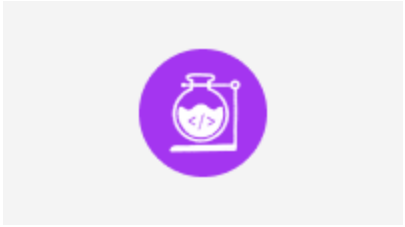
Optimizing Portfolio Management: Modern Portfolio Theory with Python

udemy.com/labs/optimizing-portfolio-management-modern-portfolio-theory-with-python/project-overview



Your project assignment

YM

Your Manager

Nov 25, 1:48 PM

Hi Tejashree! Thanks for working on this project for our team.

Welcome to your first significant project at Diogo's Delicious Chocolate Company's Finance Department since you have been hired as a Senior Data Analyst. Recently, our company diversified into the stock market by investing in a diverse selection of 50 stocks across various industries including technology, healthcare, and consumer goods. Your task is to conduct a comprehensive analysis of this investment portfolio. This includes calculating daily returns, assessing portfolio performance, conducting risk analysis, and optimizing the portfolio using modern portfolio theory. You will also perform Value at Risk analysis and perform Monte Carlo simulations to understand the future returns of the optimized portfolio. Your insights will be instrumental in shaping the company’s investment strategy going forward.

Given the diversity and scale of our investments, you will need to use Python for data analysis, along with the yfinance package to retrieve financial data. You'll use statistical techniques like portfolio return calculation, risk analysis, and Sharpe ratio calculation. You will download the stock data we've invested in with the tickers provided in the workspace, and it will be your starting point. Your findings will be crucial in guiding our investment strategies going forward. Good luck!

Where to complete your work

To complete this project, you’ll need to use your workspace. You can launch this workspace by clicking below, or at any time by clicking the button in the top right of the screen.

As you complete the project, you can use the Resources folder for any needed assets. The folder also includes useful documentation to reference and how-to's that can serve as tutorials for necessary completion steps you've identified.

See project resources