Final Project

Due: January 19, 2024

Part 1. Project Proposal

Create a project proposal that will capture the "who, what, why and how" of your project, plus any challenges that you foresee along the way. You should email your proposal to me before January 5, 2024.

1. **Executive Summary.** You will need to write a 50–100 word executive summary that introduces your topic and why you chose it.
2. **Why.** You will need to clearly identify the objectives/goals of your project. Remember this will keep you focused. You will also need to identify any specific outcomes the project must accomplish, if any.
3. **Who.** You will need to identify who your final presentation is intended for and who can benefit from this project.
4. **What.** You will need to identify your dataset (see more information on selecting data below) and describe why you chose the dataset you chose.
5. **How.** Once you have identified the other elements, provide an initial opinion as to how you think you present your findings. This will obviously evolve as you move through the project.
6. **Challenges.** Your proposal should conclude with any foreseeable challenges you are expecting to face and areas you hope to gain more experience.

Selecting your data, you should follow these guidelines:

1. The data has to have data available and be usable (i.e. .csv data). You need to attach your dataset to the final project report.
2. The data should have clean dates and times.
3. The data should **not** have any problematic outliers, but if it does have outliers, you need to become familiar with what that might mean.
4. The data should be relevant to your project's goal/objective.
5. You should have permission to use the data and be able to post it publicly on Tableau Public.

Part 2. Importing and Preparing the Data

You will acquire the dataset that supports your project proposal, import it into Tableau, and prepare the data for analysis.

You will submit a screenshot of the Data Source page in your Tableau Desktop instance that shows your data has been properly imported and is prepared for analysis. You will also submit an accompanying write-up on any data cleaning steps you took to prepare the data for analysis.

Part 3. Exploratory Analysis

You will use the skills that you have learned in the course to perform exploratory analysis of your data. You will identify key metrics in the data and create KPIs using calculated fields, and you will use those KPIs to create dashboards that allow for comparative views and "brushing and linking." This will allow us to begin to think about the proper context of developing an explanatory analysis that will form the basis for the project. Be sure your visualizations demonstrate the visual and cognitive design principles learned throughout the course, and make use of advanced features like hierarchies, actions, filters and parameters.

You will submit a URL to your worksheets or dashboard on Tableau Public containing your KPIs (key metrics) for this project. You will also submit a written narrative answering specific questions.

Submit your answers to the following questions:

- Why are these KPIs key to answering your business question or achieving your project goals? What specific insight did these KPIs or worksheets provide you?
- How does your dashboard or worksheet(s) exemplify use of at least one pre-attentive attribute?
- Do these worksheets meet the needs of your intended audience as-is? How might they need to be changed before ultimately being presented?

Also, include your thoughts on the exploratory process in general. How long did you spend exploring your data? What did you learn about the process? How many visualizations did you end up having to create before honing in on the best one to represent your project goal? What surprised you and what did you find difficult?

Part 4. Data Story

Create a multi-frame data story based around the insights you have gleaned from your KPIs. You are free to use as many points as necessary to communicate your full story. Make sure you are captioning each point using the text boxes, and sequencing your points in the correct order.