Project Details

Why this Project?

In this project, you will go through the process of calculating summary statistics, drawing any inferences from the statistics, calculating business metrics, and using models to forecast future growth prospects for the companies.

(A clean dataset is provided for the project)

What skills will I use?

The primary objective of this project is for you to showcase your proficiency in:

- Interpreting **measures of central tendency and spread** (mean, median, standard deviation, range).
- Utilizing a combination of **Excel or Google Sheets functions** (e.g., IF statements, INDEX, MATCH, OFFSET, VLOOKUP, calculating descriptive statistics, dropdowns, data validation).
- **Analyzing and forecasting financial business metrics** using Excel or Google Sheets.
- Creating **visualizations of a business metric** and utilizing Excel or Google Sheets.

This project relates to the Introduction to the Data part of the course, but depending on your background knowledge, you may not need to take this module to complete this project.

For the final project, you will conduct three Tasks:

1. Complete your own data analysis and create a presentation to share your findings.
2. Develop a Profit and Loss Statement dashboard.
3. Create a Financial Forecasting Model using three scenarios.

You should start by looking at your dataset and brainstorming which sub-category and company you want to focus your data analysis on - the questions leading to this page should have assisted in this process! Then use a spreadsheet application like Excel or Google Sheets to conduct the analysis of the sub-category and company of your choice.

Project Goals:

Task 1:

A. Identify the question about the data that you will answer based on your data analysis and include this in your slide presentation.
   - **Your question should include at least one categorical variable (GICS Sector or GICS Sub Industry) and one quantitative variable (one of the financial metrics) and require the use of at least one of the summary statistics.**
   - A **tab within the Excel spreadsheet** that you submit should include the summary statistics [measures of central tendency (e.g., mean, median) and measures of spread (standard deviation and range)] you used to answer your question.

Deliverable: Slide presentation, Spreadsheet with tab for Summary statistics.

B. Your slide presentation should provide **at least one visualization** to help with your answer.
   - This visualization might be a bar chart, histogram, scatterplot, boxplot or other visual that you learned to make. Include your insights from the measures of center and spread and at least one numeric summary statistic in the description.

Deliverable: Slide presentation (includes visualization)

Task 2:

- Create a tab with a dashboard for a Profit and Loss (P&L) statement that calculates the **Gross Profit, Operating Profit, or EBIT** for a company.
- The dashboard must be dynamic, meaning that **there should be a drop-down list for ticker symbol selection** that includes all companies from the data set.
- The P&L statement should include the **Gross Profit, Operating Profit or EBIT values for all the years there is historical data available for that company in the dataset.**

Deliverable: Spreadsheet with tab for Dynamic P&L statement.

Task 3:

- Create a financial model for a company (different from Task 2) of your choice that **forecasts out the Gross Profit, Operating Profit, or EBIT for two more years using three scenarios (Best case, Weak case and Base case).**

- The forecasting model should include a **drop-down list for selecting a Strong case, a Base case, and a Weak case**. Making the results of the forecast years dynamic.
- Your assumptions about revenue growth, gross margin and operating margin should change for each scenario.
- The forecasting model should be dynamic for the selection of the case (Weak, Base, Strong). However, the forecasting model can be static for the chosen company sticker symbol.

Deliverable: Spreadsheet with tab for Forecasting Model.