COS30018 - Option B - Task 1: Setup

You should be able to download the current project code base (**v0.1**) from Canvas. It is a single Python file: `stock-prediction.py`. The program is created based on a YouTube tutorial and has many issues. The project leader is aware of the issues and would like to improve this code. The project leader also identifies two interesting projects (**P1** and **P2**) on Github to allow you to learn from so that you can create some ideas to improve your project.

(**P1**) https://github.com/x4nth055/pythoncode-tutorials/tree/master/machine-learning/stock-prediction

Your tasks this week:

1. Watch the tutorial YouTube video to learn about **v0.1:** https://www.youtube.com/watch?v=PuZY9q-aKLw
2. Download the code bases of **v0.1** and **P1** to your local machine to test them out.
3. Follow the instructions from the tutorial video and from (**P1**) to setup your environment on your local machine. We strongly recommend you set this up in a virtual environment. Note that both **v0.1** and **P1** can share the same virtual environment as they use the same libraries. Please supply a requirements file for this setup. More details about requirements files can be found here: https://pip.pypa.io/en/stable/user_guide/#requirements-files
4. Test both **v0.1** and **P1** and make sure that you can run them, train the models and get the results.
5. Setup the Github repository for your project and commit **v0.1** to your repo and setup the Wiki page of the project to contain all documentations for the project (including the Weekly reports to be submitted)
6. Upload your Task 1 Report (as a PDF file) to the project Wiki before the deadline and email your project leader to notify that it is ready for viewing and feedback.

Your Task 1 Report will contain the following details:

- Summaries of your attempt to setup your environment, including details of your requirements file.
- Summaries of your attempts to test the provided code bases (**v0.1** and **P1**) with screenshots.
- Summary of your understanding of the initial code base **v0.1**.

Due date: 11:59pm Friday 18 August 2023

Assessment Criteria:
You can get up to 10 marks for successfully completing Task B.1.

Bonus task: You can also try to explore project (**P2**):

(**P2**) https://github.com/jason887/Using-Deep-Learning-Neural-Networks-and-Candlestick-Chart-Representation-to-Predict-Stock-Market

Test it in a separate virtual environment from the one you use for **v0.1** and **P1** to avoid messing up the libraries and dependencies. You can also report your attempt to do this. You can get up to 3 bonus marks for this effort.