Option C - Task 3: Data processing 2

After successfully completing Task 2, our project moves to a new version **v0.2**. In this version, our project does some simple visualization of the results using a library called `mathplotlib`. Data visualization can add much value to a data science and machine learning project such as allowing human users to gain insights into their data and also enabling a number of AI techniques based on graphical input or image processing. We would like to implement a few more visualization techniques in our project.

Your tasks this week:

1. Write a function to display stock market financial data using candlestick chart. You can use the following tutorial: https://coderzcolumn.com/tutorials/data-science/candlestick-chart-in-python-mplfinance-plotly-bokeh but, again, you will need to explain in details all the code in your program (including the meanings of the arguments in a function call). Furthermore, you need to include an option in your function to allow each candle stick to express the data of n trading days ($n \geq 1$).
2. Write a function to display stock market financial data using boxplot chart. This is particularly useful when you are trying to display your data for a moving window of n consecutive trading days. Again, feel free to use online resources that teach you how to do this but you need to add comments to explain your codes and the parameters you use.
3. Upload your Task 3 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 3 Report will contain the following details:

- Summary of your effort to explain the less straightforward lines of code, focusing especially on those lines that require you to do some research on the Internet (with proper references to the online resources you used). Outline the main challenges you faced when accomplishing this task.

Due date: 11:59pm Sunday 7 September 2025

Assessment Criteria:
You can get up to 10 marks for successfully completing Task C.3.