**Types of Charts / Graphs**

# **Line Chart:**

* Used for simple/discrete data.
* Displays data points connected by straight lines to show trends or changes over time.
* Horizontal axis represents the independent variable (e.g., time), while the vertical axis represents the dependent variable (e.g., sales, temperature).
* Useful for visualizing continuous data and displaying patterns, trends, or correlations.

# **Bar Graph:**

* Used when dealing with inclusive class series.
* Represents categorical data using rectangular bars.
* Each bar corresponds to a category or group, and its length or height represents the value or frequency associated with that category.
* Suitable for comparing different categories or groups and visualizing their relationships or distributions.

# **Histogram:**

* Used when dealing with exclusive class series.
* Represents the distribution of continuous or quantitative data using rectangular bars.
* Each bar represents a range of values, and its height represents the frequency or count of observations falling within that range.
* Helps analyze the shape, center, and spread of a dataset.

# **Pie Chart:**

* Mostly used when data is represented in percentages.
* A circular chart divided into slices, where each slice represents a category and its size represents the proportion or percentage of the whole that category represents.
* Useful for visualizing relative proportions and comparing different categories within a dataset.

# **Frequency Polygon:**

* Commonly used in technical analysis in the stock market.
* Represents the distribution of data by connecting midpoints of the tops of bars in a histogram with straight line segments.
* Provides a smoother representation of the data distribution compared to a histogram.

# **Ogive/Cumulative Frequency:**

* Represents the cumulative frequency distribution of a dataset.
* Plots points corresponding to the cumulative frequency at each data point and connects them with straight line segments.
* Provides insights into the proportion of data falling below or above certain values and helps analyze cumulative distributions.