Project Description

-Qianyan Yao

A. A description of the work done by each team member. (Consider this your final status update.)

Group Conflict. Group members not willing to write any code. All the coding done by myself. Have left the group and report the issue to the professor.

B. **A description of the data. Report where you got the data. Describe the variables. If you had to reformat the data or filter it in any way, provide enough details that someone could repeat your results. If you combined multiple datasets, specify how you integrated them. Mention any additional data that you used, such as shape files for maps. Editing is important! You are not required to use every part of the dataset. Selectively choosing a subset can improve usability. Describe any criteria you used for data selection.**

The main dataset is about the Nutrition Facts for McDonald's Menu. One of the team members found the dataset on Kaggle during our first meeting. The original dataset has 24 variables, both categorical and numerical variables. Integrated this dataset with another dataset about daily nutrient intake.

I selected 5 variables from the dataset: Calories, Fat, Cholesterol, Sodium, and Dietary Fiber. Then I manually calculated the percentage of each selected variables (the nutrient of each item on McDonald's menu composed of how many percent of daily intake for an average adult under the condition of maintaining a balanced diet). Then I convert the csv file into a keyed json file. I also did some copy & pasting manually to make the data like a simple tree structure. The categorical variable Category (Breakfast, Salads, Dessert, etc.) is the parent node, and followed by specific items as its children, so I can fit the data into the donut plot.

C. A description of the mapping from data to visual elements. Describe the scales you used, such as position, color, or shape. Mention any transformations you performed, such as log scales.

I transformed all the values into percentages range from 0-100%. The height of each small arc represents these values. In the background, there is a large yellow circle which indicates the range from 0-100%. If the height of an arc exceeds the yellow circle, then that single item contains the nutrient value exceeds the daily needed intake. Different color represents different category and items within that category. I also included the value before transformation as part of the hover effect. When zoom out, the hover effect helps users mapping arcs on the plot to items (object) in the dataset. Only when zoom in, the specific values of each items

can be seem from the hover effect. The angle of the categorical indicates the amount of items (or value) in each category. I also included a legend to help understanding.

D. The story. What does your visualization tell us? What was surprising about it?

Finding: Unsurprisingly, McDonald is very unhealthy.
For most items, it has high calories, high fat, high cholesterol, high sodium, and low dietary fiber.

Surprisingly, in some cases, a single item on the menu can exceed the daily intake needed, for example, the cholesterol in Big Breakfast with Hotcakes. The calories and fat in Chicken McNuggests also exceed the daily intake.

If you have to choose McDonald and still want to maintain a balanced diet, consider items in the Salad category.