Final Project Proposal

(due March 10th 7:00p.m)

This document outlines the guidelines for the project proposal. You can start working on the project once your proposal is accepted and graded by your TA on gradescope. The entire final project is worth 25% of your final grade and the proposal takes account for **5%**. There is no late-submission on the proposal.

Submission Guideline

Download this google doc, fill the table and submit it in **PDF** format on Gradescope.

If you need some inspirations please feel free to take a look at:
[Showcase of Information is Beautiful Awards](#)

Project Proposal

	Description
Project Topic	World Happiness
Dataset Description	**Provide 1) the list of attributes and 2) a single item in the dataset as an example.** There are 5 datasets with the same attributes, just from different years (2015 - 2019).

Country	Canada
Region	North America
Happiness Rank	5
Happiness Score	7.427
Standard Error	0.03553
Economy (GDP per capita)	1.32629
Family	1.32261

Health (Life Expectancy)	0.90563
Freedom	0.63297
Trust (Government)	0.32957
Generosity	0.45811
Dystopia Residual	2.45176

Dataset Link	https://www.kaggle.com/datasets/unsdsn/world-happiness
Why you chose this particular dataset. What kind of story you aim to deliver (e.g "Sales analysis of company xyz")	I want to look at happiness around the world and analyze what aspects of life contribute to a country's overall happiness and well being.
1 plot with 0 Key and 2 values	**i) Question you are asking from this graph.** How does happiness correlate with the different variables? How strong is this relationship? **ii) Columns you are going to use** Happiness Score, Economy (GDP per capita), Family, Health (Life Expectancy), Freedom, Trust (Government), Generosity, Dystopia Residual **iii) Type of graph** Scatterplot
1 plot with 1 key and 1 value	**i) Question you are asking from this graph.** Which region of the world is the happiest on average? **ii) Columns you are going to use** Region & Happiness Score **iii) Type of graph** Bar chart
1 plot with 2 keys and 1 value	**i) Question you are asking from this graph.** Across all regions, how has the happiness score changed over the years (2015 - 2019)?

	ii) Columns you are going to use Region & Happiness Score **iii) Type of graph** Heatmap
1 geometric visualization	**i) Question you are asking from this graph.** What does happiness look like on the world map? Are certain continents happier than others? **ii) Columns you are going to use** Country & Happiness Score **iii) Type of graph** Choropleth
1 visualization from - box plot, node-link diagram, adjacency matrix	**i) Question you are asking from this graph.** How does happiness score vary between different regions? Do some vary more than others? **ii) Columns you are going to use** Region & Happiness Score **iii) Type of graph** Box plot
1 interactivity using Buttons	**Describe in which visualization you plan to add the button-related interactivity** Radio buttons on scatterplot to switch between each variable to see its relationship with happiness score.
1 interactivity using Tooltips (Display data on hover).	**Describe in which visualization you plan to add a tooltip.** Hover over the heatmap to see the average happiness score of each region. Choropleth will also display data that shows the happiness score of each country upon mouseover (and also highlight the landmass).
1 interactivity using Animation.	**Describe 1) what type of animation you plan to add and 2) in which visualization you plan to add.** Button that sorts by descending/ascending whenever you click on it for the bar chart.

1 interactivity not learned in class	**Describe 1) what type of animation you plan to add and 2) in which visualization you plan to add.** I plan to make it possible to zoom on the choropleth since it's a world map so some countries may not be visible initially.
Any creative form of plot you want to try for the five you selected above? (e.g. pictogram)	Hint) You can refer to the storytelling lecture slides. Note) This is going to be for extra credit.

Changes Made:
- Decided to not use tooltips on the choropleth map since I was already using zoom and it would feel too busy on the page. Only the heatmap has tooltips.