

# Power BI 1

## Part 1

### 1. What is Data Visualization?

Data visualization is the representation of data and information in a graphical or pictorial format. It can be used to identify trends, patterns, and relationships in data that may not be easily apparent when looking at raw data. By presenting data in a visual format, it can be more easily understood and communicated to others.

### 2. What are the differences between PowerBI and Tableau?

PowerBI and Tableau are both data visualization tools, but there are some key differences between them. PowerBI is more affordable and easier to use, making it a good choice for small to medium-sized businesses. Tableau offers more advanced features and customization options, making it a better choice for large enterprises with more complex data needs.

### 3. What are the steps involved to connect to the CSV and XLSX files format in PowerBI?

The steps to connect to CSV and XLSX files format in PowerBI are as follows:.

- Open Power BI Desktop and click on "Get Data" in the Home tab
- In the "Get Data" window, select "File" and then choose the type of file you want to connect to (CSV or Excel).
- Browse to the location of the file and select it.
- In the "Navigator" window, select the tables or worksheets you want to use and click on "Load" to import the data into Power BI.

### 4. What are the different types of views in PowerBI?

There are different types of views in PowerBI, including:

- Report view: This is where you create and view reports, including visualizations and data tables.
- Data view: This is where you can see and edit the raw data that you have imported into PowerBI.
- Relationship view: This is where you can manage the relationships between different tables in your data model.

- Dashboards: This is where you can create and view dashboards, which are collections of visualizations and reports that provide an overview of your data.

#### 5. Why do we need PowerBI if we already have Excel?

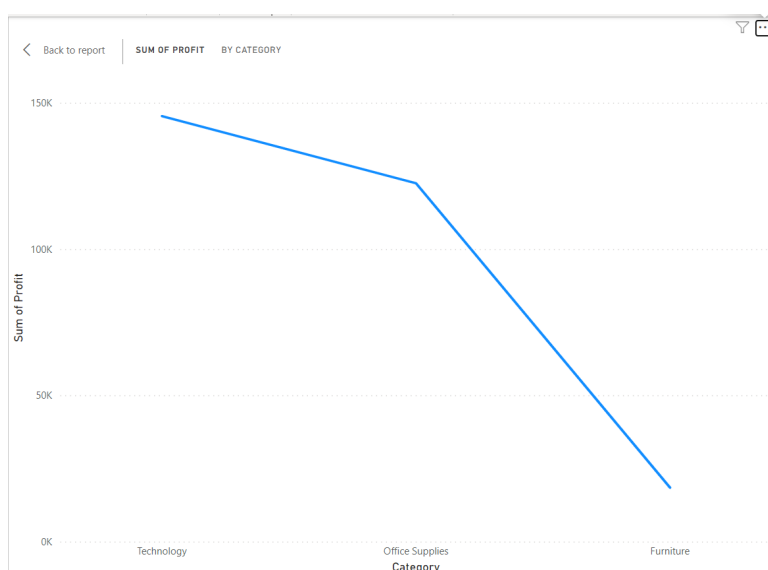
PowerBI is a more powerful and flexible tool for data visualization and analysis than Excel. It can handle larger data sets and has more advanced features for creating interactive visualizations and dashboards. PowerBI also allows for real-time data analysis and can connect to a wider range of data sources.

#### 6. What is the difference between measures and dimensions?

Measures are numeric values or quantitative data used for analysis, such as sales revenue or total profit. Dimensions are qualitative attributes used to categorize and provide context for the measures, such as time, geography, or product categories. While measures represent the values to be analyzed, dimensions help slice and dice the data for better insights. Measures can be aggregated using mathematical functions, while dimensions organize the data into meaningful categories. Together, measures and dimensions form the basis for data analysis and decision-making in various fields.

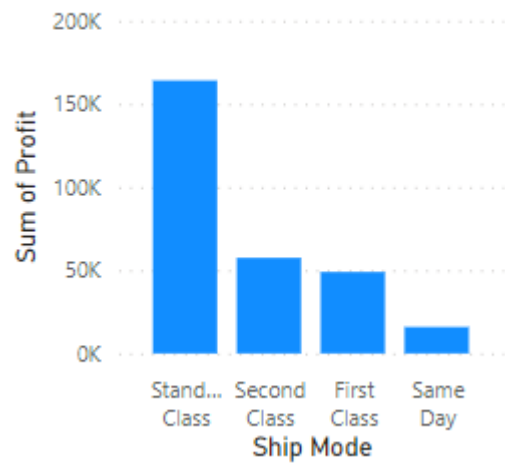
## Part 2

Construct a line chart showing the profit across the different categories. Give appropriate legends.



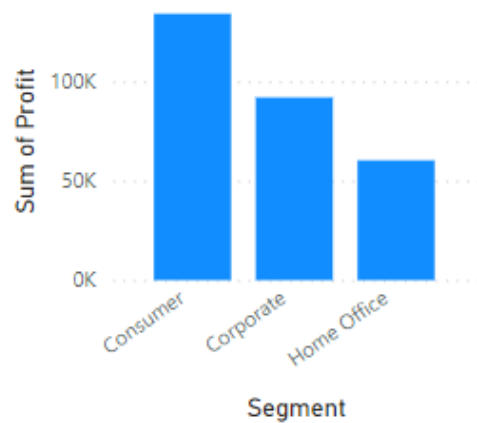
Visualize the profit across different ship modes.

Sum of Profit by Ship Mode

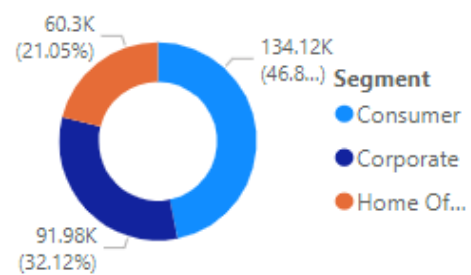


Visualize the profit across different segments.

Sum of Profit by Segment

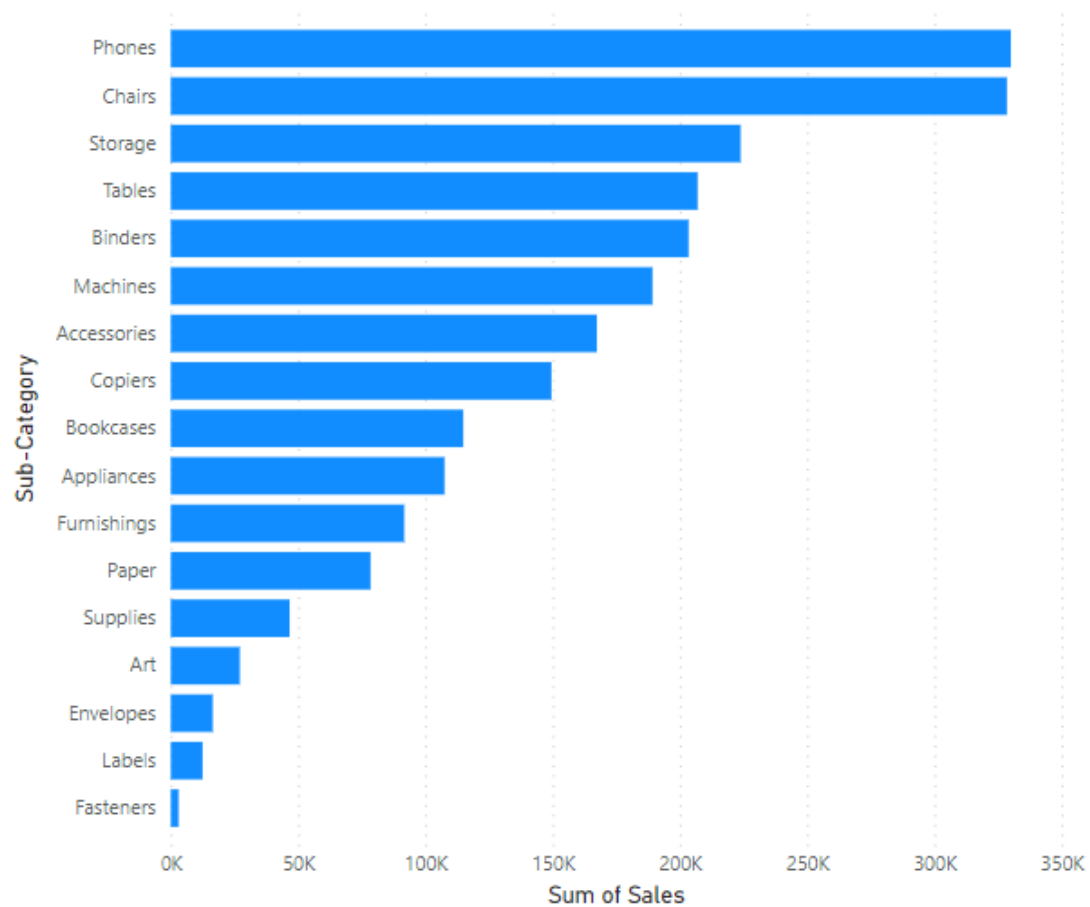


Sum of Profit by Segment



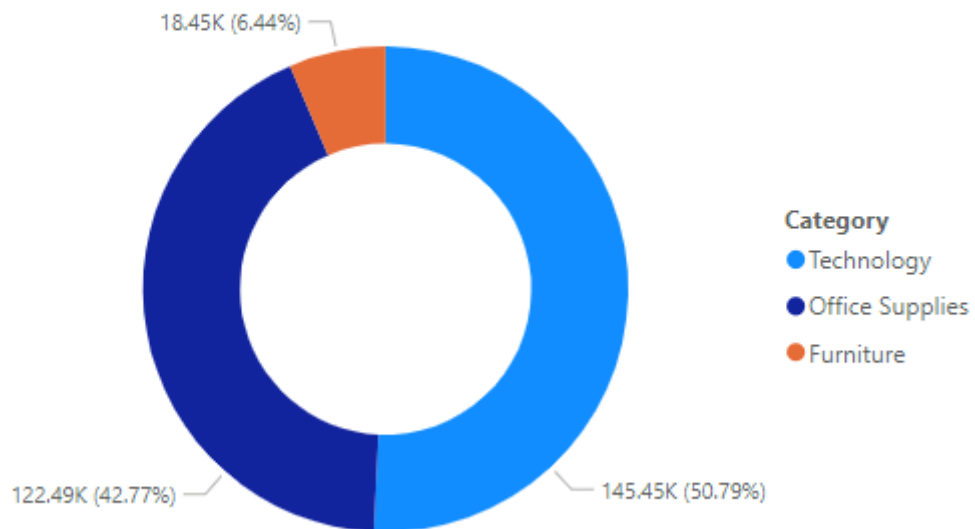
Construct a bar chart showing the sales across the sub-categories.

Sum of Sales by Sub-Category



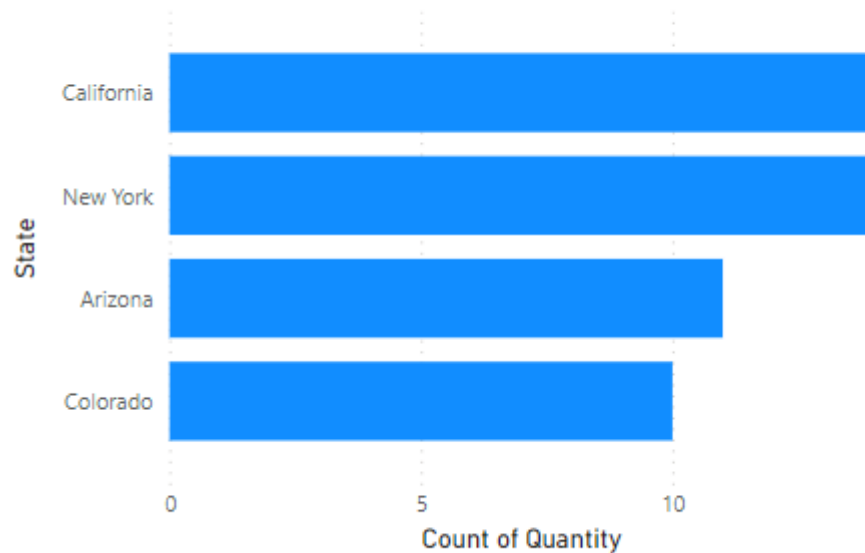
Construct a Doughnut Chart to show the percentage of profit for different categories out of the total profit. (Just try once on your own)

Sum of Profit by Category



Create a bar chart to show the sum of quantity sold in the following states. (California, Colorado, New York, and Arizona).

Count of Quantity by State



Create a bar chart to show the sales across different cities in 'Georgia' State.

Sum of Sales by City

