UBC SAUDER SCHOOL OF BUSINESS

ROBERT H. LEE GRADUATE SCHOOL

Data Visualization Course Project

Group, 35 Points

INTRODUCTION

In an increasingly data-driven world, the ability to effectively visualize data, gain insights, and communicate to make an impact is a critical skill in business. These skills are best gained through practice. The data visualization course project The data visualization course project offers you a unique chance to apply what you've learned in a complete project, while also collectively gaining deep insights into data with your team members.

ASSIGNMENT

The scope of the project covers the full cycle of data visualization:

1. ***Identify a Visualization Topic:*** Choose a topic that is broadly related to business. This could range from market trends and consumer behaviour to supply chain logistics, to employee engagement, or even to a sport you love playing. The sky is the limit! Choose a topic that you and your team members are passionate about. We love bold ideas and the class is waiting to be educated by your insights.
2. ***Define Goals and Objectives***: Once you have a topic, outline what you aim to achieve with your visualization. Are you solving a problem, highlighting an opportunity, or shedding light on a trend? Who would be the user of the data visualization? How would your visualization make an impact?
3. ***Collect Relevant Data***: The quality of your insights will largely depend on the data you gather. Remember, the size of the data set does not matter as much as its relevance and accuracy. In some situations, you may gain very deep business insights from only a few numbers, while in others, you may need to have a large amount of data to make an impact.
4. ***Carry Out Detailed Analysis***: Use statistical methods and data visualization tools to dig deep into the data. This is where the interesting patterns and insights would emerge. You can use tools beyond those demonstrated in class. Your work has to be original.
5. ***Present Your Insights***: Last but not least, you'll need to present your findings in a visually effective manner. This could be through dashboards, infographics, or interactive visuals.

The key is to make your insights easily digestible and actionable for your intended audience. We invite each team to present to the class on the last day of the course. Get ready to impress your classmates!!

The latest AI technologies have made the data visualization process more efficient, creating better opportunities for us to generate even deeper insights. Using tools like ChatGPT and other large language models is allowed and indeed encouraged. Please make sure to acknowledge how those tools are used, cite the sources for your work, and present the raw materials, such as the complete prompt history, in the work you submit.

Part A: Project Proposal (8 points, *due by Oct 21 at 8:00 PM*)

1. Please identify one data visualization topic that you are passionate about. Describe the background context of the topic, define the goal of your visualization, and highlight the potential impact of your project.
2. Please explain how/where you can obtain the relevant data. You can use open data sources on the internet, or use any data you collect. Below are some examples of open data sources (do not let these examples limit your creativity):
   - https://www.kaggle.com/datasets
   - https://cloud.google.com/bigquery/public-data
   - https://aws.amazon.com/opendata/
   - https://opendata.cityofnewyork.us/
   - https://opendata.vancouver.ca/pages/home/
   - https://data.gov/
   - https://projects.fivethirtyeight.com/polls/
   - https://www.tableau.com/learn/articles/free-public-data-sets
3. Please figure out how you could best present the proposal in *a visually effective way.* This proposal itself can be a visualization. Think about visual principles to make it effective.

Part B: Group Presentation (15 points, *materials due by Oct 23 at 11:59 PM*)

1. This is your unique opportunity to showcase what you have discovered on the amazing project topic! Get ready to impress and inspire the whole class!
2. Each team will have 7 mins to present, followed by 1-2 mins of Q&A. It is expected that every team member will participate to contribute. If there are special arrangements for contributions, please let your instructor know in advance.
3. There is no constraint on the format of your presentation; you can present a slide deck, showcase a dashboard, produce a video, or even perform a drama (who knows how many

talents you may have). The key point is to communicate the most important idea to make an impact.

4. Limit the number of slide pages/visualization charts/etc in your presentation. Make sure you present the most important message in the most effective way. Jamming the presentation with too much content or too many points would indeed harm the delivery of your key insights. Presenting a single chart is acceptable, and sometimes it would be better than having five complicated dashboards.

Part C: Final Report (12 points, *due by Oct 24 at 11:59 PM*)

1. The last part of the project is your final report. Even though your presentation formats may differ, please submit a PDF document providing discussions on your project. This could be viewed as the "instruction manual" of your group project. Be succinct in your report. Keep only the most critical information in your report.
2. Besides the main PDF document, you also need to submit other relevant files, such as the data (could be a link, if raw data is large), Tableau files, python/R codes, the complete prompt history if you are using AI tools, and others.

GRADING

You will be graded based on the following criteria for each part:

	Project Proposal	Group Presentation	Final Report
Content: Correct	30%	20%	40%
Explanation: Persuasive	40%	30%	30%
Presentation: Effective	30%	50%	30%

- Please note that your grade will be based on your relative performance in the class.

SUBMISSION

- Please follow the instructions for submissions on Canvas. If you need to submit additional supporting files, please note it in your main submission file.