

# TABLEAU CHEAT SHEET

## 01. TABLEAU

WHY USE TABLEAU ?	WORKBOOK COMPONENTS	WORKSHEET ANATOMY
Easy to use	A sheet is a single view in a workbook.	<b>Data Pane:</b> Left pane that lists your open data sources and the dimensions and measures contained in the selected data sources.
No Coding	A Dashboard collection of multiple worksheets used to display multiple views simultaneously	<b>Analytics Pane:</b> Analytics tab on the left pane will display available analyses for the data displayed on your sheet. Inapplicable analyses will be grayed out. Analyses include adding constant lines, box plots, trend lines, forecasts, and reference bands.
Integrates seamlessly with any data source	A story is a collection of multiple dashboards and/or sheets that describe a data story	<b>Marks Pane:</b> The tool used to create a sheet that controls most of the visual elements in a sheet. Using the Marks card, you can switch between different chart types (bar, line, symbol, filled map, and so on), change colors and sizes, add labels, change the level of detail, and edit the tool tips.
Can handle large datasets	—	<b>Row/Col Shelves:</b> is where you determine which variables will go on what axis. Put data you want displayed along the X-axis on the Columns shelf and data you want displayed on the Y-axis on the Rows shelf.

## 02. DATA

- DIMENSION:** A categorical variable from the dataset that is used to slice and dice the data into different categories. Dimensions are often discrete data. Examples include country, gender, student ID, and name. When a dimension is pulled into your sheet, it takes the form of a blue pill.
- MEASURE:** A variable from the dataset that is meant to be aggregated. (This means it should be a number that it makes sense to do math with: sum, average, and so on.) Measures are often continuous data. Examples include GPA, sales, quantity, quota, height, and salary. When a measure is pulled into your sheet, it takes the form of a green pill.
- DATA TYPES:** Data fields will have an icon beside them to visually indicate what type of data field they are.

String	Integer	Geographic Loc.	Date	Group	Set	Hierarchy	Bin	Calculated Field
Abc	#	🌐	📅	⌚	🕒	⌄ ⌂	.lli.	=# =Abc

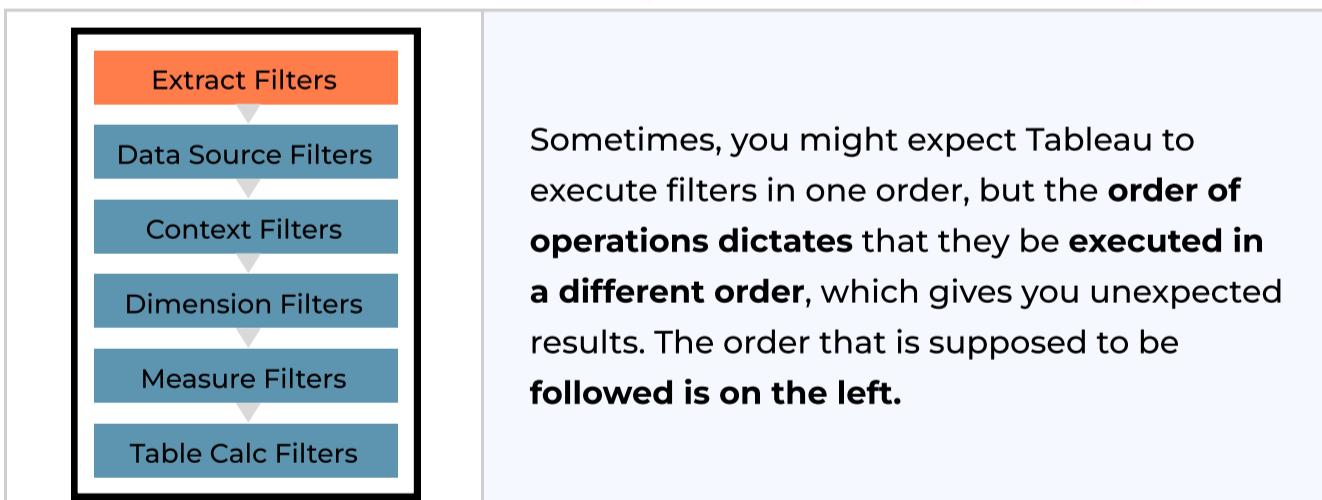
## 03. FILTER/PARAMETER

**FILTER:** A filter is used to limit what data is being displayed on the sheet. Visible controls for a filter on a sheet or dashboard are called **Quick Filters**. Each filter is for an individual data field. Both dimensions and measures can be used as filters.

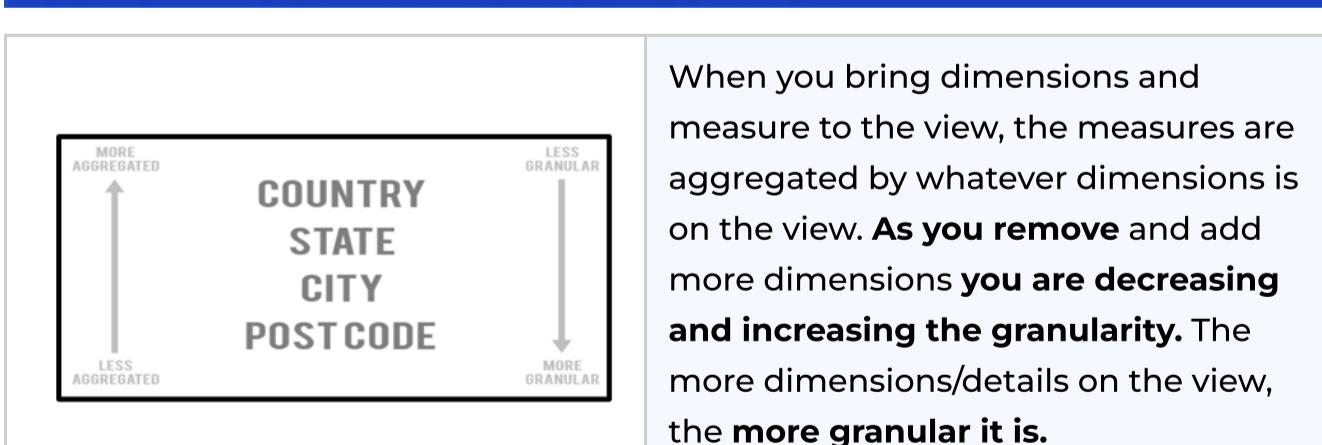
**PARAMETER:** While filters limit the data shown in the view, parameters act as a variable in an equation that can be controlled by the end user. Parameters only work in conjunction with either filters, sets, reference lines, or calculated fields.

**CALCULATED FIELD:** A calculated field is a field that uses existing database fields and applies additional logic — it allows you to create new data from your existing data.

## 04. ORDER OF OPERATION(aka QUERY PIPELINE):



## 05. GRANULARITY VS AGGREGATION



## 06. DATA VISUALIZATIONS IN TABLEAU

Bar-Charts	Horizontal bars used for comparing specific values across categories (e.g. sales by region)
Line Charts	Used for looking at a numeric value over time (e.g. revenue over time)
Scatter Plot	Used to identify patterns between two continuous variables (e.g. profit vs. sales volume)
Histogram	Used to show a distribution of data (e.g. Distribution of monthly revenue)
HeatMap	Used to visualize data in rows and columns as colors (e.g. revenue by marketing channel)

Maps	Used to show geographical data with color formatting (e.g., Covid cases by state)
TreeMap	Used to show hierarchical data (e.g. show how much revenue a subdivision generates relative to whole department in an organization)
Area charts	Represent any quantitative data over various periods of time. It is basically a line graph where the area between line and axis is generally filled with color.
Pie Chart	A pie chart is a type of graph that represents the data in the circular graph. The slices of pie show the relative size of the data.

## 07. JOINS VS BLENDING

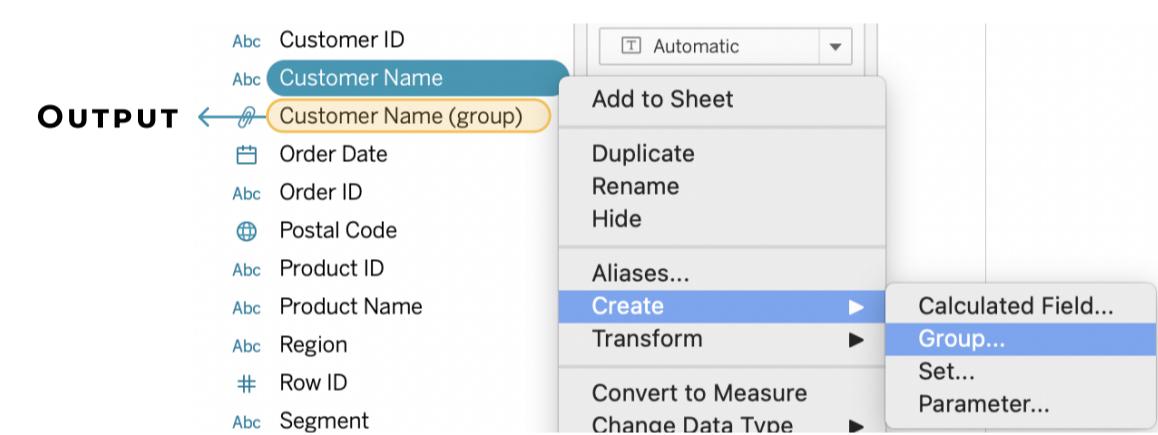
JOINS	BLENDING
<p>LEFT JOIN RIGHT JOIN INNER JOIN OUTER JOIN</p>	<p>Sample - EU Superstore Sheet1 (SuperstoreBudget) Tables Country Month Region Inactive connection (broken chain link) Active connection (orange chain link)</p>

1. Used when the dataset is from same source  
2. Data has to be maintained at the same level of granularity

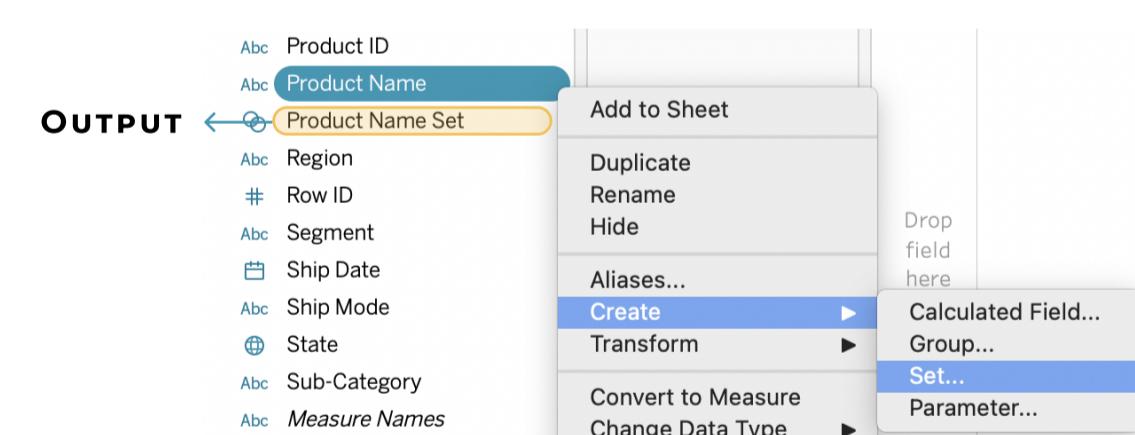
1. Used when the dataset is from a different data source  
2. Data can be available in different level of granularity.

## 08. DATA GROUPINGS VS RELATIONSHIPS

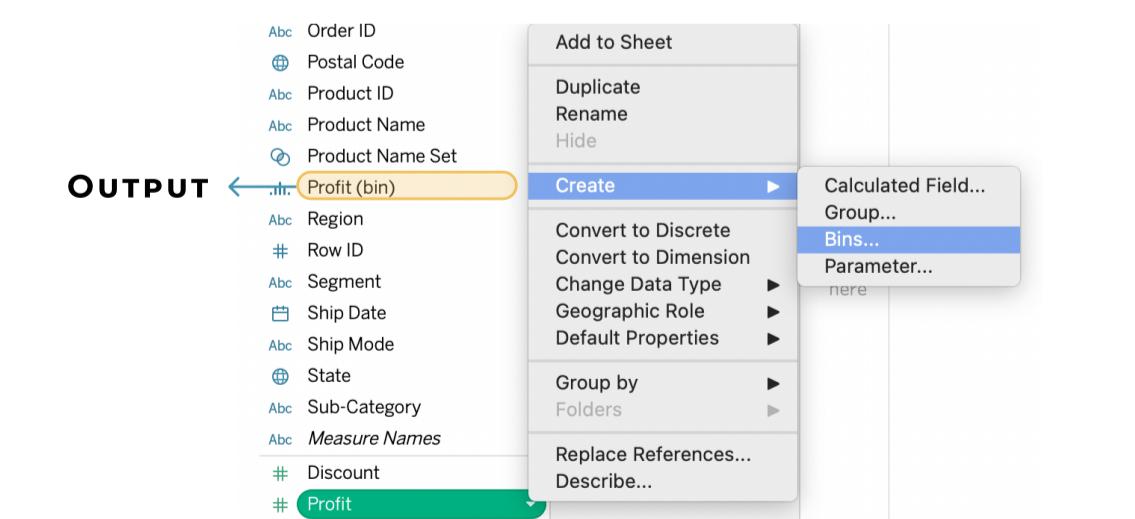
**GROUPS:** A tableau group is a set of multiple members combined in a single dimension to create a higher category of dimension



**SETS:** A subset of your data that meets certain conditions based on existing dimensions. Unlike a group, sets only have two values: IN and OUT. A member is either IN your set, or not (OUT).



**BINS:** Bins are buckets based on a range of values. While groups and sets are used for grouping dimensions, bins are used for grouping measures.



## 09. LOD EXPRESSIONS

- FIXED LOD:** It does not look at the view at all; it will calculate measure depending on dimensions you put in your expression and nothing else.
- INCLUDE LOD:** The calculation will look at the dimensions on your view plus any additional dimensions you put in the expression.
- EXCLUDE LOD:** It is dependent on what's on your view so you can only exclude dimensions that are currently in your visualization.