Financial Information Retrieval & Investment Portfolio Optimization Tool

Motivation

This project is intended to be a web application for choosing 4 of NASDAQ100 index’s component stocks and constructing a portfolio with the highest risk adjusted return or lowest variance.

Method

Modern Portfolio Theory suggests that it is possible to construct an “efficient frontier” of optimal portfolios, offering the maximum possible expected return for a given level of risk. It suggests that it is not enough to look at the expected risk and return of one particular stock. By investing in more than one stock, an investor can reap the benefits of diversification, particularly a reduction in the riskiness of the portfolio.

Intended field of application

The application’s scope includes general use by investment professionals and enthusiasts alike. It can serve not just as an investment portfolio optimization tool, but also as a tool to help make decisions about single stocks by giving the investor general information by way of weights of the individual stock in the constructed portfolios.