Synopsis

1. The title of the project is “Stockfolio” which aims to provide services like, stock information retrieval, stock price indicators, portfolio optimization, sentiment analysis as a single application. All of these are to be presented as an open-source package to the user with the ability for the user to reuse the software at their convenience.
2. Existing applications mainly provide premium or freemium services, but are never truly free. Also, the apps’ demographics seems to play a vital role which tend to cost a disadvantage here and there. Many apps provide solutions for tracking stocks but never is there an app that offers every tool together. Also, most of the app feature usually require a premium service.
3. Stockfolio aims to remove all of this by firstly being open-source, secondly with modularity being it’s primary aim, any number of modules can be sandwiched together to get the necessary application combo.
4. The application can be provided to user as either the whole application or a deployed application on the streamlit cloud. The user is given a standard application like layout with input boxes, tabs etc. to interact with.
5. Stockfolio uses a set of python APIs to interact with the internet to gather data regarding the stocks, processes them to provide meaningful insights to the users, optimise a given set of stocks to gain maximum profit. Then depending on the input, it can also perform sentiment analysis on a particular company to know about their situation in the social media.
6. Stockfolio uses Pyportfolioopt, nsepy among a set of other python APIs’ as its core. All of them features are packed together with streamlit and is readily deployable.
7. Python was the main tool used for development of the front and back end of the application. By using various python libraries like pandas, numpy, streamlit, Pyportfolioopt, nsepy, wordcloud, plotly and may more it was possible to create stockfolio.
8. The application result was within expectation, the application was capable of