sparkline

- Densely populated line chart that help in understanding anomalies
- “Anomalies” in the data are noticed when the number of data points increases in a line chart.
- **Order Date > Columns, click on it and select Day**
- **Sales > Rows**

Scatter plot

- Used to show the correlation between two measures
- Create magic quadrants and identify the relationships between measures.
- Both axeses will have numerical fields
- Other fields can be added via color, size or shape
- **Sales > Columns & Profit > Rows**
- **Sub-Category > Detail**
- **Adjust colors and shapes**

Tree map

- Displays hierarchical items in rectangular boxes consisting of a large rectangle divided up into smaller ones to represent sub-categories.

- **Region > color & Select Mark Type as square**
- **Sales > Size & State > Detail &Text**

Bubble chart

- The size of the circles denotes the quantity of the metric.
- **Region > Color & Select circle for mark type**
- **Sales > Size**
- **State > Detail & Text**

Word cloud

- Displays frequency of words in a text by making the size of each word proportional to its frequency.
- They can have meta-data associated with them.
- **Region > Color & Mark as Text**
- **Sales > Size**
- **State > Detail & Text**

Combined axis chart

- Use multiple mark types in the same sheet!
- **Order Date > Columns & select month in date value**
- **Sales > rows**
- **Profit on top of Sales Axis ON CHART until two scale symbol appears**

Dual axis chart

- Consists of two independent axes that are on top of each other
- Illustrates relationship between the two variables
- Used to compare multiple measures of the same category.
- Types of charts:
  - Bar vs. line
  - Bar in bar
  - Bar vs. circle
  - Lollipop

- Order date > columns (set by Date Value months)
- Sales > Rows
- Profit next to Sales in Rows
- Right-click on Profit axis & select Dual Axis
- Change axis range of Profit, right-click on profit and select Synchronize axis
- Change type of Mark for Sales to bar

Funnel chart

- Normally used in marketing and sales
- Helps present sales, profit, and revenue at different stages
- Created for single measure value and multiple measure value
- Sales > Rows & select affregate type as SUM
- Region > Color
- SUM(Sales) > Size & put in descending order
- Convert Standard View to Entire View
- Add Region & SUM(Sales) to Label box

Let’s talk about maps

maps

- Provide more context for the dashboard making it easier for users to spot trends in the data.
- There are Symbol Maps and Filled Maps
- State > Details (notice long. And Lat come up automatically)
- Change Marks to Map
- Profit > Color

Panning, zooming & selecting

- Top left corner of a map, there’s a toolbar and search box
- The toolbar selects marks on the map, pans & zooms in/out
- To zoom in, select zoom area option and drag to wanted area
- Zooming creates fixed ranges, click the Pushpin to reset.
- Holding SHIFT, you can drag to move around the map
- Dashed outline tools can be used to select specific areas on map

Using maps to filter

Can create actions on a map that filter data on a map

Map layering

- Change the appearance of your map by clicking on MAP at the top and choosing “Map Layers”
- You can change the background style
- Hide/Show map layers like land borders, etc.
- ADD data layers

Creating custom territories

A group is created based on the selection of custom territories either manually or by a calculated field.

Modifying locations

Tableau might fail to recognize the location names so you can go in and set them manually.

geocoding

- Process of converting text-based description of a location into coordinates.
- Using an external CSV is possible incase Tableau can’t identify the geographical field automatically.

Adding a background image makes the dashboard more appealing

Map search

- You can search for a specific location on your map
- Postal Code, Continent, City, Country and State/Province
- Located in upper left corner

Calculations in tableau

Basic expressions

- Simple calculated fields created using the “Create Calculated Field” option
- Can be either a dimension or a measure
- Can be created either at a row or aggregated level
- Aggregated level calculations use all fields to create the aggregated field.

Level of details

- Powerful functions that alter the level of detail
- Choices can be made between aggregation and granularity
- Three different expressions: include(), exclude() and fixed ()
- Include increases aggregation, exclude increases granularity and fixed increases independence.