SNS COLLEGE OF ENGINEERING

Kurumbapalayam(Po), Coimbatore – 641 107
(An Autonomous Institution)
Accredited by NAAC-UGC with 'A' Grade
Approved by AICTE,
Recognized by UGC & Affiliated to Anna University, Chennai.

CHOOSING THE CHART TYPE

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Choosing the right chart type for data visualization

1.Comparison - If your goal is to compare values or show relationships between different categories or data points, consider the following chart types:

      Bar chart

      Column chart

      Line chart

      Scatter plot

      Bubble chart

2.Composition - When you want to represent the composition or distribution of data, consider the following chart types:

      Pie chart

      Stacked bar or column chart

      Area chart

3.Distribution – To visualize the distribution of data and understand its spread, consider the following chart types:

 Histogram
 Box plot
 Violin plot

4.Relationship - When you want to illustrate the relationship between variables or highlight patterns, consider the following chart types:

 Scatter plot
 Heat map
 Network graph

5.Geographic - If your data has a geographic component, consider using geospatial visualization

 techniques:
 Choropleth map
 Point map
 Flow map

BAR CHART - Ideal for comparing discrete categories or groups of data using vertical or horizontal bars. Useful for displaying frequency, count, or magnitude comparisons

COLUMN CHART - Similar to bar charts, but with vertical bars only. Suitable for the same types of comparisons as bar charts.
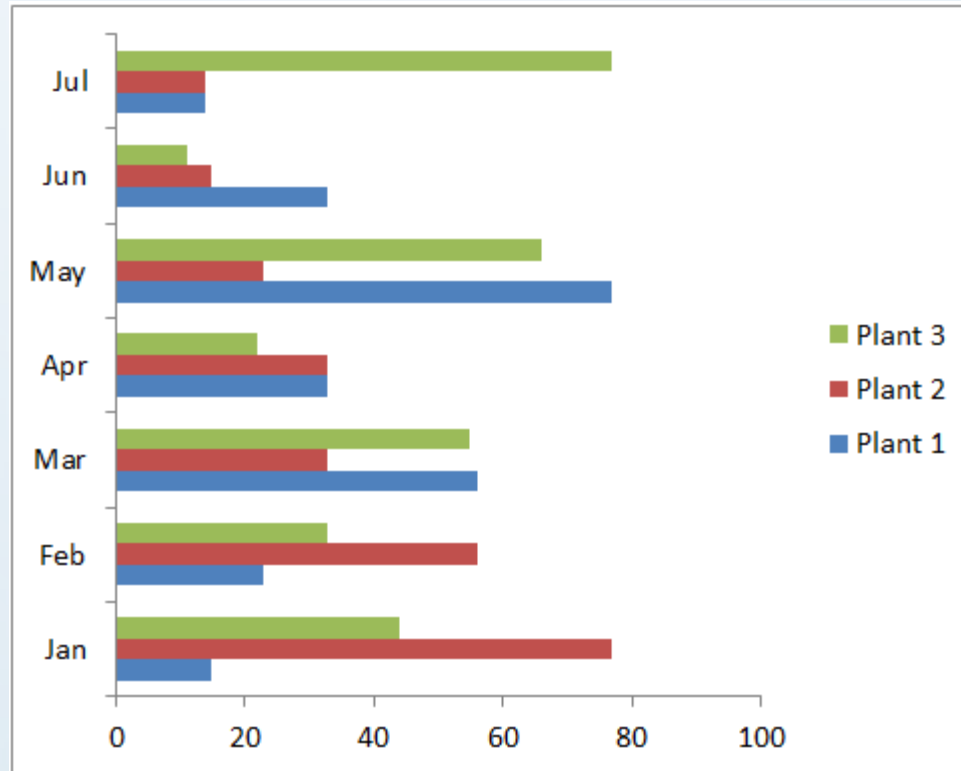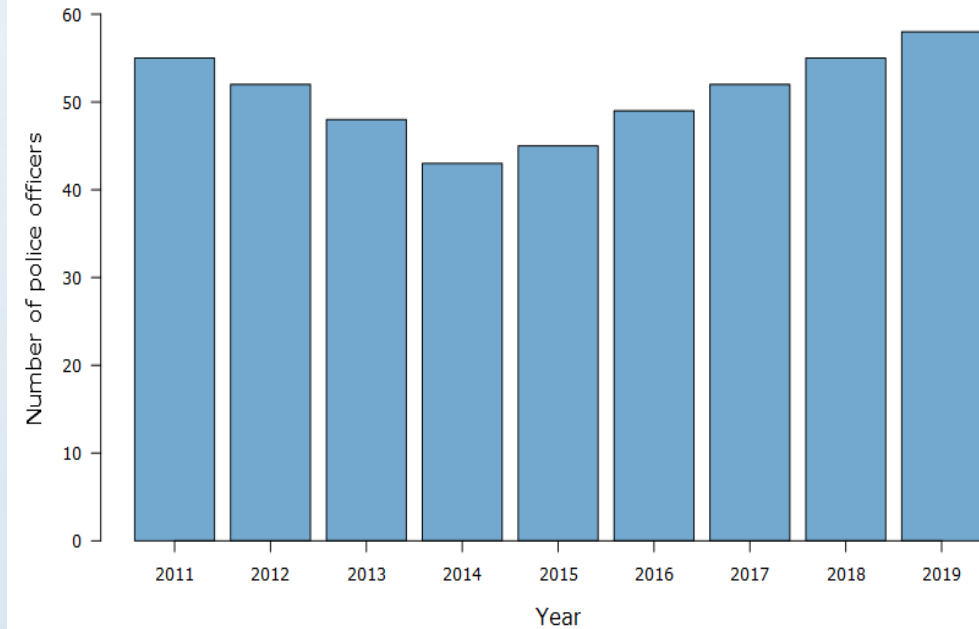

Chart 5.2.1
Number of police officers in Crimeville, 2011 to 2019

Line chart - Useful for showing trends and changes over time. It can also be used to compare multiple data series.

Scatter plot - Shows the relationship between two continuous variables, where each data point represents an individual observation. Useful for identifying correlations or clusters in data.
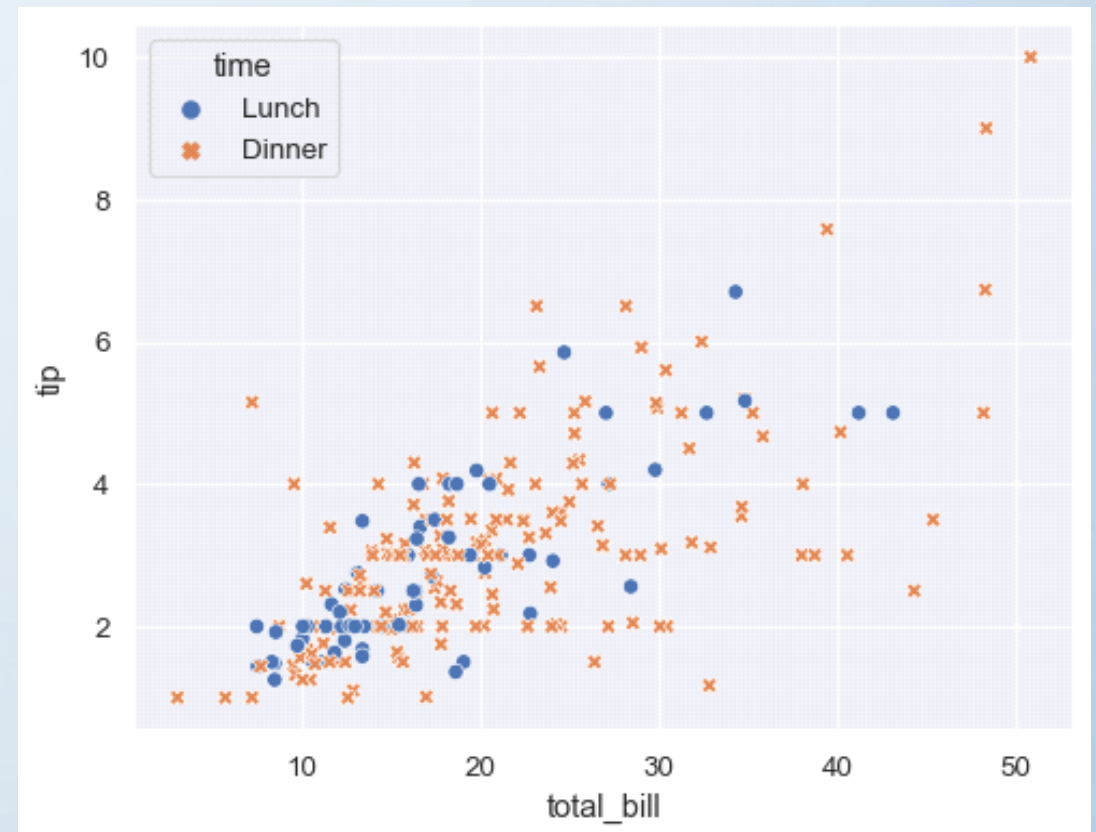
Bubble chart - Similar to a scatter plot but with an additional dimension represented by the size of the bubbles. Useful for visualizing three variables simultaneously.

Pie chart - Shows proportions or percentages of a whole, where each category represents a slice of the pie.
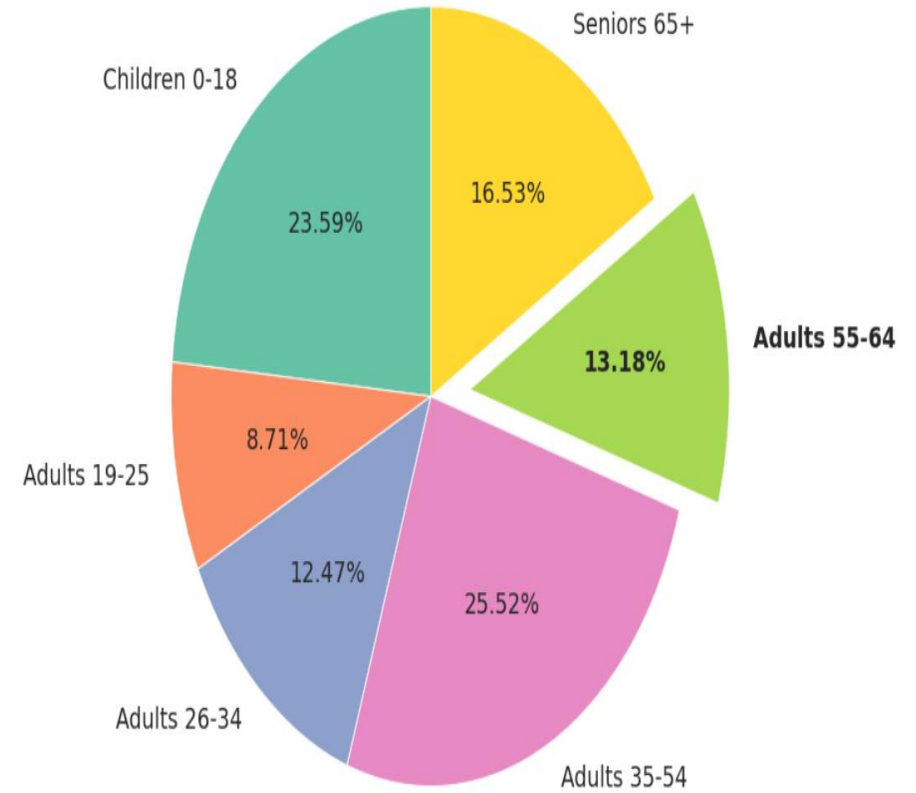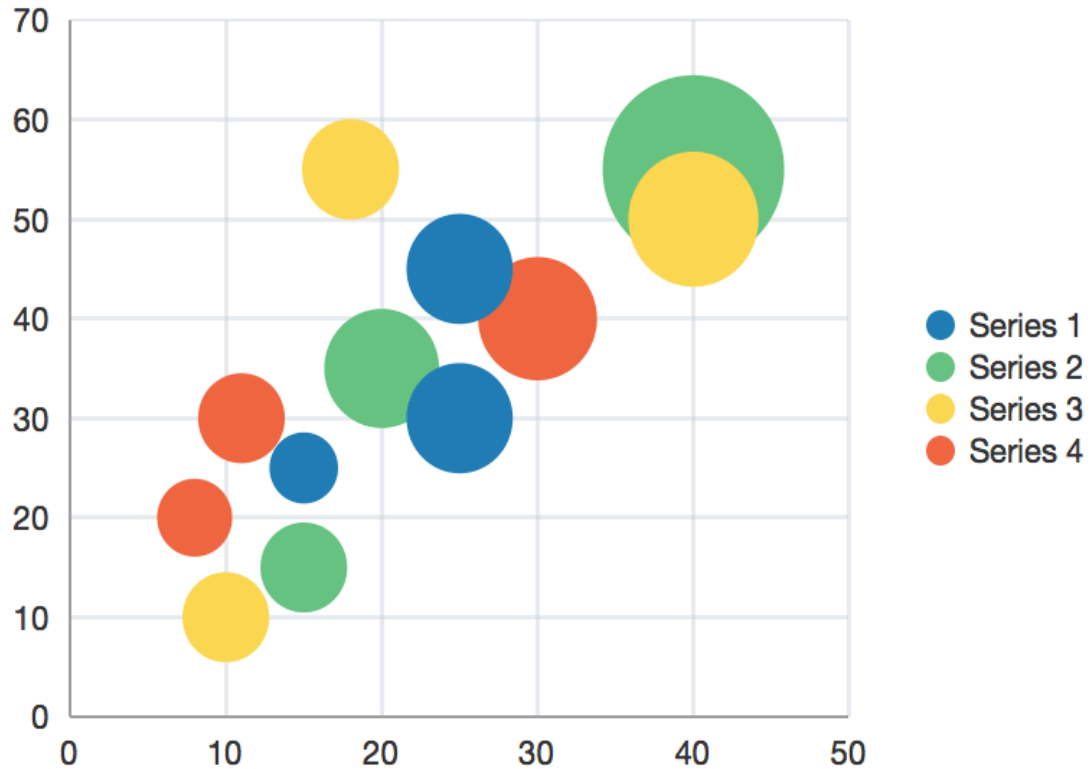
Stacked bar or column chart - Displays the composition of a whole category by stacking bars or columns for each subcategory. Useful for showing the relationship between parts and the whole.

Area chart - Suitable for visualizing the cumulative effect or composition of multiple data series over time.
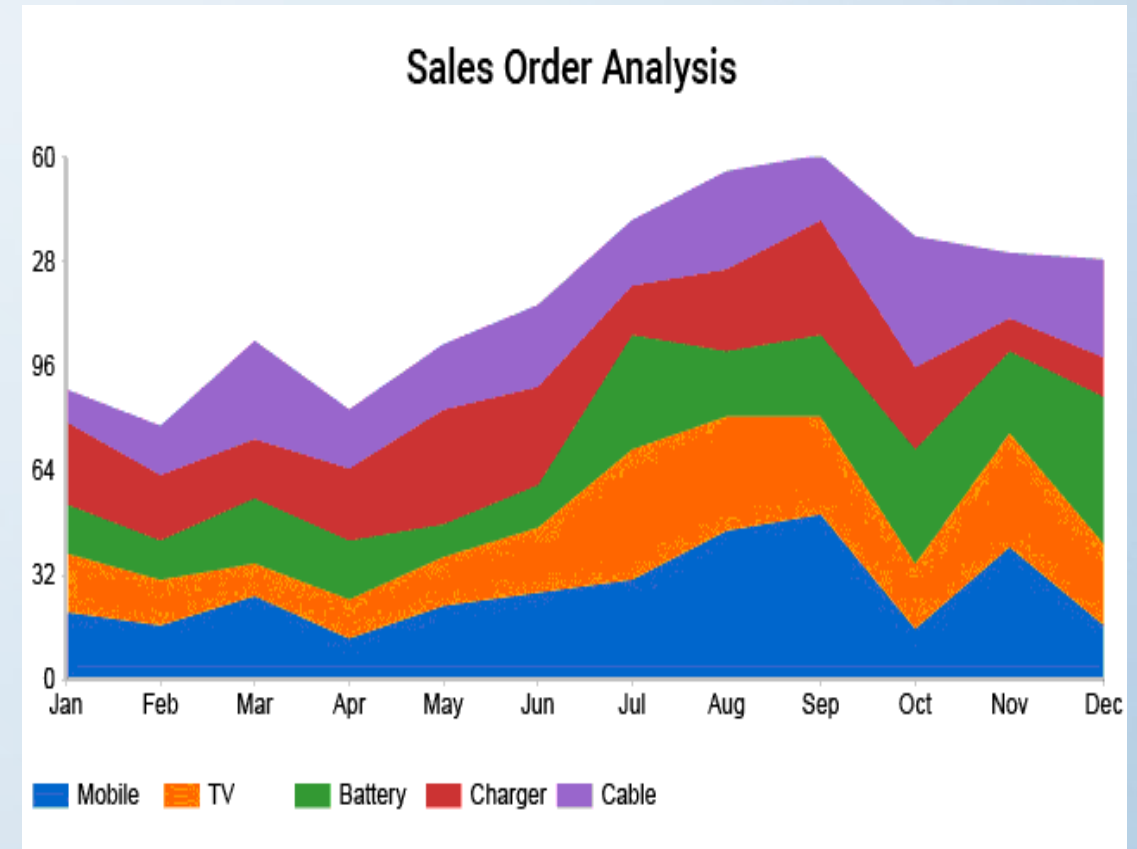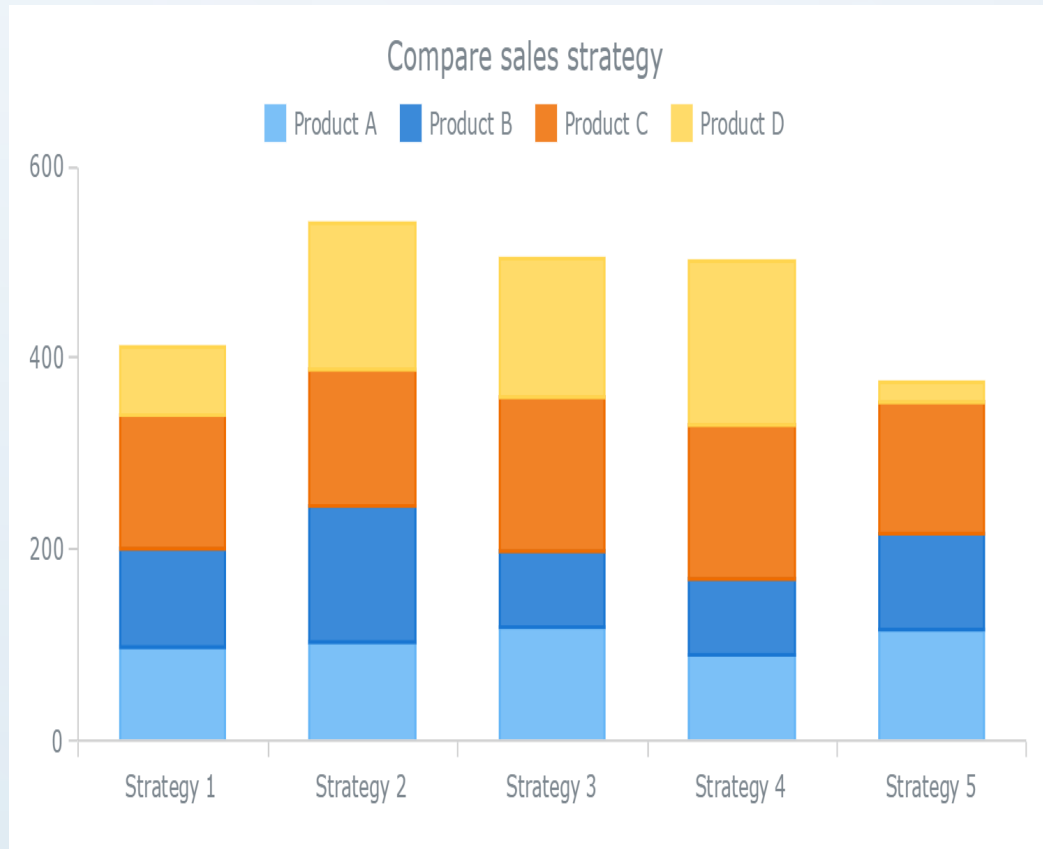
Histogram - Displays the frequency or count of values within predefined intervals or bins. It shows the shape of the distribution and identifies peaks or outliers.

Box plot - Provides a summary of the distribution's central tendency, spread, and outliers. It includes features such as quartiles, median, and whiskers
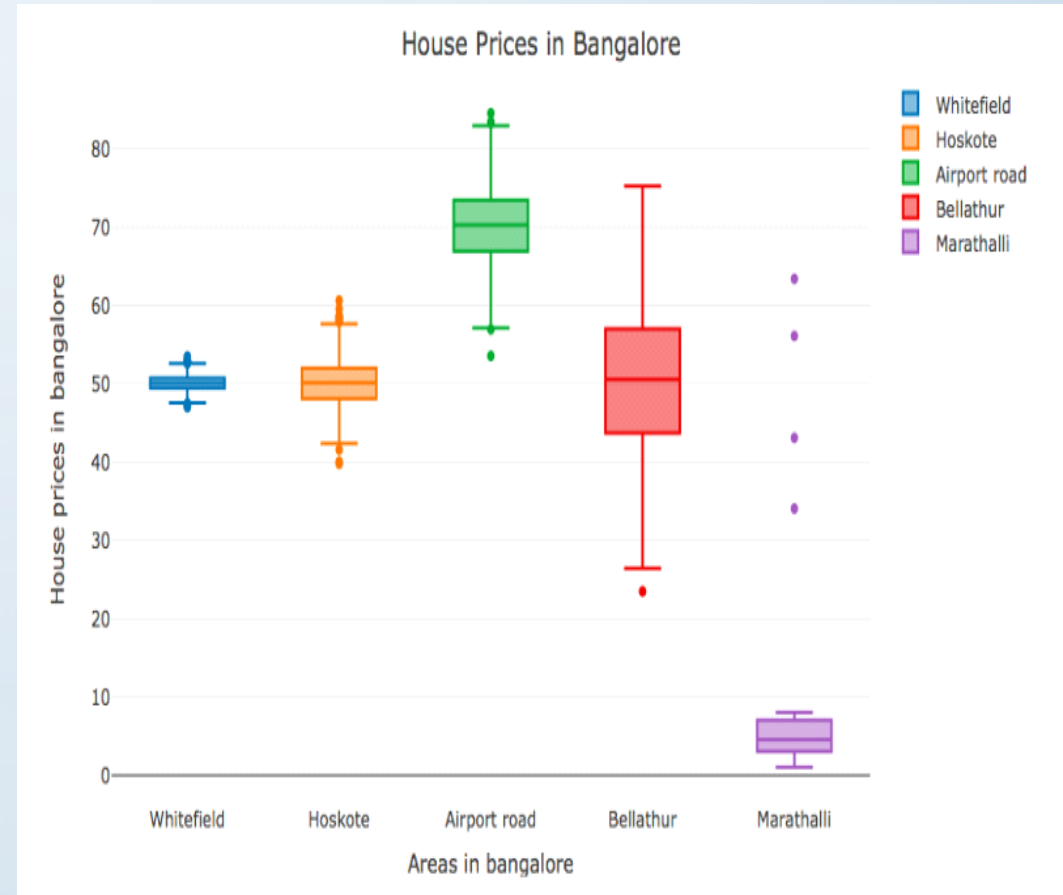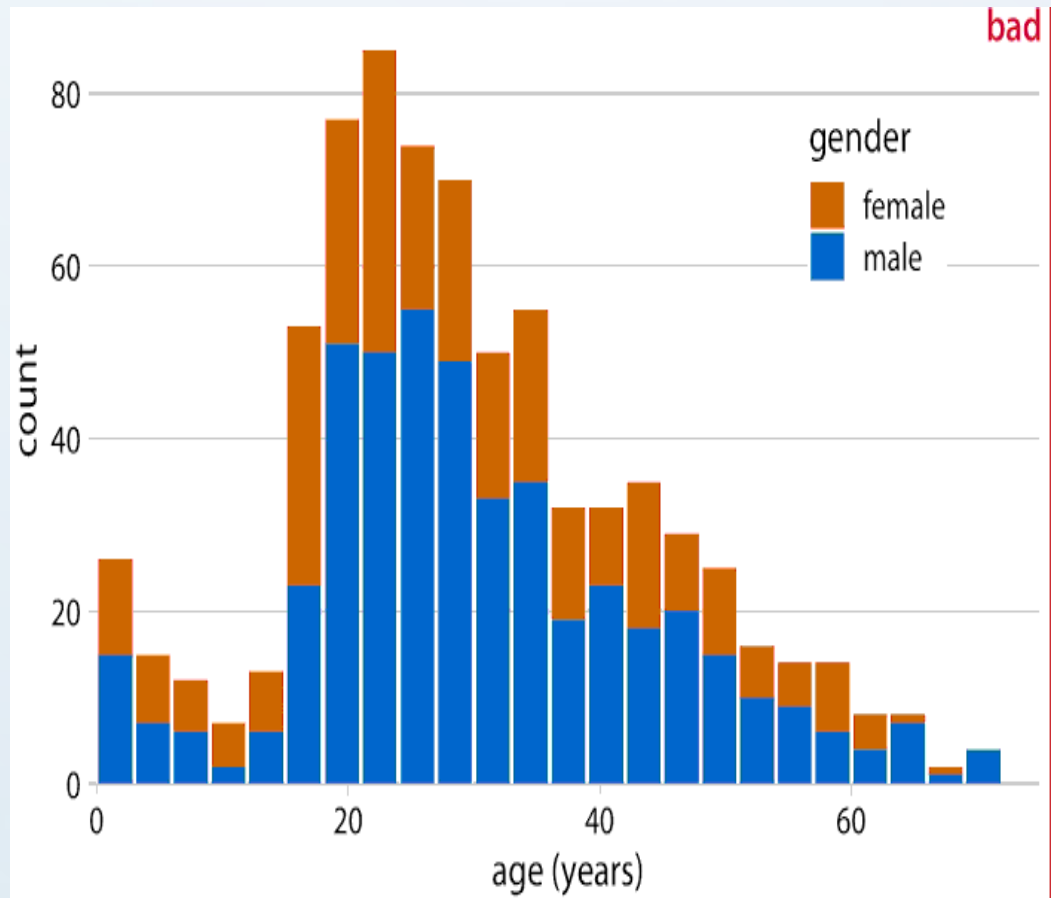
Violin plot - Similar to a box plot, but it also shows the kernel density estimation of the data. It provides a combination of a box plot and a distribution plot.

Scatter plot - Effective for visualizing the relationship between two continuous variables. Each data point represents an observation, and patterns can indicate correlations or trends.
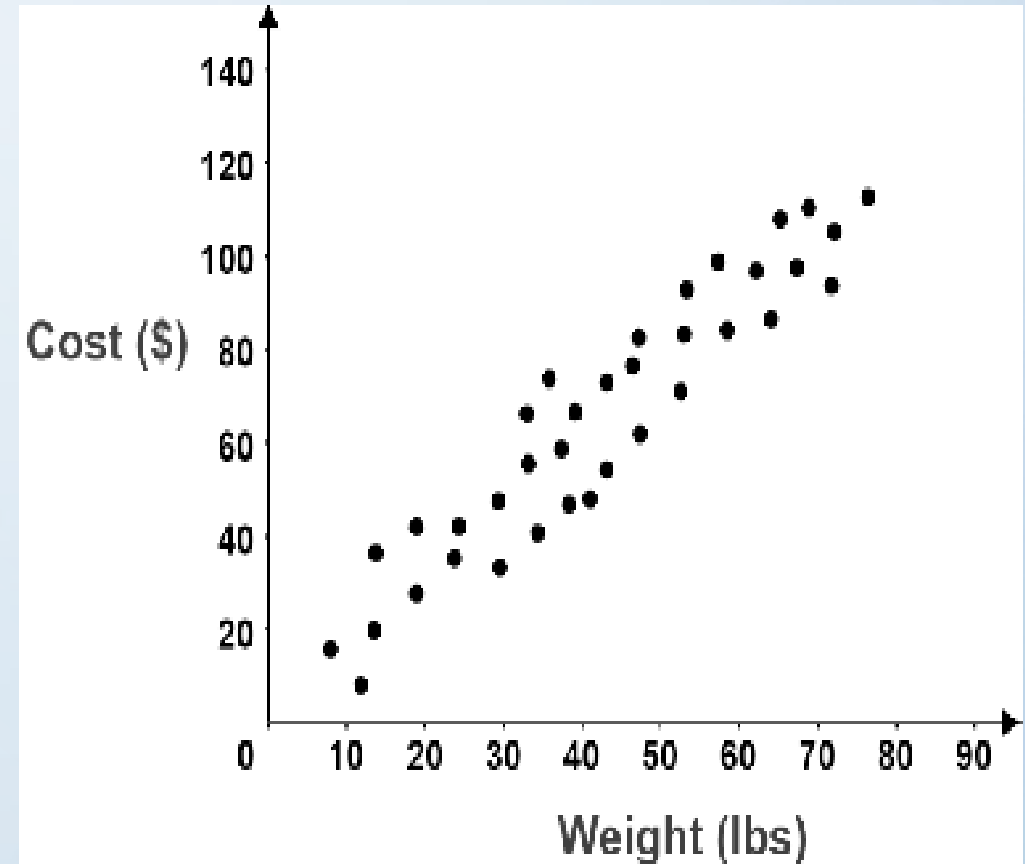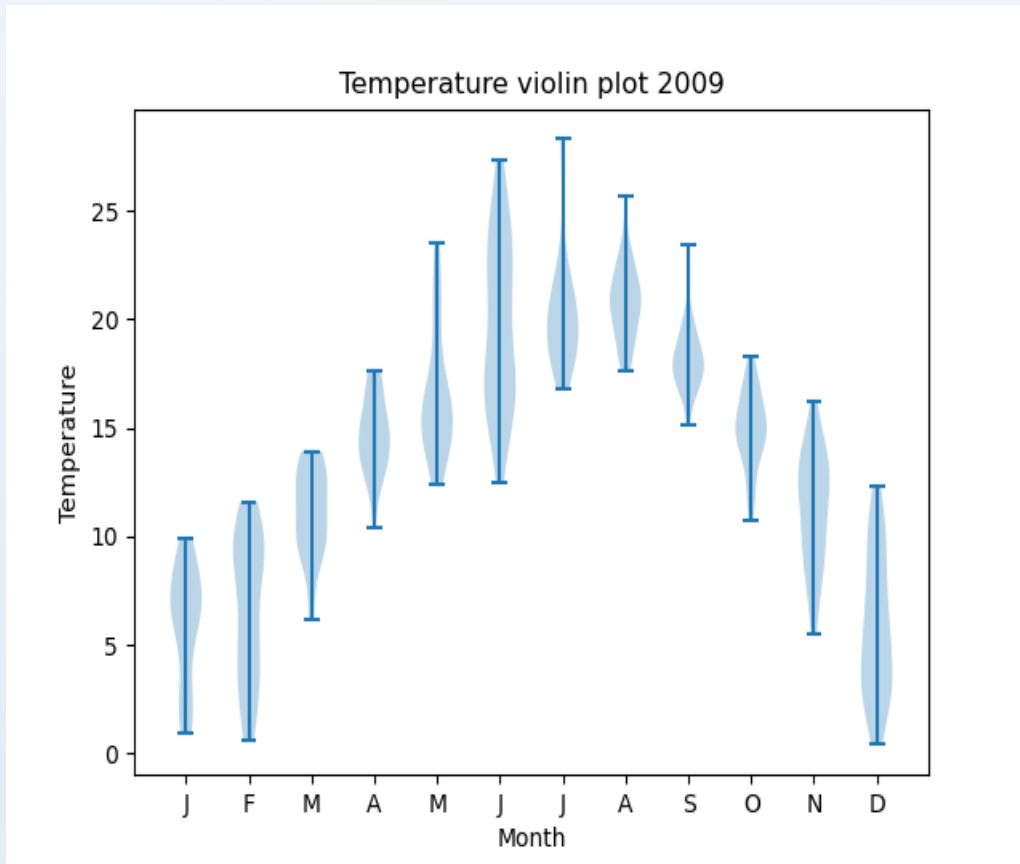
Heatmap - Shows the magnitude of a variable across two dimensions, often using color intensity. Useful for displaying patterns or relationships in large datasets.

Network graph - Displays relationships between nodes (vertices) and connections (edges). Useful for visualizing complex relationships, such as social networks or interconnected systems.
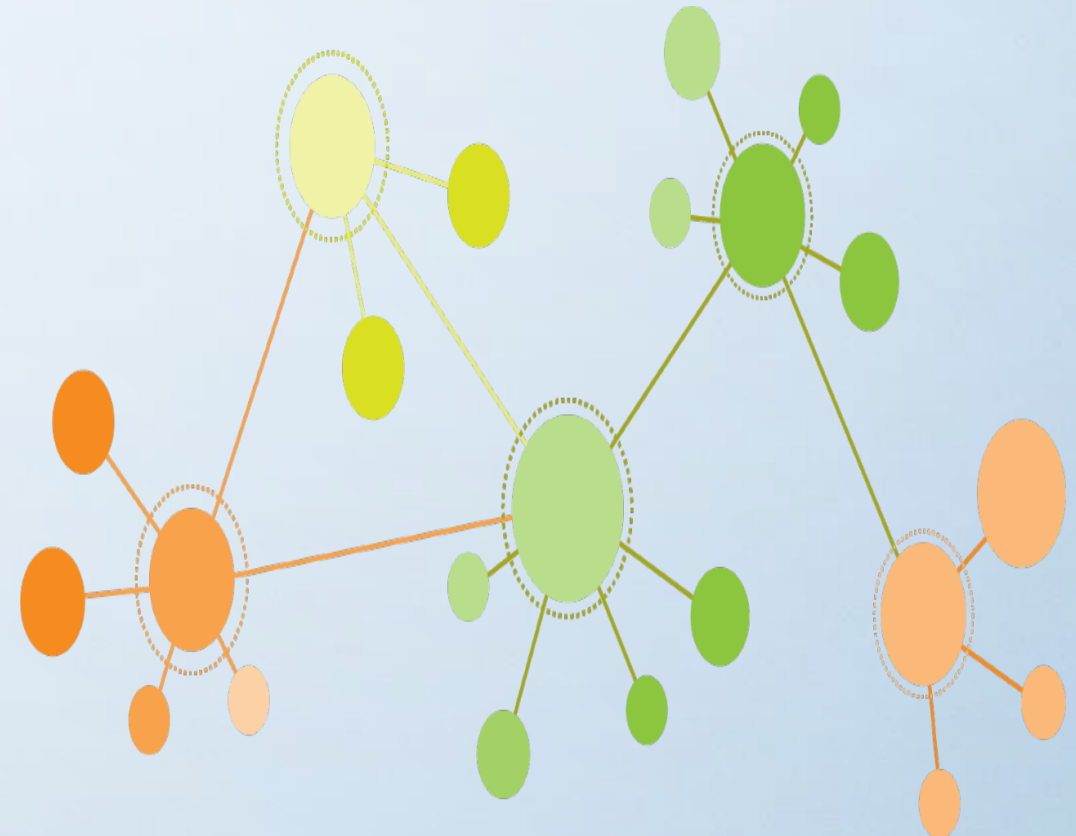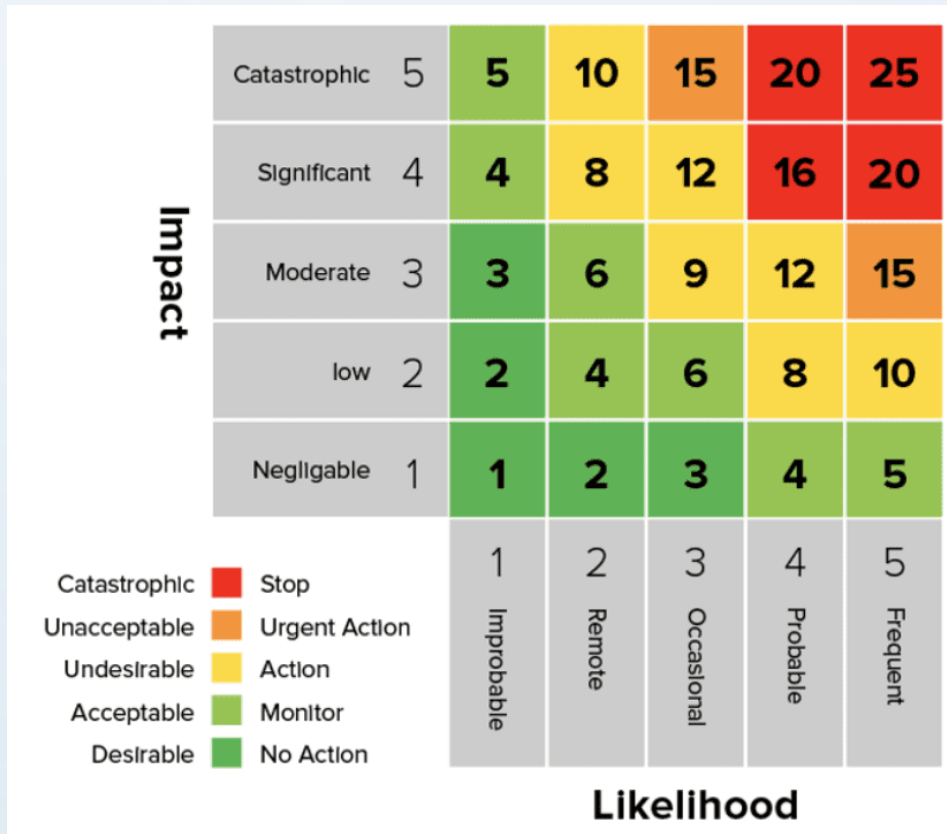
Choropleth map - Uses color shading or patterns to represent data values associated with specific geographic regions, such as countries, states, or postal codes.

Point map - Displays individual data points on a map using markers or symbols to represent each point's location and associated data.
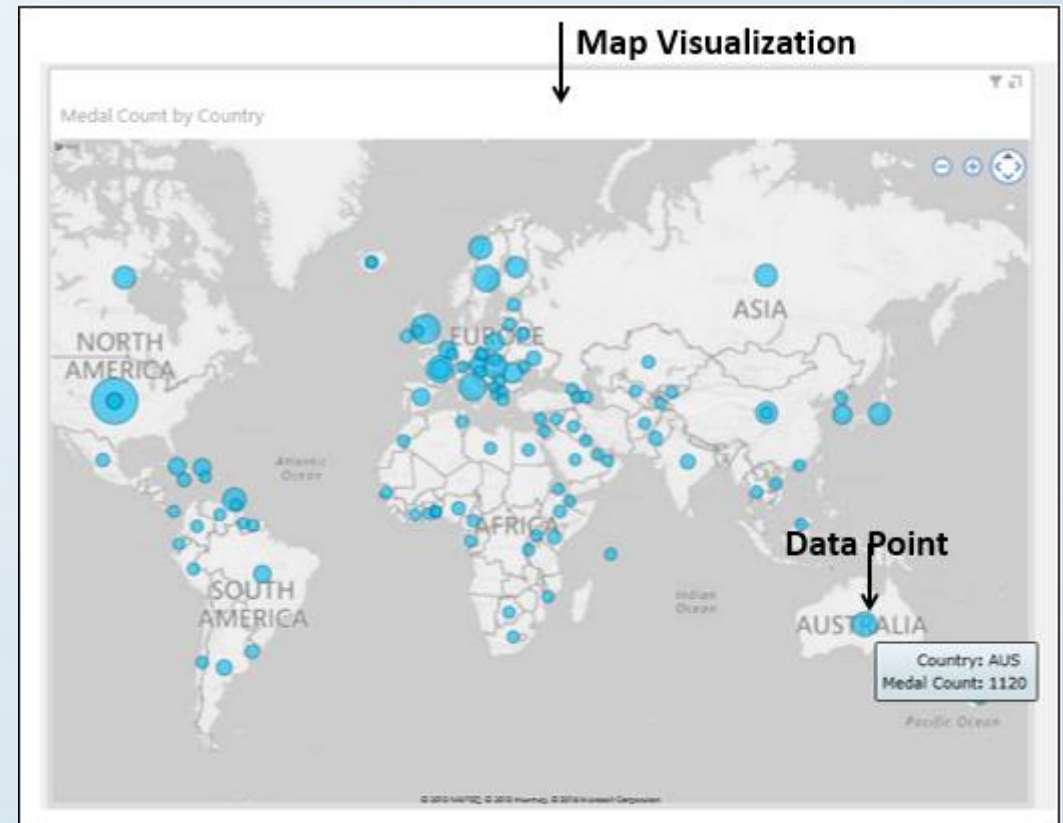
Flow map - Shows movement or flow between geographic locations using lines or arrows to indicate the direction and intensity of the movement.