Types Of Visualizations

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Overview

1. **Pie Chart**
2. **Bar Chart**
3. **Scatterplot**
4. **Line Chart**
5. **Box Plot**
6. **Heat Map**
7. **Tree Map**
8. **Gantt Chart**
9. **Violin Plot**
10. **Density Plot**

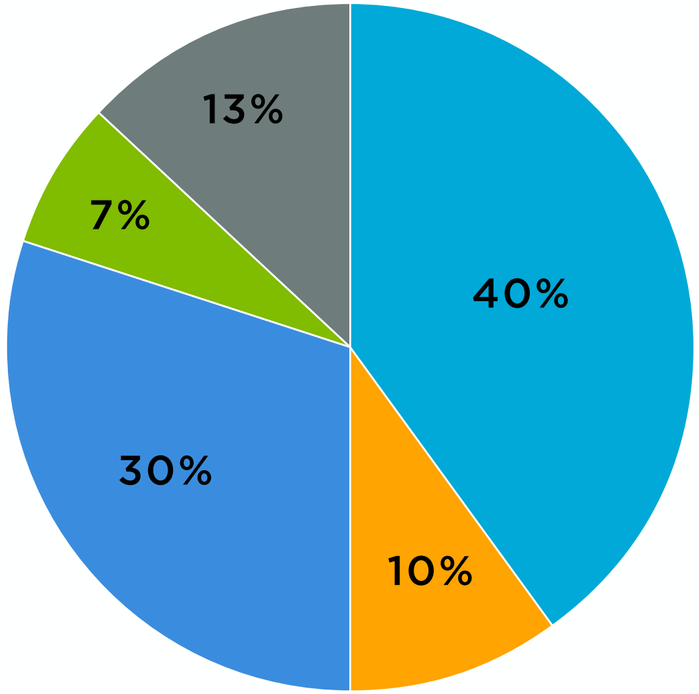
Pie Chart Visualization

Explanation: A circular chart divided into sectors illustrating numerical proportions.

Data Type: Categorical

Use: To show parts of a whole.

Insight: Easily shows the largest or smallest segments.



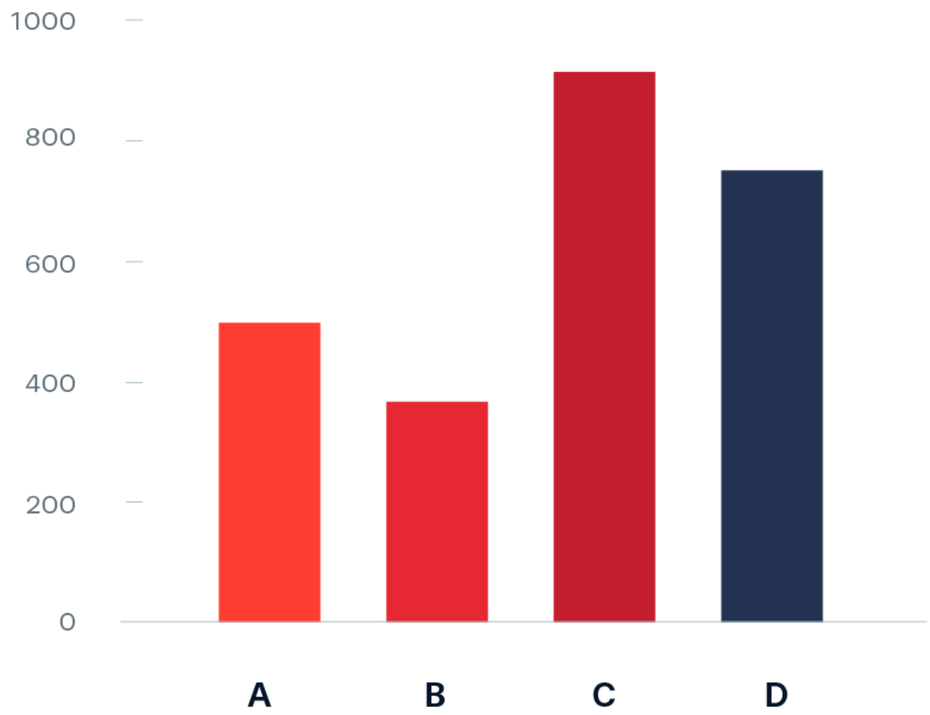
Bar Chart Visualization

Explanation: A chart with rectangular bars representing different values.

Data Type: Categorical, Numerical

Use: To compare different groups.

Insight: Highlights differences and similarities between categories.



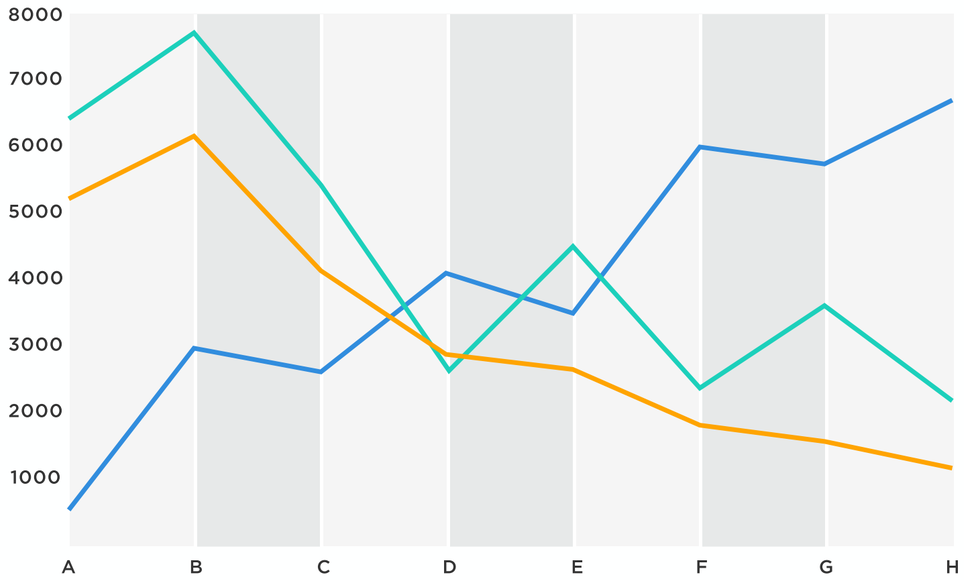
Line Chart Visualization

Explanation: A chart uses points connected by line segments from left to right to demonstrate changes in value

Data Type: Numerical (often over time)

Use: To track changes over periods.

Insight: Shows trends and patterns over time.



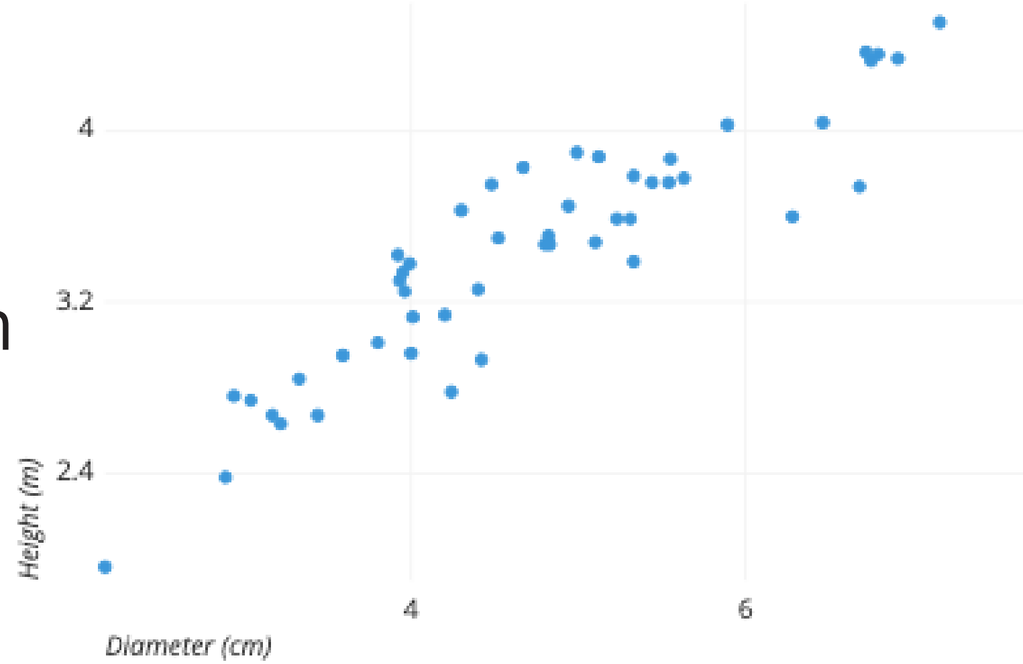
Scatterplot Visualization

Explanation: A graph uses dots to represent values for two different numeric variables.

Data Type: Numerical

Use: Use to observe relationships between variables

Insight: Reveals trends, clusters, and outliers.



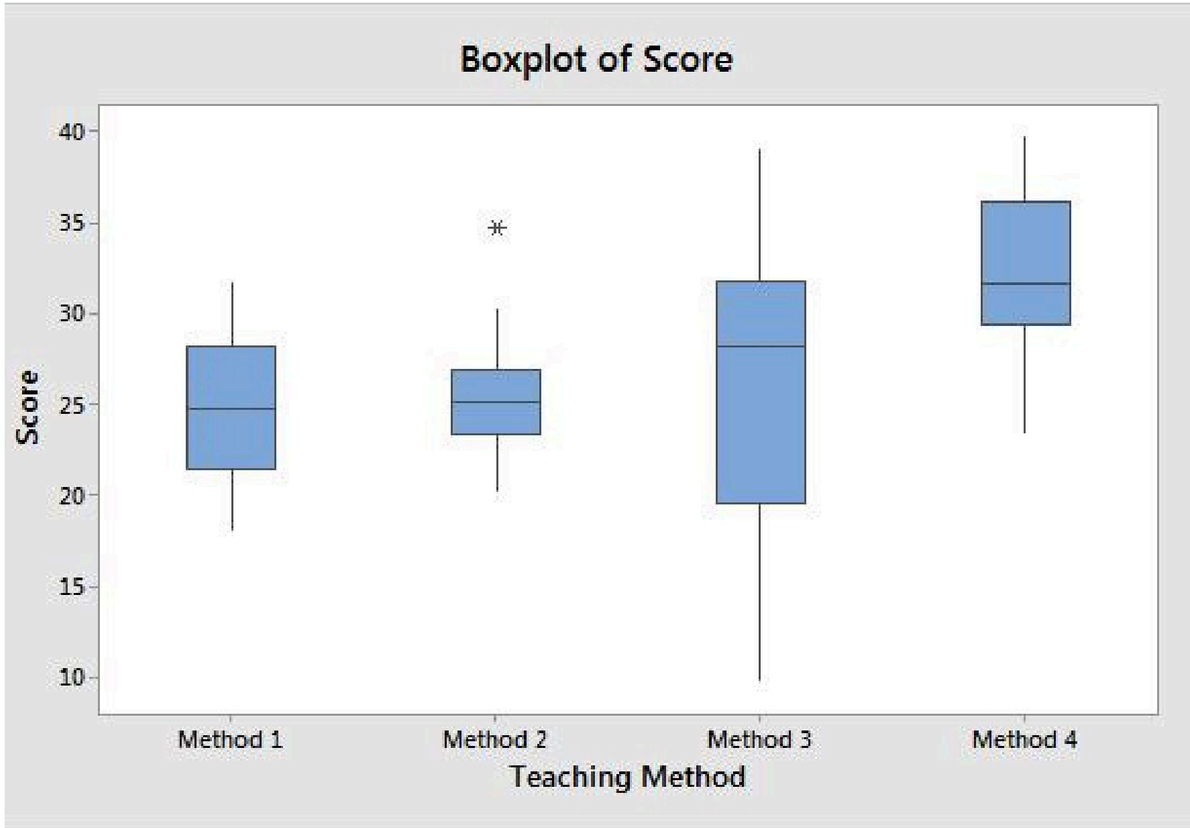
Box Plot Visualization

Explanation: A graphical representation of data through their quartiles.

Data Type: Numerical

Use: To show the distribution of data and identify outliers.

Insight: Highlights data spread, central value, and outliers.



Heat Map Visualization

Explanation: A data visualization showing magnitude of values as color in two dimensions.

Data Type: Numerical, Categorical

Use: To show relationships between two variables with color intensity.

Insight: Easily identifies high and low points.

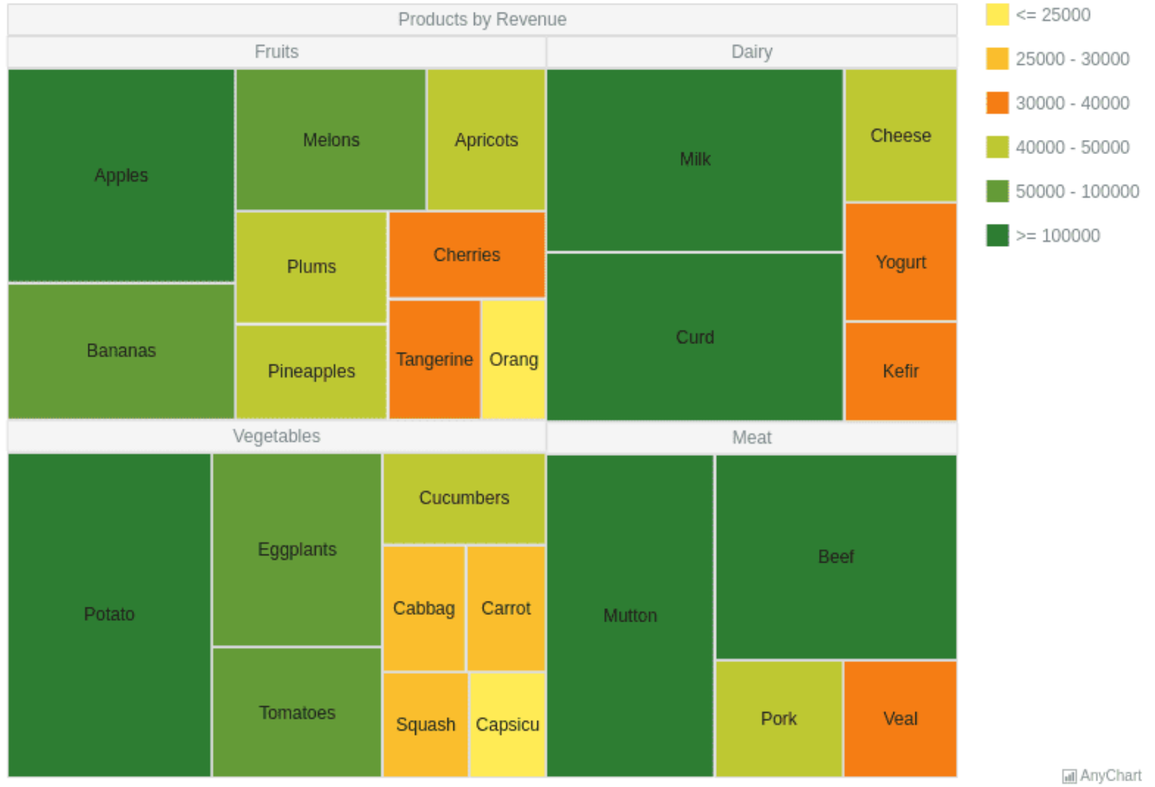
Tree Map Visualization

Explanation: A diagram representing hierarchical data with nested rectangles.

Data Type: Categorical, Numerical

Use: To display large amounts of hierarchical data.

Insight: Shows proportions within a hierarchy



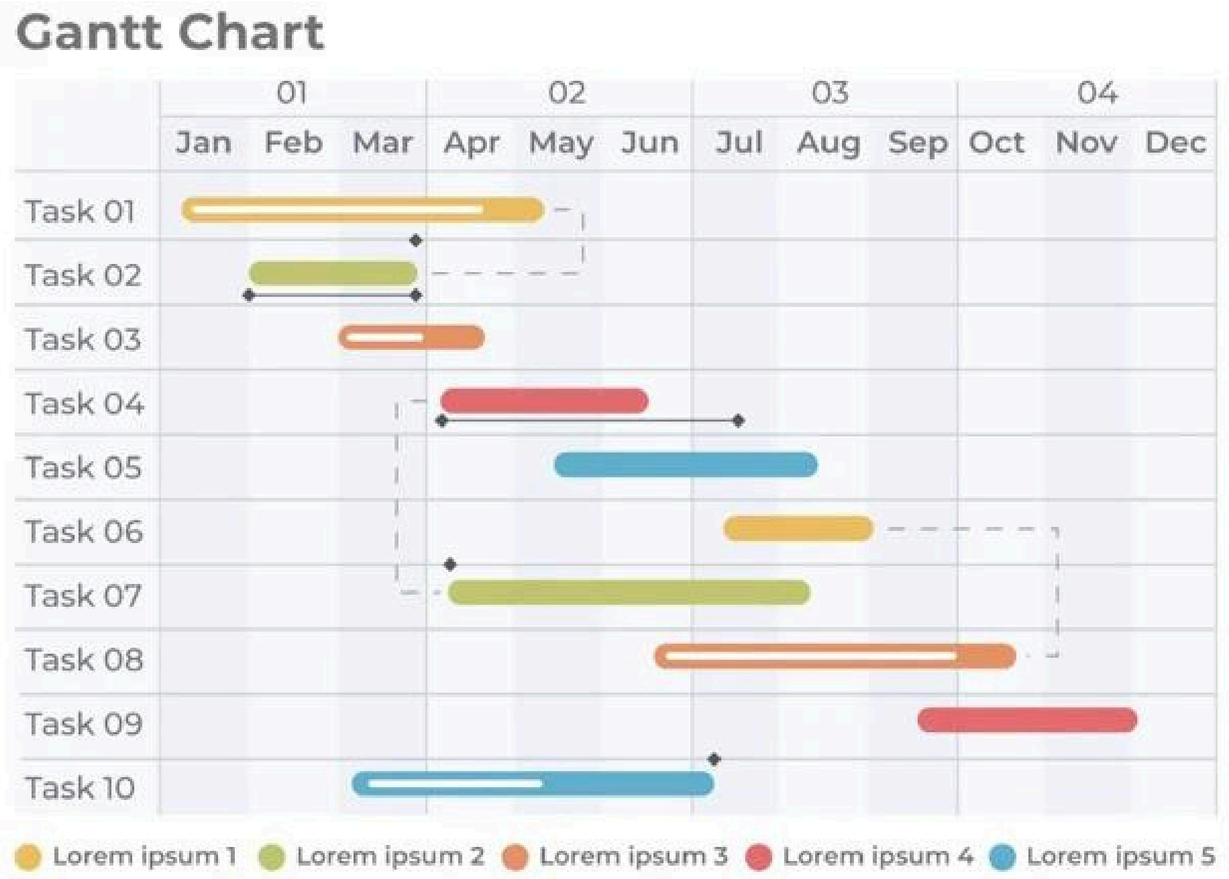
Gantt Chart Visualization

Explanation: A type of bar chart illustrating a project schedule.

Data Type: Temporal (Categorical)

Use: To track project timelines.

Insight: Shows start and finish dates of project elements.



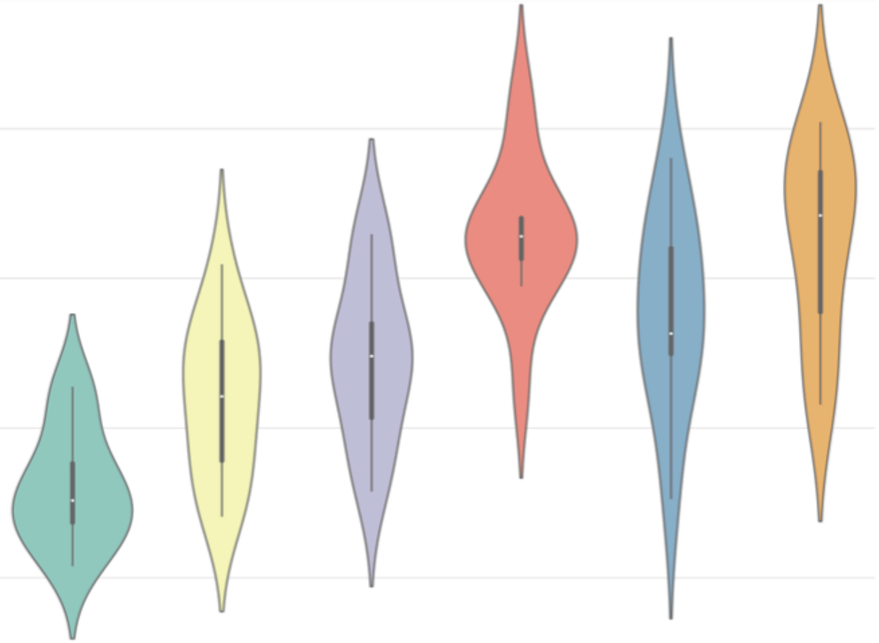
Violin Plot Visualization

Explanation: A violin plot depicts distributions of numeric data for one or more groups using density curves

Data Type: Numerical

Use: To show the distribution of the data across different categories.

Insight: Highlights distribution and probability density of the data.



Density Plot Visualization

Explanation: A density plot is a representation of the distribution of a numeric variable.

Data Type: Numerical

Use: To estimate the probability distribution of a continuous variable.

Insight: Shows distribution shape and density of data points.

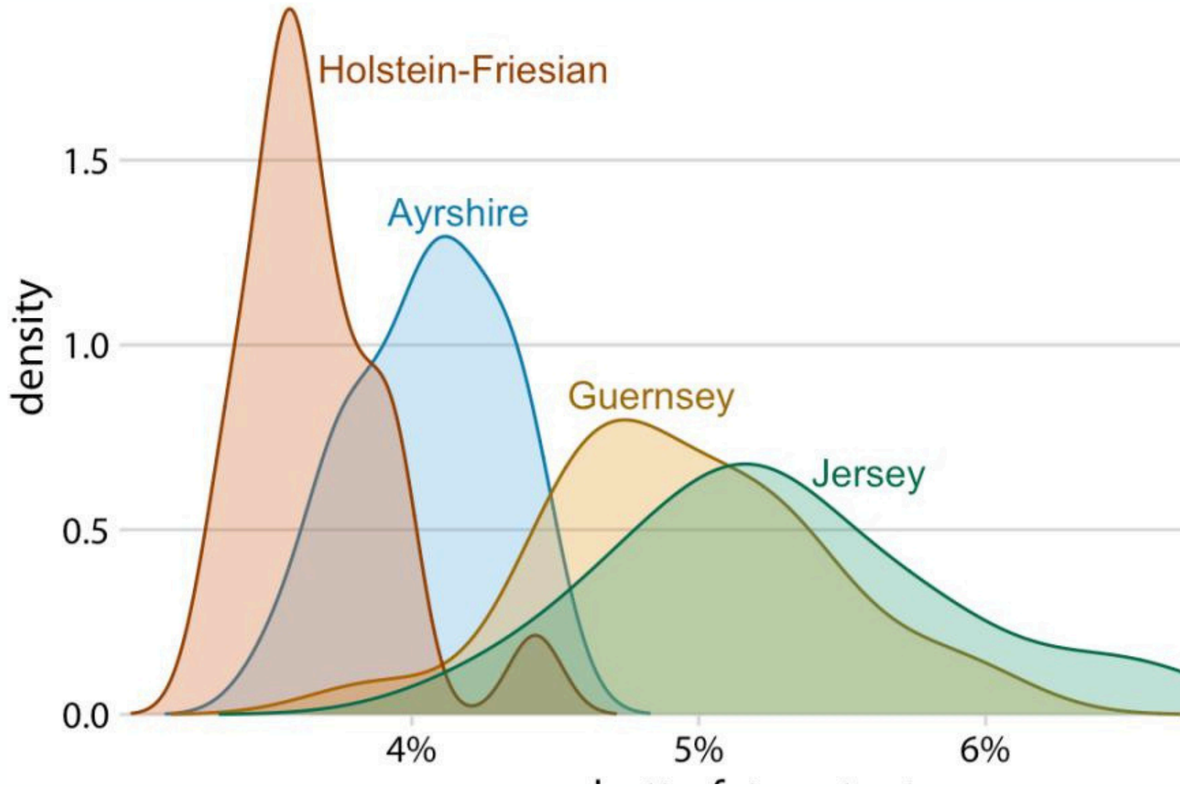


Image References

Pie Chart: https://www.jaspersoft.com/articles/what-is-a-pie-chart
Bar Chart: https://datavizproject.com/data-type/bar-chart/
Scatterplot: https://www.atlassian.com/data/charts/what-is-a-scatter-plot
Line Chart: https://www.jaspersoft.com/articles/what-is-a-line-chart
Box Plot: https://statisticsbyjim.com/graphs/box-plot/
Heat map: https://www.techtarget.com/searchbusinessanalytics/definition/heat-map
Tree Map: https://www.anychart.com/products/anychart/gallery/Tree_Map_Charts**/**
Gantt Chart: https://blog.harvestr.io/ganttchart
Violin Plot: https://mode.com/blog/violin-plot-example**s**
Density Plot: https://dataforvisualization.com/charts/density-plot/

THANK YOU