Final Project Proposal

(due March 04)

The entire final project has two parts. This document includes details **only** on Part A, as it requires you to make a proposal before you actually start working on it. Part B will have conceptual questions and will be provided next week.

You can start working on the project once your proposal is accepted and graded by your TA on gradescope. You need to submit one document for the whole group. The entire final project is worth 25% of your final grade and the proposal takes account for **5%**.

Project Proposal Requirements

Your proposal should be a 1 page pdf and should provide the following components:

1. Names of all of your group members and group number.
    a. You are expected to work with the group assigned in your breakout rooms. If you prefer to work alone or have any concerns about this, please notify your TA through a Piazza private post.
2. The project topic, dataset description, dataset link and why you chose this particular dataset.e.g “Sales analysis of company xyz”
3. Dataset of your choice
    a. The URL of the dataset. The link should direct us to the original source of the data (not like a link to your google drive, etc.)
    b. A screenshot of a few items, which displays all the attributes clearly.
4. The questions, in a form of Task within the visualization analysis framework, you will ask from the data and the corresponding graphs
    Ex: Explore trend of the sales between 2015-2020 => Line plot
5. Brief timeline you will follow along with work distribution
    Ex: Finding Dataset, Drafting Project Proposal,Data Cleaning, Coding, Documentation

Tasks for Part A

1. Find a reasonably complex dataset to visualize.
2. Clean the data, if the dataset you have chosen is not uniform/workable, using any programming languages of your choice before reading the data into d3.js.

You can clean it with javascript too (and of course that's the ideal workflow). Once the data is cleaned, it is mandatory to use d3.js to read the data and visualize the plots for all the tasks given below. Note that "deriving" a new attribute from the original attributes is not a cleaning process so should be done in Javascript.

3. Identify at least 5 visualization plots that can be created from this dataset. Describe what question your visualization answers. Feel free to add more than 5 visualizations, given that you satisfy the minimum requirements of the 5 visualizations that are required.The specifications for each of the 5 plots is given below.
    a. At least 1 plot with 0 Key and 2 values
        Example: Scatterplot
    b. At least 1 plot with 1 key and 1 value.
        Example: Bar plot, Line plot, dot plot
    c. At least 2 visualizations that include 2 keys and 1 value.
        Example: Heatmap, stacked bar graph, streamgraph
    d. At least 1 visualization from - box plot, network/tree, adjacency matrix
    e. At least one of the above visualizations should have interactivity using Buttons.
    f. At least one of the above visualizations should have interactivity using Tooltips (Display data on hover).
    g. At least one of the above visualizations should have interactivity using Animation.
    h. At least one interactive event to any of the visualizations that we have not learned in class
4. All of the above plots will be considered complete if they have the following:
    a. Axes
    b. Appropriate scale
    c. Legend (if required)
    d. Title
    e. Axis Labels
5. Answer the following for each of the visualizations:
    a. Choice of color scheme
    b. Marks and channels

Extra Credits

1. If you add a geomap-based plot to your result, such as choropleth or topographic map, you will earn some extra credit (20pt).