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AIM:

Design Interactive Dashboards and Storytelling using Tableau / Power BI / R (Shiny) / Python (Streamlit/Flask) / D3.js to be performed on the dataset - Disease spread / Healthcare

- Create interactive dashboard - Write observations from each chart given below
- Advanced - Word chart, Box and whisker plot, Violin plot, Regression plot (linear and nonlinear), 3D chart, Jitter, Line, Area, Waterfall, Donut, Treemap, Funnel
- Basic - Bar chart, Pie chart, Histogram, Timeline chart, Scatter plot, Bubble plot)

Dataset - Heart Attack Analysis & Prediction Dataset



Graph 1: Count of output by output

This is a bar graph. Here, the target variable "output" distribution is depicted. It appears that most of the instances fall under the class "0" and a fairly negligible number in the class "1".

Graph 2: Output, age, and chol

This scatter plot describes the relationship between the target variable "output", "age", and "chol" (cholesterol). There seems to be a slight clustering of points in the lower ranges of age and cholesterol for the "0" output category. However, the distribution is fairly wide, which would suggest a weak or no correlation between these variables and the target.

Graph 3: Count of cp by cp

This pie chart describes the distribution of the "cp" chest pain type variable. The highest percentage corresponds to the category "2", followed by "0", and "1". The smallest percentage corresponds to category "3".

Graph 4: Output count by sex and output

This bar graph compares the distribution of "output" between different sexes. While the category "0" is dominant for both sexes, there is apparently a slightly higher proportion in "1" outputs in the male group.

Graph 5: Output, chol, and trtbps

This scatter plot examines the variation of "output", "chol", and "trtbps" resting blood pressure. It shows some significant clustering of points in the lower levels of cholesterol and blood pressure in the "0" output category, while there is some indication of a negative correlation of these variables with the target.

Graph 6: Count of fbs by output

This pie chart shows the distribution of "fbs" with respect to "output." Most of the values in which "output" is 0 have "fbs" equal to 0 and most of the values in which "output" is 1 have "fbs" equal to 1. That might indicate that "fbs" may be related to the target variable.

Overall Insights

Based on the graphs here, the target variable "output" seems very skewed to the category "0". Though some relationships were observable between a few predictor variables with the target, the overall picture is complex. In fact, several factors may influence the outcome. Further analysis and possibly more advanced modeling techniques could be necessary for deeper insights into the underlying relationships or to predict it accurately.