Visualization Logic using JavaScript

Sean Fisher

1 Introduction:

In this project, I write the logic for the data visualizations of a tool. This tool lets the user write a prompt that sends it to OpenAi and returns SQL code (which is already trained with the database), which is then used to extract data from Snowflake. This tool is used by salespeople who may not know SQL code. Utilized HTML and JavaScript (jqxChart).

2 Visualizations and their Logic:

Suppose a user uses a prompt that extracts two data fields, ex: by state, how many people have cancer. Here are the resulting visualizations:
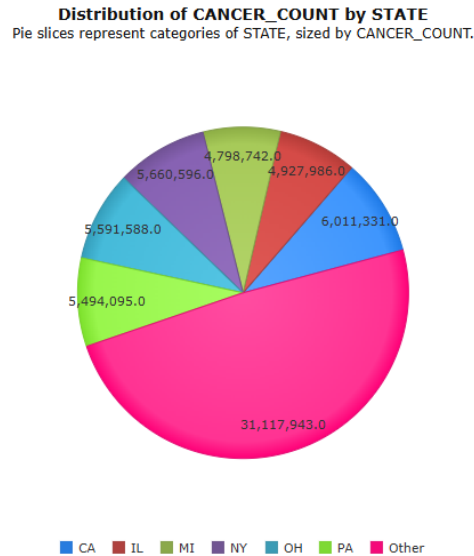

Figure 1: **Pie Chart:** Users can choose 3, 5, or 10 percent thresholds or show all.
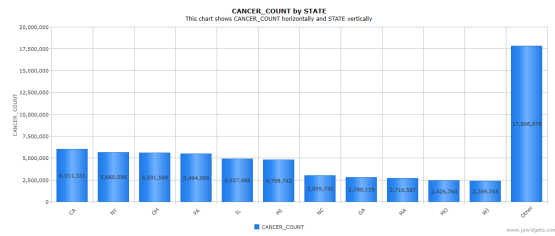
Figure 2: **Bar Chart:** Users can choose 3, 5, or 10 percent thresholds or show all. Also Horizontal option.

Suppose a user uses a prompt that extracts three or more data fields, ex: by state, compare cancer v.s smokers. Here are the resulting visualizations:

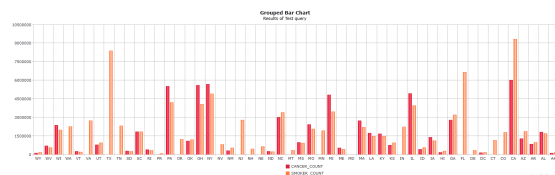Figure 3: **Stacked Chart:** Users can choose between stacked and grouped bar charts.

Figure 4: **Stacked Chart:** Users can choose between stacked and grouped bar charts.

3 Future Goals:

Add more visualizations. For example, Bubble Chart for exactly 3 data fields.