ISC 4551 – Project Plan

# Submit a document clearly indicating what you are going to do as a part of the project.

**The work must be done using Python and Python Plotly visualization tools.**

**The work must be worth at least three practice assignment efforts.**

**It must have all the three components: Data Acquisition, Data Processing/Clearing, and Data Visualization.**

**A simple download of tabular data (or simple table scraping an HTML table), must be accompanied by substantial data preparation effort (processing/cleaning). Creating a data table from multiple data sets collected can be considered as a data preparation effort.**

# Indicate the data source.

1. [Morningstar US Small Cap](https://indexes.morningstar.com/our-indexes/details/morningstar-us-small-cap-FSUSA00KGS?currency=USD&variant=TR&tab=performance)
2. [Morningstar US Large Cap](https://indexes.morningstar.com/our-indexes/details/morningstar-us-large-cap-FSUSA00KH5?currency=USD&variant=TR&tab=overview)
3. [Morningstar Developed Markets ex-US](https://indexes.morningstar.com/our-indexes/details/morningstar-developed-markets-ex-us-FS00009P5R?currency=USD&variant=TR&tab=performance)
4. [Morningstar Emerging Markets](https://indexes.morningstar.com/our-indexes/details/morningstar-emerging-markets-FS00009P5Q?currency=USD&variant=TR&tab=performance)
5. [Morningstar US 5-10 Yr Treasury Bond](https://indexes.morningstar.com/our-indexes/details/morningstar-us-5-10-yr-treasury-bond-FS0000E728?currency=USD&variant=TR&tab=performance)
6. [Morningstar US 5-10 Yr Corporate Bond](https://indexes.morningstar.com/our-indexes/details/morningstar-us-5-10-yr-corporate-bond-FS0000DZER?currency=USD&variant=TR&tab=performance)
7. [Morningstar US High-Yield Bond](https://indexes.morningstar.com/our-indexes/details/morningstar-us-high-yield-bond-FS0000E18W?currency=USD&variant=TR&tab=performance)
8. [Bloomberg Commodity Index](https://www.marketwatch.com/investing/index/bcom/download-data?startDate=2/18/2023&endDate=03/20/2023&countryCode=xx)
9. [Morningstar Moderate Target Risk](https://indexes.morningstar.com/our-indexes/details/morningstar-moderate-target-risk-FSUSA09PYI?currency=USD&variant=TR&tab=performance)

# Indicate data acquiring, processing, and cleaning effort. If you cannot estimate the effort then show the form of data and what you are going to do.

1. Web scraping, lot of effort, have to navigate the pages to pull tables formatted in HTML.

# Indicate the visual(s) that you are going to generate and demonstrate at the end.

A screenshot of a computer

Description automatically generated with medium confidence

# If you are planning to reproduce a visual you saw somewhere submit a screenshot of the visual if it exists and the location.

1. [Q4 2022 Market Trends in 7 Charts](https://www.morningstar.com/articles/1133179/q4-2022-market-trends-in-7-charts)

## If the visual does not exist, write about the data and what type of visuals you are going create using that data.

**Might be a potential sub-route that would be in depth as a replacement if data acquisition does not work.**