***Final Group Project:***

This project aims to let the students utilize all the techniques and methods learned through the course and prepare a data analysis report using excel and/or other software. Within a group of 4 or 5 members, students need to create a complete data analysis report and submit it in PDF format.

* Step 1: Search for raw data from the online resources and download it (see at the end of this document).
* Step 2: Write a summary of the report’s purpose and why you want to analyze the data you downloaded. Discuss with your instructor before start it.
* Step 3: Use the methods and techniques we learned from the course and apply them to the data you collected. Discuss with your group colleagues what conclusions and results you can derive. The methods or techniques you used should cover at least five topics from the following topics:
  + Descriptive Statistics.
  + Data Visualization
  + Descriptive Data Mining
  + Statistical Inference
  + Linear Regression
  + Time Series Analysis and Forecasting
  + Predictive Data Mining
  + Spreadsheet Models
* Step 4: Use the chart and graphs to show the results of the data analysis and show the calculation for any data analysis methods you use.
* Step 5: Organize the writings and charts within 1 PDF file and submit it through the eConestoga dropbox before the due time. Only 1 group member needs to submit the file.
* Step 6: Each group is to prepare PowerPoint slides (max. 10 slides) summarizing the group project report content and plan to give a 10-15 min presentation to the class during the scheduled week. The class presentation slides do not need to be submitted to the eConestoga dropbox.

Use the in-class sessions to discuss your project topics and any questions with the instructor. In your submission, please also include the RACI matrix file to indicate each member’s contribution and work for this project. You can find the information on how to use the RACI matrix here:

<https://project-management.com/understanding-responsibility-assignment-matrix-raci-matrix/>

Some online recourses you can download the data:

<https://data.gov/>

<https://data.worldbank.org/>

<https://www.statcan.gc.ca/en/start>

Some good examples of data analysis reports:

<https://www150.statcan.gc.ca/n1/pub/45-28-0001/2021001/article/00043-eng.htm>