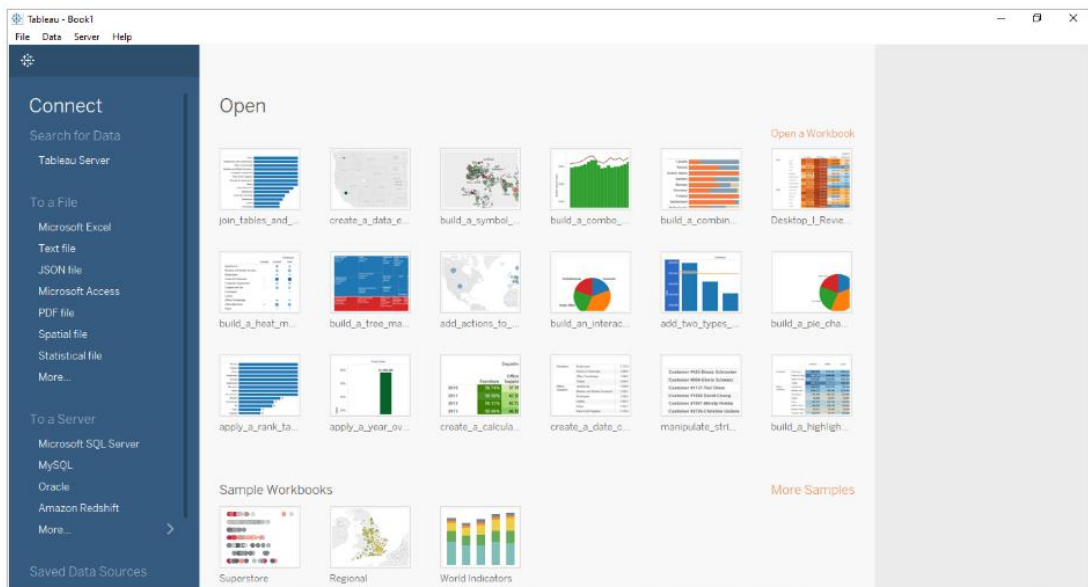




Introduction to Various data visualization tools: Tableau

Connecting to Data Sources in Tableau

Tableau is capable of connecting with a wide range of data sources. It can connect to files present in your system, such as [Microsoft Excel](#), text files, JSON, PDF, etc. It can also work on data present on a database server, such as Microsoft [SQL Server](#), [MySQL](#), Oracle, Teradata, etc. There are other saved data sources that Tableau can connect with. It also can connect and fetch data from [cloud sources](#), like [AWS](#), Azure SQL Data Warehouse, and Google Cloud SQL.





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The following is an example of importing an excel file to Tableau Desktop.

Under Connect, click on Microsoft Excel. Locate the Excel file present in your system, which will export the dataset into Tableau. As you can see below, we have imported the Sample - Superstore dataset. Now, drag the required sheets under the “Drag sheets here” space.

Now, if you click on Sheet1, you can see all the fields of the dataset under Dimensions and Measures.

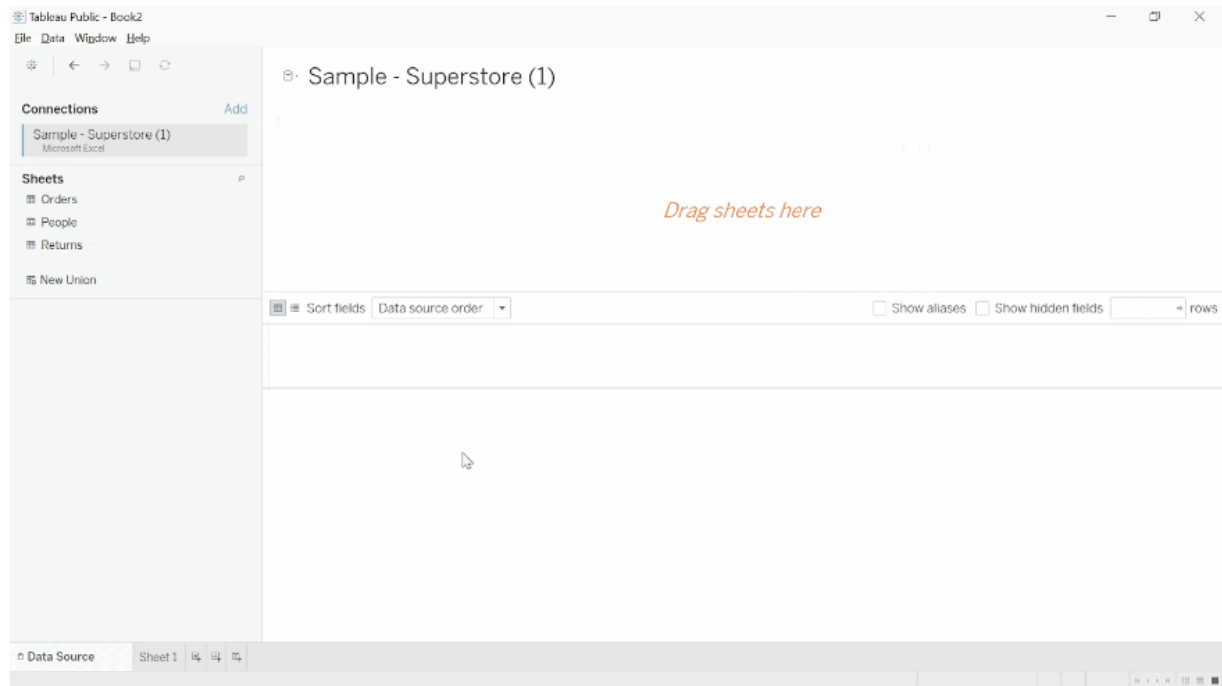
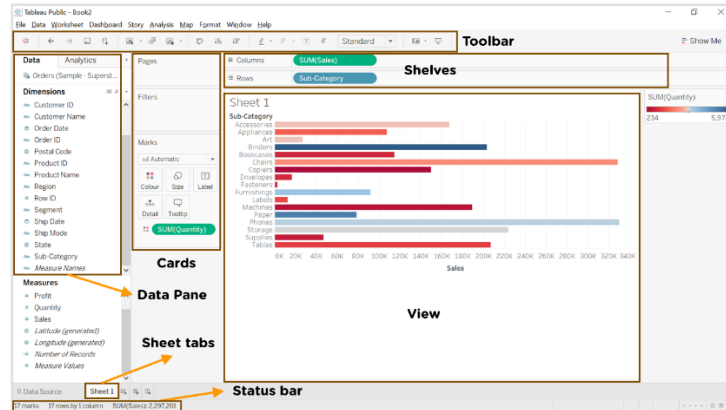


Tableau Desktop Interface

Next up in the what is tableau tutorial, let us understand all about its interface. Tableau Desktop’s interface, or the workspace, consists of menus, a toolbar, cards, shelves, data and analytics pane, different sheets for creating reports, dashboards, and stories.

The following is what the Tableau Desktop interface looks like:



Dimensions and Measures in Tableau

Once you load a dataset, Tableau automatically divides the data into dimensions and measures. You can see this in the workspace area under the data pane.

Dimensions are usually categorical fields that cannot be aggregated, while measures are numerical fields that can be measured, aggregated, or manipulated.

Dimensions are marked in blue, while measures are marked in green.

Dimensions	Measures
Product N...	Discount
Region	Profit
Row ID	Quantity
Segment	Sales
Ship Date	Latitude (generat...)
Ship Mode	Longitude (gener...)
Sub-Category	Number of Recor...
	Measure Values

What is Tableau Tutorial: Creating visualizations

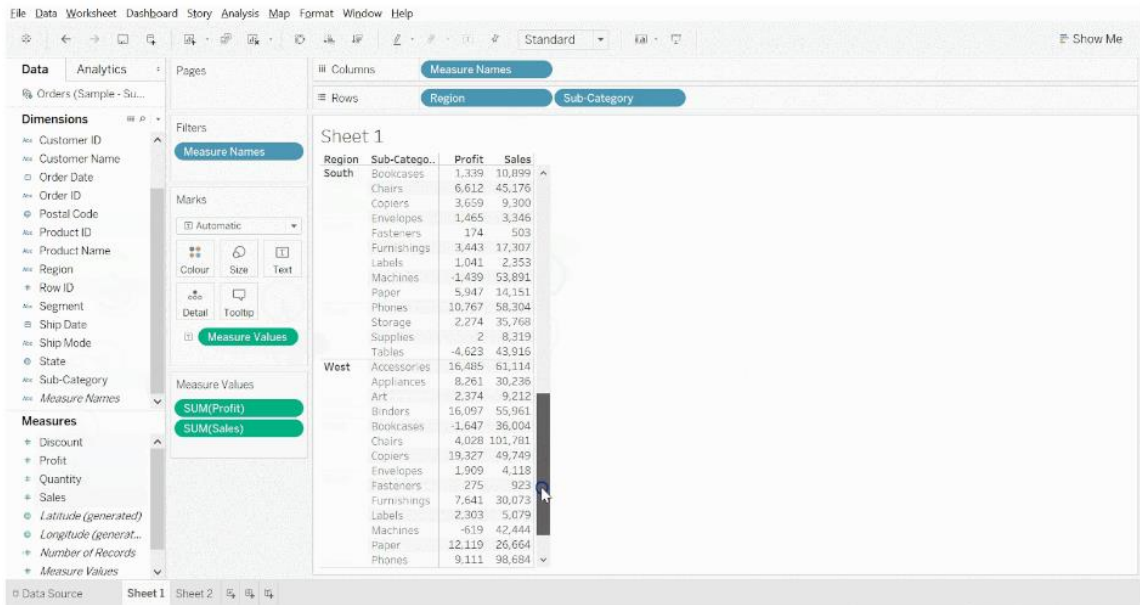
1. The following is a simple table that will analyze sales and profit for different subcategories of products across various regions.



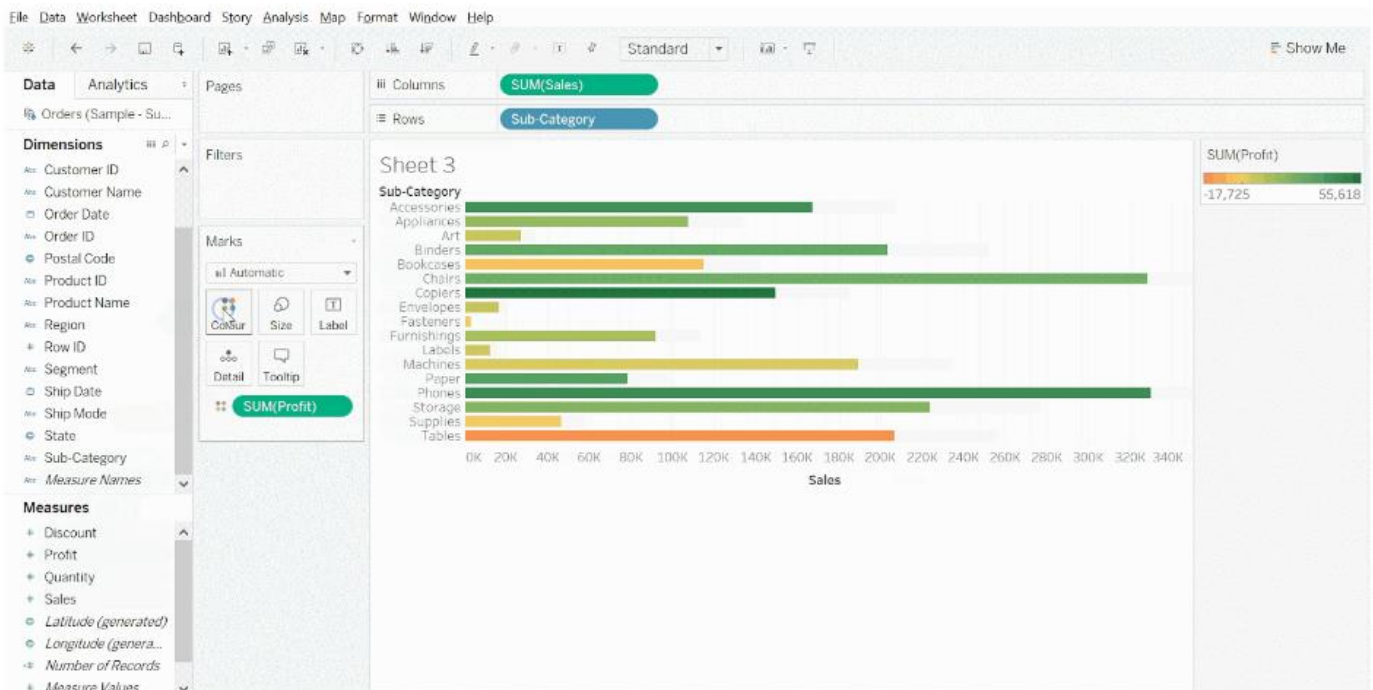
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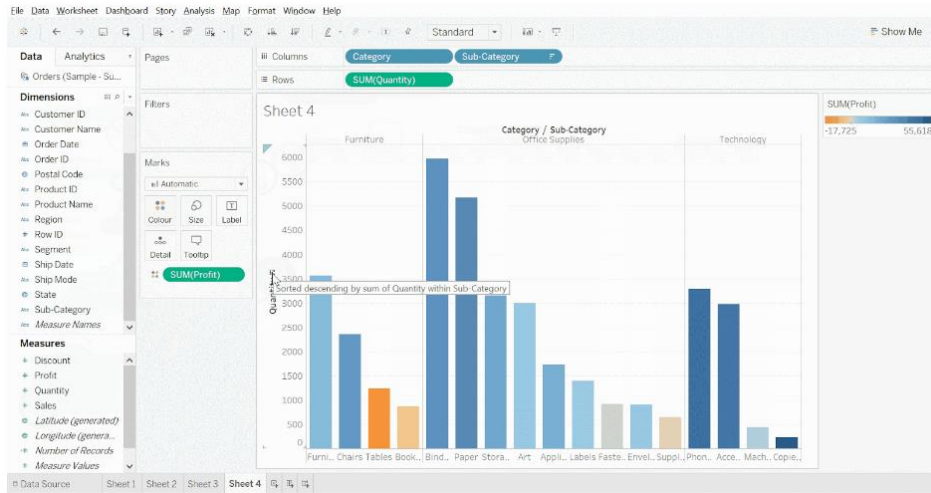


2. The horizontal bar chart below shows sales of different subcategories of products with the color of the bars indicating the profit. Sort the sales axis in descending order and change the color of the bars using a different palette.

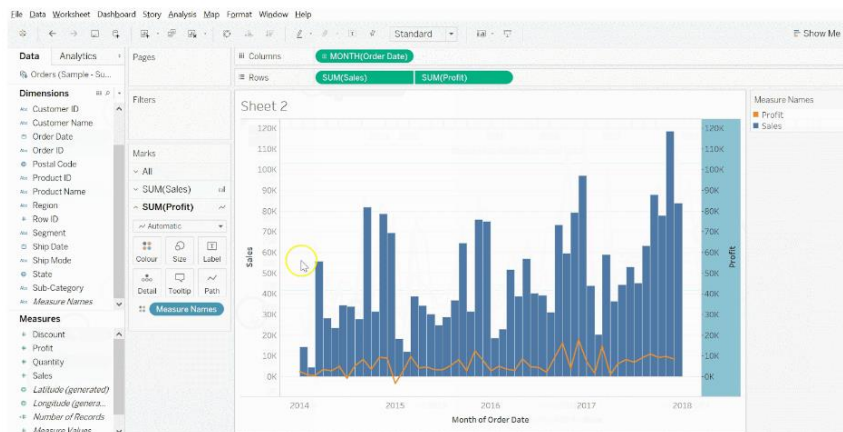


Phones made the highest amount of sales, while copiers had the highest profit.

3. The side-by-side bar chart is used to visualize sales and profits for different subcategories of products under each category.

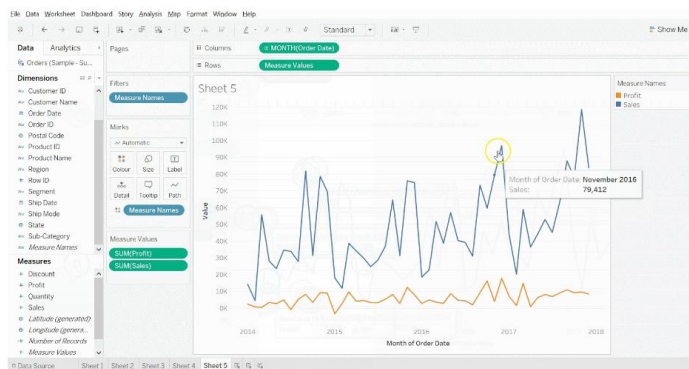


4. A dual-axis chart will analyze sales and profits by order month. Drag the order date field on to columns shelf and profit field on the right corner where you see a green rectangle. Synchronize the profit axis and change sales to bars.



The month of November had the highest amount of sales, while January had the least.

5. A blended axis chart is used for comparing two measured values against the same axis.





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The blended axis chart enables users to forecast the data for making future predictions. Go to the analytics pane and double-click on forecast.

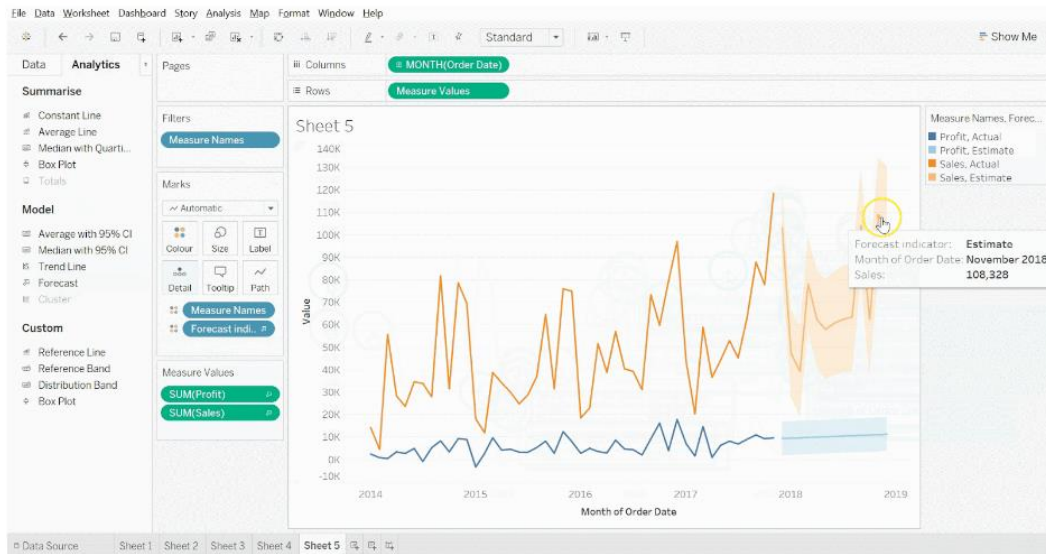


Tableau enables users to create hierarchies using data fields, which makes it easy to break down the visualization and organize data in a logical order. The following is an example of creating a location hierarchy using country, state, and city fields. You need to drag a field and drop it directly on top of another field and give a name to the hierarchy.

