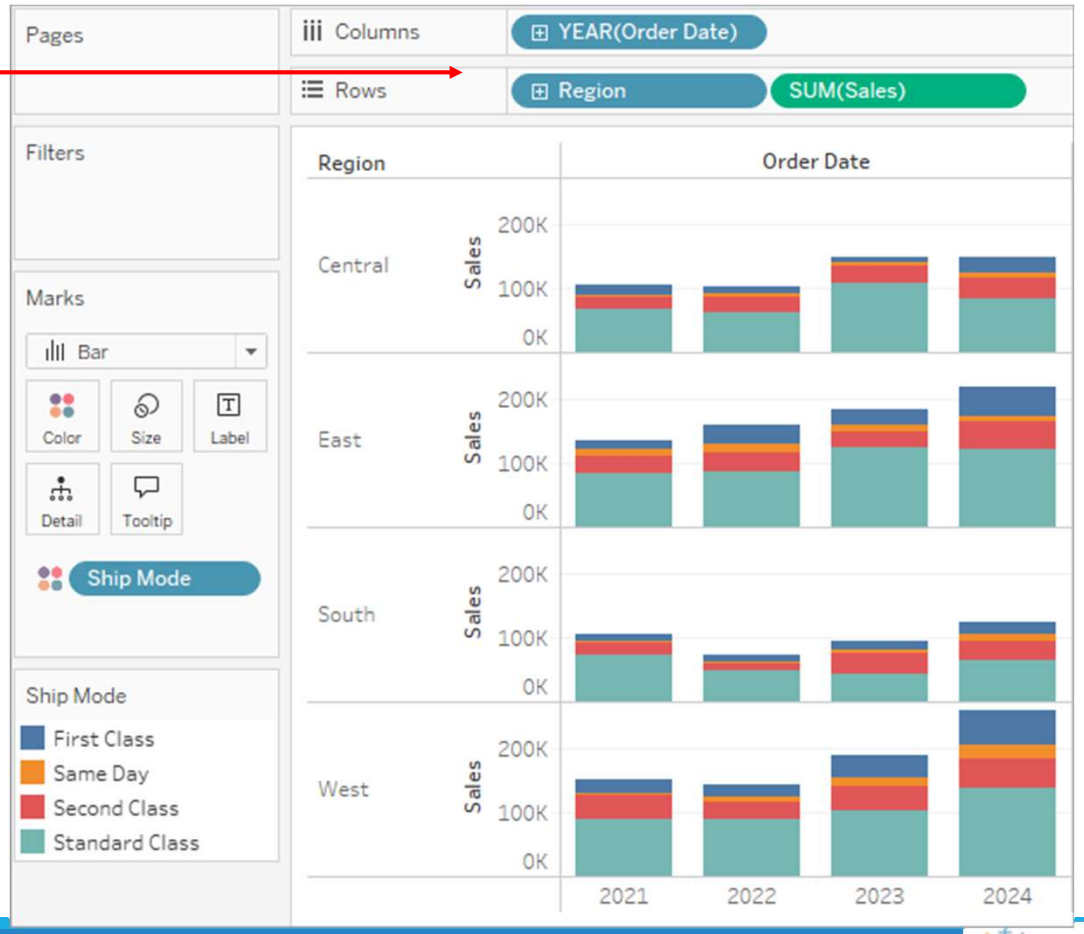


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Bar Charts – multiple axes

Drag the Region dimension to Rows, and drop it to the left of Sales to produce multiple axes for sales by region.

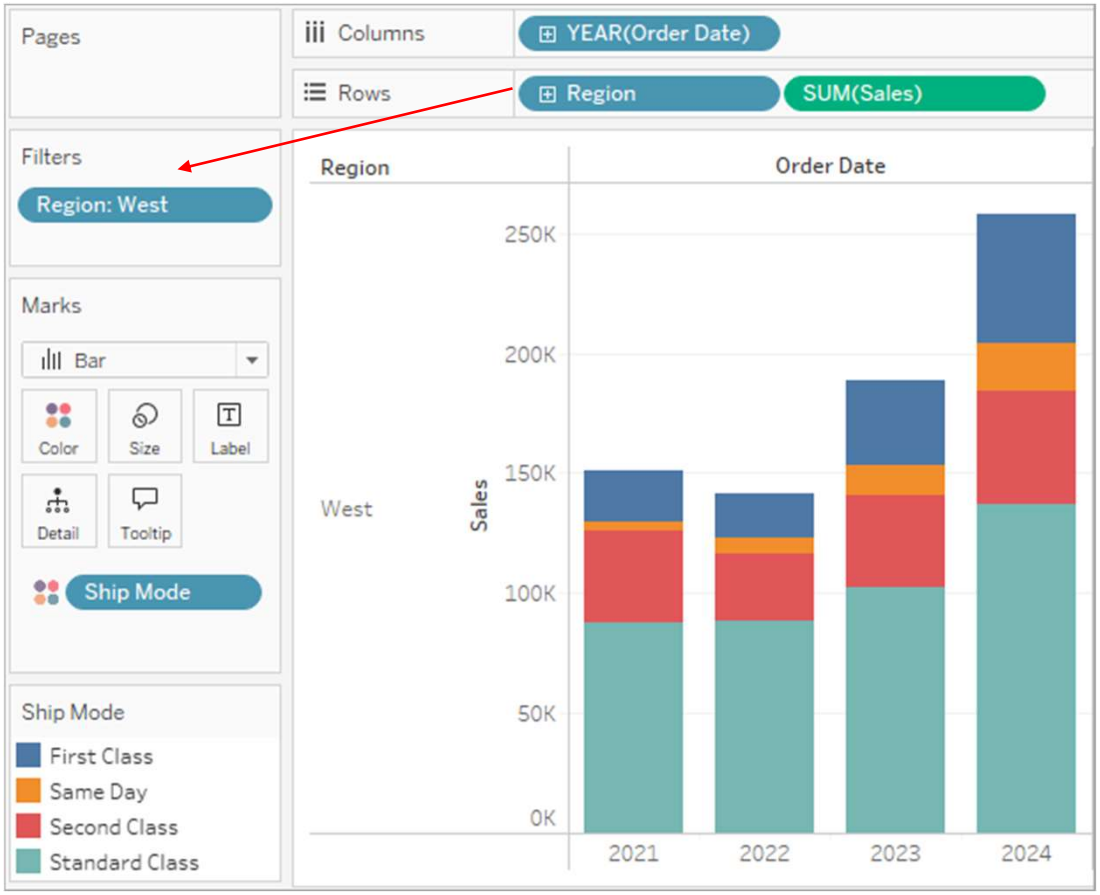


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Bar Charts – filter

To view data in the West region only, you can filter out the other regions. To do this, drag the Region dimension again, this time from the Data pane to the Filters box.



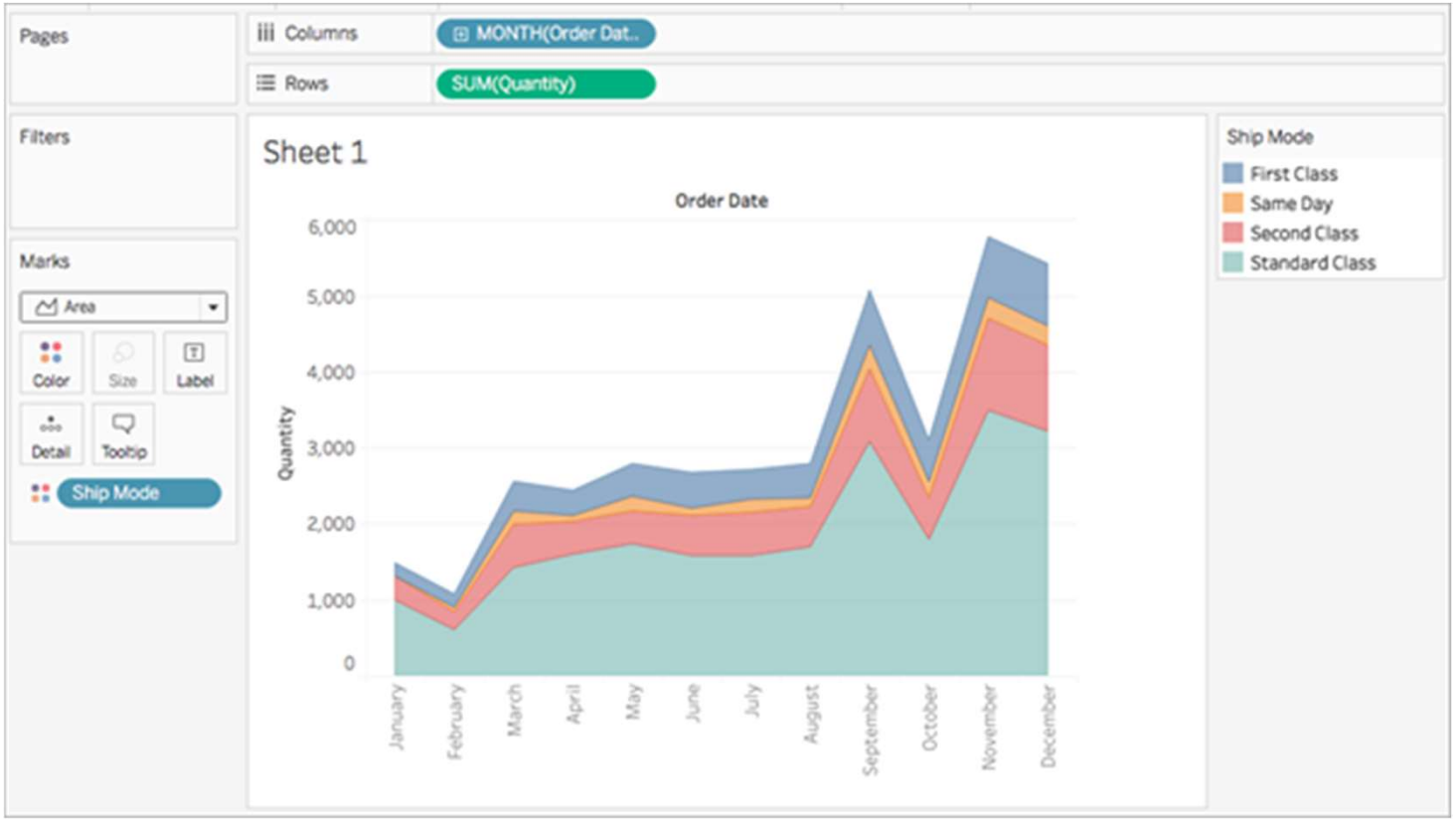
tableau

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Area Chart

For **horizontal bars** try
0 or more Dimensi..
1 or more Measu..

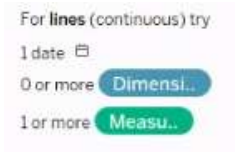
On the Marks card, click the Mark Type drop-down and select Area.



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Line Charts



Line charts are used when we want to visualize a measure over time to see how the measure changes from point to point

To create a line chart, we need a measure and a date field.

We can create line chart with multiple measures.

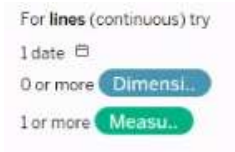


- Drag the Ship Date dimension to Columns. Tableau aggregates the date by year
- Drag the Sales measure to Rows. Tableau aggregates Sales as SUM
- Drag the Profit measure to Rows and drop it to the right of the Sales measure.

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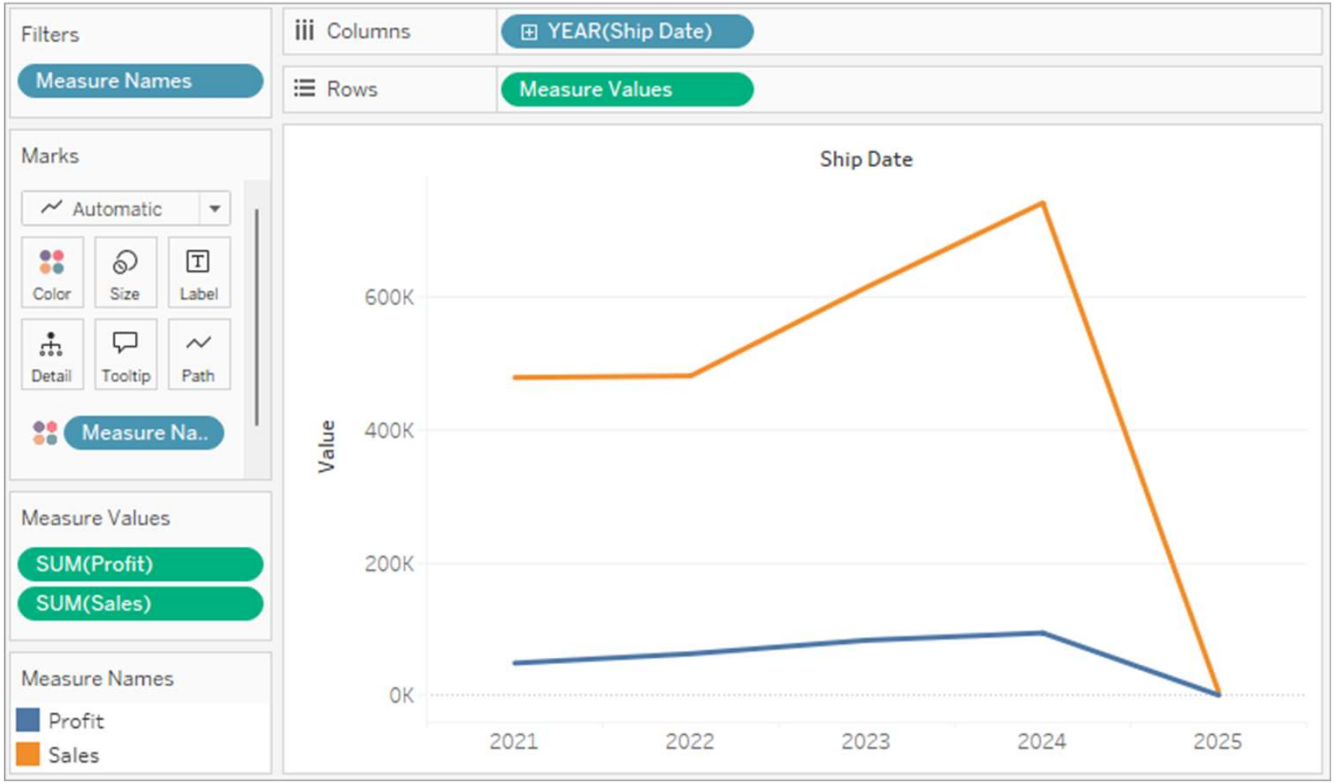
HEEA

Line Charts



Drag the SUM(Profit) field from Rows to the Sales axis to create a blended axis. The two pale green parallel bars indicate that Profit and Sales will use a blended axis when you release the mouse button.

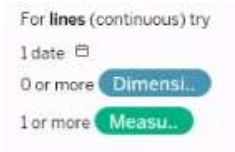




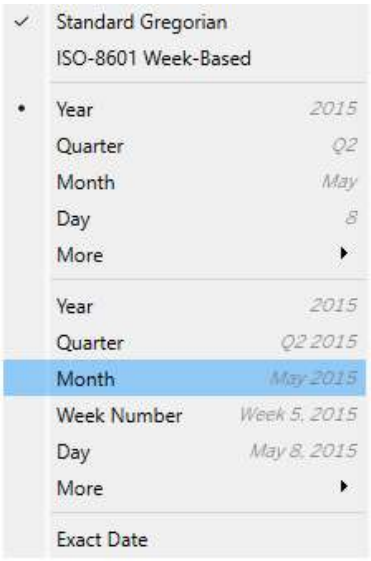
tableau

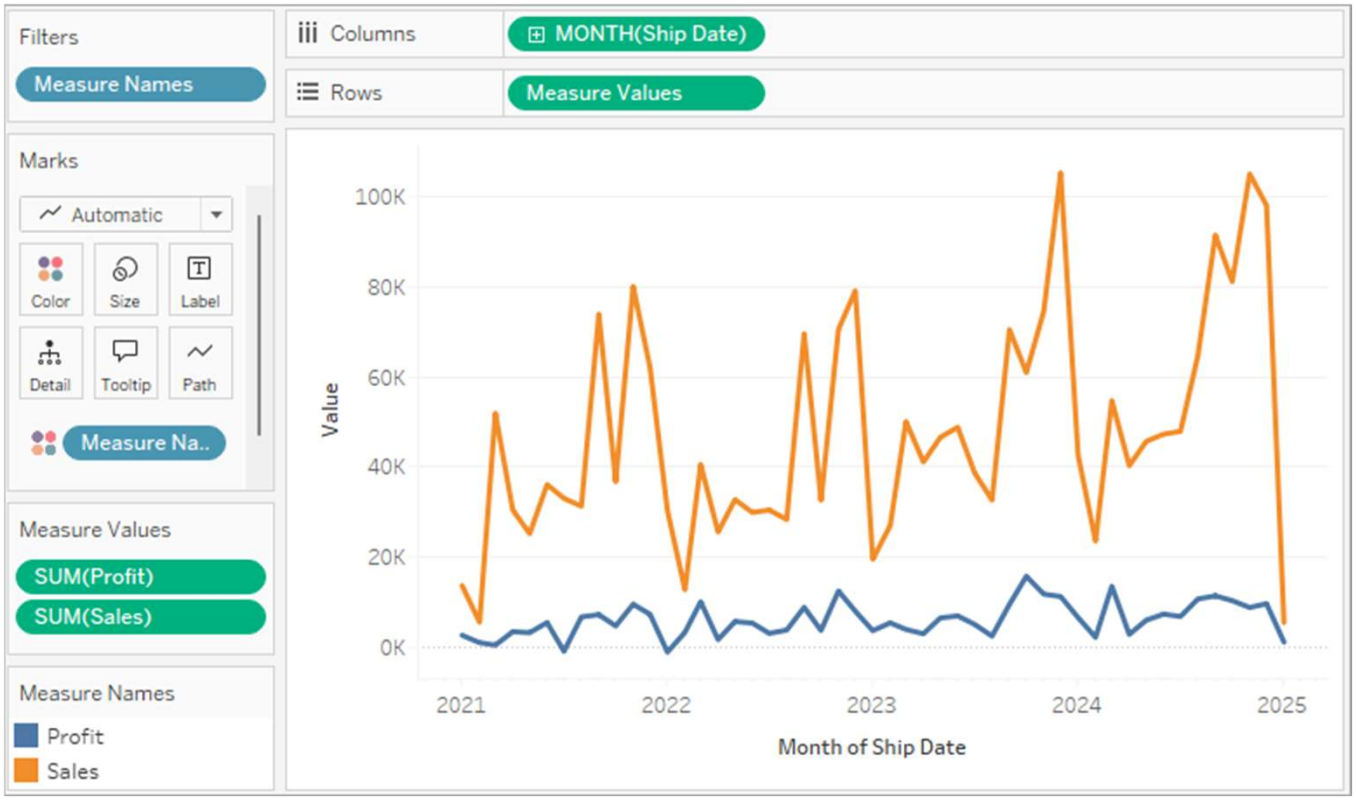
HEEA

Line Charts



Click the drop-down arrow in the YEAR([Ship Date]) field on the Columns shelf and select Month in the lower part of the context menu to see a continuous range of values over the four-year period.





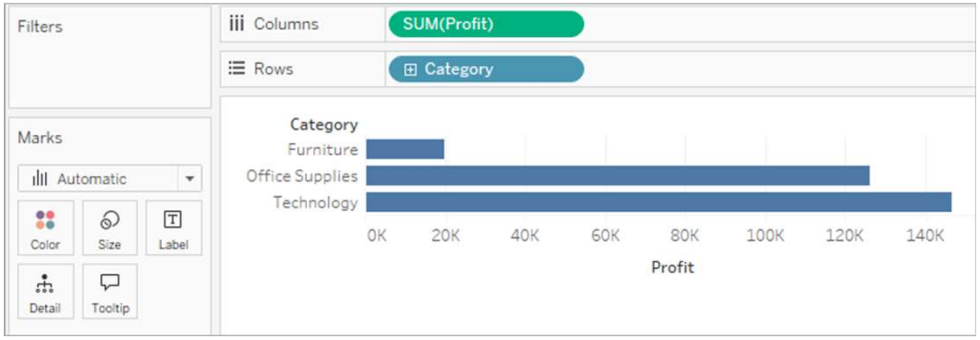
tableau

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Pie Chart



Use pie charts to show proportions of a whole. It's a best practice to only use pie charts with a small number of slices.



- Drag the Profit measure to Columns and drag the Category dimension to Rows.
- Tableau aggregates the Sales measure as a sum. By default, Tableau displays a bar chart.

Click Show Me on the toolbar, then select the pie chart type. Pie charts require at least one dimension and one or two measures.



tableau

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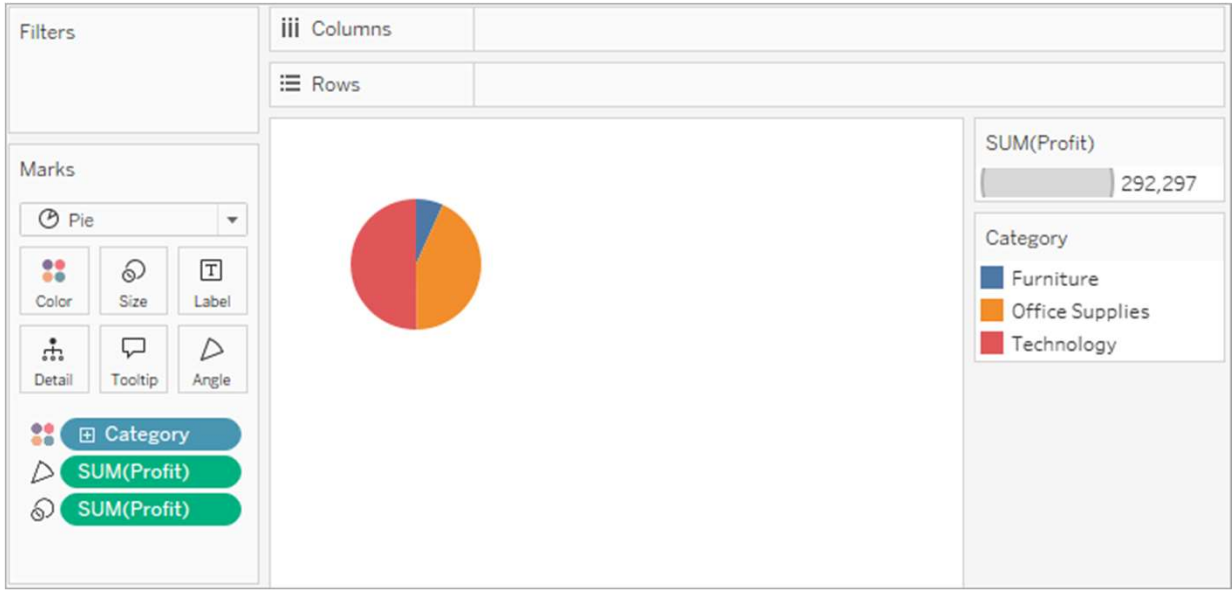
Pie Chart



The mark type changes to Pie.

The Profit measure you placed on the Columns shelf, which had been aggregated as SUM, moves to both the Size and Angle properties on the Marks card.

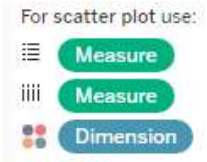
The Category dimension placed on the Rows MOVIED to the Color property on the Marks card.



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Scatterplots

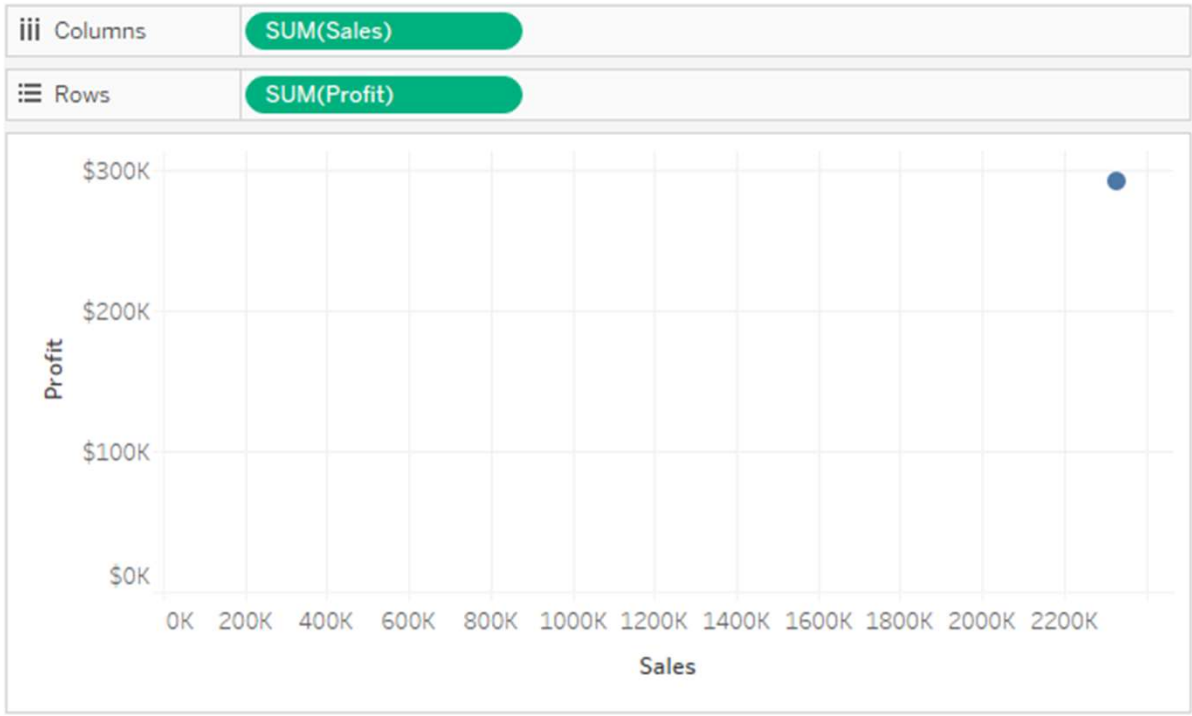


Scatterplots are used when we want to show the relationship between two things.

To create a scatterplot, we need two measures and a dimension to split the scatterplot to include individual elects.

Drag the Sales measure to Columns.

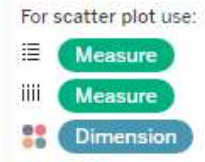
Drag the Profit measure to Rows.



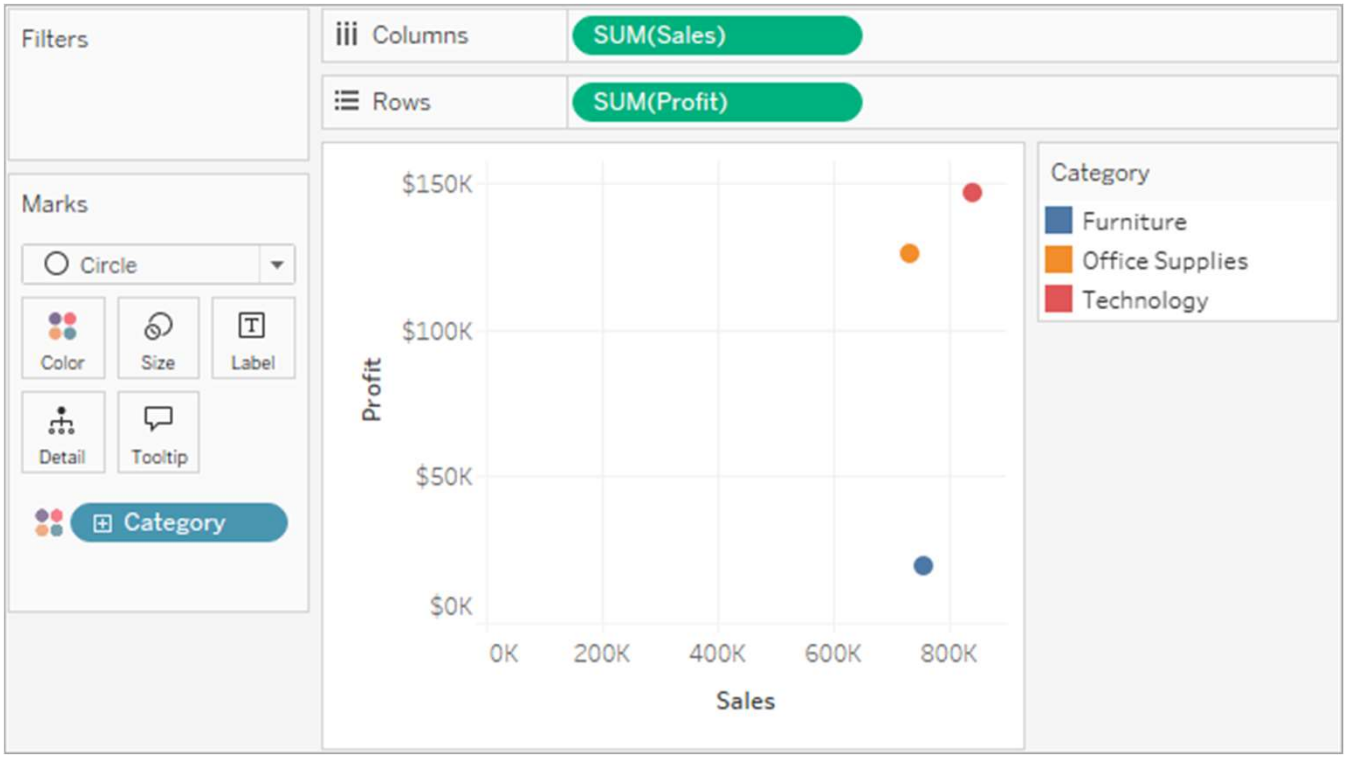
tableau

HEEA

Scatterplots



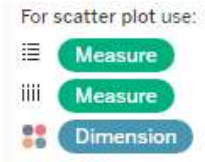
Drag the Category dimension to Color on the Marks card.



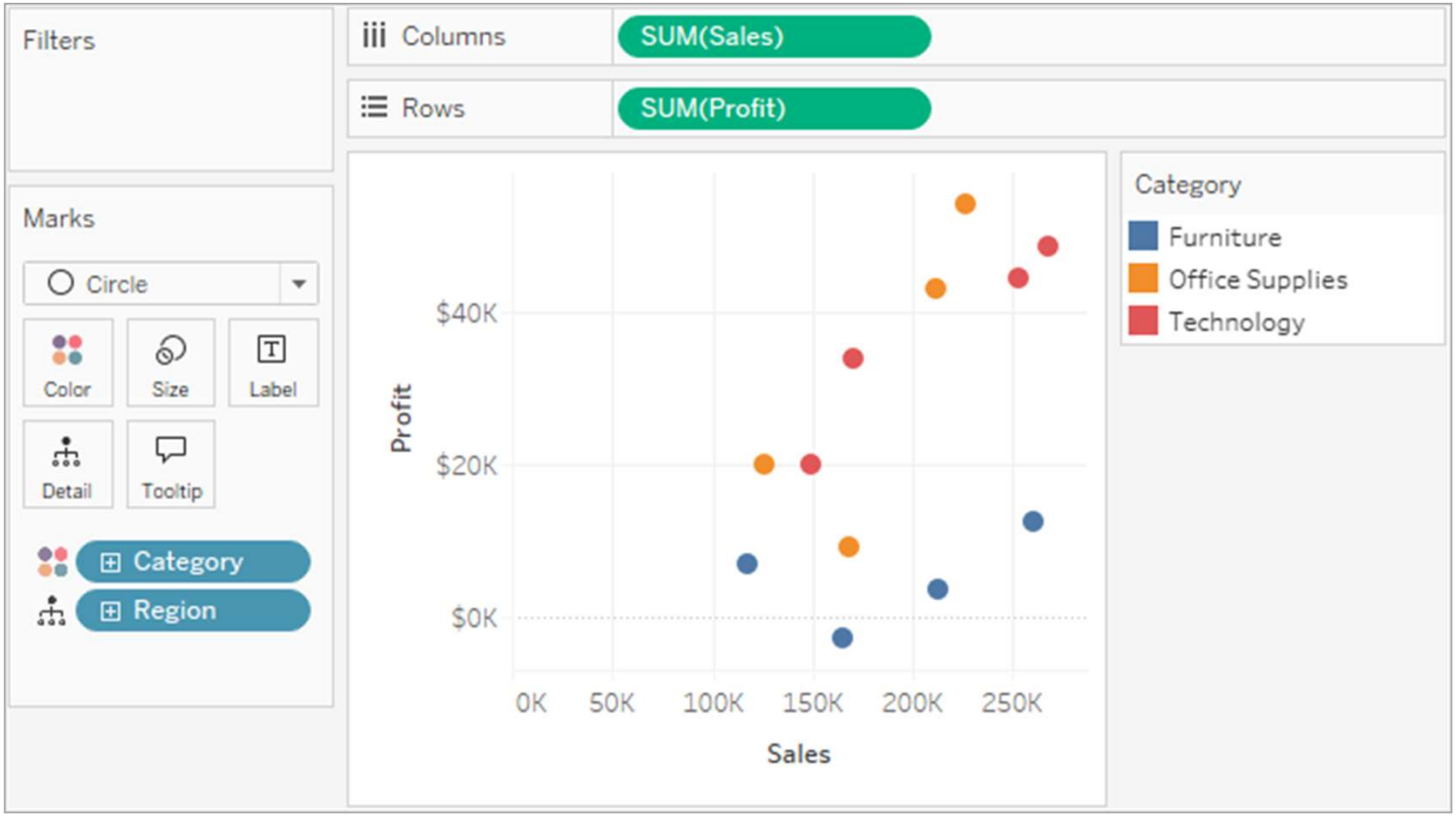
tableau

HEEA

Scatterplots



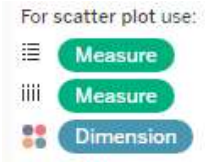
Drag the Region dimension to Detail on the Marks card



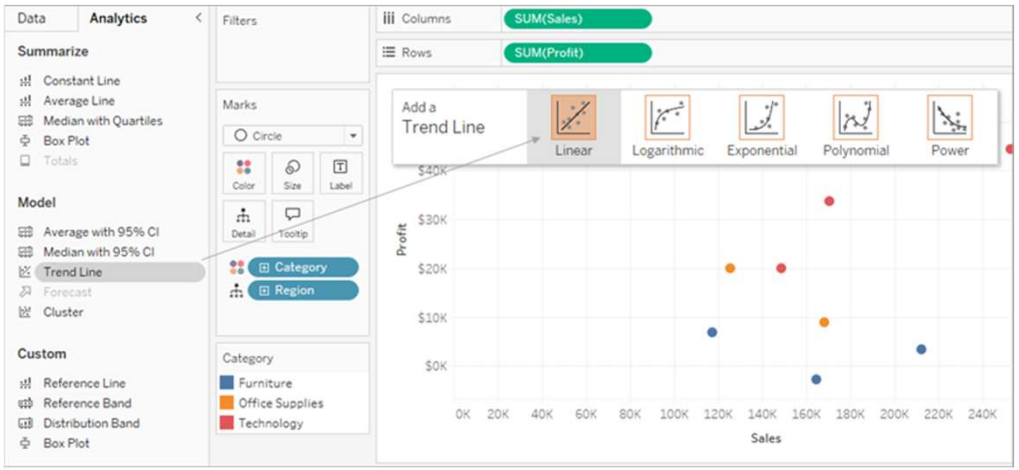
tableau

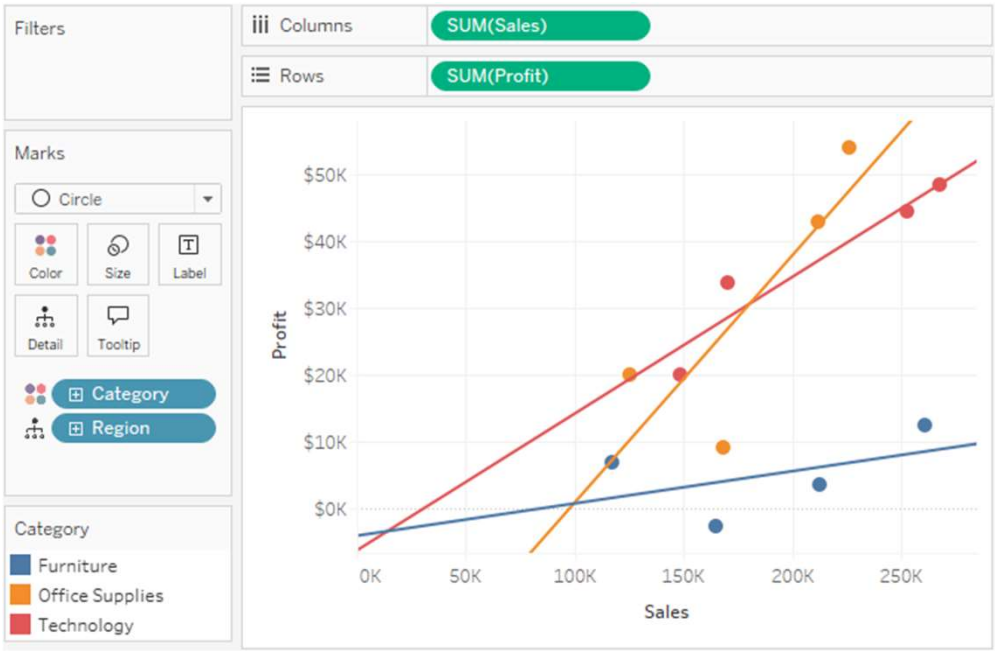
HEEA

Scatterplots



To add trend lines, from the Analytics pane, drag the Trend Line model to the view, and then drop it on the model type.

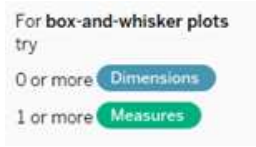




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Build a Box Plot



Use box plots, also known as box-and-whisker plots, to show the distribution of values along an axis, where Boxes indicate the middle 50 percent of the data.

- Drag the Segment dimension to Columns.
- Drag the Discount measure to Rows.
- Click the Discount field on the Rows shelf and hover over Measure (Sum) then change the aggregation to **Average**.
- Drag the Region dimension to Columns, and drop it to the right of Segment.



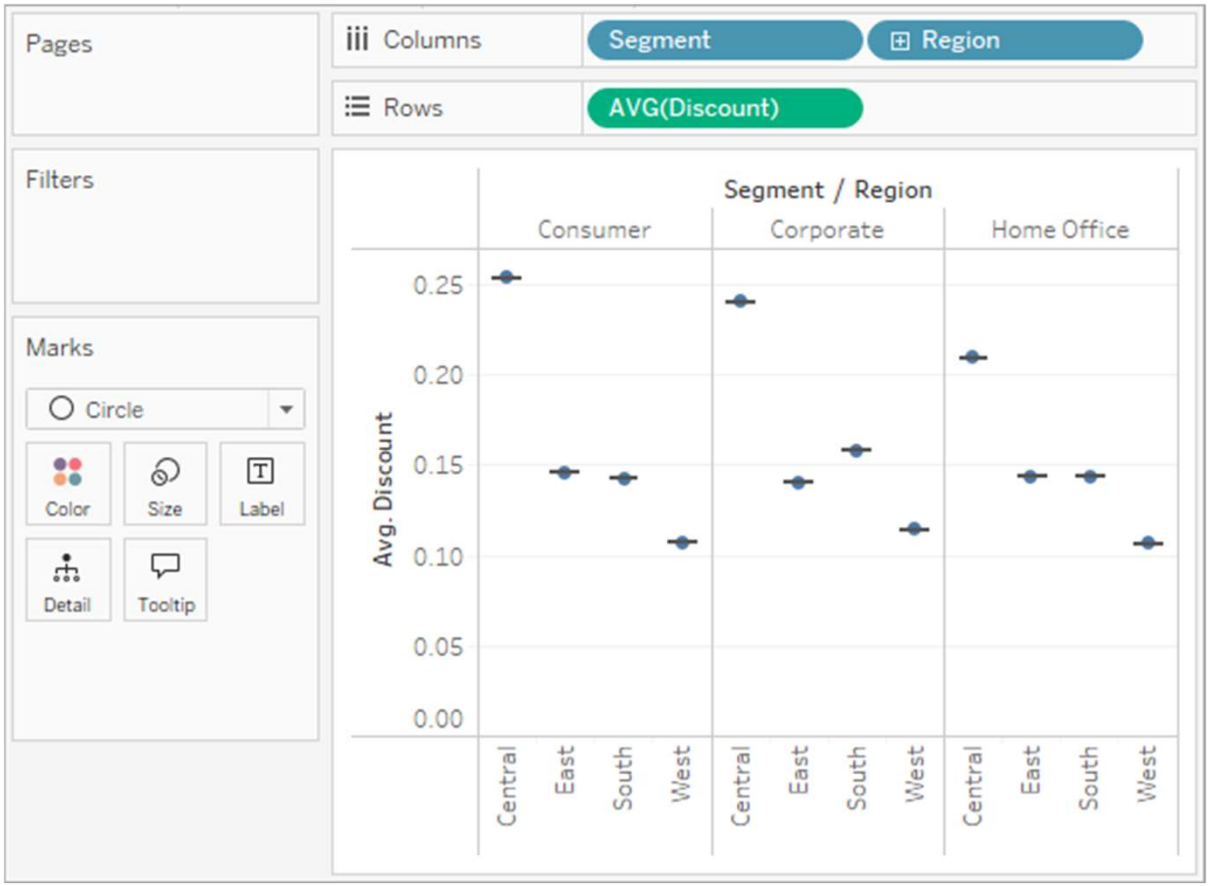
tableau

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Build a Box Plot

For **box-and-whisker plots** try
0 or more Dimensions
1 or more Measures

Drag Region from the Marks card back to Columns, to the right of Segment



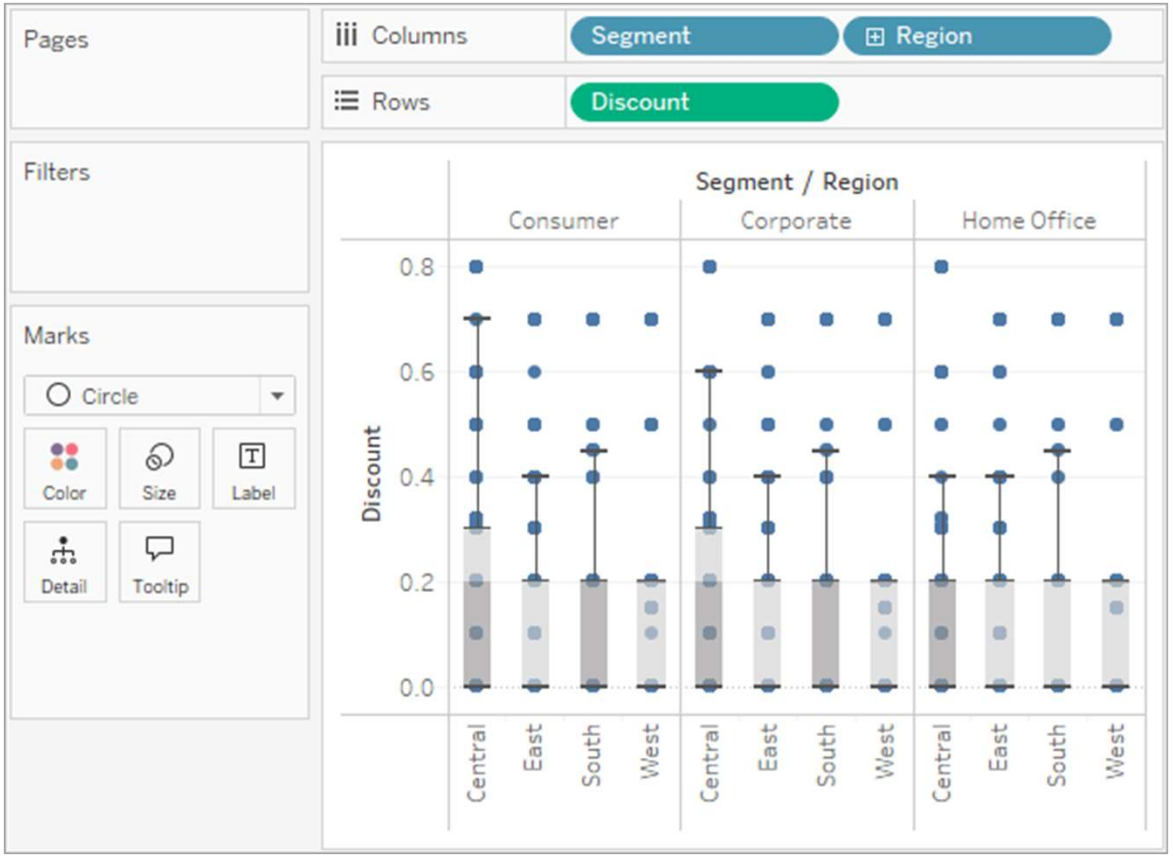
tableau

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Build a Box Plot

For **box-and-whisker plots** try
0 or more Dimensions
1 or more Measures

- To disaggregate data, select Analysis > Aggregate Measures. This turns aggregation on or off, and because data is aggregated by default in Tableau, the first time you select this command it disaggregates the data.
- Now, instead of a single mark for each column in the view, you see a range of marks, one for each row in your data source



tableau

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Gantt Chart



Use Gantt charts to show the duration of events or activities.

In a Gantt chart, each separate mark (usually a bar) shows a duration.

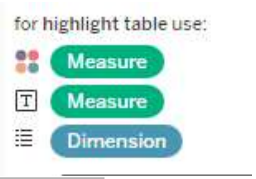
- Drag the Order Date dimension to Columns.
- On the Columns shelf, click the Year (Order Date) drop-down arrow, and then select Week Number.
- Drag the Sub-Category and Ship Mode dimensions to the Rows shelf. Drop Ship Mode to the right of Sub-Category.



tableau

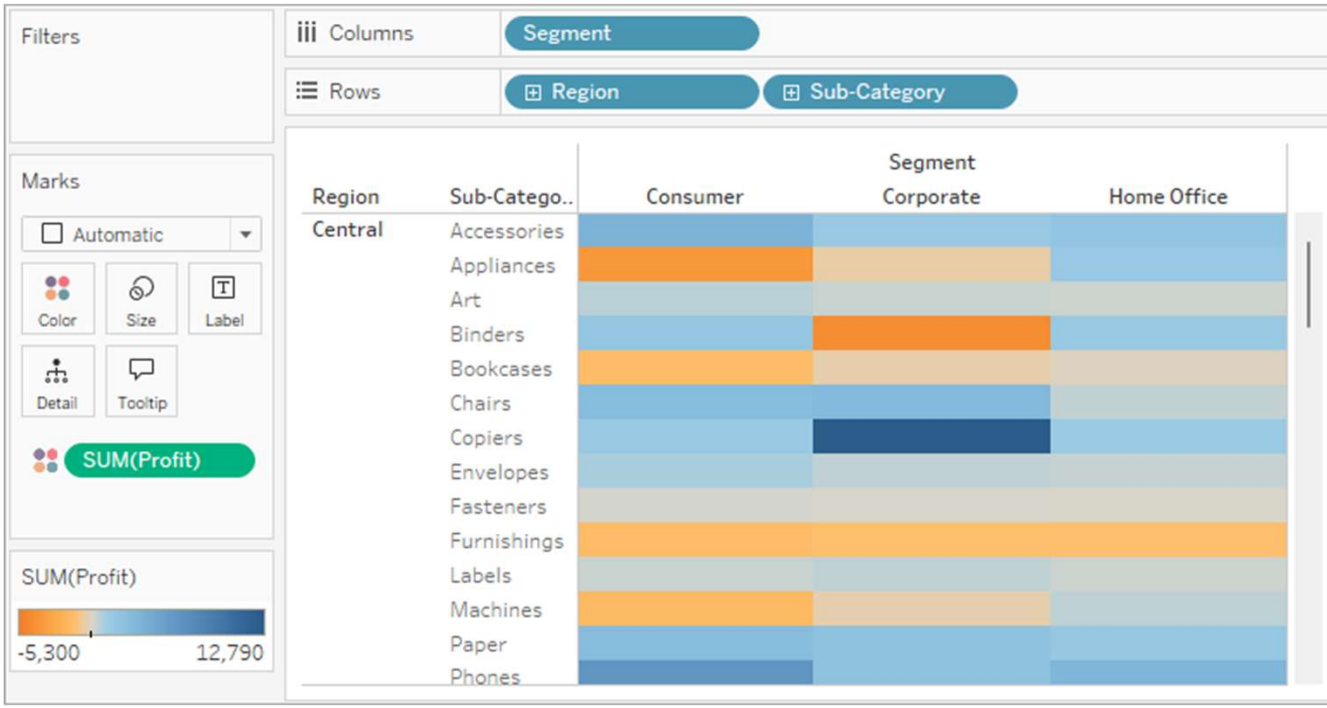
HEEA

Highlight Table or Heat Map



Use highlight tables to compare categorical data using color.

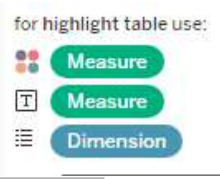
- Drag the Segment dimension to Columns.
- Drag the Region and Sub-Category dimensions to Rows, dropping Sub-Category to the right of Region.
- Drag the Profit measure to Color on the Marks card.



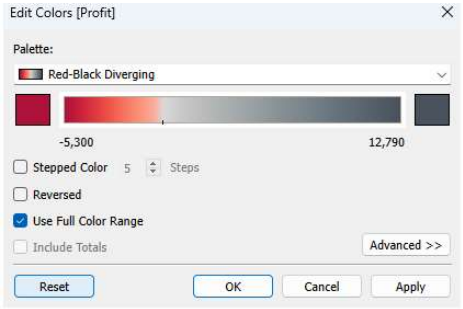
tableau

HEEA

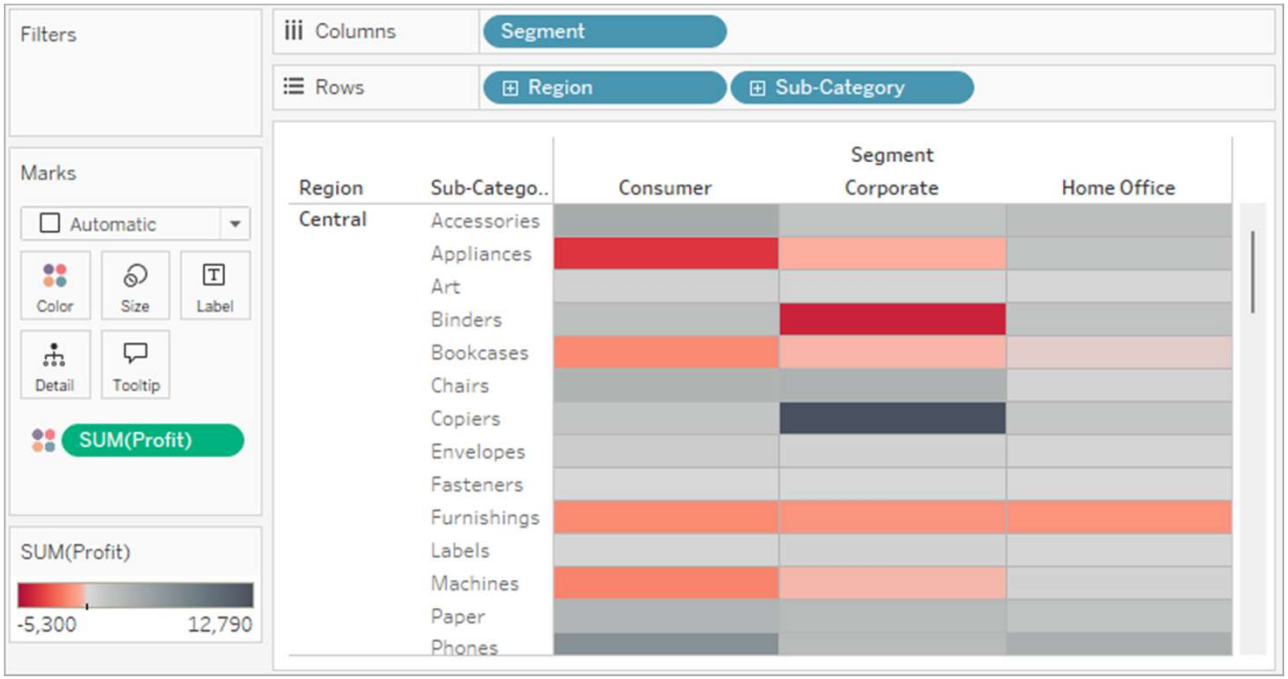
Highlight Table or Heat Map



- Click Color on the Marks card to display configuration options. In the Border drop-down list, select a medium gray color for cell borders.



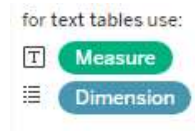
- Hover over the SUM(Profit) color legend, then click the drop-down arrow that appears and select Edit Colors.
- In the Edit Colors dialog box, in the Palette field, select Red-Black Diverging from the drop-down list.



tableau

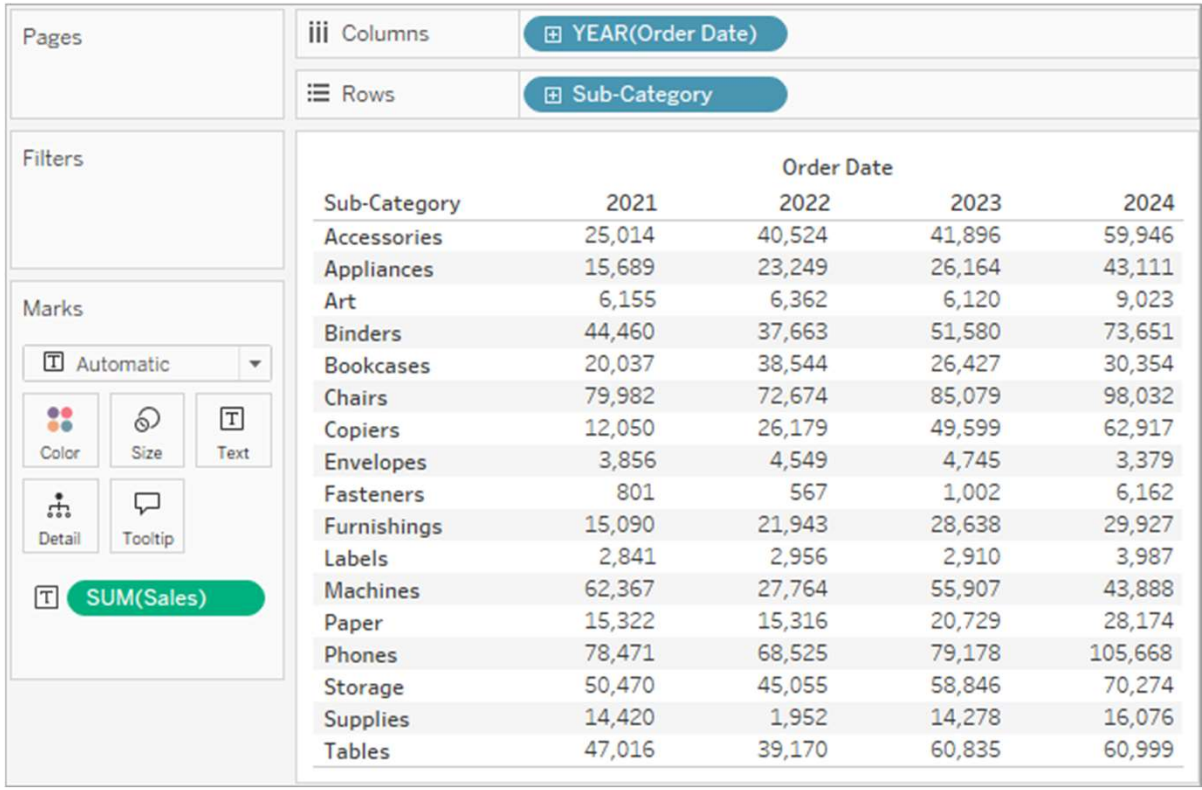
HEEA

Text tables



In Tableau, you typically create text tables by placing one dimension on the Rows shelf and another dimension on the Columns shelf.

- Drag the Order Date dimension to Columns.
- Drag the Sub-Category dimension to Rows.
- Drag the Sales measure to Text on the Marks card.



	Order Date			
Sub-Category	2021	2022	2023	2024
Accessories	25,014	40,524	41,896	59,946
Appliances	15,689	23,249	26,164	43,111
Art	6,155	6,362	6,120	9,023
Binders	44,460	37,663	51,580	73,651
Bookcases	20,037	38,544	26,427	30,354
Chairs	79,982	72,674	85,079	98,032
Copiers	12,050	26,179	49,599	62,917
Envelopes	3,856	4,549	4,745	3,379
Fasteners	801	567	1,002	6,162
Furnishings	15,090	21,943	28,638	29,927
Labels	2,841	2,956	2,910	3,987
Machines	62,367	27,764	55,907	43,888
Paper	15,322	15,316	20,729	28,174
Phones	78,471	68,525	79,178	105,668
Storage	50,470	45,055	58,846	70,274
Supplies	14,420	1,952	14,278	16,076
Tables	47,016	39,170	60,835	60,999

tableau

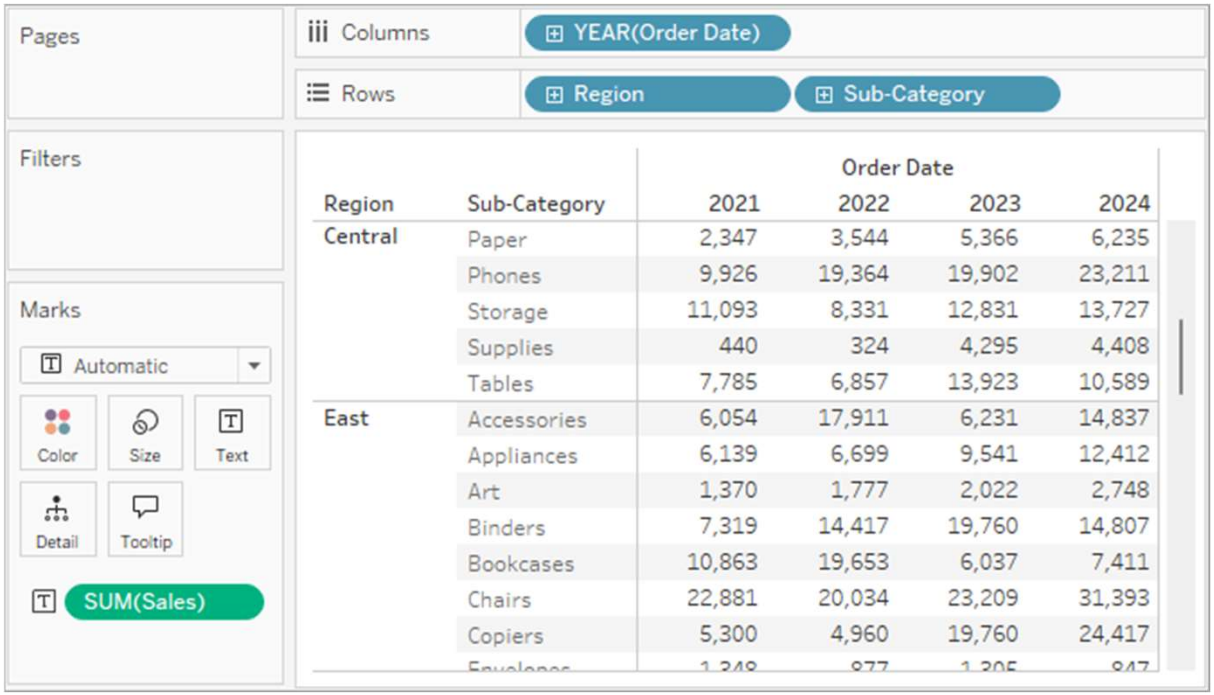
HEEA

Text tables

for text tables use:
Measure
Dimension

- Drag the Region dimension to Rows and drop it to the left of Sub-Category.



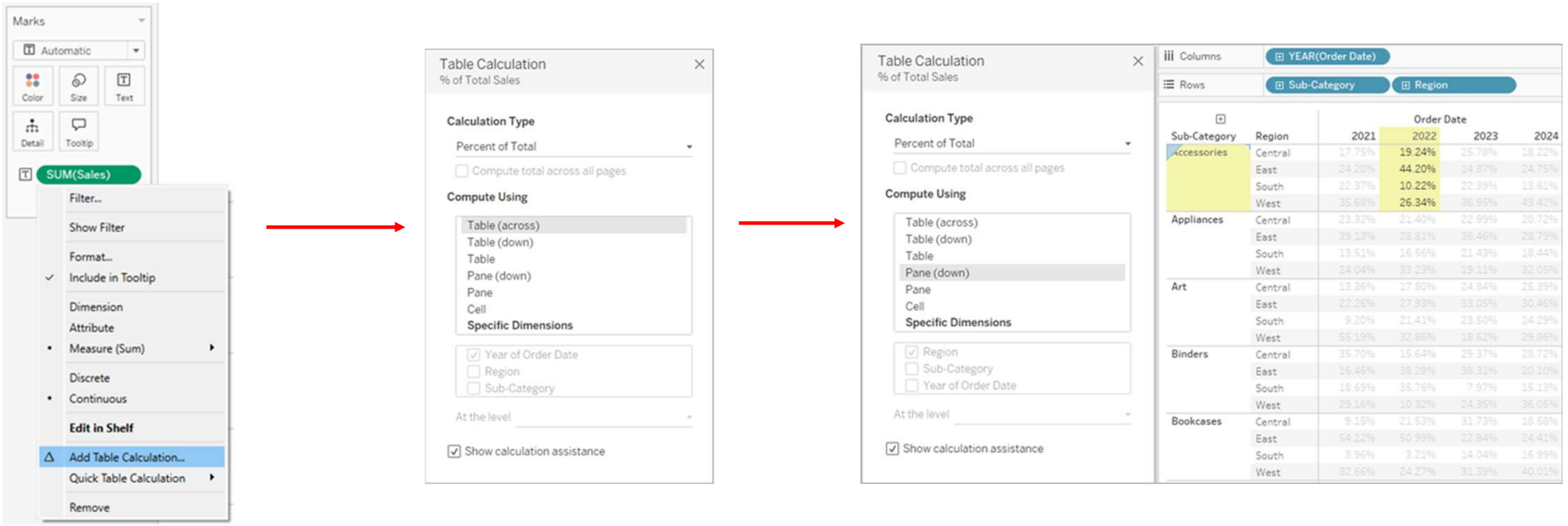


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Text tables - percentages

for text tables use:
Measure
Dimension

To create a table calculation to show percentages, right-click (control-click on Mac) the SUM(Sales) field on the Marks card, and then select Add Table Calculation.



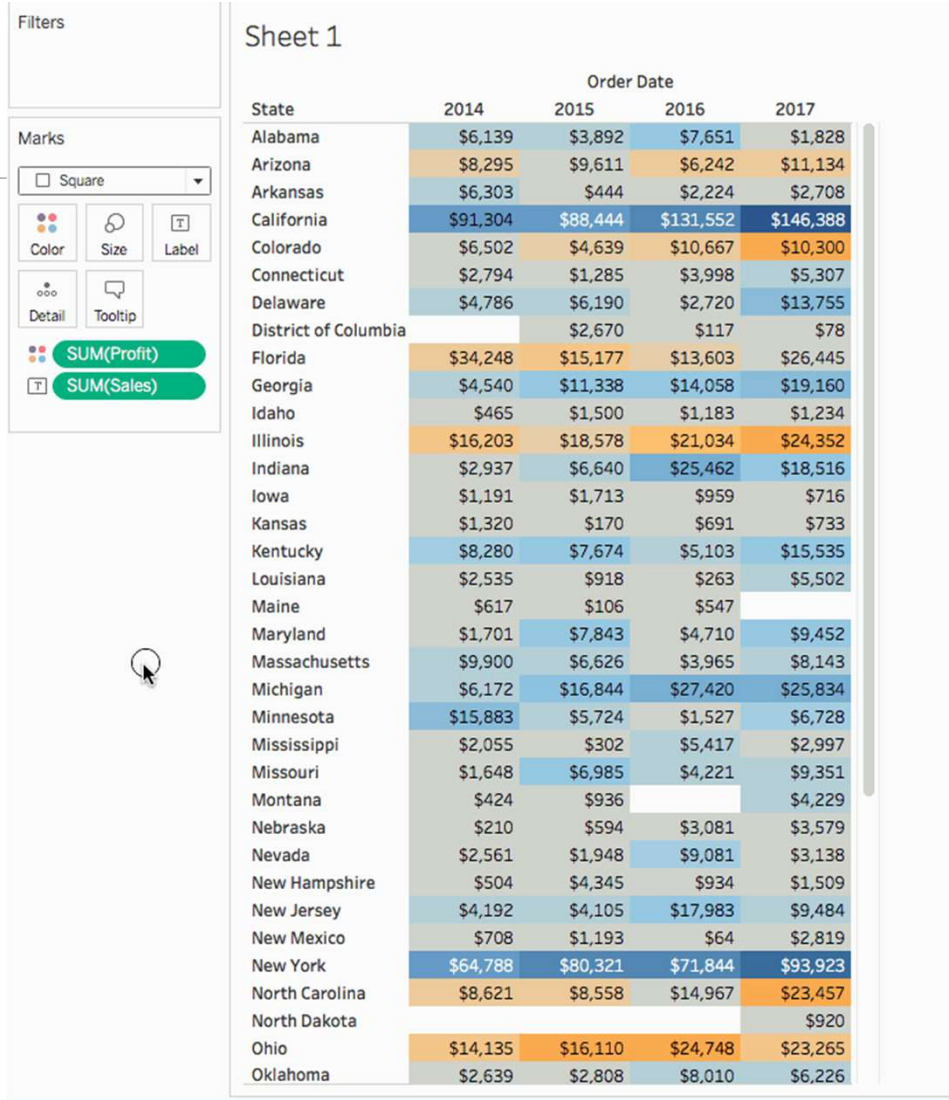
HEEA

Quick Table Calculations

Quick table calculations allow you to quickly apply a common table calculation to your visualization using the most typical settings for that calculation type.

The following quick table calculations are available in Tableau for you to use:

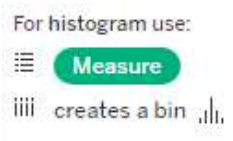
- Running total
- Difference
- Percent difference
- Percent of total
- Rank
- Percentile
- Moving average
- YTD total
- Compound growth rate
- Year over year growth
- YTD growth



tableau

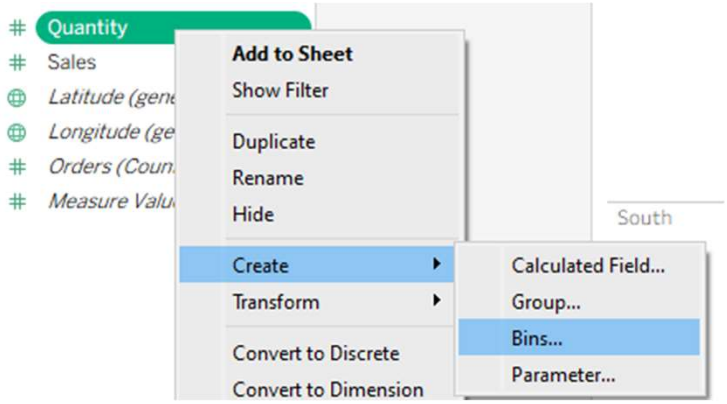
HEEA

Histogram

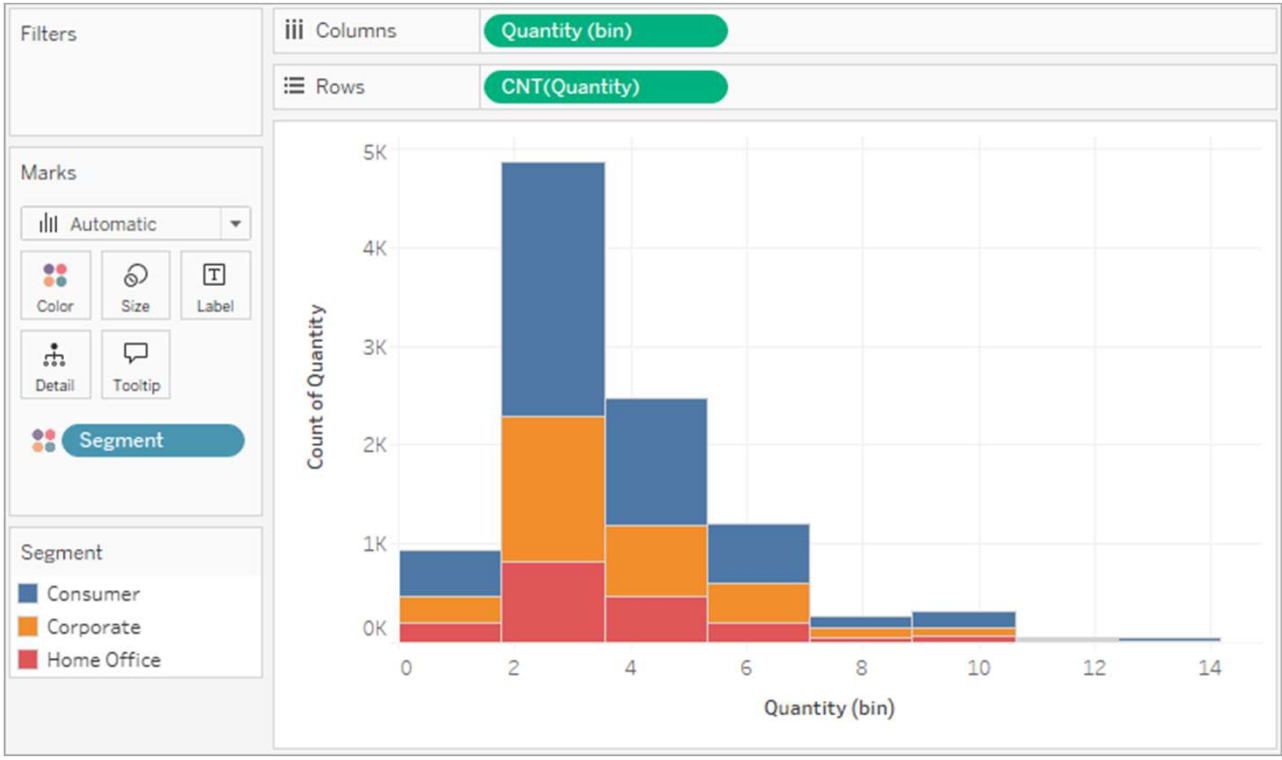


A histogram is a chart that displays the shape of a distribution. A histogram looks like a bar chart but groups values for a continuous measure into ranges, or bins

- Drag Quantity to Columns
- Create Bins



- add Segment to Color



tableau

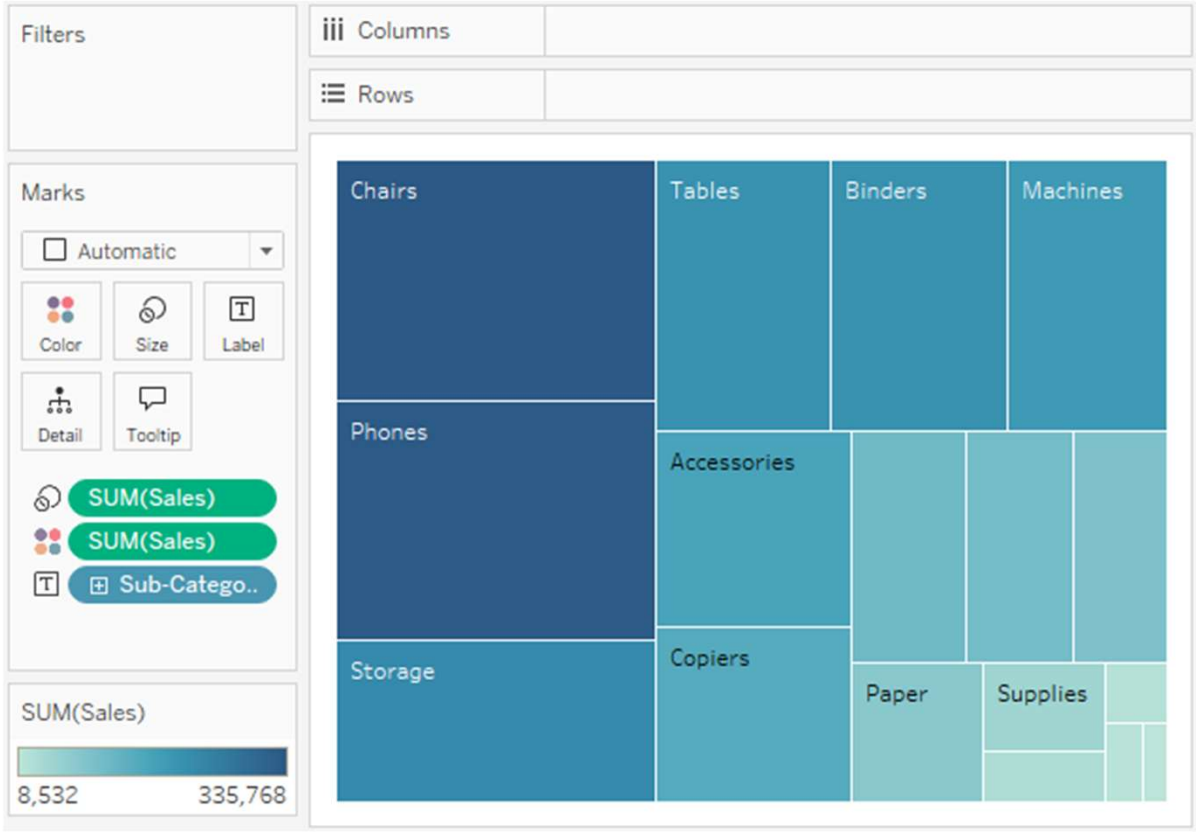
HEEA

Treemap



Use treemaps to display data in nested rectangles. You use dimensions to define the structure of the treemap, and measures to define the size or color of the individual rectangles. Treemaps are a relatively simple data visualization that can provide insight in a visually attractive format.

- Drag the Sub-Category dimension to Columns.
- Drag the Sales measure to Rows.
- Drag the Sub-Category to Label

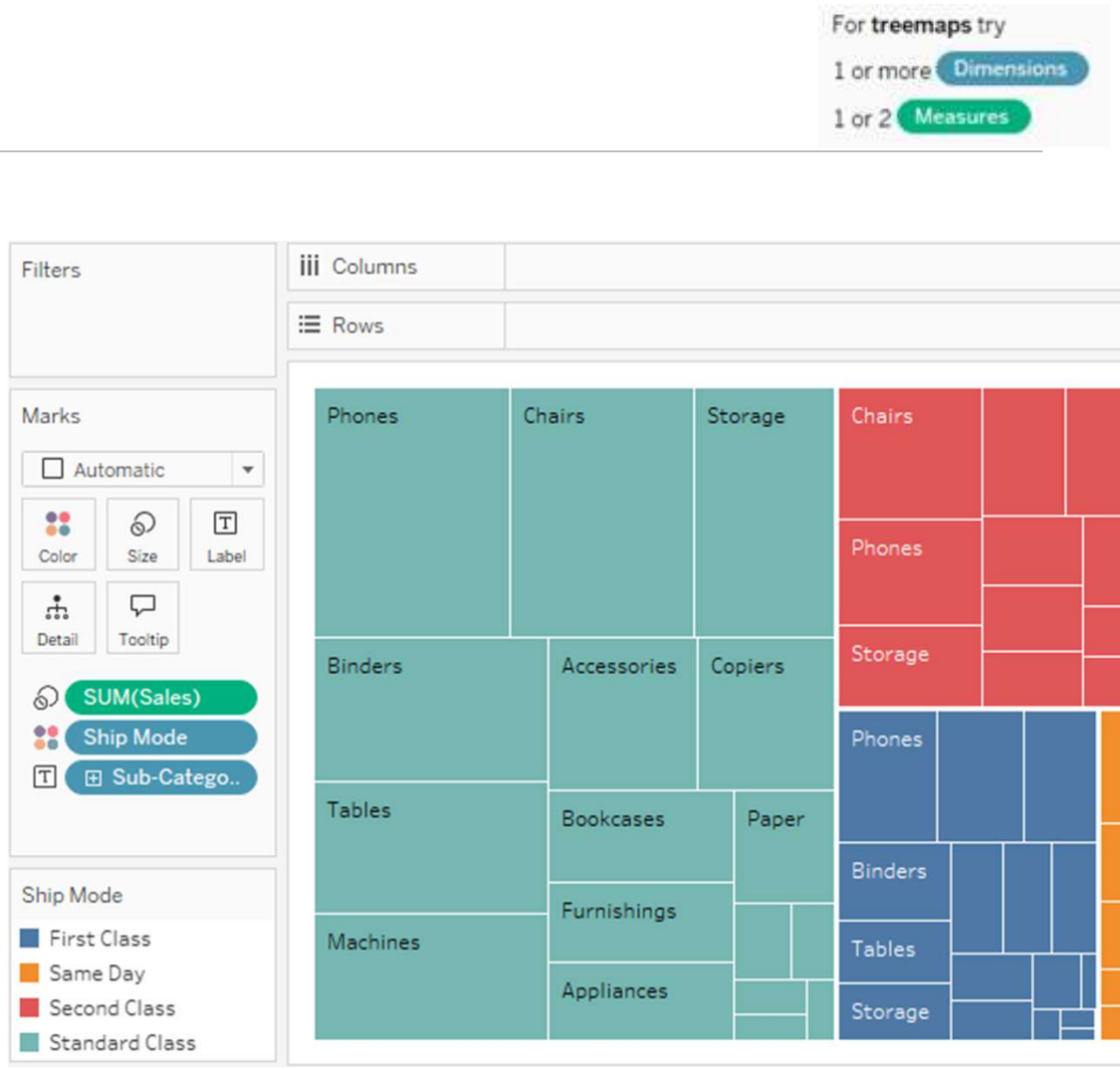


tableau

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Treemap

- Drag the Ship Mode dimension to Color on the Marks card. (Ship Mode determines the color of the rectangles). Sales determines the size of the rectangles



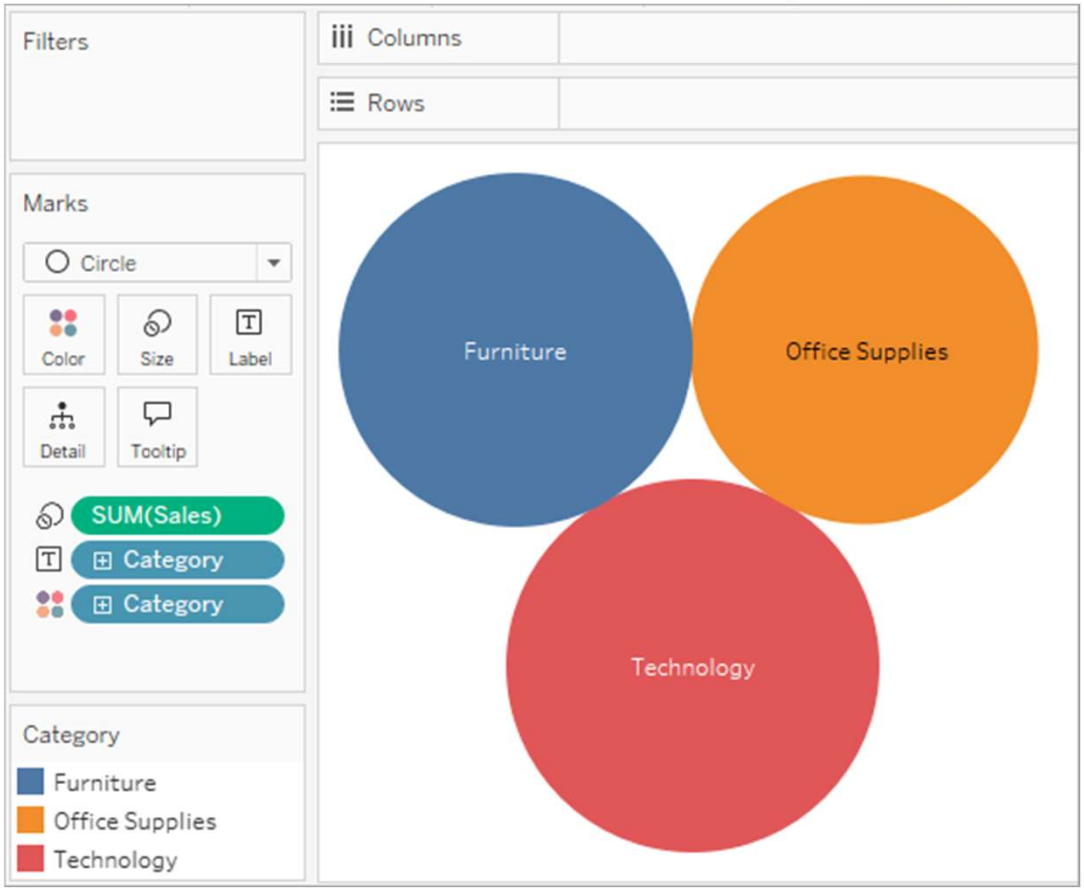
tableau

HEEA

Packed bubbles

Use packed bubble charts to display data in a cluster of circles. Dimensions define the individual bubbles, and measures define the size and color of the individual circles.

- Drag the Category dimension to Columns. A horizontal axis displays product categories.
- Drag the Sales measure to Rows.
- Click Show Me on the toolbar, then select the packed bubbles chart type.

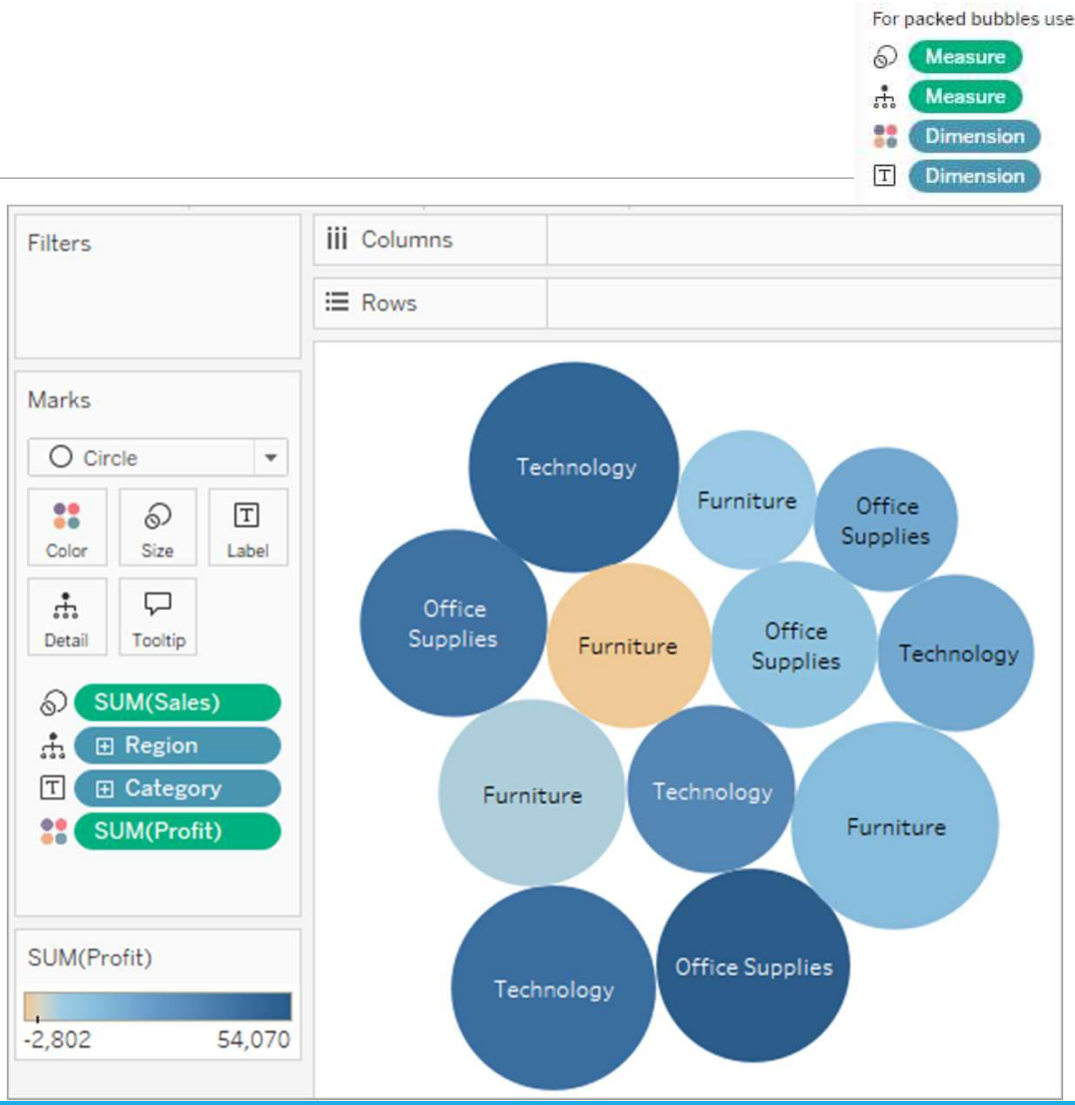


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Packed bubbles

- Drag Region to Detail on the Marks card to include more bubbles in the view
- Drag Profit to Color on the Marks card:

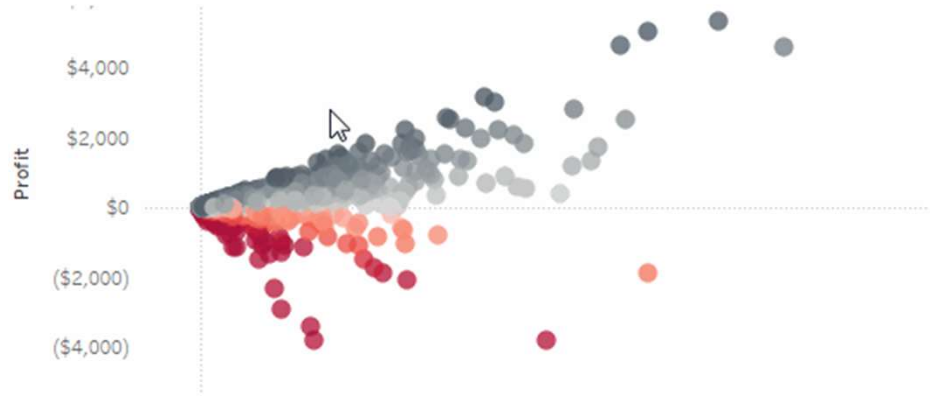


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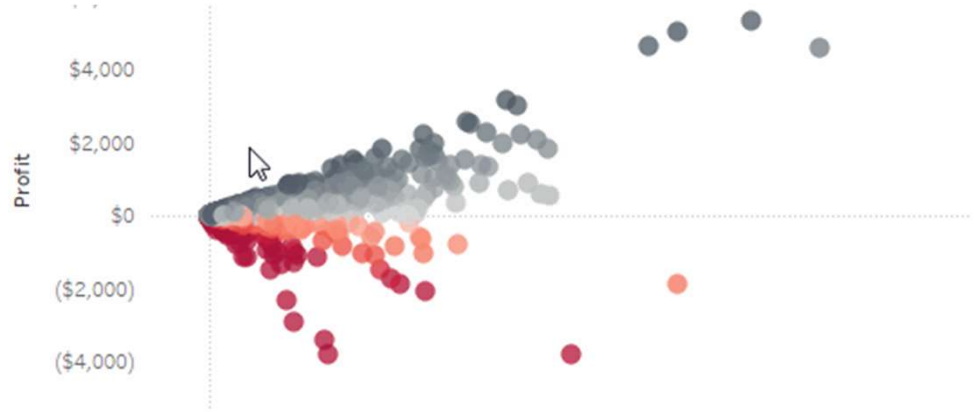
HEEA

Filters – live filters

Keep Only



Exclude

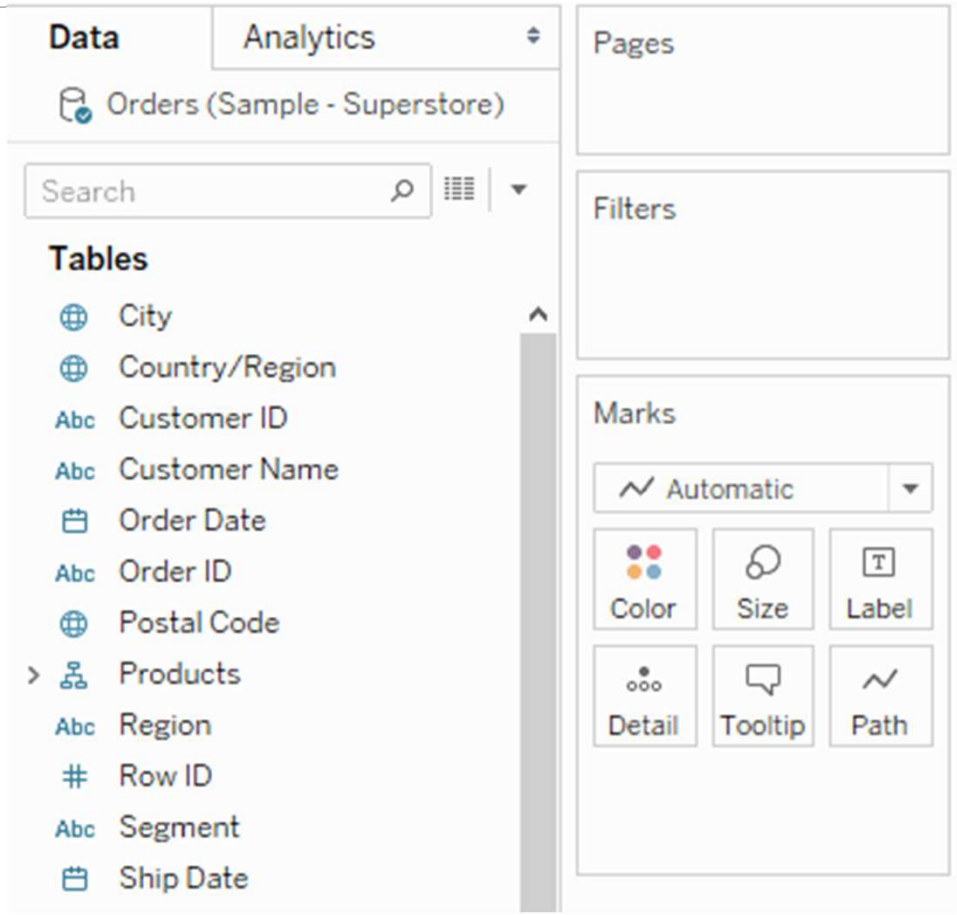


tableau

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Filter

Drag dimensions, measures, and date fields to the Filters shelf

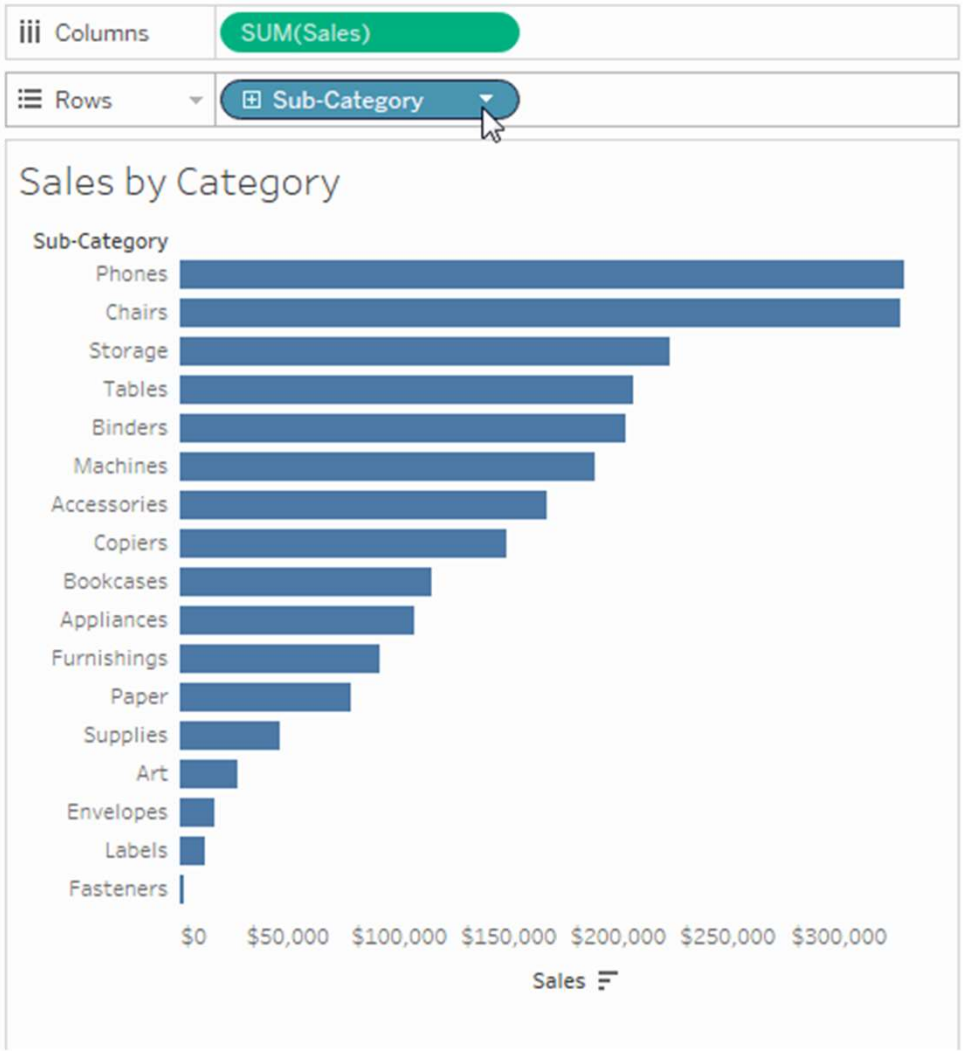


tableau

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Interactive filter

In the view, click the field drop-down menu and select Show Filter



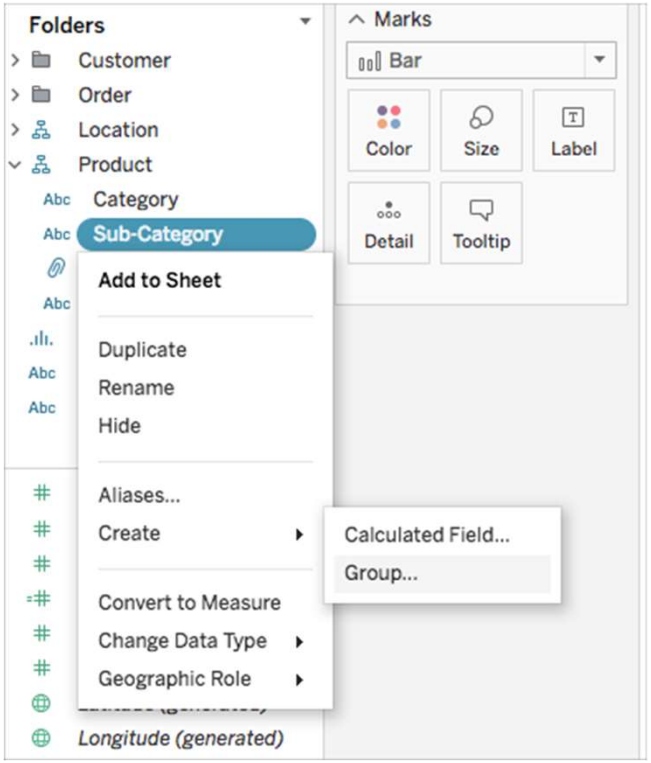
tableau

HEEA

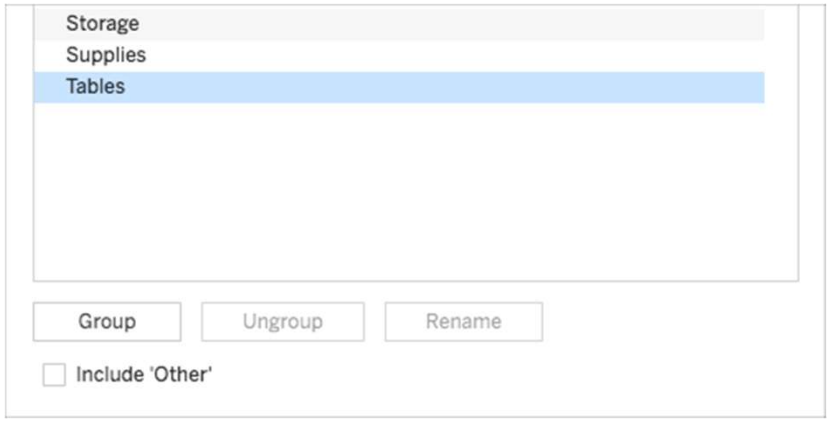
Group Your Data

Create a group to combine related members in a field.

- In the Data pane, right-click a field and select Create > Group



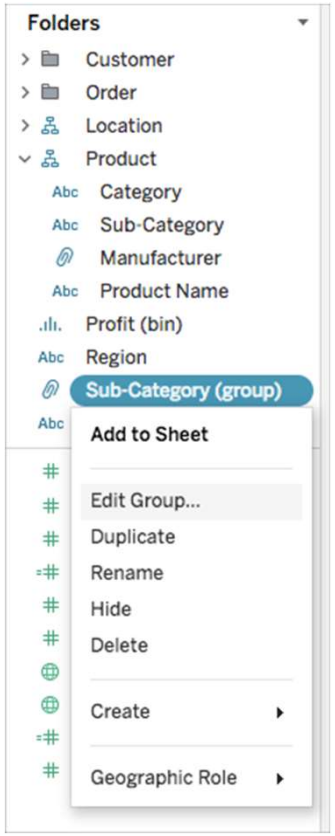
In the Create Group dialog box, select several members that you want to group, and then click Group.



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Group Your Data - edit

- In the Data pane, right-click the group field, and then click Edit Group



Create group in the charts, by selecting multiple marks (data points)



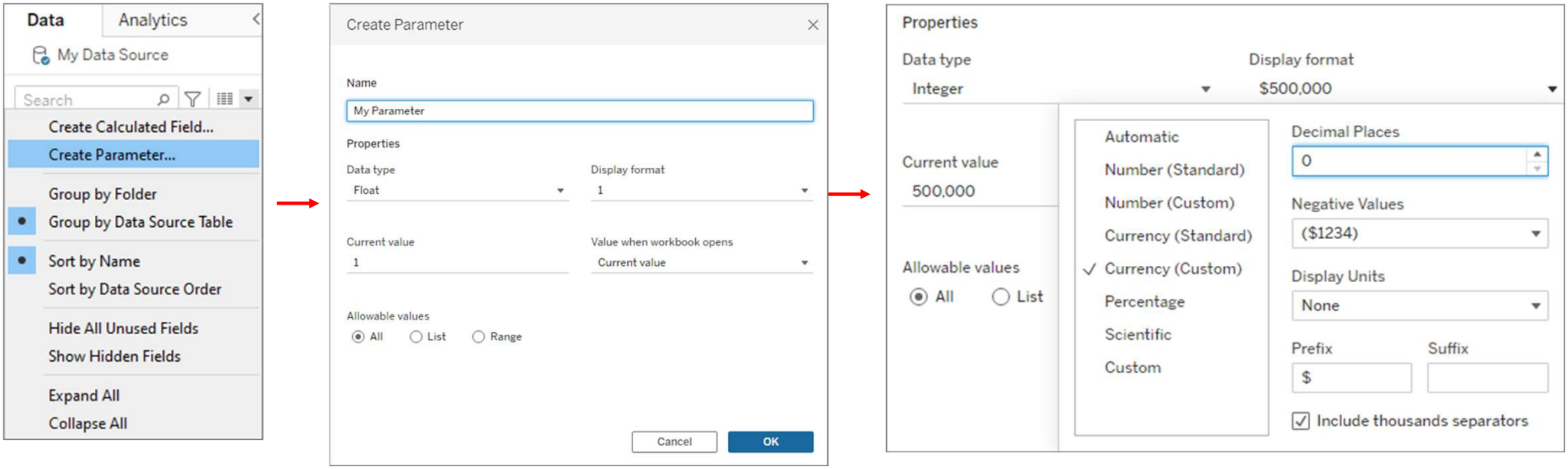
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Parameters

A parameter is a workbook variable such as a number, date, or string that can replace a constant value in a calculation, filter, or reference line.

- In the Data pane, click the dropdown arrow in the upper right corner and select Create Parameter.



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