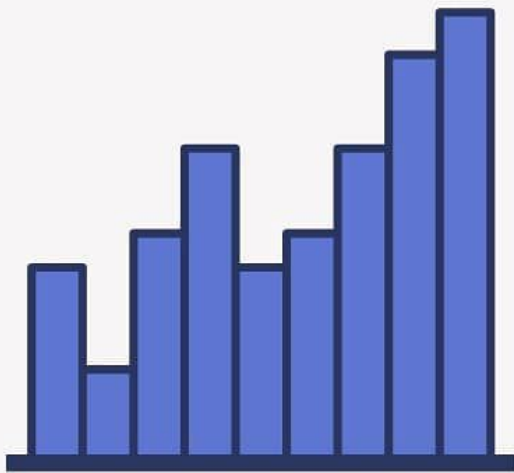# 10+ TECHNIQUES TO VISUALIZE YOUR DATA

HISTOGRAMS & BAR GRAPH

- **Histogram is only used to plot the frequency of score occurrences in a continuous data set that has been divided into classes, called bins.**
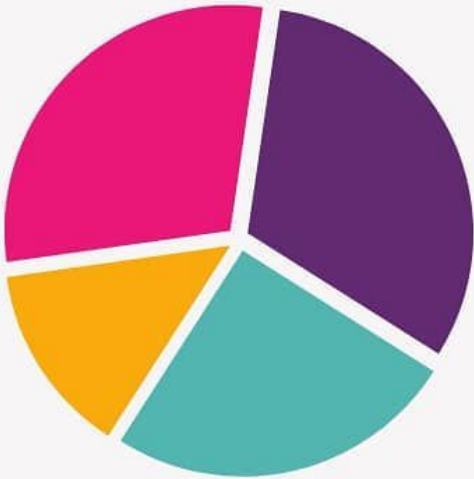- **Useful for inspecting skewness in the data.**

- **Bar charts, on the other hand, can be used for a great deal of other types of variables including ordinal and nominal data sets.**
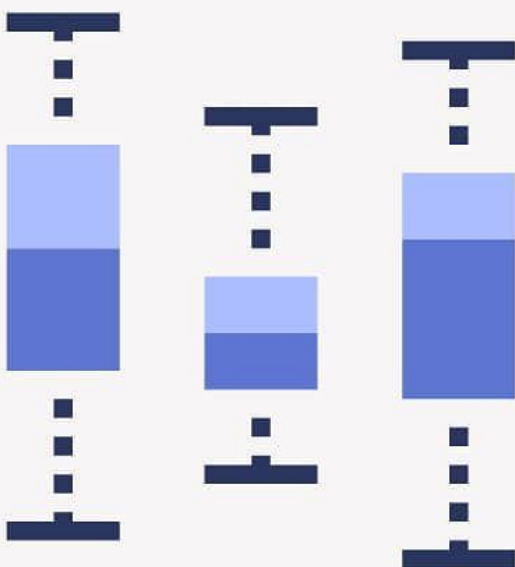
PIE CHART & BOX PLOT

- **Pie charts are generally used to show percentage or proportional data and usually the percentage represented by each category is provided next to the corresponding slice of pie.**
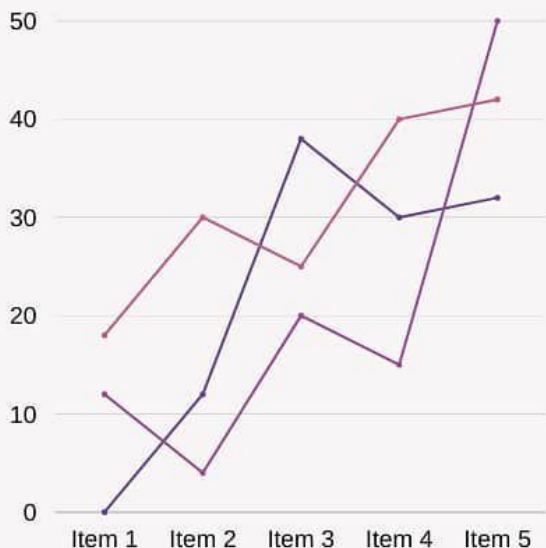
- **These are used to show the shape of the distribution, its central value, and its variability.**
- **The ends of the box are the upper and lower quartiles, so the box spans the interquartile range.**
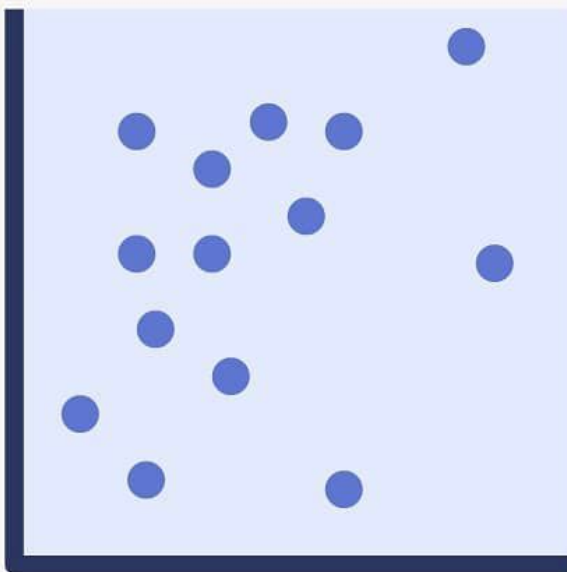
LINE CHART & SCATTER PLOT

- **Line graphs are used to track changes over short and long periods of time. When smaller changes exist, line graphs are better to use than bar graphs.**
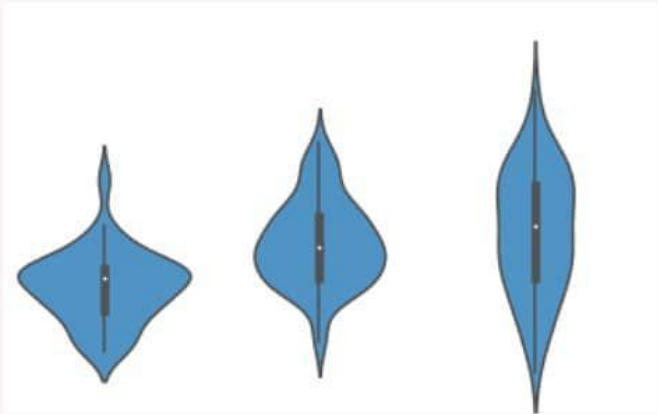- **Line graphs can also be used to compare changes over the same period of time for more than one group.**

- **Scatter plots are used to plot data points on a horizontal and a vertical axis in the attempt to show how much one variable is affected by another.**
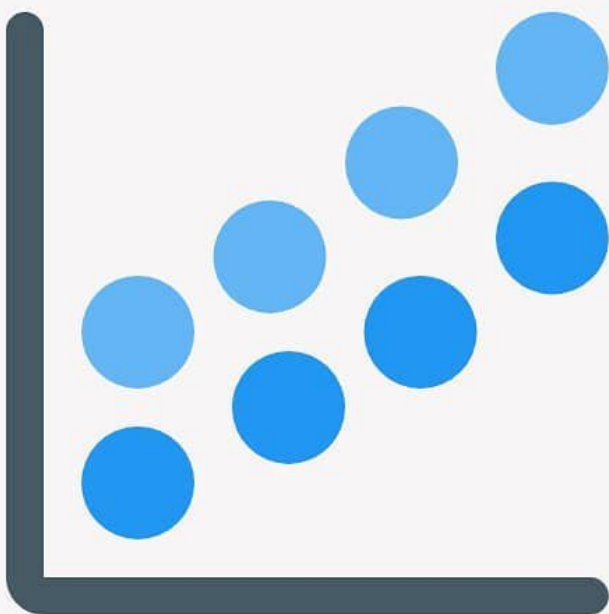
VIOLIN PLOTS & BUBBLE CHART

- A Violin Plot is used to visualise the distribution of the data and its probability density. This chart is a combination of a Box Plot and a Density Plot that is rotated and placed on each side, to show the distribution shape of the data.
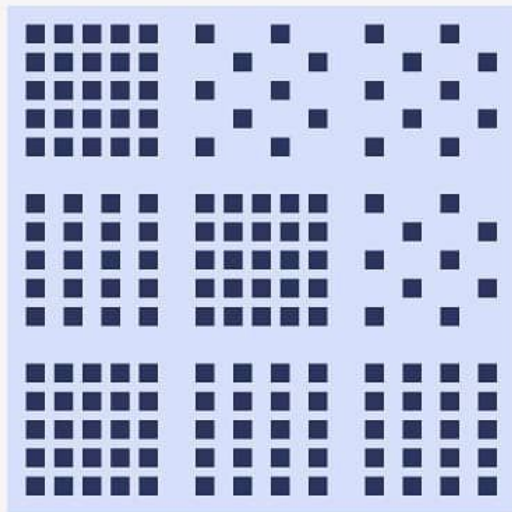
- Bubble Charts resemble XY Scatter Charts - but can convey information regarding a third data element per observation, using the size of each traditional XY plotted point to express the magnitude of the third variable.

CORRELATION HEATMAP & GEO PLOT(Choropleths)

- **A heatmap is a graphical representation of data that uses a system of color-coding to represent different values.**
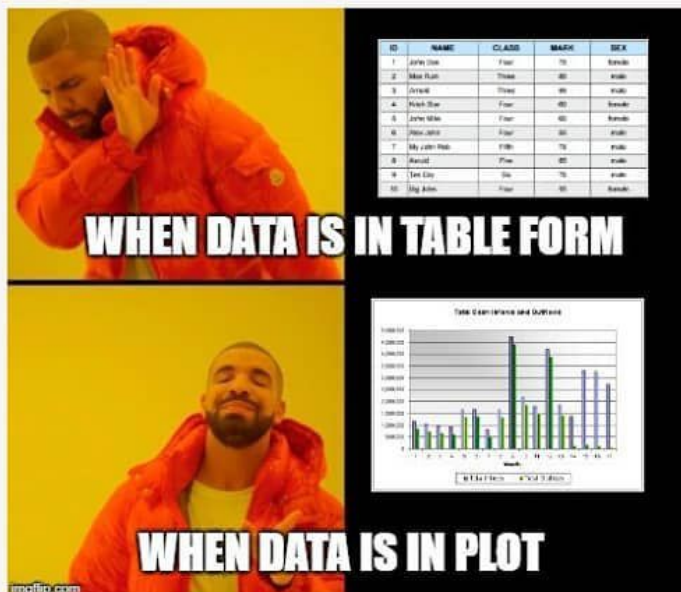- **This also shows relationship between variables is called their correlation .**

- **Choropleth maps are popular thematic maps used to represent statistical data through various shading patterns or symbols on predetermined geographic areas**

Popular MEMES

TOP LIBRARIES

PYTHON

- Matplotlib
- Plotly
- Seaborn
- ggplot
- Altair
- Bokeh
- pygal
- Altair
- Geoplotlib

R

- ggplot2
- Leaflet
- Plotly
- Dygraphs
- RGL
- dygraphs

Thank You.

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