

COP290: Design Practices

Assignment-1: Trading Simulator And Analyzer

Subtask-2 [Deadline: 30th January 2024 (15 Marks)]

This subtask is aimed at creating the user interface. You need to develop the user interface for the following features:

1. Plot the graph of a given stock on a defined time scale (daily, weekly etc)
2. Plot multiple stocks on the same graph to visually compare the prices.
3. Apply technical filters to get a list of stocks passing the filters (P/E ratio, average price etc.)

Remember that these are just indicators. While it will be good to have these features, we encourage creativity. This is an open-ended assignment and will be evaluated by vivas in-front of Instructor and/or TAs.

As mentioned earlier, the motive of this assignment is to write efficient and clean code. You could take inspiration from platforms like Zerodha, Groww, etc. (for example, you could have a separate end-point for each token, and display only token-specific data on that end-point. You may (or may not) decide to register and login users, and show them stocks they have bought/sold in past, etc)

Some instructions that you need to keep in mind -

- You should use the data that you have generated in Subtask 1.
- The platform needs to be built in Flask. The starter code can be found [here](#). You may choose to not use this starter code, but remember that you should only use Flask.
- This SubTask needs to be done in teams of 2. Thus, you need to use git. Make a repository on Github (or GitLab) and add your teammate (Ensure that your repo is private). You'll also need to add us as collaborator (more instructions on this will be posted on Piazza later).
- The submission will be via Moodle. You should submit the *entire* code. Along with the code, you should also submit the screenshot of the final commit history.
- Even though frontend design will be a part of evaluation, major emphasis is on writing clean, modular and efficient code. Evaluation will also involve user experience and the features provided.

- Submit a short report explaining design decisions, tradeoffs, screenshots of different endpoints, any insights and anything you find interesting.

Any further instructions will be posted on Piazza.