

- **What is Tableau?**

Tableau is an outstanding records visualization and enterprise intelligence device used for reporting and studying good-sized volumes of records. It is an American organization that began in 2003—in June 2019, Salesforce obtained Tableau. It enables customers to create exceptional charts, graphs, maps, dashboards, and memories for visualizing and studying records, to assist in making enterprise decisions.

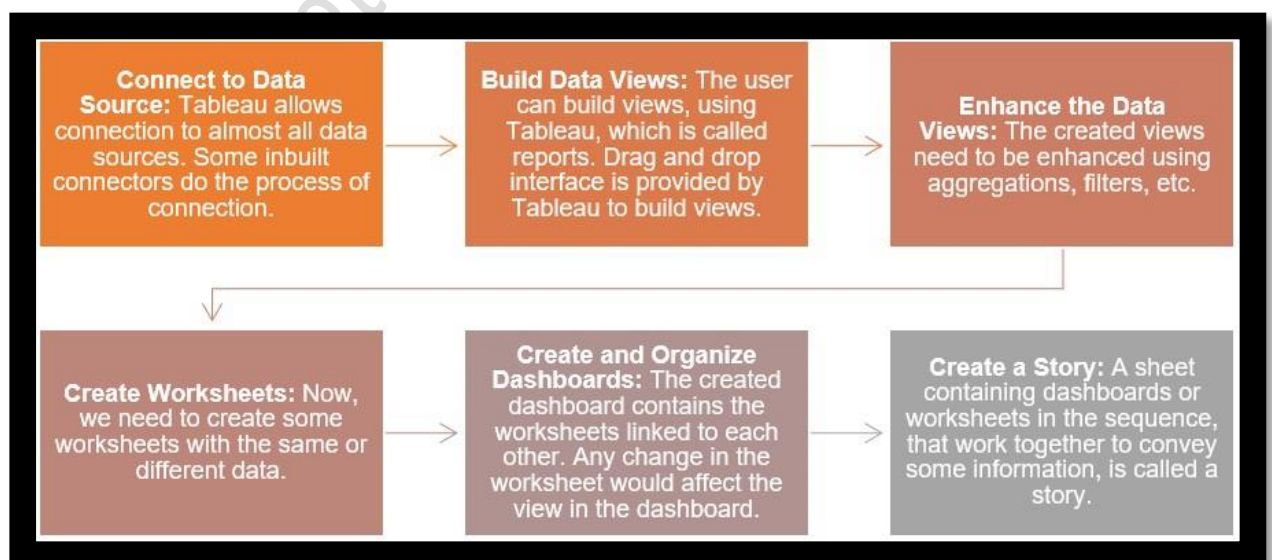
- **What are the features of Tableau?**

Tableau helps effective records discovery and exploration that permits customers to reply to vital questions in seconds





No earlier programming information is needed; Users without relevant experience can begin without delay and create good visualizations

With growing visualizations of the usage of Tableau, It can hook up with numerous records reasserts that different BI gear does now no longer support. Tableau permits customers to create reviews by becoming a member of and mixing specific datasets Tableau Server helps a centralized place to manipulate all posted records reasserts inside an organization

- **Flow Chart on to Build a Great Visualization**



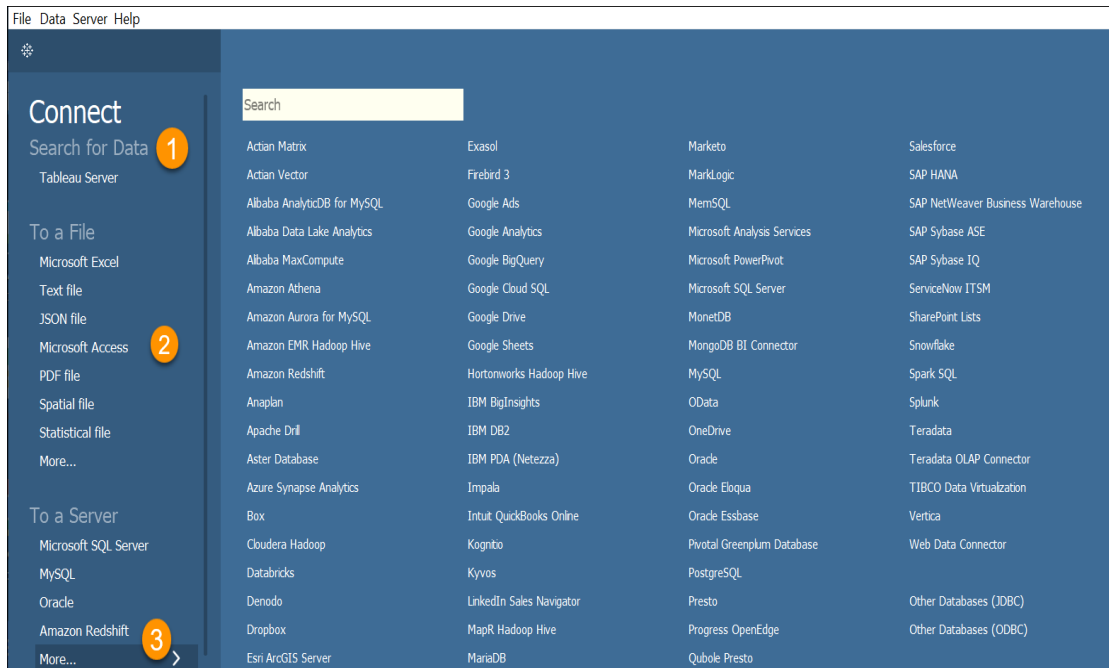
- **What are the Various Data Types in Tableau?**

Data Type	Icon
Text (string) values	Abc
Date Values	
Date & Time Values	
Numerical Values	#
Boolean Values	T F
Geographic Values	
Cluster Group	

- **Data Sources in Tableau**

Tableau can connect to a variety of data sources. You can connect to files that exist on your system, e.g. B. Microsoft Excel, text files, JSON, PDF, etc. It can also work with data existing on database servers like Microsoft SQL Server, MySQL, Oracle, Teradata, etc. There are other stored data sources that Tableau can connect to. You can also connect to and pull data from cloud sources such as AWS, Azure SQL Data Warehouse, and Google Cloud SQL.

TABLEAU

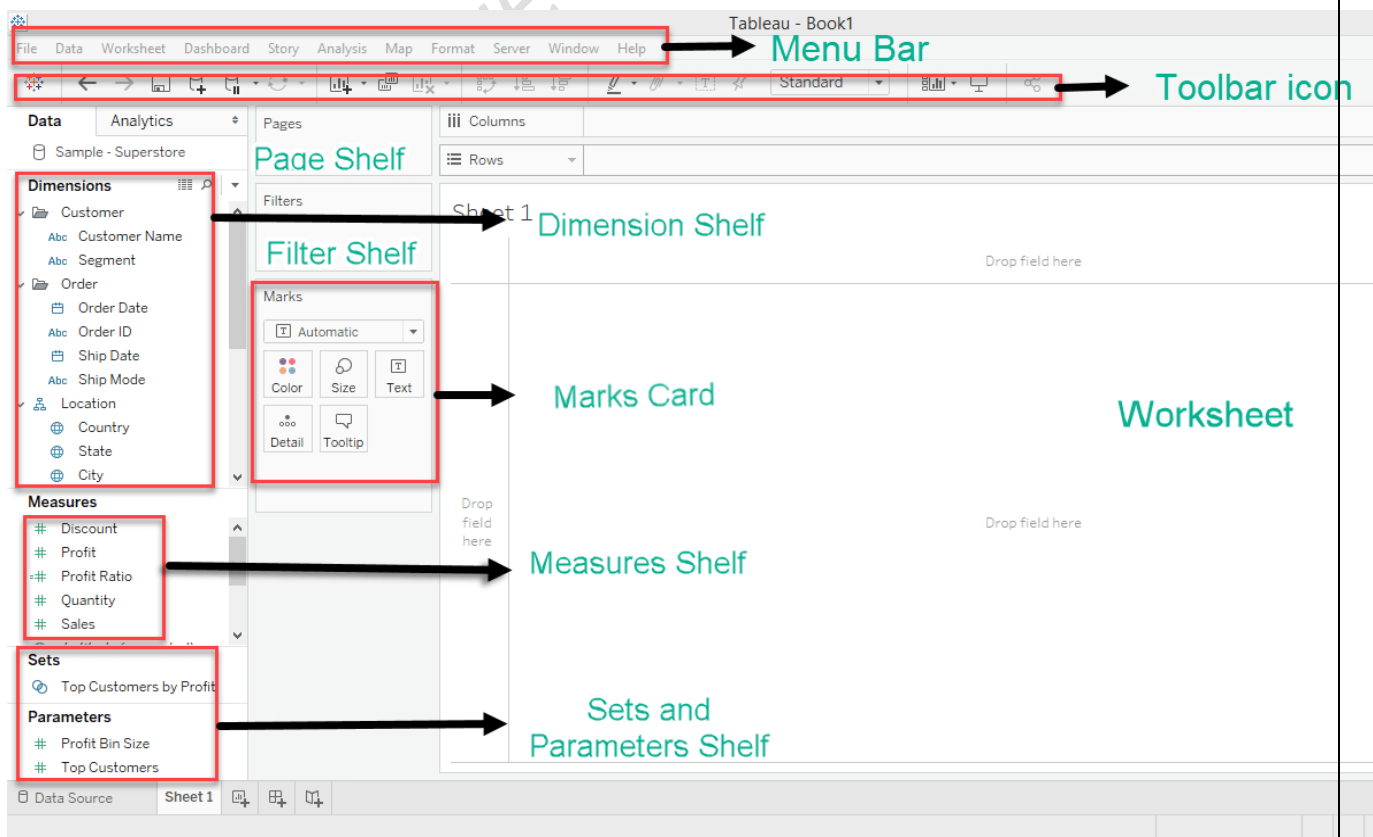


On to load the Excel File from your local system.

Click on Microsoft Excel > Local File Manager will get open > Choose the Excel File > It will be loaded onto the Tableau Data Source

- **Tableau Interface**

Once you load the data and select Sheet 1 You will find a Tableau Interface.



- **What are Dimensions and Measures?**

When you connect to a new data source, Tableau maps each field in the data source as a Dimension or Measure in the data region, based on the type of data the field contains. Use these fields to create views of your data.

Data fields are created from columns in your data source. Each field is automatically assigned a data type (e.g. integer, string, date) and a function: discrete dimension or continuous measure (most common), or continuous dimension or discrete measure (least common).

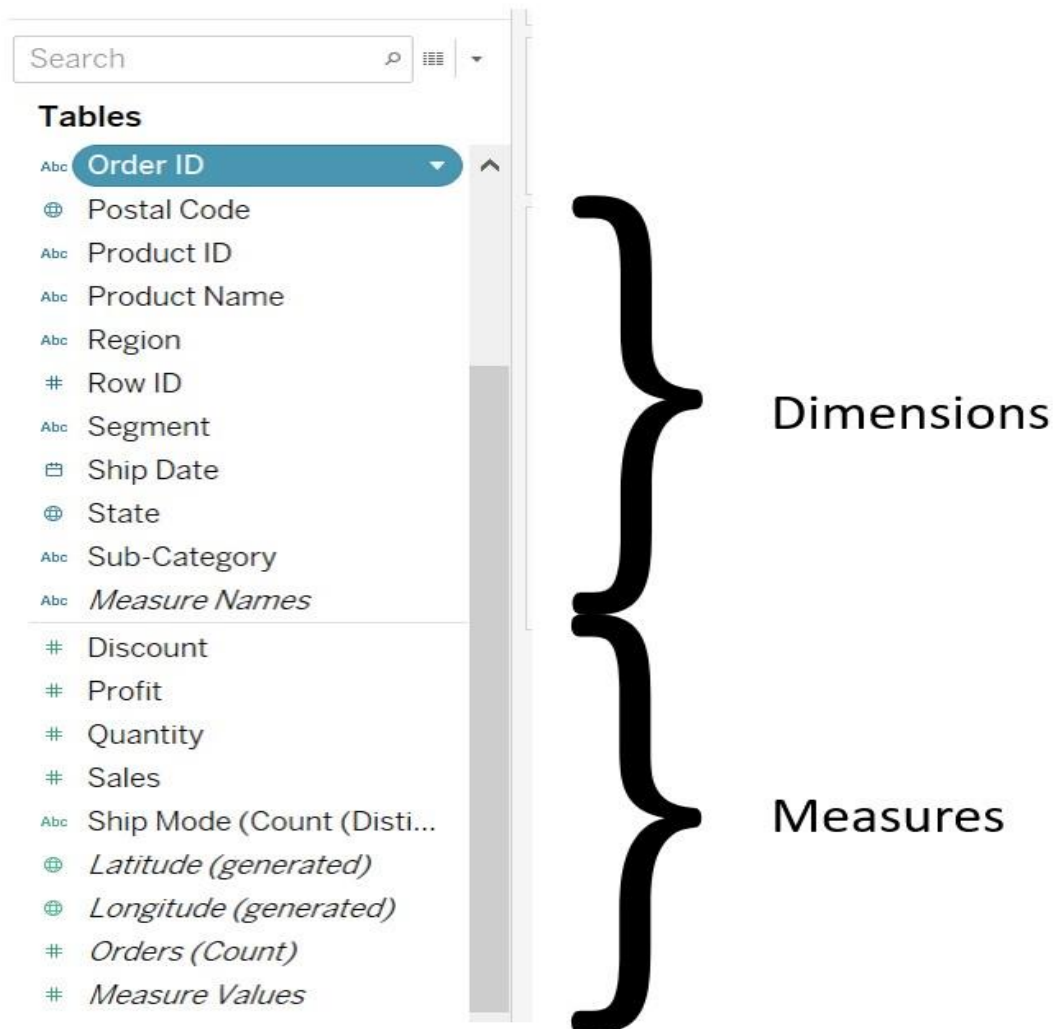
Dimensions: Contain qualitative values (such as names, dates, or geographical data). You can use dimensions to categorize, segment, and reveal the details in your data. Dimensions affect the level of detail in the view.

Measures: contain numerical and quantitative values that you can measure. Measurements can be added. When you drag a measure into the view, Tableau (by default) applies an aggregation to that measure.

Tableau renders data differently in the view depending on whether the field is discrete (blue) or continuous (green). Continuous and discrete are mathematical terms. Continuous means "forming an uninterrupted whole, without interruption"; discrete means "individually separate and different".

Measures: Green Measurements **SUM(Profit)** and dimensions **YEAR(Order Date)** are consistent. Continuous field values are treated as an infinite range. Continuous fields generally add axes to the view.

Dimensions: Blue Measurements and dimensions **Product Name** are discrete. Discrete values are treated as finite. Discrete fields generally add headers to the view.



• Filters in Tableau?

Depending on the file type you selected to filter, Tableau displays a Filter dialog box. For dimensional data, Tableau automatically lists the categories that can be selected or removed from the data set, as shown below.

When you click Custom List of Values, Tableau lets you add one or more categories to create a custom list of categories.

On the Placeholders page, you can filter or clear data based on dimension values. Conditions such as Contains begins with and Ends with help you narrow the record. The Condition tab of the Filter dialog box allows you to filter data by specifying multiple condition values in measure fields.

Finally, you can also select data by specifying a formula as a condition. Select the By Formula option on the Condition tab. A formula specifying

your custom condition can be entered in the field below. Example:
SUM(sales)>10000.

The screenshot shows the Tableau interface. The 'Columns' shelf contains 'Measure Names' and the 'Rows' shelf contains 'Country'. The 'Filters' shelf has 'Measure Names' and 'Country'. A context menu is open over the 'Country' filter, showing options like 'Filter...', 'Show Quick Filter', 'Add to Context', 'Apply to Worksheets', 'Sort...', 'Create Set...', 'Dimension', 'Measure', and 'Remove'. The background table displays data for various countries across four columns: 'Country', '2012 Interne..', '2012 Penetr..', '2014 Interne..', and '2014 Penetr..'. The data is as follows:

Country	2012 Interne..	2012 Penetr..	2014 Interne..	2014 Penetr..
Null	138,093	6		
Andorra	88,602	0	71,575	1
Anguilla and Barbuda	128,799	0	81,545	1
Antigua	23,543,412	1	24,973,660	1
Aruba	138,584	0	81,945	1
Australia	18,129,727	1	21,176,595	1
Austria	288,225	0	293,875	1
Bangladesh	10,148,280	0	10,867,567	0
Barbados	266,635	0	224,588	1
Belize	8,559,449	1	9,441,116	1
Bermuda	145,153	1	90,939	0
Bhutan	81,930	0	63,987	1
Bolivia	254,534	0	211,896	0
Bosnia and Herzegovina	278,442	0	268,038	0
Brazil	99,357,737	0	107,822,831	1

• Various Charts in Tableau?

Bar Chart

Bar charts are one of the most common data displays. You can use them to quickly compare data across categories, highlight differences, view trends and outliers, and see all-time highs and lows at a glance. Bar charts are especially effective when you have data that can be broken down into multiple categories.

Line Chart

The line chart or line chart connects several different data points and plots them as a continuous evolution. Use line charts to show trends in data, typically over time (e.g. changes in stock price over five years or website page views over the month). The result is a simple way to visualize changes in one value relative to another.

Pie Chart

pie charts are great for adding detail to other visualizations. A pie chart, by itself, does not provide the viewer with a way to quickly and accurately compare the information. Because the viewer has to create the context

themselves, the cornerstones of your data are lost. Instead of making a pie chart the focal point of your dashboard, try using it to drill down to other visualizations. Maps

Maps are a snap to display any type of location information, whether it's zip codes, state abbreviations, country names, or your own custom geocoding. When you've linked geographic information to your data, maps are a simple and compelling way to show how location correlates with trends in your data.

Density Maps

density maps show patterns or relative concentrations that might otherwise be obscured by a marker superimposed on a map and help you identify locations with more or fewer data points. Density maps are most effective when you are working with a dataset that contains many data points in a small geographic area.

Scatterplot

scatterplots are an effective way to examine the relationship between different variables, showing whether one variable is a good predictor of another or whether they tend to change independently. A scatter chart shows many different data points in a single chart. The graph can then be expanded with analyses such as cluster analysis or trend lines.

Gantt Chart

Gantt charts show a project schedule or changes in activity over time. A Gantt chart shows the steps that need to be completed before others can begin, along with the allocation of resources. 1007 1007 Bubble Chart 1007 Although bubbles are not technically a visualization type in their own right, using them as a technique adds detail to scatterplots or maps to show the relationship between three or more measures. Varying the size and color of the circles creates visually appealing charts that display large amounts of data at once.

Tree Maps

Tree Maps relate different segments of your data to the whole. As the chart's name suggests, each rectangle in a treemap is divided into smaller rectangles, or sub-branches, based on their relationship to the whole. They use space efficiently to display the overall percentage of each category.

• Tableau DashBoard?

A dashboard is a consolidated view of many worksheets and their related information in a single place.

This helps in monitoring and comparing a variety of data simultaneously.

We can view different data views at once.

