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	**Formula 1**

Dataset Description	Provide 1) the list of attributes and 2) a single item in the dataset as an example.
	● **Circuit Information (circuits.csv)**
	  ○ **circuitRef**
	  ○ **country**
	  ○ **lat**
	  ○ **lng**
	  ○ **alt**
	● **Driver Information (drivers.csv)**
	● **Overall Race Information (races.csv)**
	● **Result Information (results.csv)**

Dataset Link	https://www.kaggle.com/datasets/rohanrao/formula-1-world-championship-1950-2020
Why you chose this particular dataset.	**My goal for this project is providing easy visualization about overall information of Formula 1.**

What kind of story you aim to deliver (e.g “Sales analysis of company xyz”)	- **Circuits information around the world** - **Ranking (Race result)** - **Rules and Regulation Changes** **For everyone who is not familiar with Formula 1, I would like to share some fun and informative visualizations so people can get interested in the sport.**
1 plot with 0 Key and 2 values	i) Question you are asking from this graph. 1. **Relationship between Lap Time and Pit Stop** ii) Columns you are going to use **In results.csv, lap(Duration of lap time) & pit(Duration of pit stop)** iii) Type of graph **Scatter Plot**
1 plot with 1 key and 1 value	i) Question you are asking from this graph. 2. **Which driver went on the podium the most?** **→ CONTAINS DRIVERS NAME (the bigger driver’s name, the more they went on the podium)** ii) Columns you are going to use **In results.csv, positionOrder(Final Rank) & driverId(ID of Driver)** iii) Type of graph **Wordcloud generator**
1 plot with 2 keys and 1 value	i) Question you are asking from this graph. 3. **Between 5 drivers, who earn the most points in Grand Prix Championships?** **→ 2 keys (raceId - horizontal & points - vertical)** **→ 1 value (each driver using color; selected 5 drivers by me)** ii) Columns you are going to use

	In results.csv, points(Points) & driverId(ID of Driver) & raceId(ID of race) iii) Type of graph Stacked **Streamgraph**
1 geometric visualization	i) Question you are asking from this graph. 4. **Where are the circuits located in the past years?** ii) Columns you are going to use **In circuits.csv, using lat(latitude) & lng(longitude)** iii) Type of graph **d3.geoEquirectangular()**
1 visualization from - box plot, node-link diagram, adjacency matrix	i) Question you are asking from this graph. 5. **Qualifying time distribution for Hamilton, Alonso, Raikkonen** ii) Columns you are going to use **In qualifying.csv, q1(time in Qualifying 1) & driverId(Id of Driver)** - **driverId: 1, Hamilton** - **driverId: 4, Alonso** - **driverId: 8, Raikkonen** iii) Type of graph **Box plot**
1 interactivity using Buttons	Describe in which visualization you plan to add the button-related interactivity **For question 5, Driver's qualifying time distribution in 2008, 2012, and 2016**

1 interactivity using Tooltips (Display data on hover).	Describe in which visualization you plan to add a tooltip. **For question 4, show the location name & country name**
1 interactivity using Animation.	Describe 1) what type of animation you plan to add and 2) in which visualization you plan to add. **For question 5, duration() & transition()**
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. **For question 1, Brushing → d3.brush()**
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. **For question 2, Wordcloud generator sounds fun to me.**