

## Project: Analyze NYSE Data

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### Submission Phase

Success Criteria	Specifications
The student has uploaded a PDF report necessary for review.	A PDF report have been uploaded as part of a zipped folder.
The student has provided link to Google Sheet or an Excel file necessary for review. This file should include their Profit and Loss statement and forecasts. In case the student did not include an Excel file as part of the submission, the Google link should be included in the PDF or slides document.	Student provided an Excel file as part of a zipped folder or link to Google Sheet (in case the student used Google Sheets instead of Excel) necessary for review. This file should include their Profit and Loss statement and forecasts. The Google link should be included in the PDF or slides document.
	The spreadsheet (Excel or Google Sheets) should contain individual tabs for the dataset, calculation of the summary statistics, dashboard for Profit and Loss statement, and Forecasting model with scenarios. There can be additional tabs in the Workbook that are needed for the dashboard and forecasting model.

### Exploration of Summary Statistics

Success Criteria	Specifications
The student is able to calculate measures of center for quantitative data and interpret it correctly.	<p>Student uses the measures of center and spread and at least one numeric summary statistic to generate insights.</p> <p>Stating the summary statistics is insufficient. Please include in the written description a short insight related to each one.</p> <p>For example here is an insight based on mean: The mean total revenue for companies categorized under Pharmaceutical industry (\$26,325,440,909.09) was higher compared to mean total revenue for all healthcare industries (\$23,142,217,458.76). It looks like companies in the Pharmaceutical industry have a higher total revenue on average than all industries categorized under Health Care.</p>
The student is able to calculate measures of spread for quantitative data and interpret it correctly.	<p>Student uses standard deviation and range to generate insights.</p> <p>Stating the standard deviation and range is insufficient. Please include in the written description a short insight related to each one.</p> <p>For example, please review the finished slide example in the classroom, which can be found in the Analyze NYSE S&amp;P 500 dataset project lesson (Finished Example Slide).</p>

### Success Criteria

### Specifications

The student is able to build graphs for quantitative and categorical data.

Student uses at least one plot to explore the data. The plots may include histograms, box-plots, scatterplots, and bar charts to explore data and gain insights.

All slides must contain a visualization. Screenshots of values in a table does not count.

An appropriate visual is chosen to present the data. All labels are legible and the visual has appropriate axis labels.

Every visualization should have

The student is able to present findings in an understandable way.

- chart title (including which year's data the chart depicts)
- x axis title
- x axis labels
- y axis title
- y axis labels

Please refer to the finished slide example page in the classroom for an example.

## Communication Phase

### Success Criteria

### Specifications

The student is able to avoid making inferential or causal statements when using descriptive statistics.

The results of the analysis are presented such that any limitations are clear. The analysis does not state or imply that one change causes another based solely on a correlation.

The results do not imply facts about a larger group of individuals based on descriptive values. Language is only applied to the specific data provided, unless a correct analysis beyond the course material is conducted that allows for inference.

The student is able to choose the correct analysis or plot for a given data type.

The analysis associated with answering a particular question uses the appropriate variables, summary statistics, and plots that could provide an answer.

## Business Metrics

### Success Criteria

### Specifications

The student is able to correctly use the financial metrics.

Student has input the correct formula for each business metric in the income statement and forecast model. Student has built a forecast model for any company of choice. A dropdown for a company in the forecast model is NOT required.

The student provides appropriate assumptions for the financial model scenarios.

The student provides appropriate assumptions based on gross margin, revenue growth and operating margin for the financial model scenarios.

## Excel Functions and Modeling

### Success Criteria

### Specifications

### Success Criteria

### Specifications

The student can use various Excel functions.

Student demonstrates using VLOOKUP or INDEX and MATCH statements.  
The student can use the appropriate functions such as OFFSET and MATCH to create forecast scenarios.

### Suggestions to Make Your Project Stand Out

- The visuals go above and beyond to be appealing and informative.
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