



Tableau 10





Creating Charts in Tableau

What's In It For Me

At the end of this lesson, you will be able to:

Describe histograms, pie charts, bullet charts, combination charts, and bar charts.

Explain waterfall charts, Gantt charts, sparkline, and Pareto charts.

Describe maps and plots in tableau

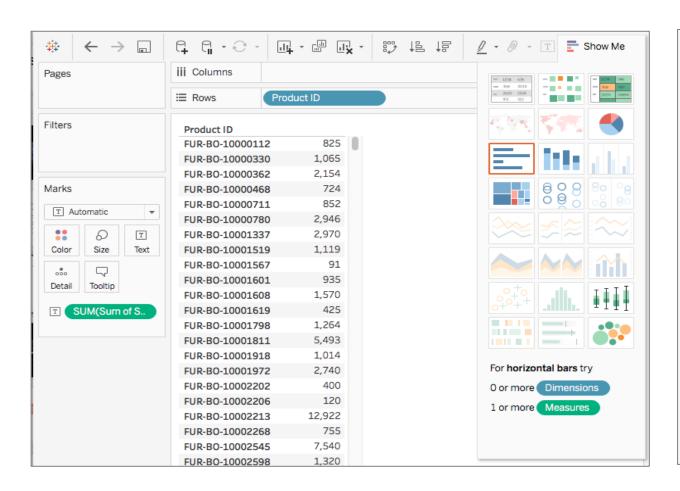
Format the axes using edit axis option

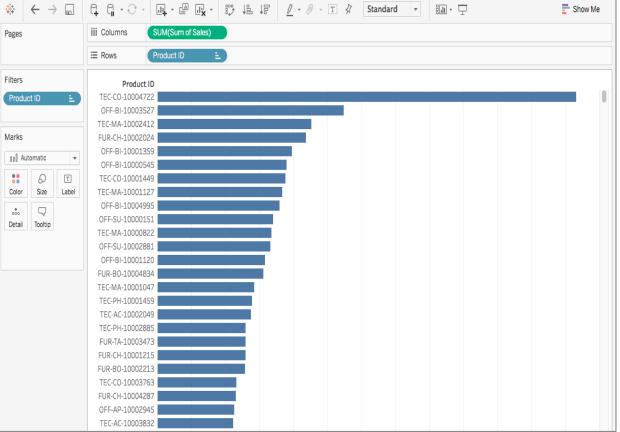
Use titles, captions and tooltips



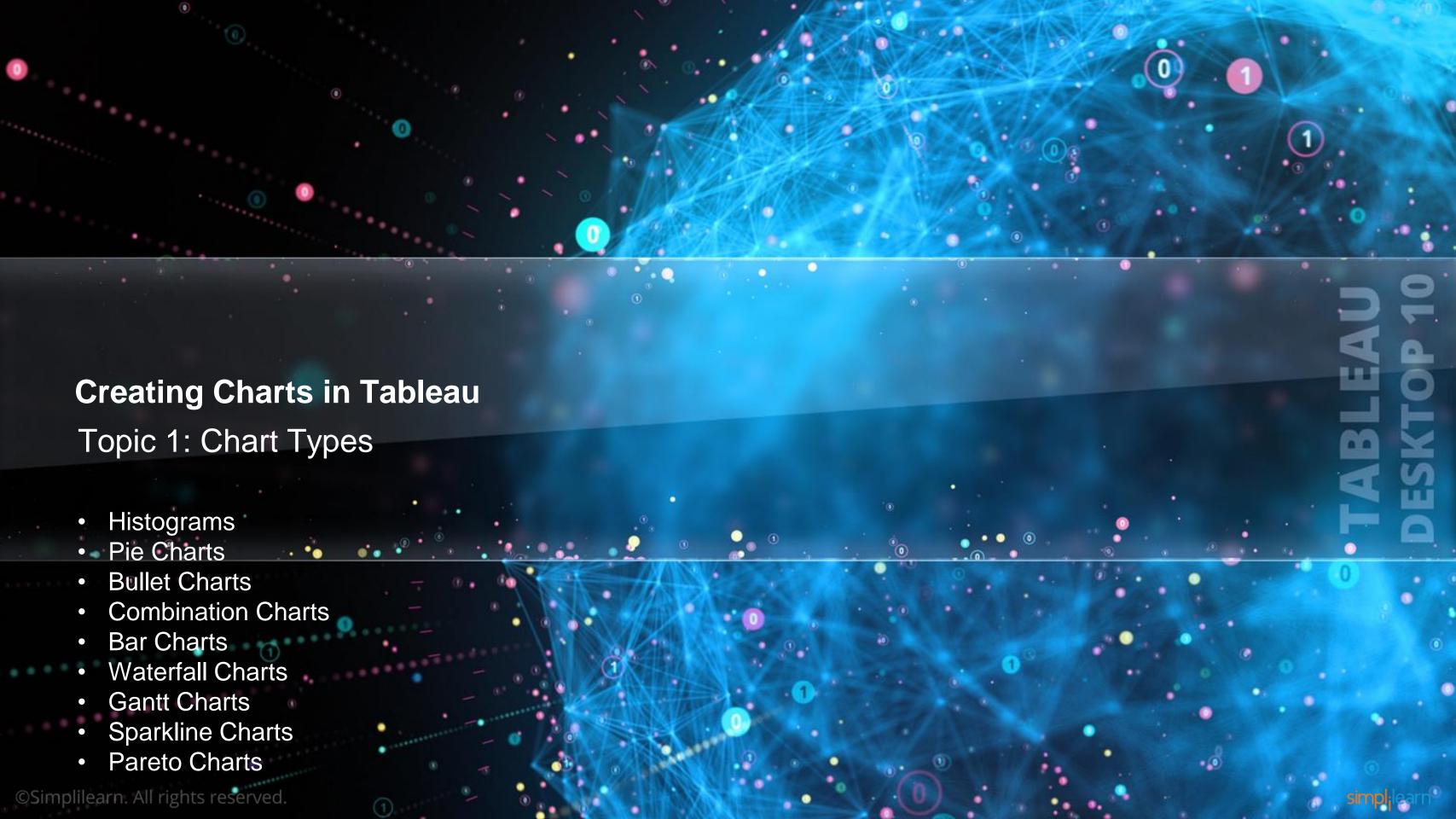
Charts

- Charts are visually appealing representations of data and are typically easier for users to understand than tables with numbers.
- To create a chart from your worksheet, click the "Show Me" button to see chart options.









Histograms

Histograms

Pie Charts

Bullet Charts

Combination Charts

Bar Charts

Waterfall Charts

Gantt Charts

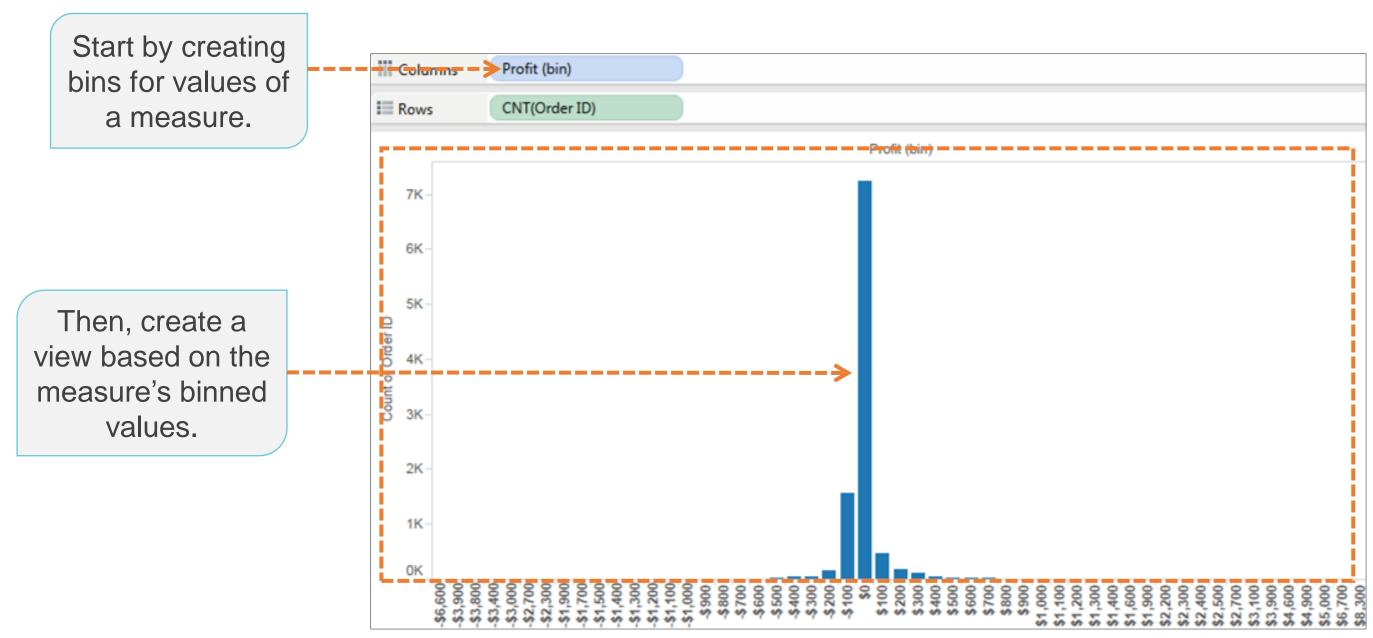
Sparkline Charts

Pareto Charts

HISTOGRAMS

Histograms are used to display the distribution of values in a field.

The steps to create a histogram are mentioned below:



Histograms

Pie Charts

Bullet Charts

Combination Charts

Bar Charts

Waterfall Charts

Gantt Charts

Sparkline Charts

Pareto Charts

PIE CHARTS

Pie charts are used to analyze the proportional relationships among the data. They can also be used as a mark type, called pie mark, to show proportions.



Histograms

BULLET CHARTS

Pie Charts

Bullet charts are generally used to compare a primary measure to one or more other measures.

Bullet Charts

Combination Charts

Bar Charts

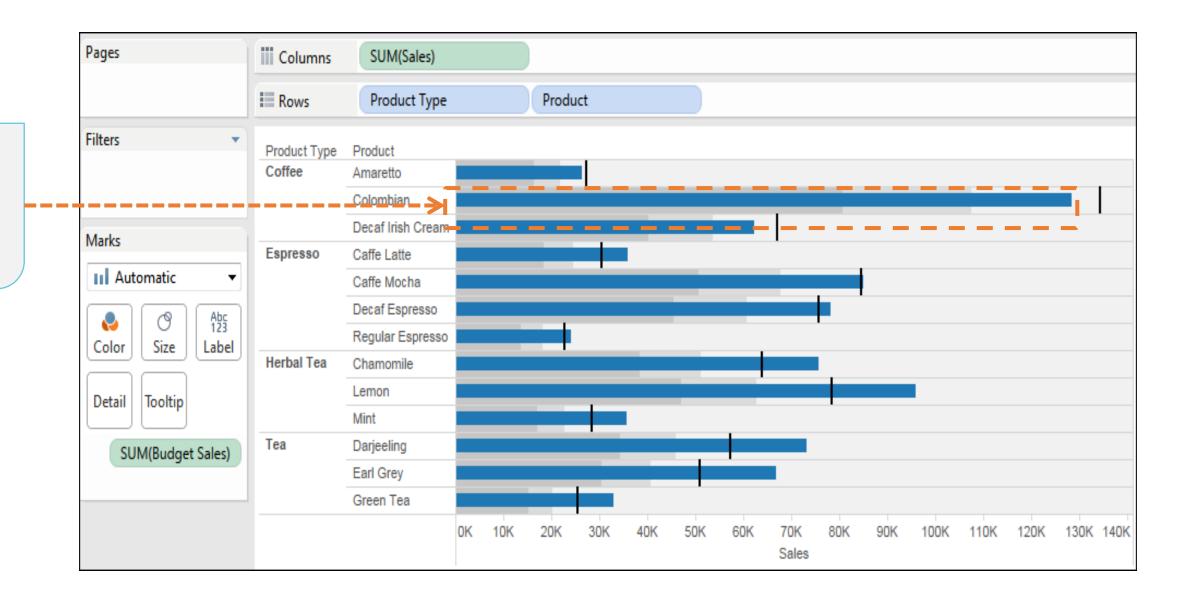
Waterfall Charts

Gantt Charts

Sparkline Charts

Pareto Charts

Sales is represented by the blue horizontal bars.





Histograms

BULLET CHARTS

Pie Charts

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Bullet Charts

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Histograms

BULLET CHARTS

Pie Charts

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Bullet Charts

Combination Charts

Bar Charts

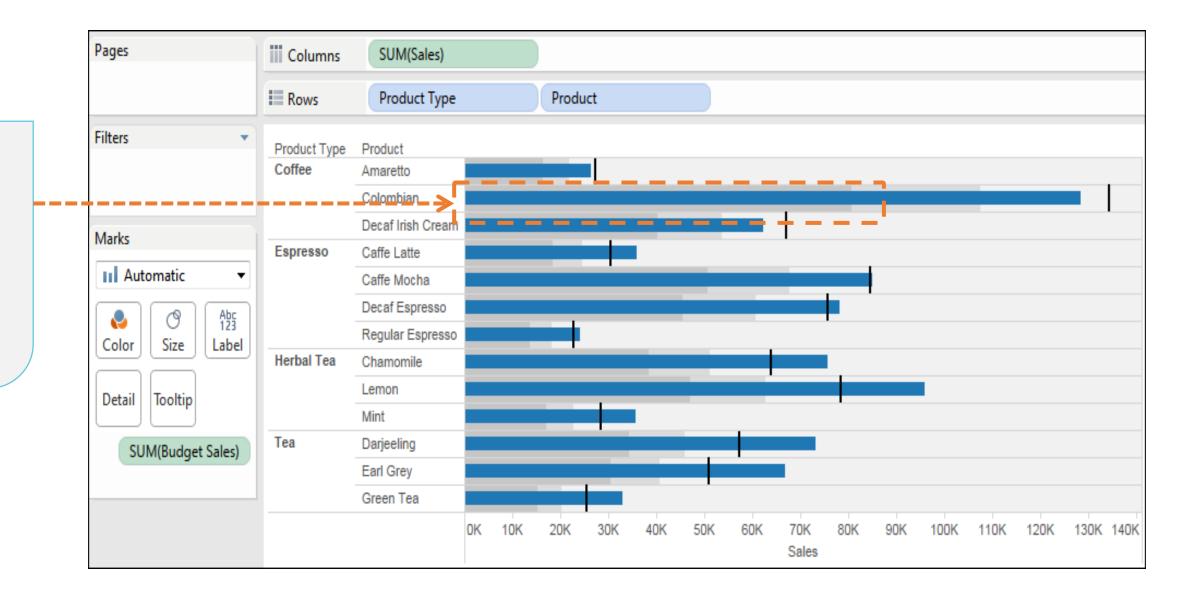
Waterfall Charts

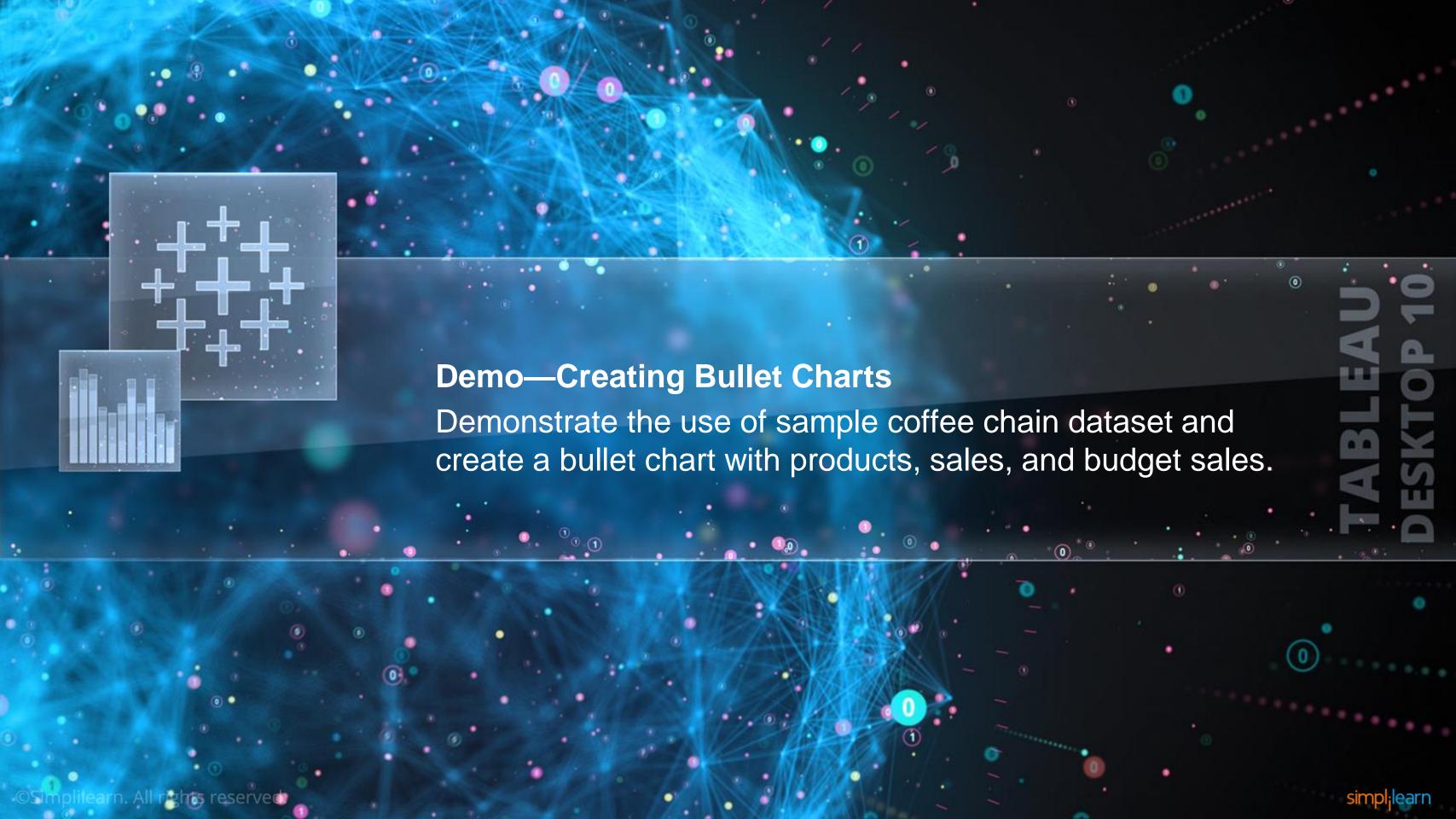
Gantt Charts

Sparkline Charts

Pareto Charts

Reference distributions is displayed with grey shading to show 60% and 80% of average budget sales.





Histograms

Pie Charts

Bullet Charts

Combination Charts

Bar Charts

Waterfall Charts

Gantt Charts

Sparkline Charts

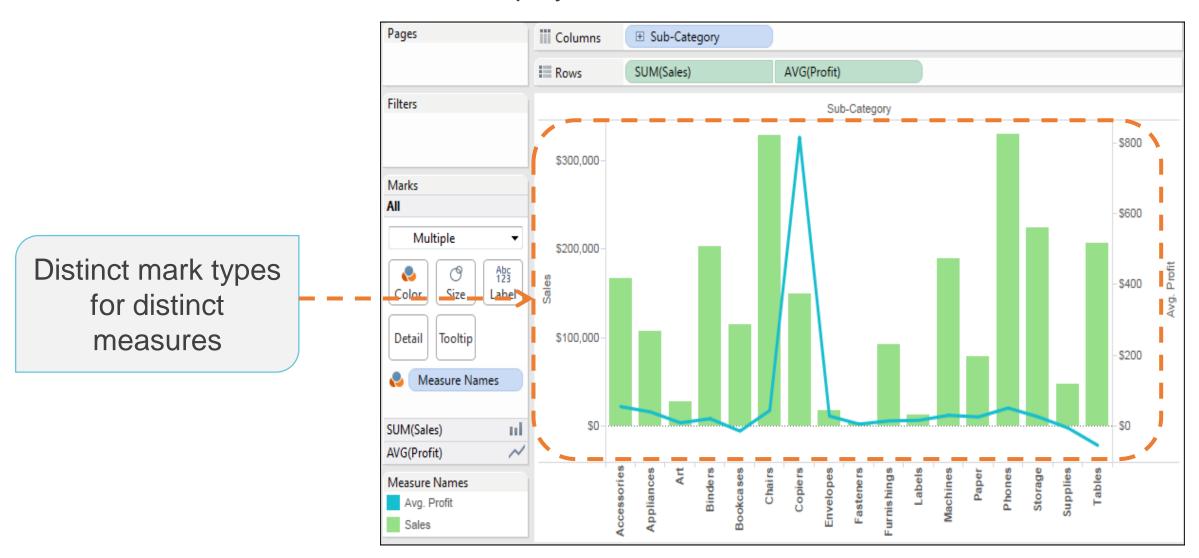
Pareto Charts

COMBINATION CHARTS

Combination charts are views that use multiple mark types in the same sheet.

Multiple measures in a view can be customized to show the distinct mark type for each distinct measure.

These measures can be displayed as individual axes, blended axes, or dual axes.





Histograms

BAR CHARTS

Pie Charts

Bars in bar chart are used to analyze the performance of multiple categories along a single measure.

Bullet Charts

Combination Charts

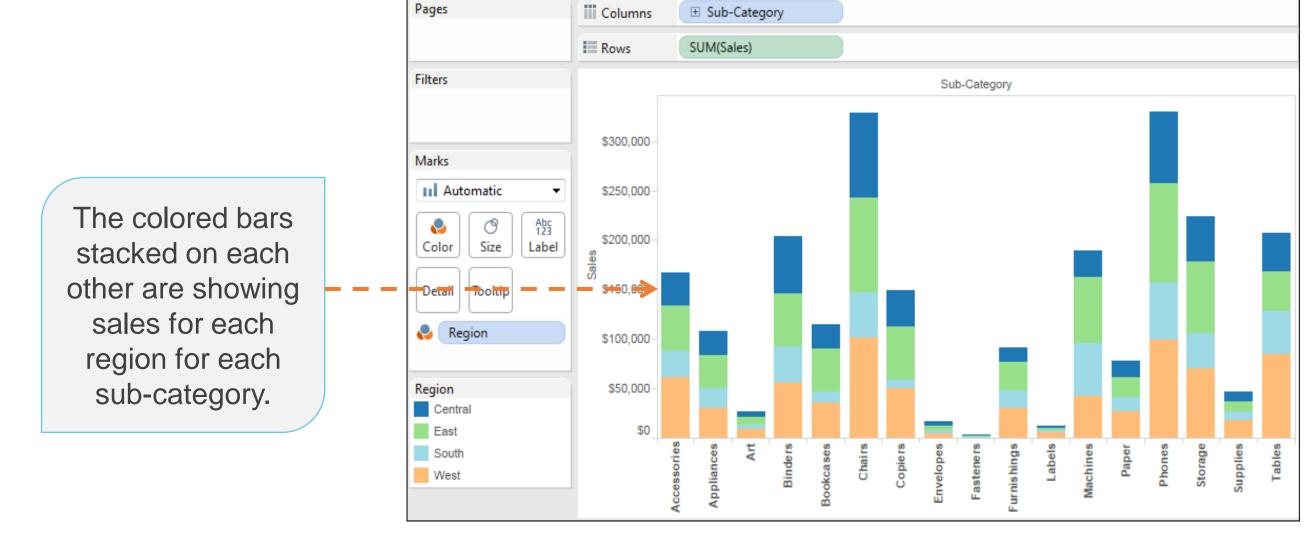
Bar Charts

Waterfall Charts

Gantt Charts

Sparkline Charts

Pareto Charts





Histograms

WATERFALL CHARTS

Pie Charts

Bullet Charts

Combination Charts

Bar Charts

Waterfall Charts

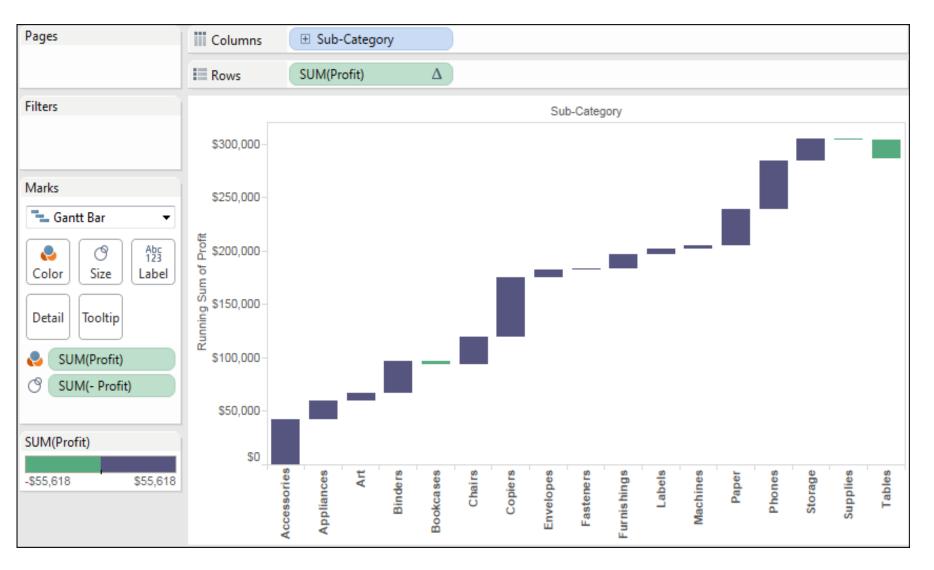
Gantt Charts

Sparkline Charts

Pareto Charts

Waterfall charts are used to analyze how an initial value is affected by a series of intermediate values.

A waterfall chart helps you visualize the cumulative effect of sequential positive or negative values.





Histograms

GANTT CHARTS

Pie Charts

Gantt charts are used for analyzing the duration of events over time.

Bullet Charts

In Gantt Bar Charts, each mark shows the duration of that specific dimension member.

Combination Charts

Bar Charts

Waterfall Charts

Gantt Charts

Sparkline Charts

Pareto Charts





SPARKLINE CHARTS

Histograms

Pie Charts

Bullet Charts

Combination Charts

Bar Charts

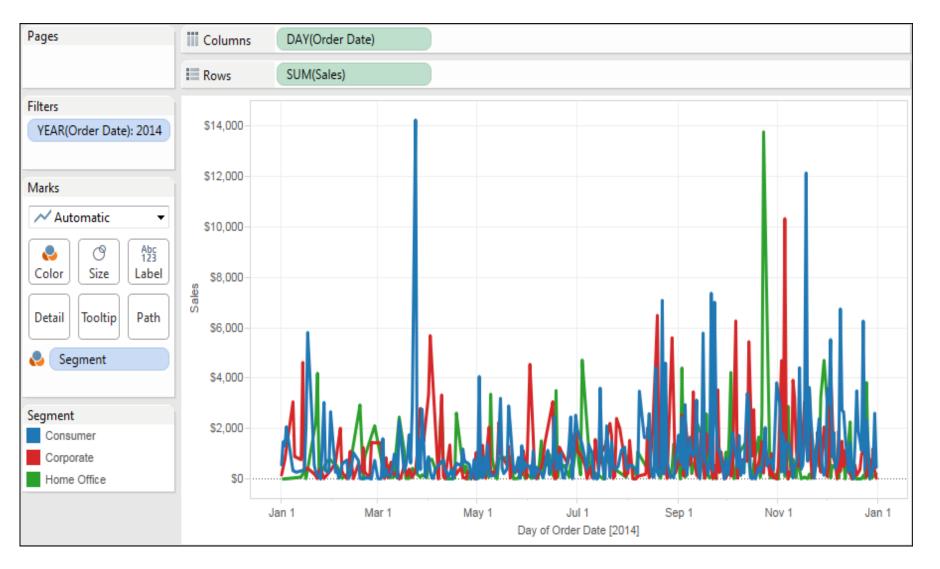
Waterfall Charts

Gantt Charts

Sparkline Charts

Pareto Charts Sparkline charts are often used to see trends in data over time.

Sparkline charts are characterized by their ability to spot outliers in highly dense data.





PARETO CHARTS

Histograms

Pie Charts

Bullet Charts

Combination Charts

Bar Charts

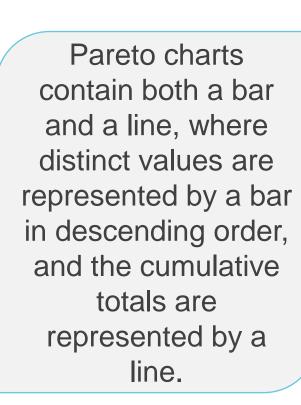
Waterfall Charts

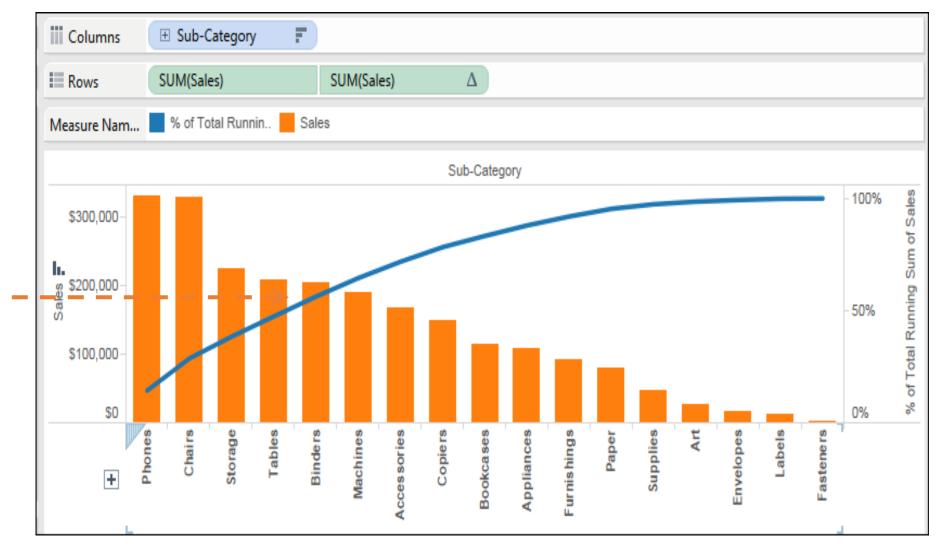
Gantt Charts

Sparkline Charts

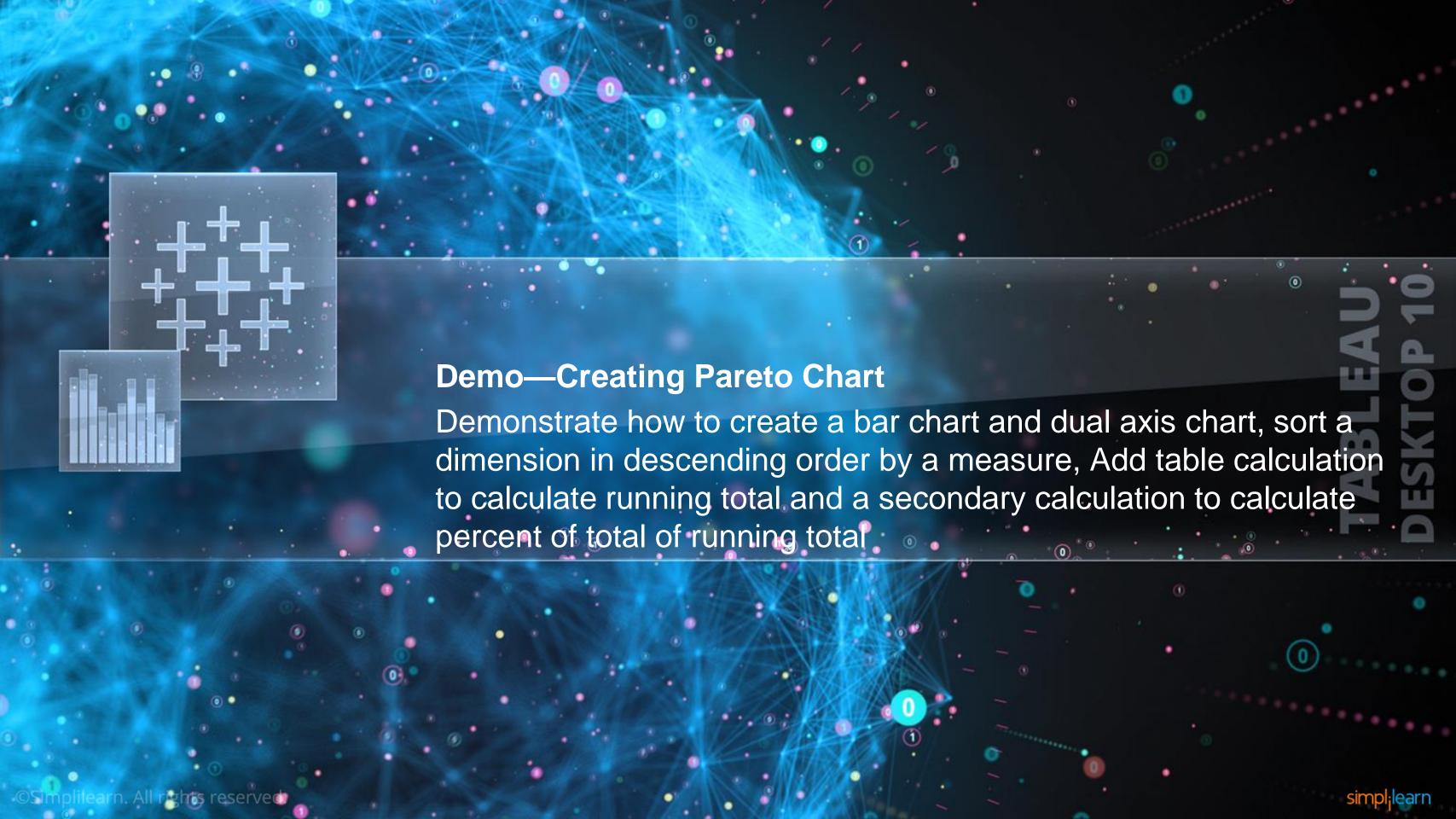
Pareto Charts Pareto charts are based on the Pareto principle, also known as the 80-20 rule.

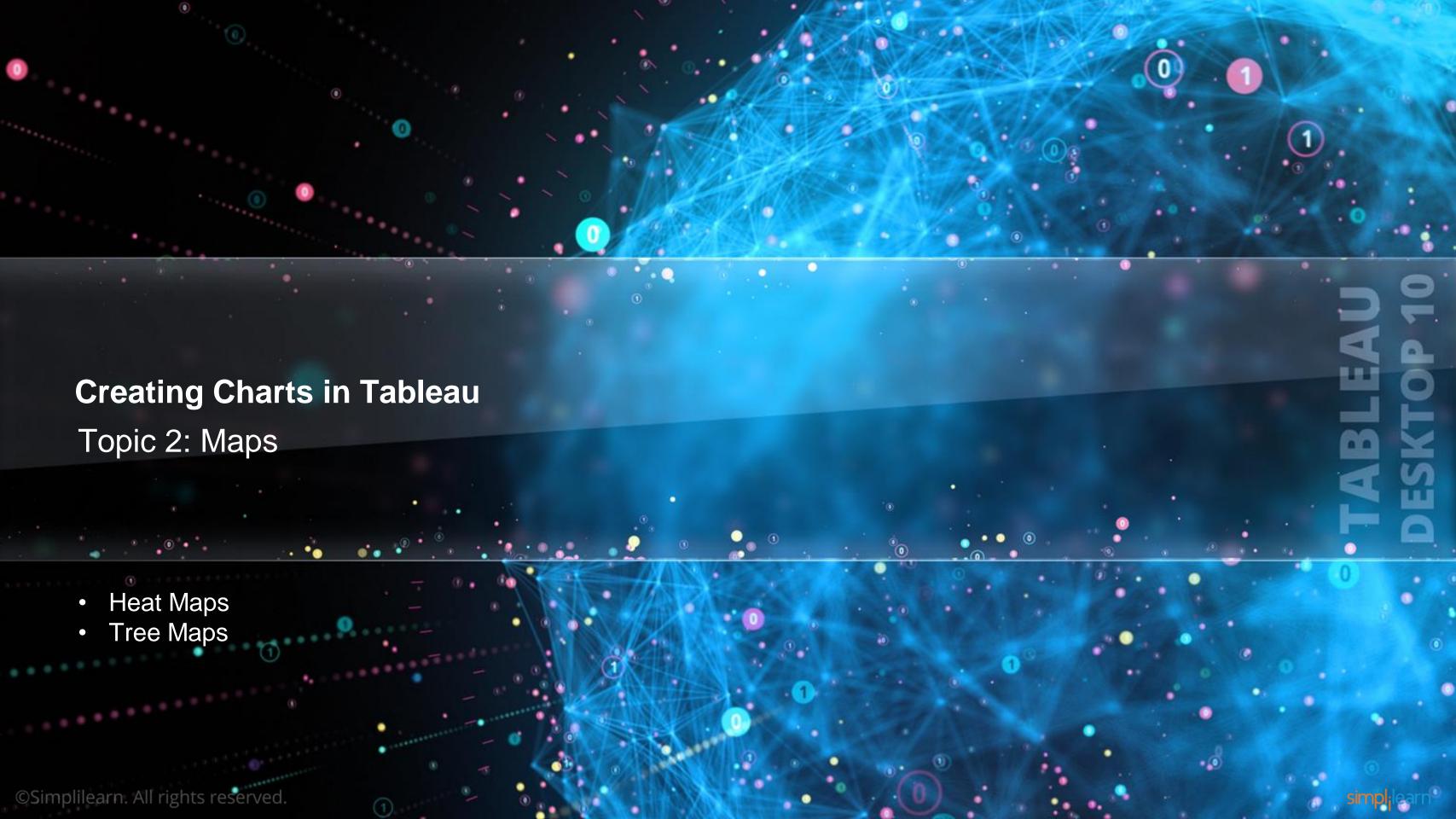
The Pareto principle states that, for many events, roughly 80% of the effects come from 20% of the causes.

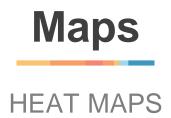












Heat maps are used to compare categorical data using colors.

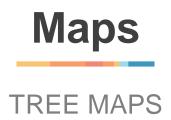
They help to visualize measures against dimensions with the help of color schemes.

Heat Maps

Tree Maps



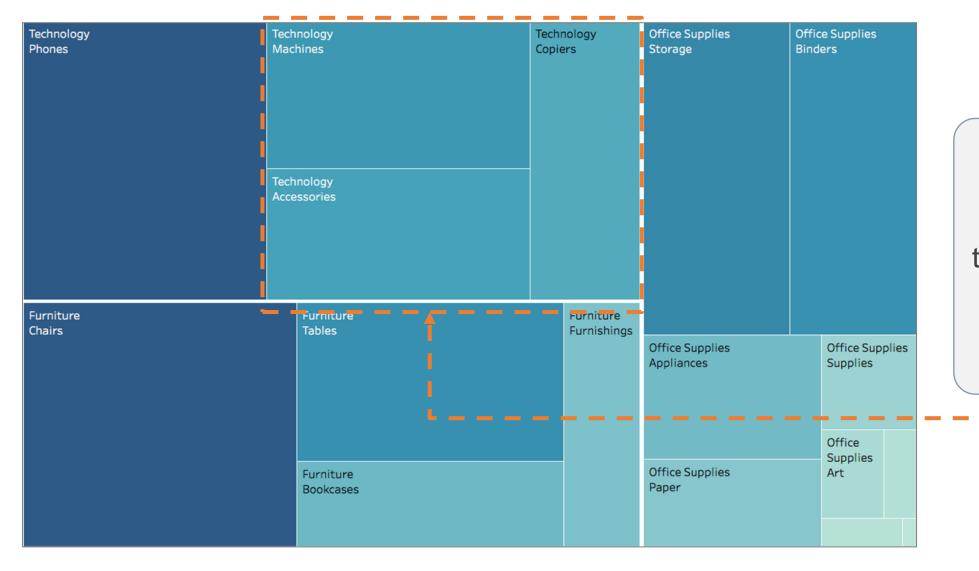




Tree maps are used to present hierarchically structured (tree-structured) data.

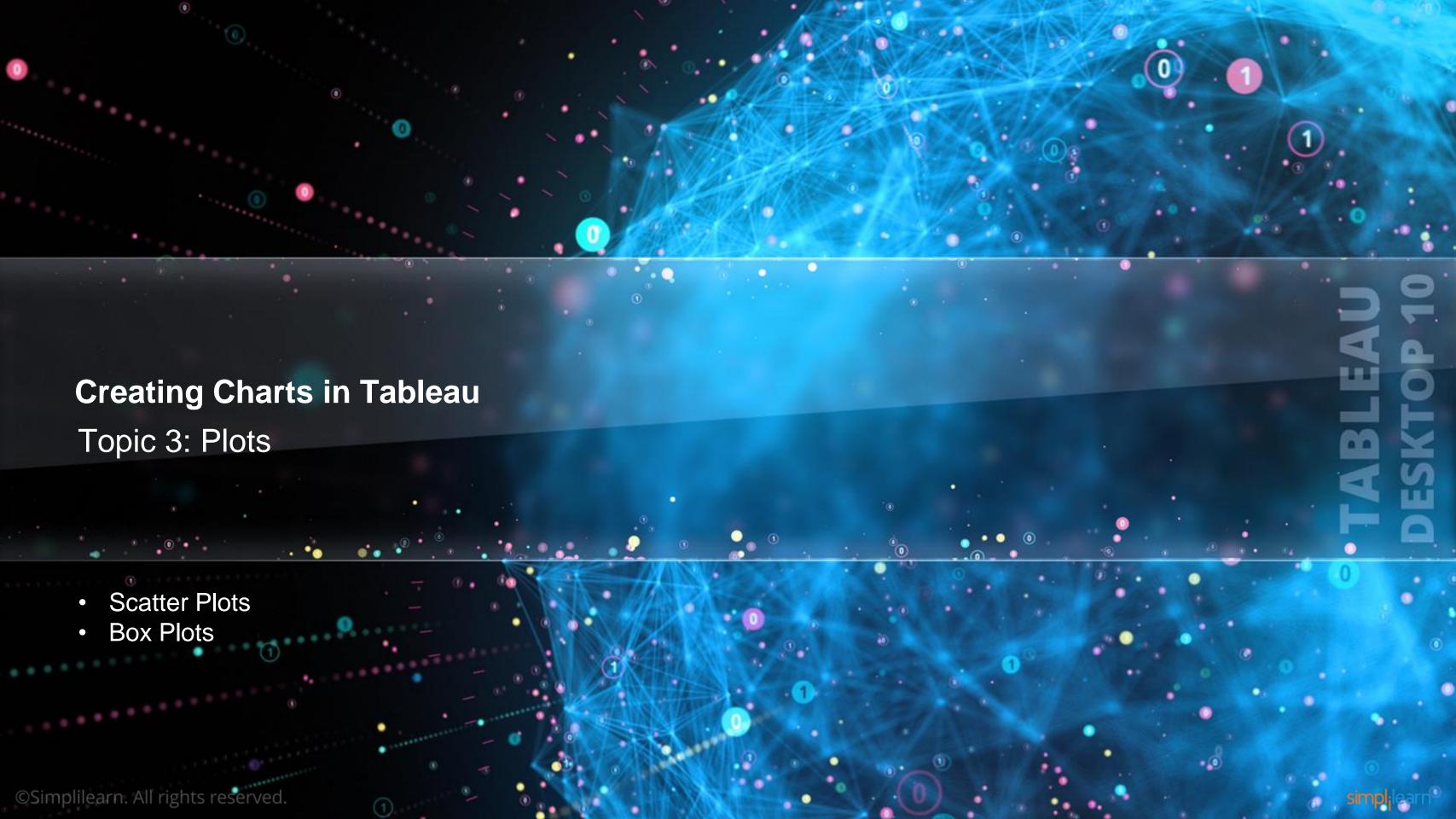
Heat Maps

Tree Maps



Each branch of the tree is given a rectangle, which is then tiled with smaller rectangles representing subbranches.







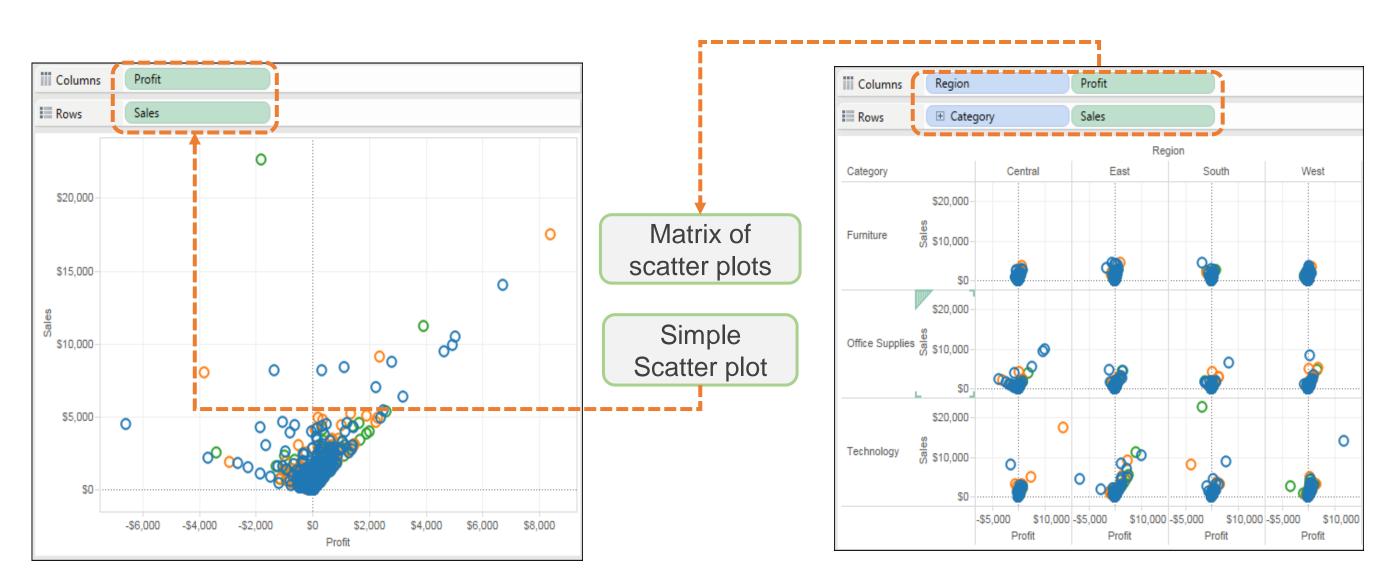
Scatter plots are used to visualize relationships between numeric fields.

Scatter plots use one measure on the Columns shelf and at least one measure on the Rows shelf.

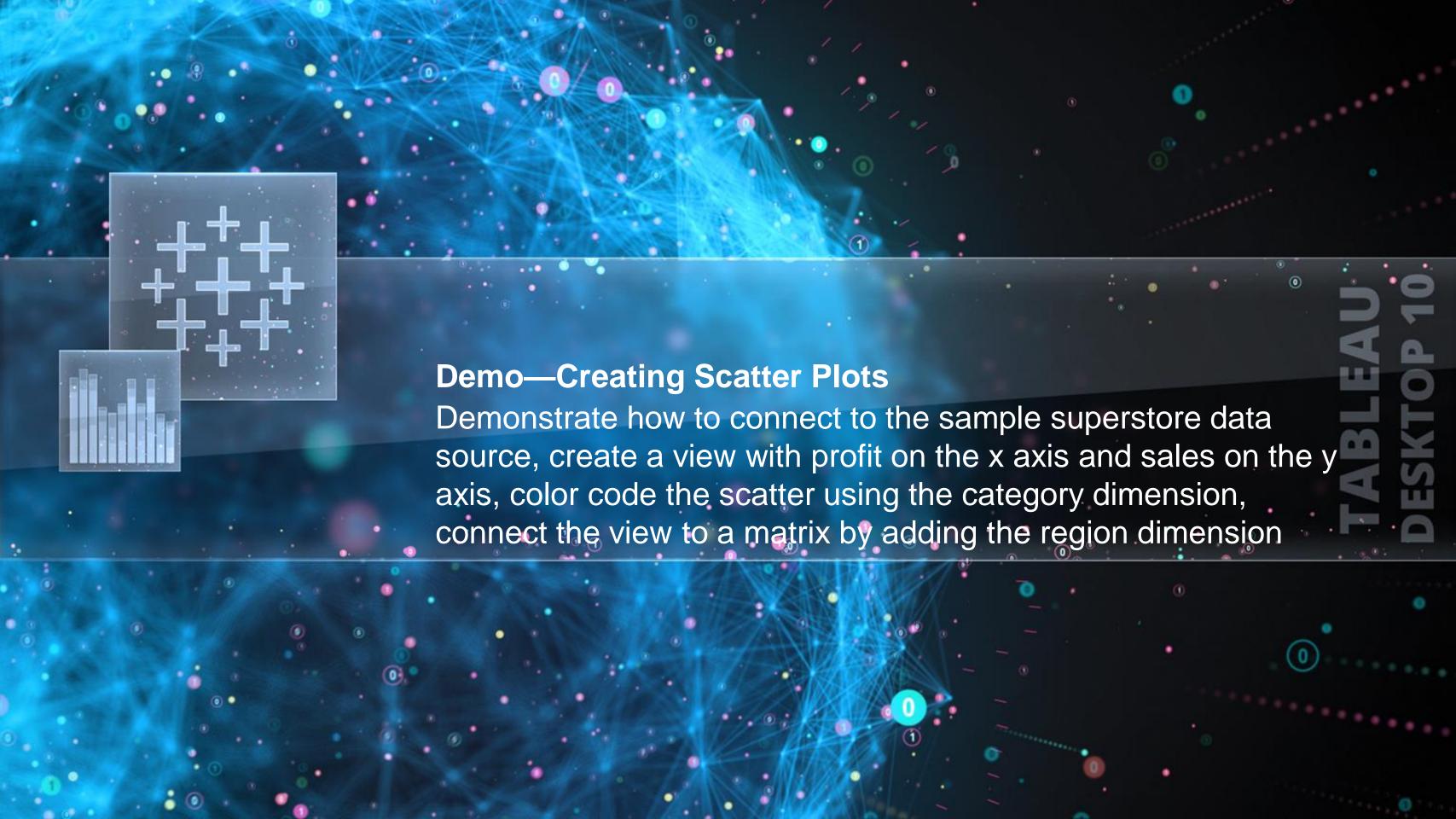
Scatter plots are of two types:

Scatter Plots

Box Plots





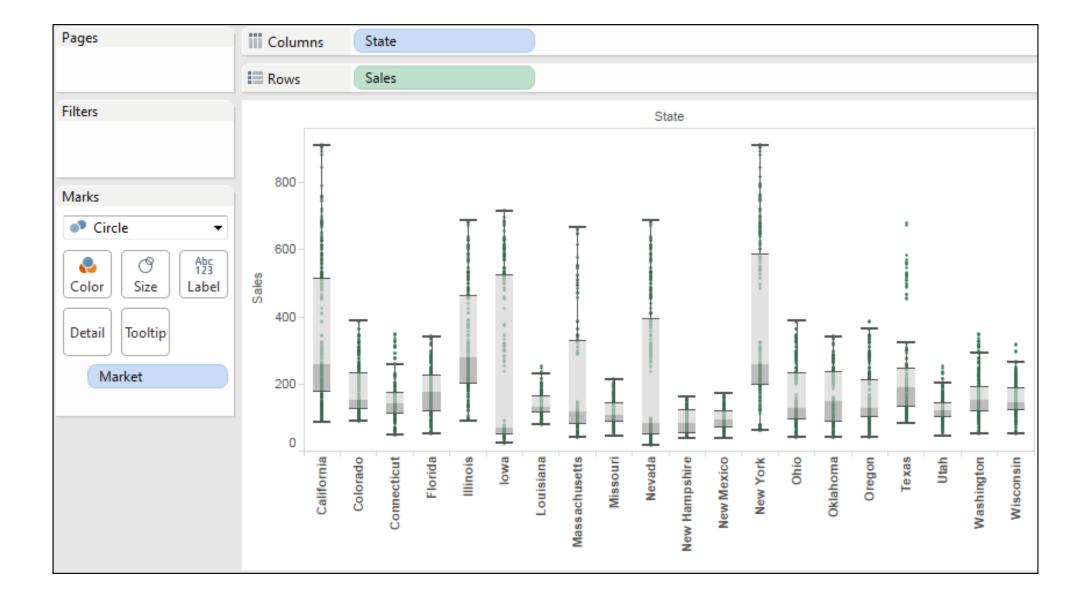




Box plots are useful for comparing sets of data.

Scatter Plots

Box Plots





Plots WORKING WITH BOX PLOTS

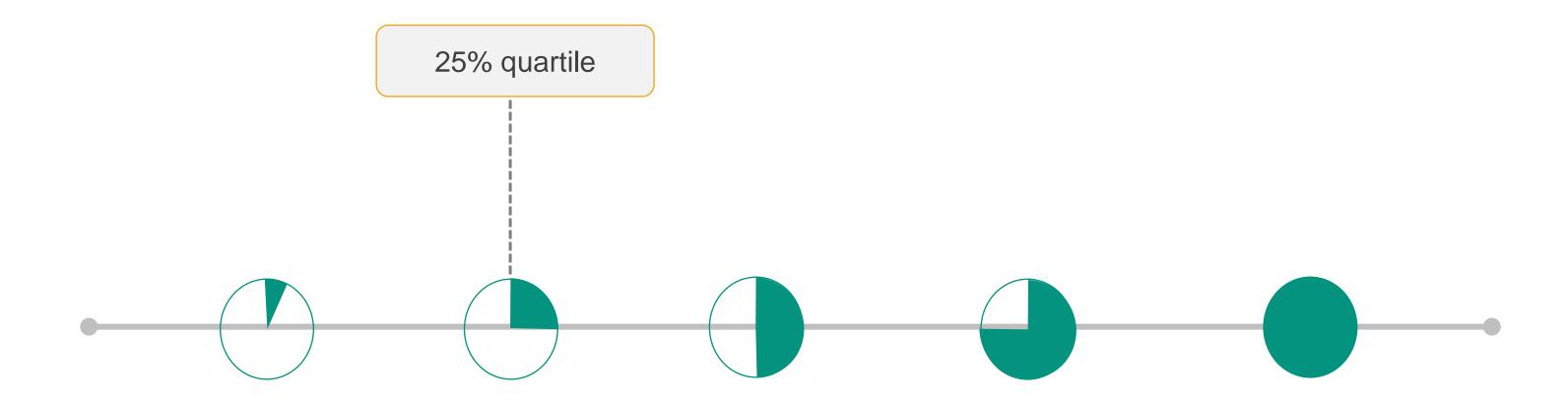
A Box plot is a diagram of a distribution of data that can highlight up to five key values within that data:





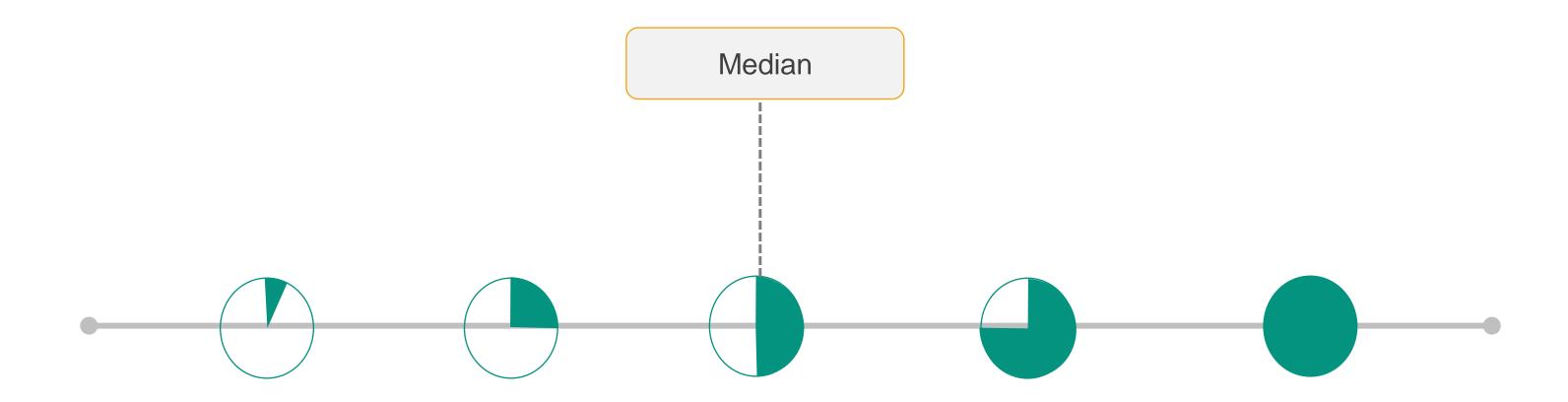
Plots

WORKING WITH BOX PLOTS

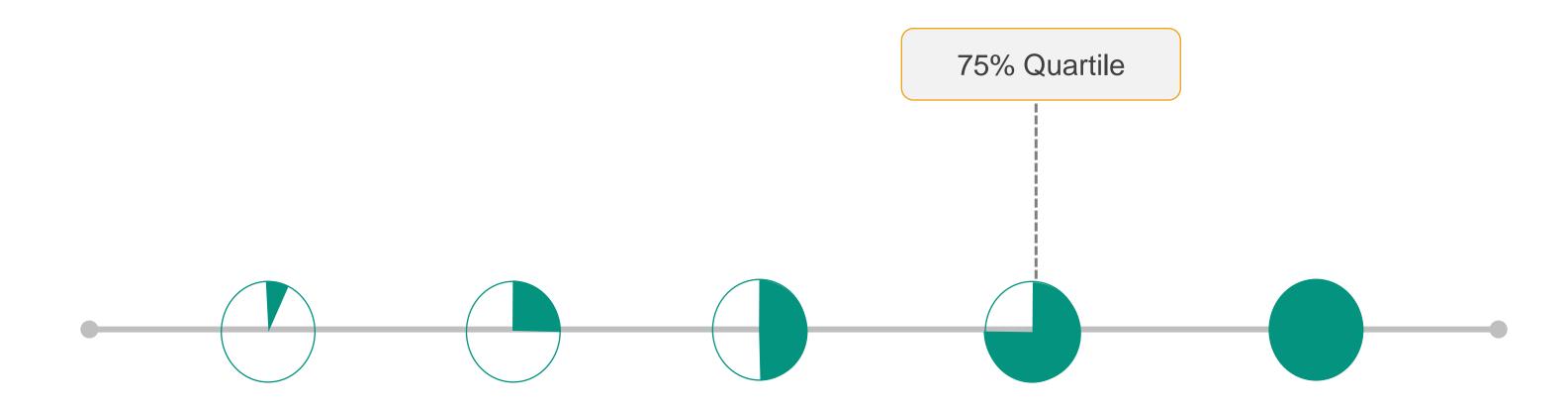


Plots

WORKING WITH BOX PLOTS

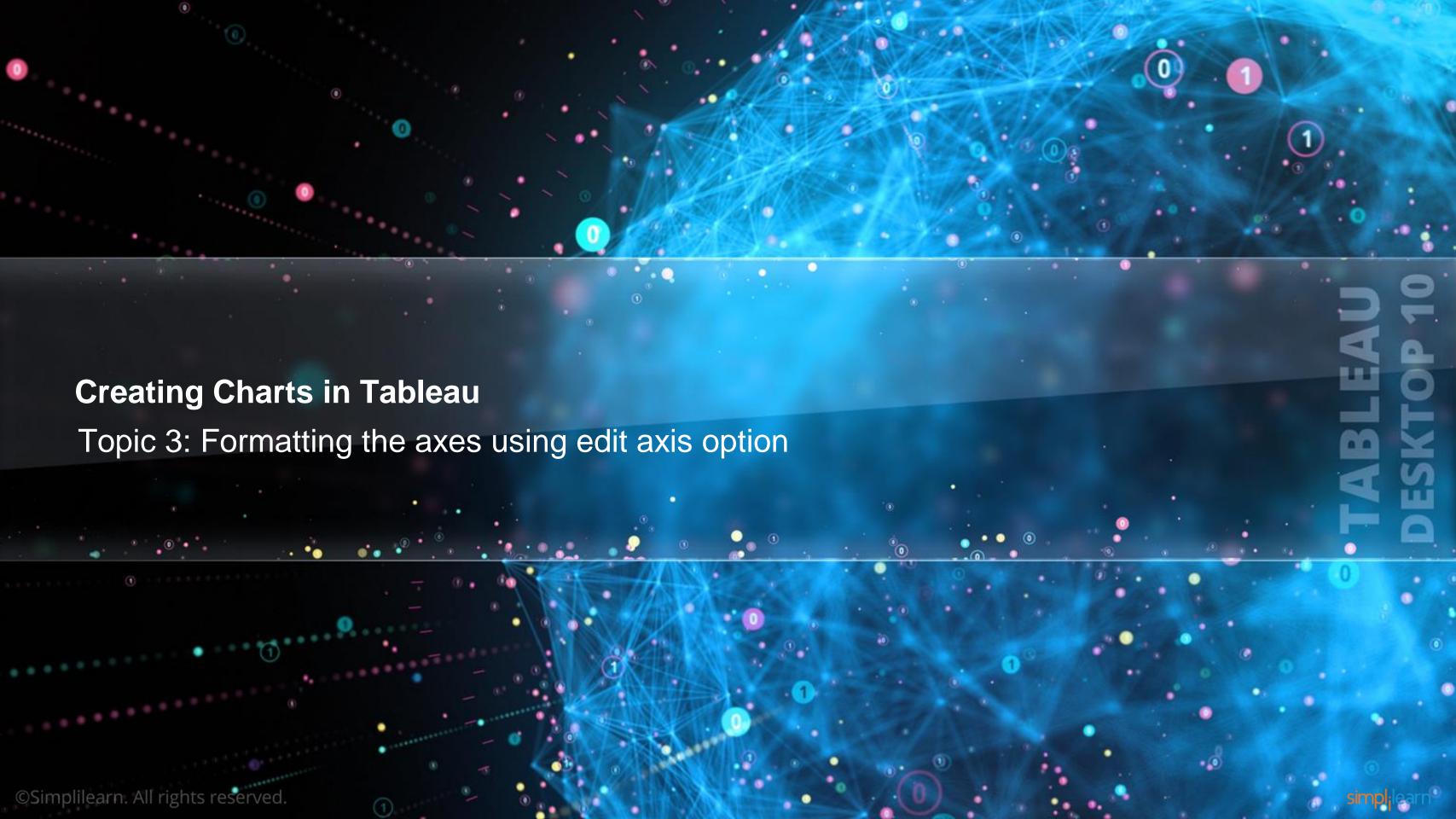


Plots WORKING WITH BOX PLOTS



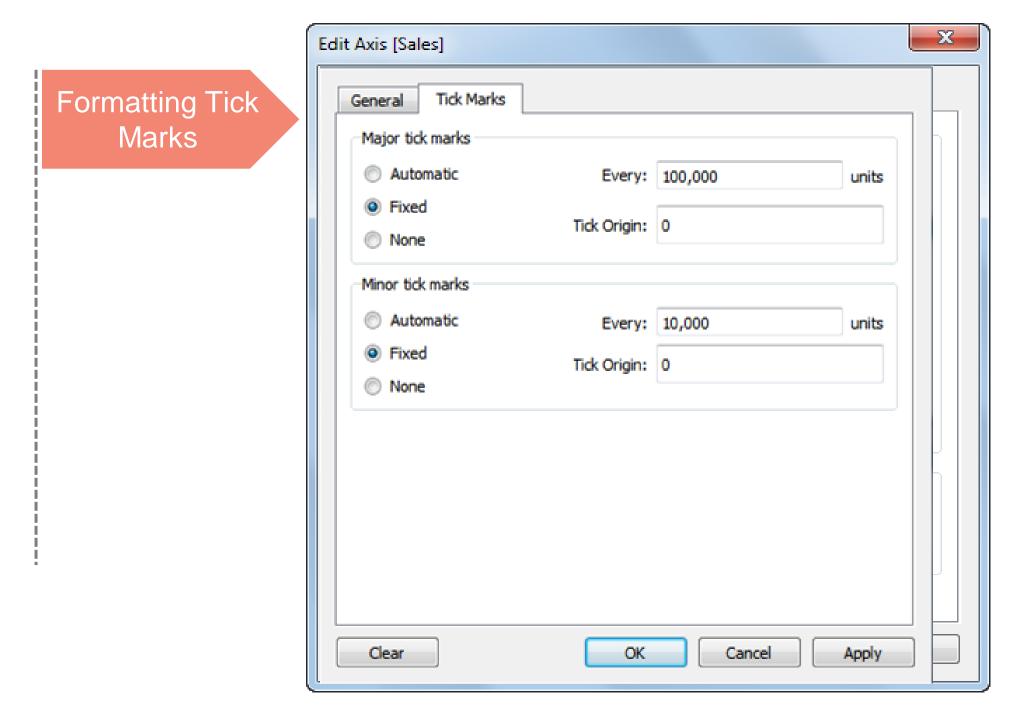
Plots WORKING WITH BOX PLOTS





Edit Axis Option

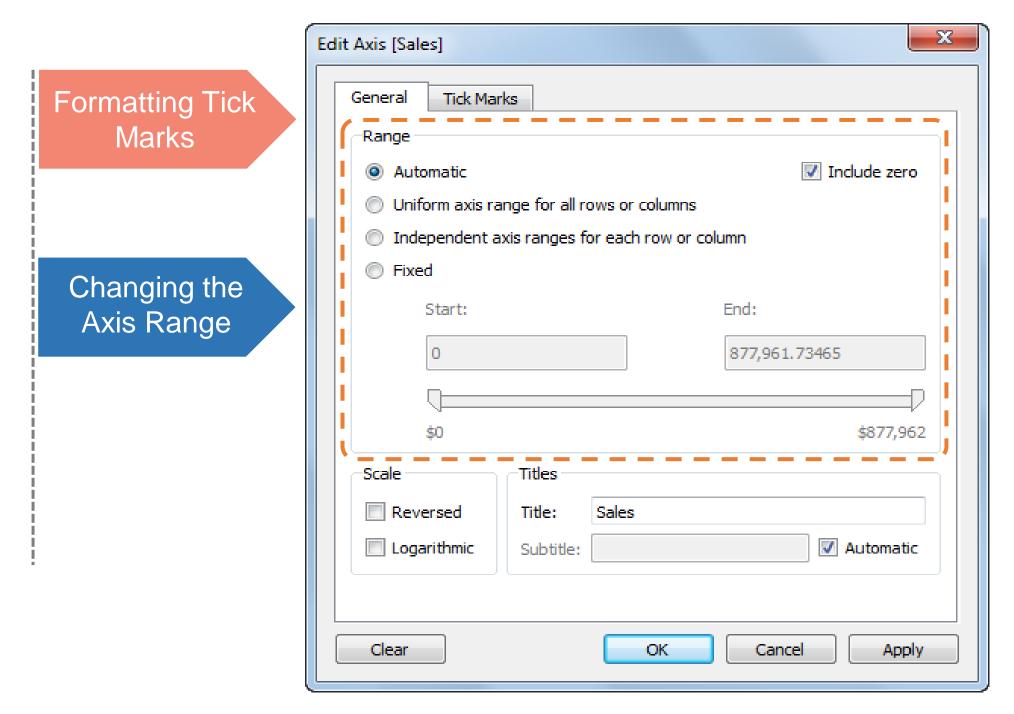
The axis can be formatted to specify the range, scale, and tick mark properties using the Edit Axis window.





Edit Axis Option

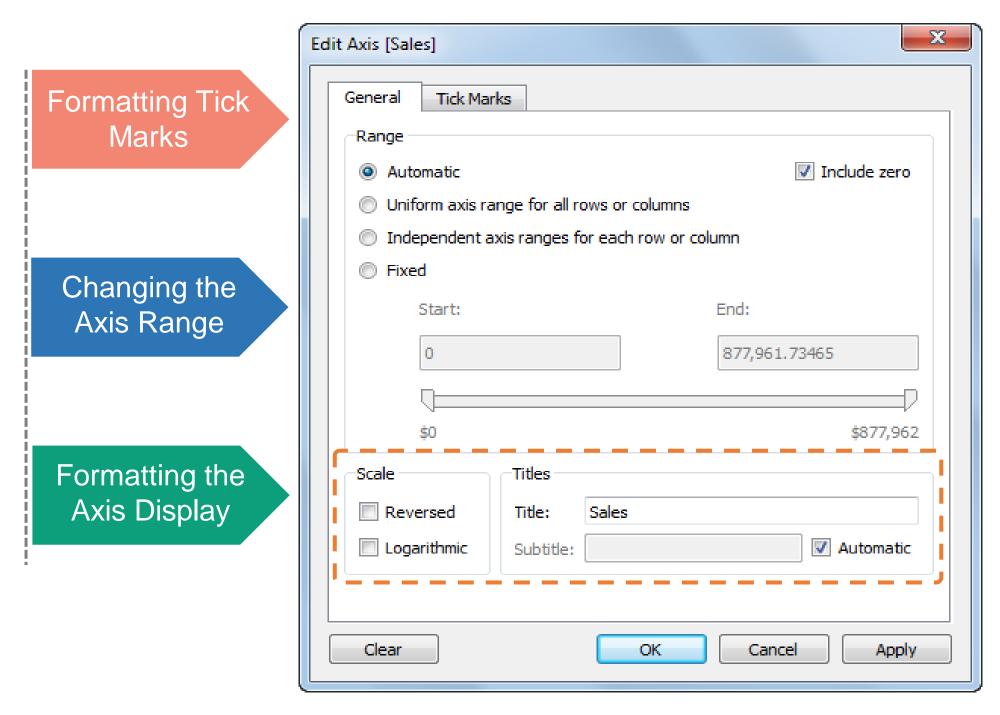
The axis can be formatted to specify the range, scale, and tick mark properties using the Edit Axis window.





Edit Axis Option

The axis can be formatted to specify the range, scale, and tick mark properties using the Edit Axis window.

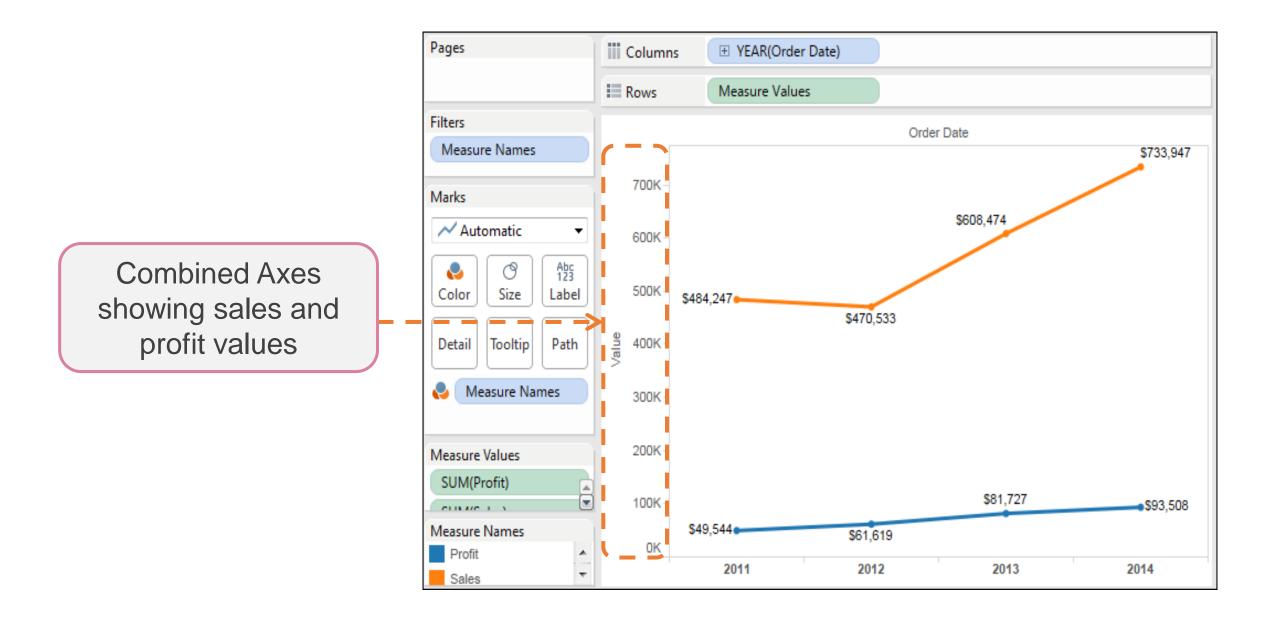




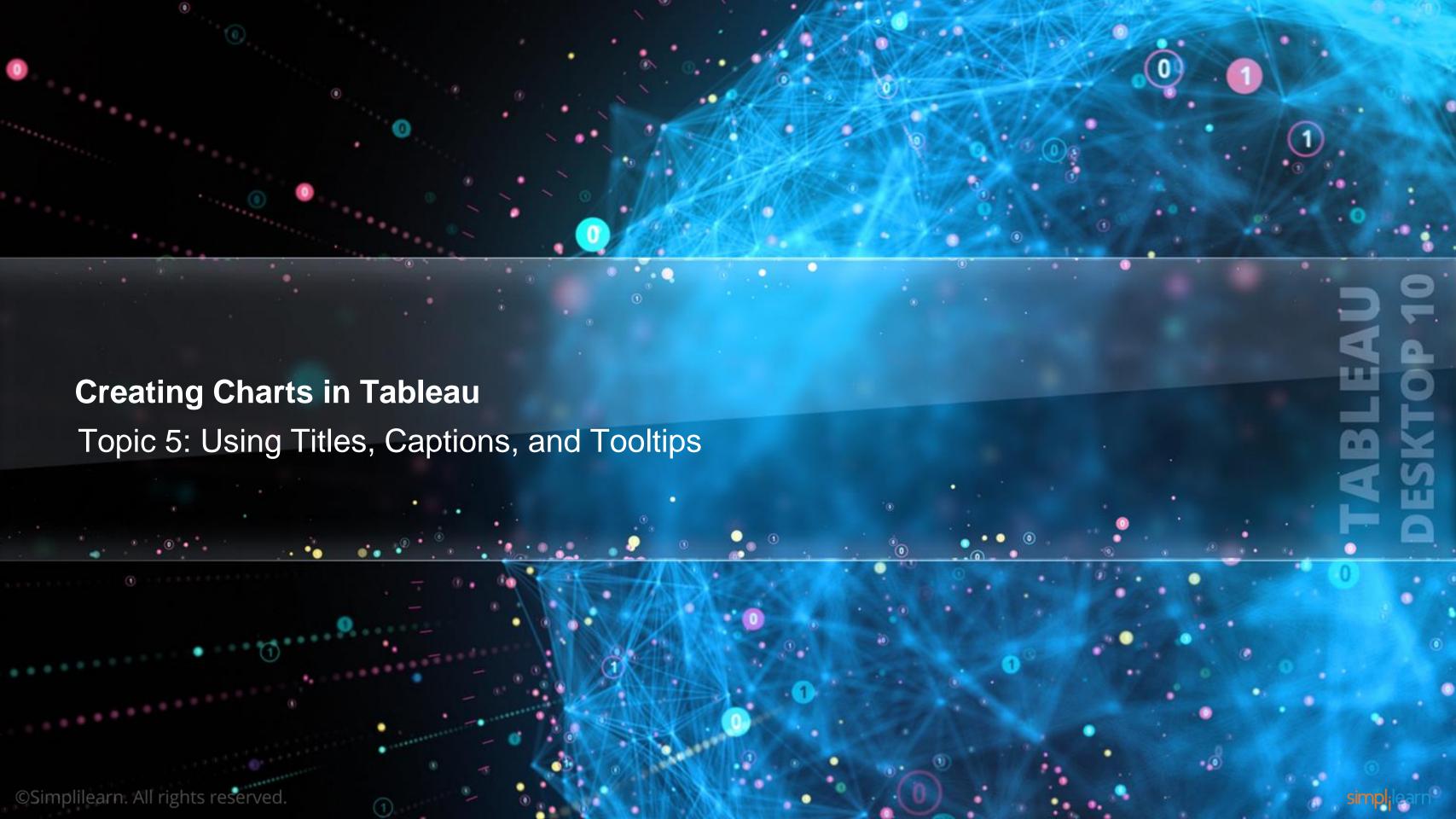
Combined Axis

Combined axes are views that use measures sharing a single axis so that all the marks are displayed in a single pane.

Combined axes use two or more measures that share a single axis.

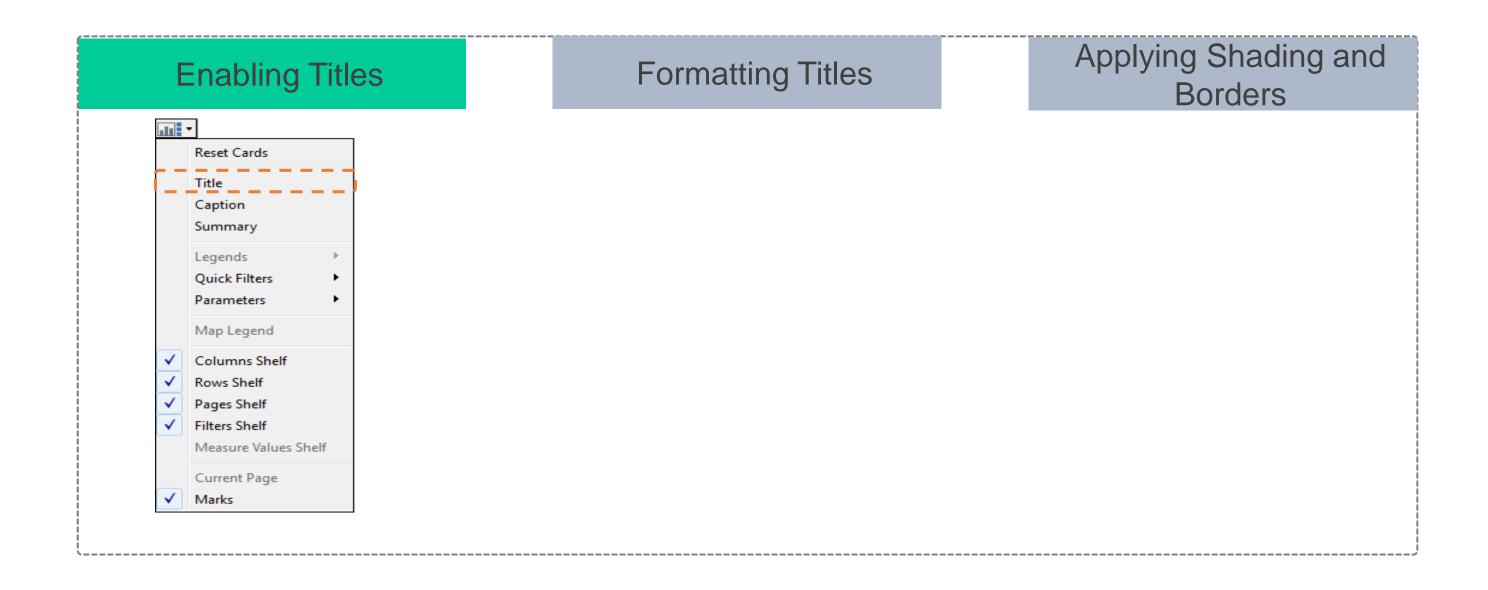






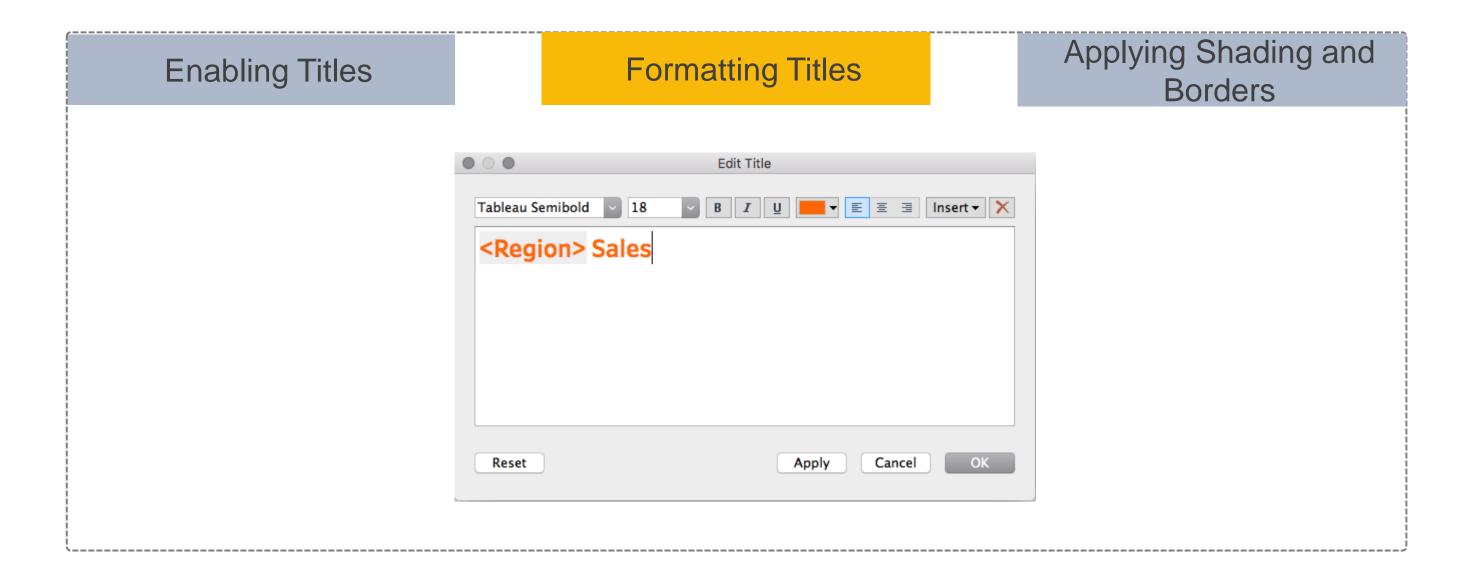
ADDING TITLE TO VIEWS

Titles are useful for labeling sheets; they give meaningful names to your sheets.



ADDING TITLE TO VIEWS

Titles can be formatted with different font types, sizes, and colors and can include static text strings, fields, or combinations of both.



ADDING TITLE TO VIEWS

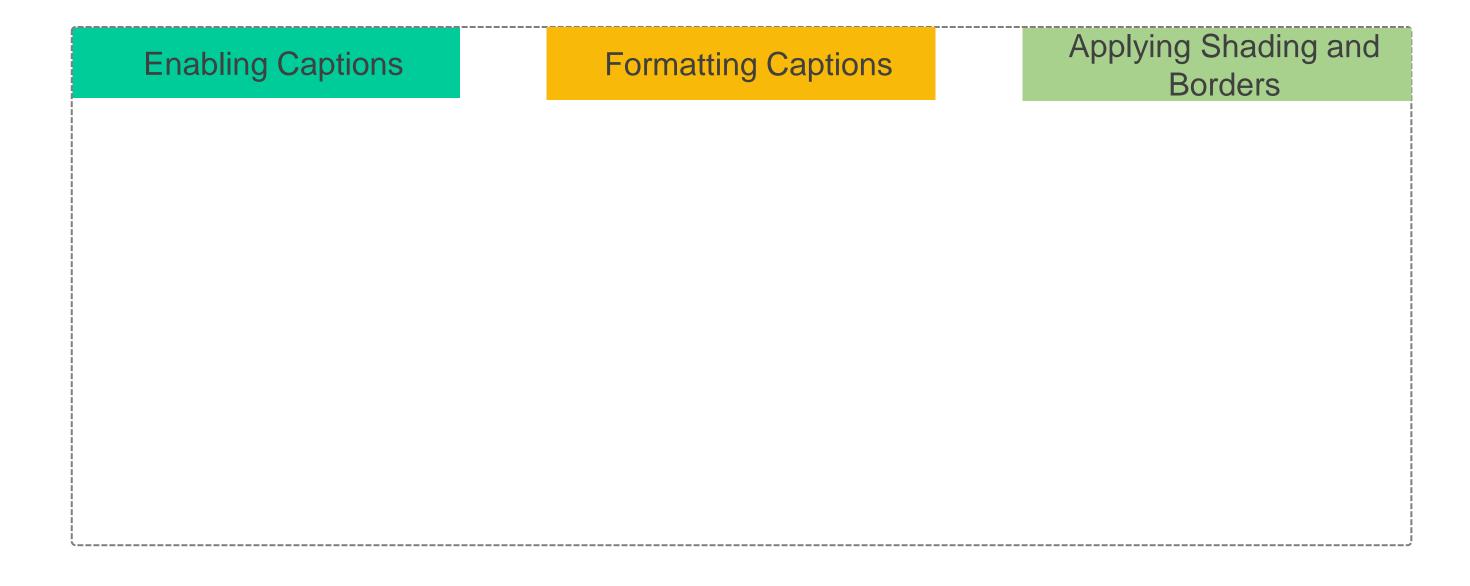
Titles can be formatted with shading and borders to create a custom look:



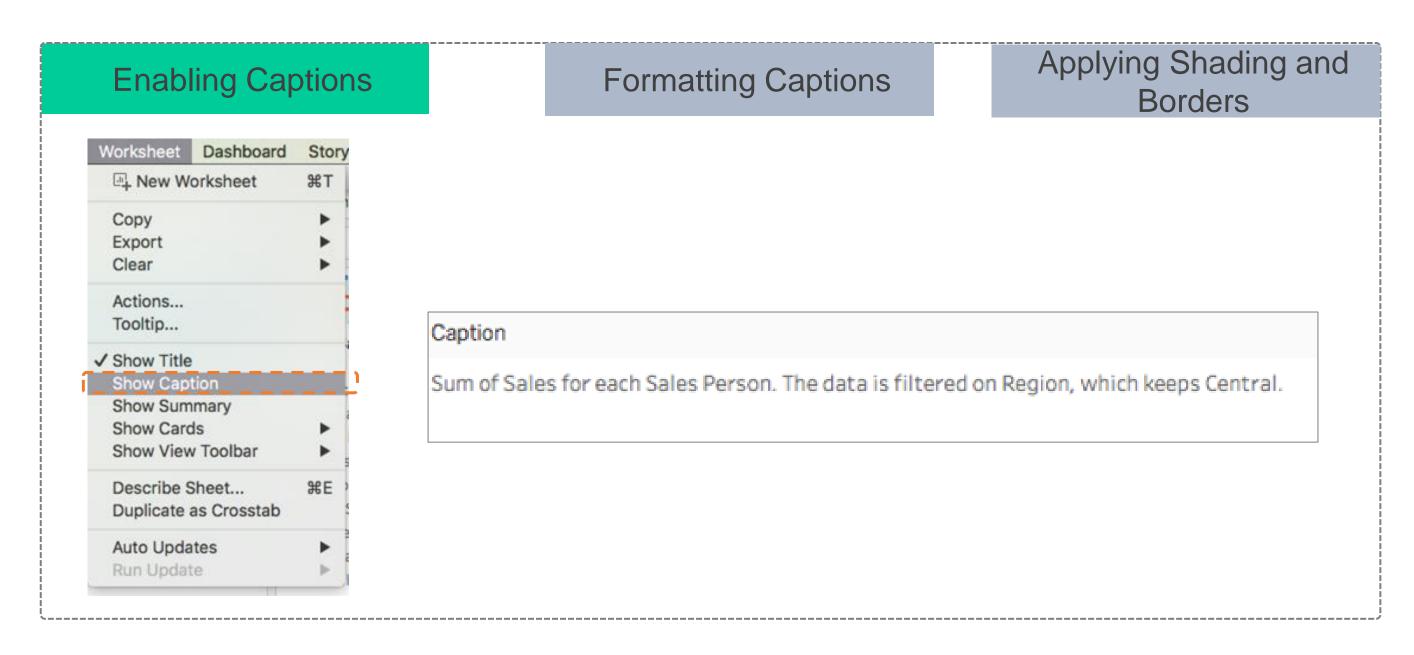


ADDING CAPTIONS TO VIEWS

Captions are useful for adding descriptions to the view. Use a caption to give a short description of what users can analyze from the view.

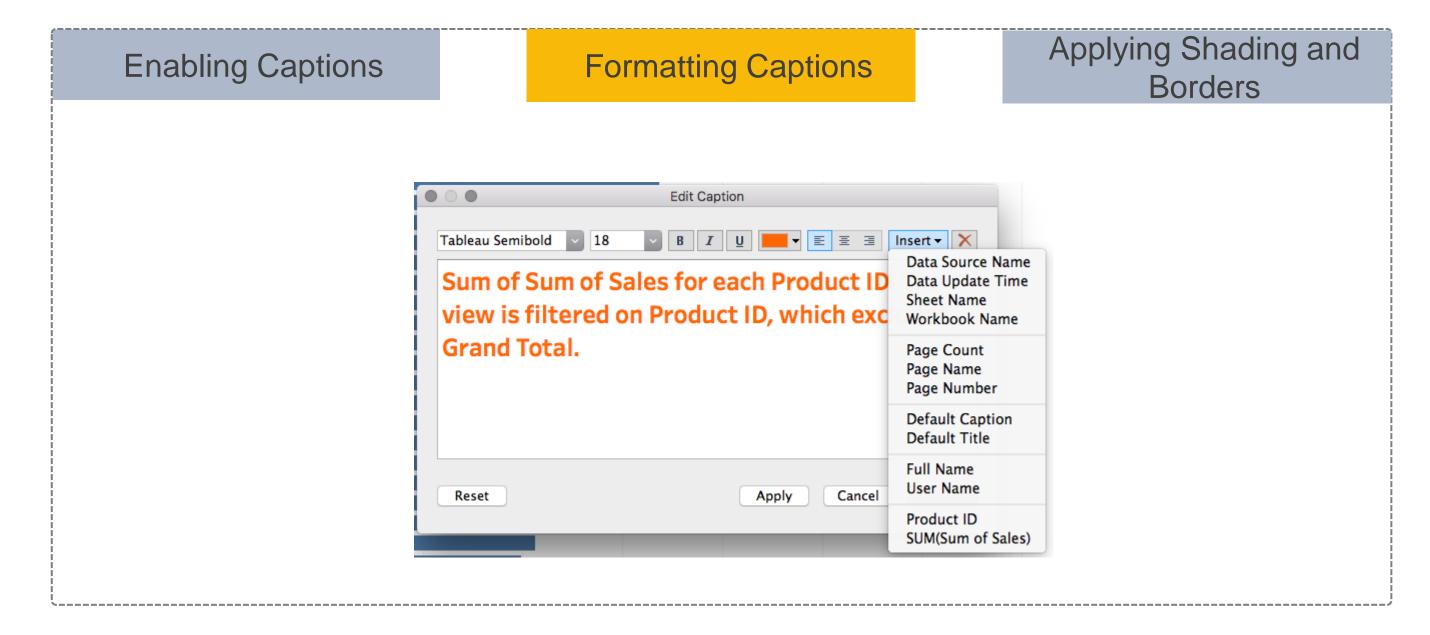


ADDING CAPTIONS TO VIEWS



ADDING CAPTIONS TO VIEWS

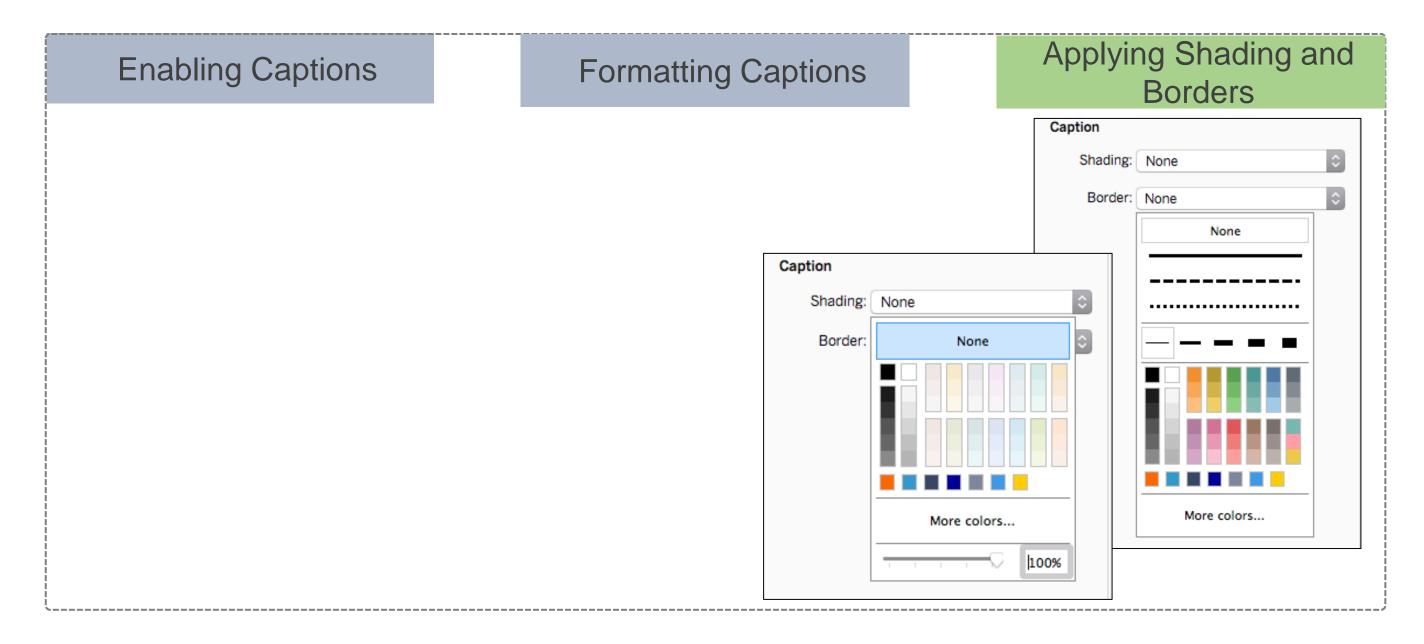
Captions can be formatted like Titles, with custom fonts, sizes, and colors and can include text strings, fields, or combinations of both.





ADDING CAPTIONS TO VIEWS

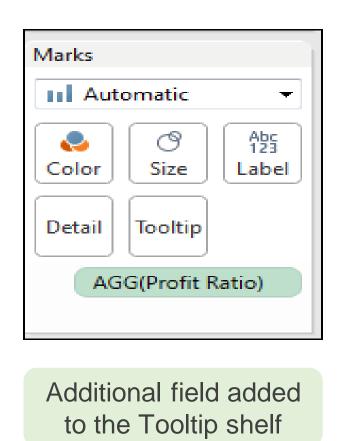
Captions can be formatted like titles, with custom shading and borders.

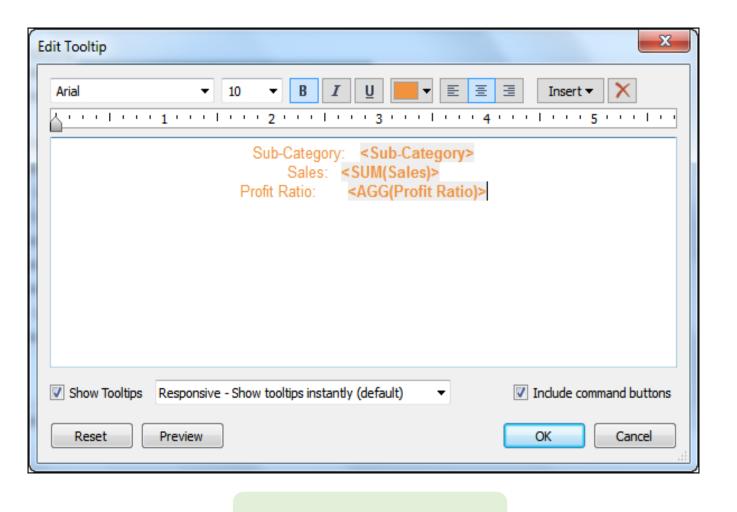




ADDING TOOLTIPS TO VIEWS

- Tooltips are useful to provide additional information that is not already present in the view.
- They are displayed when you hover over a mark in the view.
- You can add any number of fields in the tooltip by dragging them to the Tooltip shelf.

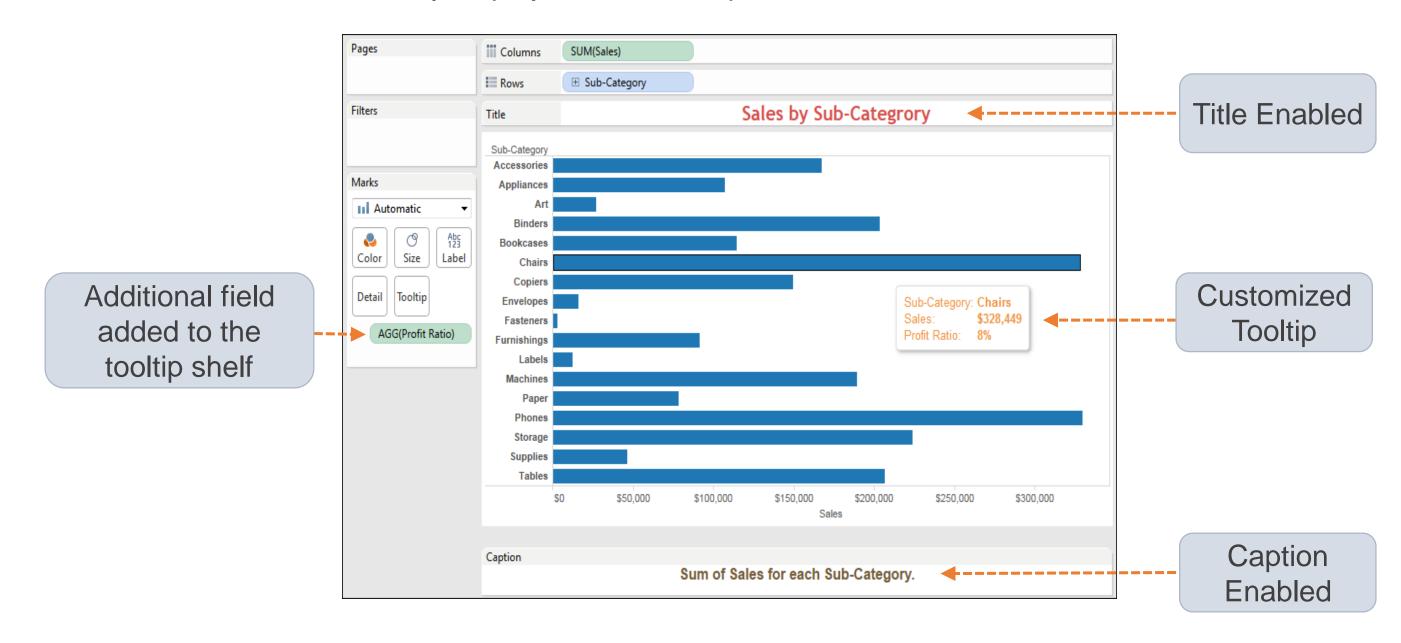




Formatting a tooltip

ADDING TOOLTIPS TO VIEWS

- The image below displays sales by subcategory in a bar chart. Title and caption have been enabled to label the view.
- Profit ratio values are additionally displayed in the tooltip.





The Measure Values shelf is to create a(n) _____.

- a. blended axis chart
- b. dual axis chart
- c. individual axis chart
- d. bullet chart



The Measure Values shelf is used to create a(n) _____.

- a. blended axis chart
- b. dual axis chart
- c. individual axis chart
- d. bullet chart



The correct answer is a

The Measure Values Shelf is used to create a blended axis chart.

Which of the following shelves is used for creating a motion chart?

- a. Filters shelf
- b. Pages shelf
- c. Angle shelf
- d. Detail shelf



Which of the following shelves is used for creating a motion chart?

- a. Filters shelf
- b. Pages shelf
- c. Angle shelf
- d. Detail shelf



The correct answer is **b.**

The Pages shelf is used to create a motion chart.

Which of the following visualizations will be appropriate for comparing actual sales to target sales?

- a. Gantt chart
- b. Waterfall chart
- c. Pareto chart
- d. Bullet graph



Which of the following visualizations will be appropriate for comparing actual sales to target sales?

- a. Gantt chart
- b. Waterfall chart
- c. Pareto chart
- d. Bullet graph



The correct answer is d

The bullet graph be appropriate for comparing actual sales to target sales.

Which of the following visualizations will you use to depict the distribution of a set of data?

- a. Box plot
- b. Waterfall chart
- c. Pareto chart
- d. Bullet graph



Which of the following visualizations will you use to depict the distribution of a set of data?

- a. Box plot
- b. Waterfall chart
- c. Pareto chart
- d. Bullet graph



The correct answer is a.

Box plot is used to depict the distribution of a set of data.

In a _____, the marks are stacked.

- a. box plot
- b. bar in bar chart
- c. dual axis chart
- d. combination chart



In a _____, the marks are stacked.

- a. box plot
- b. bar in bar chart
- c. dual axis chart
- d. combination chart



The correct answer is **b.**

In a bar in bar chart, the marks are stacked.

Titles, Captions, and Tooltips are _____

- a. created manually by the user
- b. created automatically by Tableau
- c. created automatically, but can be customized by the user
- d. None of the above



Titles, Captions, and Tooltips are _____

- a. created manually by the user
- b. created automatically by Tableau
- c. created automatically, but can be customized by the user
- d. None of the above



The correct answer is **c**

Titles, Captions, and Tooltips are created automatically by Tableau, but the user can edit them to make them more appropriate for the worksheet and meaningful to the user.

Guided Exercise

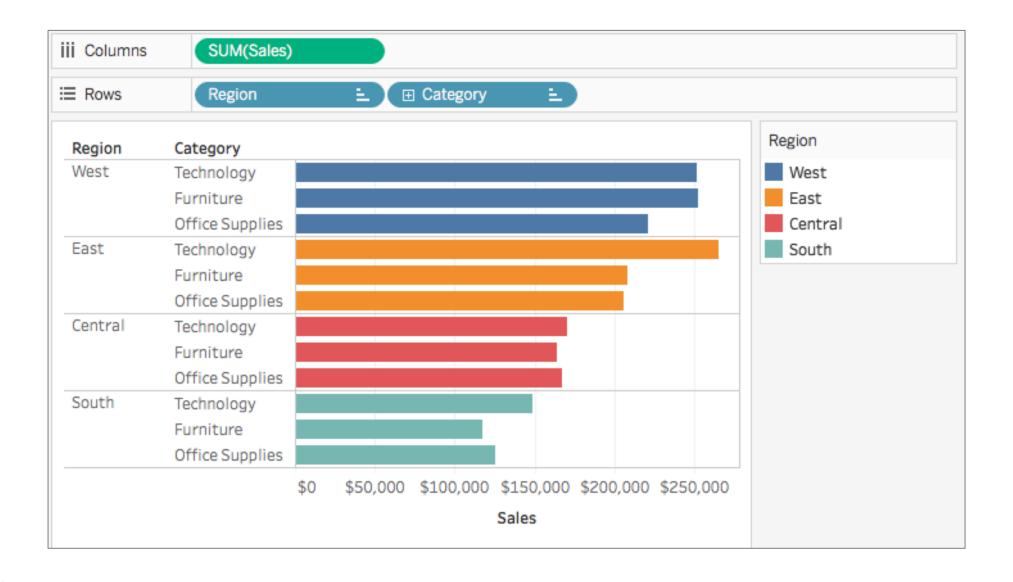
Problem Statement

Genelia now needs to design an advertising campaign for certain product categories across various regions. To start with, she needs to analyze how each of the product categories is performing in different regions. For this, she needs to create a bar in bar chart that shows the sales values for each product category across various regions. Using the Sample-Superstore saved data source, create a worksheet and answer the following questions:

- Which product category has the highest sales in the East region?
- Which region recorded the lowest sales of office supplies?

Solution

- Which product category has the highest sales in the East region?
 Technology
- Which region recorded the lowest sales of office supplies?
 South





Key Takeaways

Histograms are used to display the distribution of values in a field.

Bullet charts are used to compare one measure to one or more measures.

Combined axis charts are views in which multiple measures are plotted on a single axis.

Scatter plots are used to visualize relationships between numeric fields.

Pages shelf allows you divide your analyses into a series of pages.

Pareto charts are based on the Pareto principle, also known as the 80–20 rule.

Adding titles, captions, and tooltips to charts helps the users understand the data



This concludes "Creating Charts in Tableau."