

## Tableau Professional Cheat Sheet

### Core Concepts

**What is Tableau?** - A data visualization and business intelligence platform. - Converts raw data into interactive dashboards and visual insights. - Used across industries for reporting, analysis, and decision-making.

**Primary Tableau Tools:** - Tableau Public – Free version, dashboards are public - Tableau Desktop – Paid version, full feature set

**Common File Types:** - .twb – Tableau Workbook (structure only) - .twbx – Tableau Packaged Workbook (with data) - .csv – Comma-separated file (flat file format) - .xlsx – Excel file (tabular data)

### Data Pane Overview

Type	Example Fields	Usage
Dimensions	Region, Product, Category	Categorical fields (blue pills)
Measures	Sales, Profit, Quantity	Numeric fields (green pills)

### Core Tableau Components

#### Shelves

- Rows / Columns – Define chart layout
- Filters – Limit or highlight specific data
- Pages – Show one value at a time for animation or steps

#### Marks Card

- Color – Differentiate or highlight data
- Size – Represent magnitude
- Label – Show numbers or names directly
- Detail – Add context without visual change
- Tooltip – Customize hover details

#### Show Me Panel

- Suggests chart types based on selected data
- Includes: Bar, Line, Pie, Map, Treemap, Scatter, etc.

### Common Chart Types and Use Cases

- **Bar Chart** – Used to compare values across categories
- **Line Chart** – Best for showing trends over time

- **Pie Chart** – Represents proportions of a whole (best with few values)
- **Scatter Plot** – Analyzes relationships between two measures
- **Treemap** – Displays part-to-whole relationships in a compact layout
- **Map** – Visualizes geographic data like sales by region or country
- **Box Plot** – Shows statistical distribution, including medians and outliers

## Calculated Fields

**How to Create:** - Right-click in Data Pane → Create Calculated Field

**Examples:** - Profit Margin:  $[\text{Profit}] / [\text{Sales}]$

- Avg Sale per Unit:  $[\text{Sales}] / [\text{Quantity}]$

- High Discount Flag: IF  $[\text{Discount}] > 0.2$  THEN "High" ELSE "Low" END

- Profit Banding: IF  $[\text{Profit}] < 0$  THEN "Loss" ELSEIF  $[\text{Profit}] < 500$  THEN "Low" ELSE "High" END

## Filters and Parameters

**Filters:** - Dimension filter: filter categories like Region or Segment - Measure filter: filter values like Profit > 0 - Relative date filter: filter by time periods (e.g., last 30 days)

**Parameters:** - Custom input controls like dropdowns and sliders - Used in calculated fields for dynamic filtering and analysis

## Creating Maps in Tableau

**Steps:** 1. Drag geographic field (e.g., State) to view

2. Tableau auto-generates the map

3. Drag a measure (e.g., Sales) to Color or Size

4. Choose Filled Map or Symbol Map

## Dashboards

**To Create a Dashboard:** 1. Click New Dashboard 2. Drag worksheets into the dashboard area 3. Use Tiled or Floating layout 4. Add Filters, Titles, Legends 5. Enable interactions with 'Use as Filter'

**Publish to Tableau Public:** - File → Save to Tableau Public