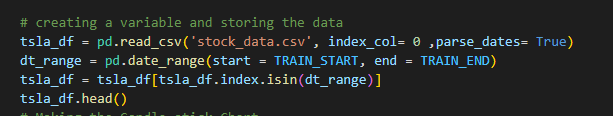
**Option B - Task 3: Data processing 2**

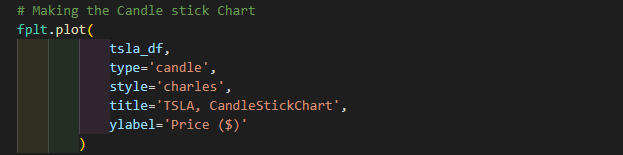
Starting with the first task in which we have to build a candlestick chart, the following provides you a clear idea of how it looks like:



This data has been saved and made into a csv file called as “stock\_data.csv” and then passed into a variable.



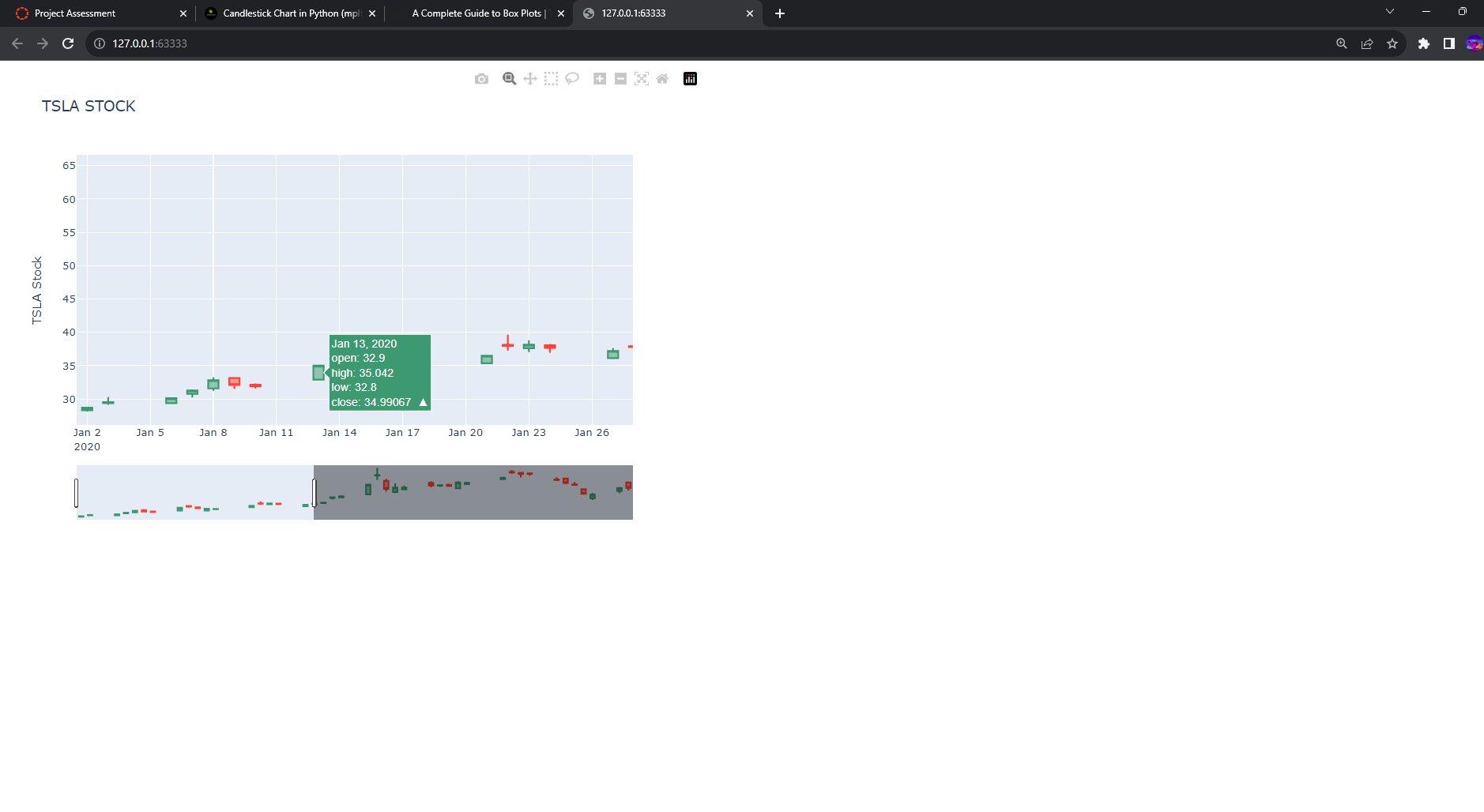
We then move onto using the function to make the candlestick Chart. I imported the mplfinance library to make this work after installing it from pip. There were different types of charts that I discovered like “Charles”, “mike”, “nightclouds” etc. which gives us different types of prebuilt custom charts.



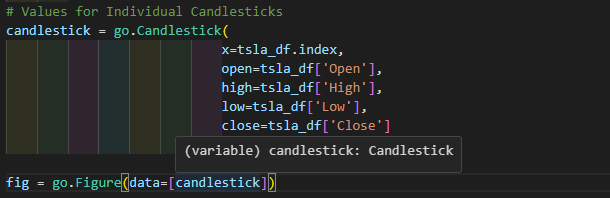
This function will give us a Candlestick Chart. Now some things to keep in mind is that I have used the start date and end date for only 2 months because feeding it more value not only consumes more time to train but also it makes the chart super messy. As I referred to the lecture present in the material given, we can also take the last 30 or maybe 50 values to show in the chart.

Moving on to the Second part of the requirement where we need to express the info in the individual candlesticks would look something like this: A screenshot of a computer

Description automatically generated

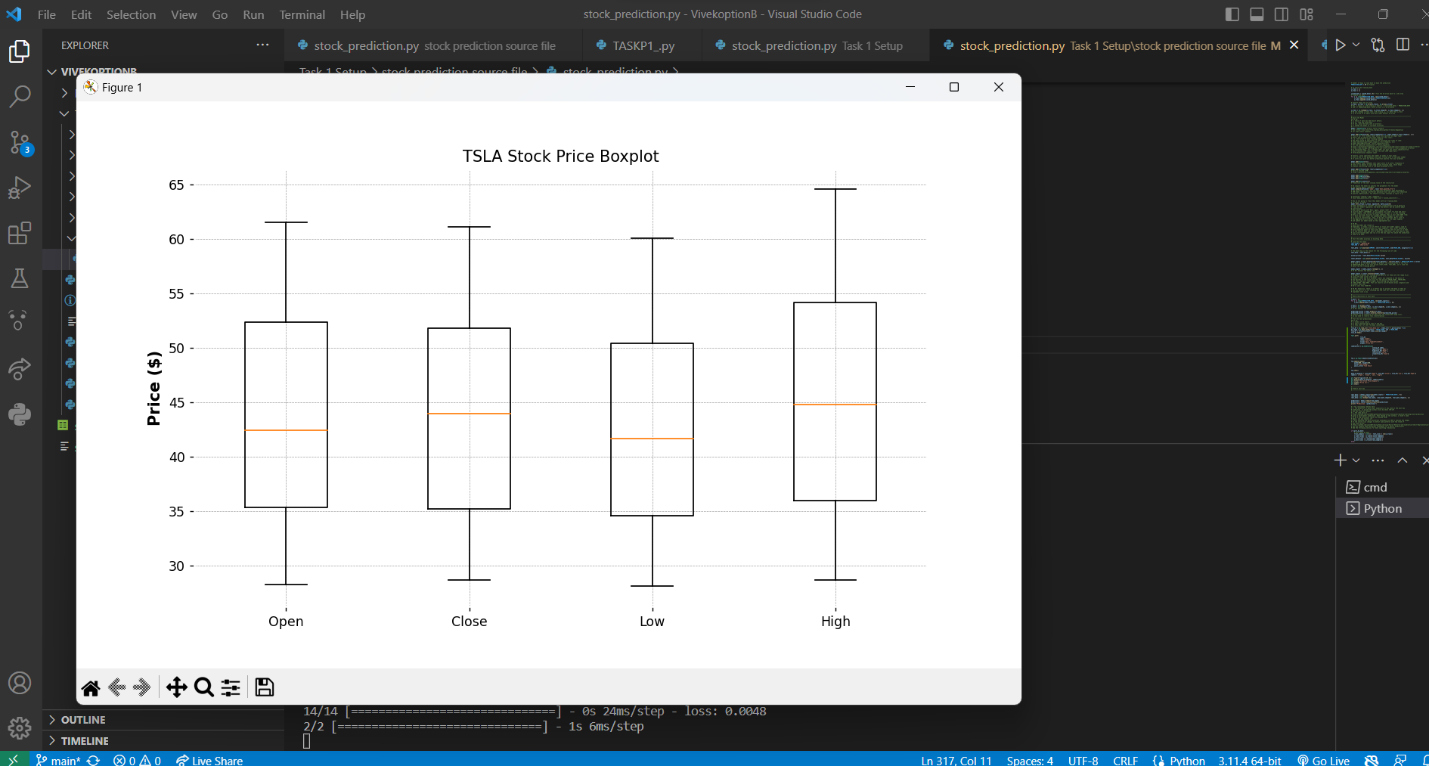


We can adjust the info with a slider that will only show the relevant info according to the number of n trading days that we want to see.



This is the function which was refereed from <https://coderzcolumn.com/tutorials/data-science/candlestick-chart-in-python-mplfinance-plotly-bokeh>

And at last we need to make a boxplot chart , I Used the same dataset I used for the other chart and referred to <https://www.educative.io/answers/how-to-make-a-boxplot-in-pandas> to make the function which results in something like this:



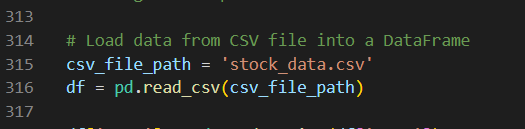
Version corrections:

I have done some corrections because I was not sure for the boxplot but after the class that I have attended I landed upon a solution for the boxplots because the boxplots has some issues.

The issues I faced includes the wrong data being read for the output.

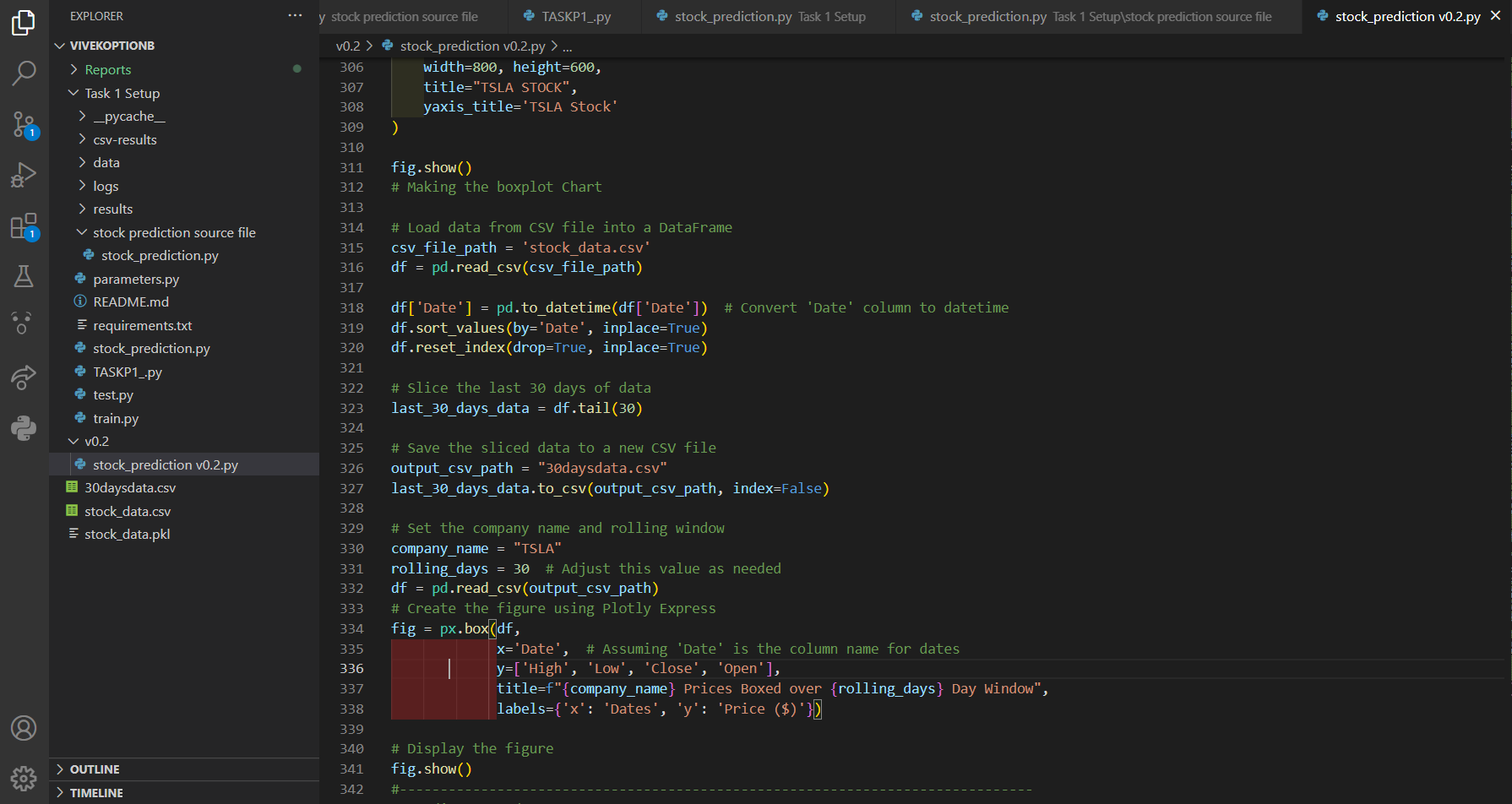
As mentioned in the figure above , we can see only 4 boxplots being plotted for the whole dataset where we need the data for n number of days.

So to correct that I did some research online and came to the conclusion I should make the code read the values from the csv file. I corrected the code and instead of reading the first 4 columns now it is reading the whole dataset.

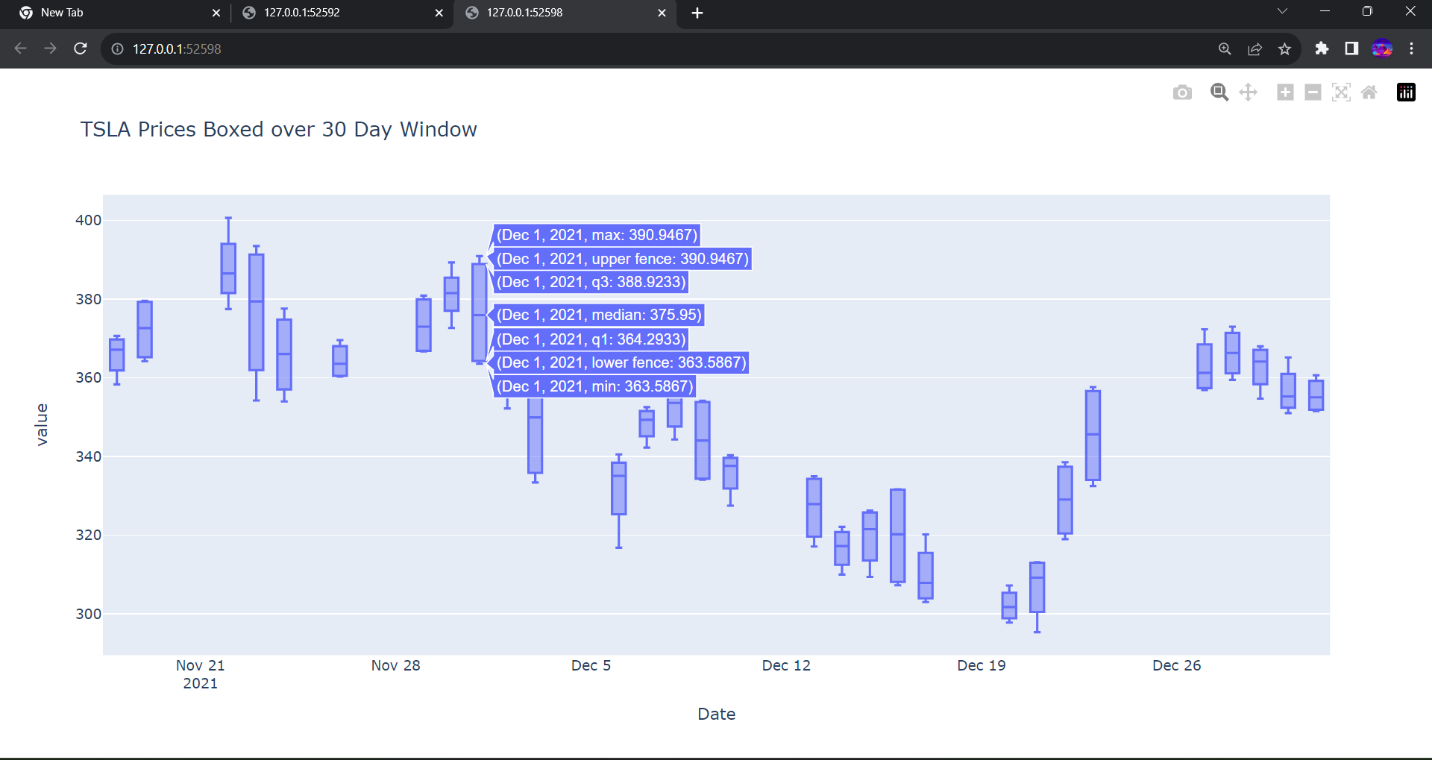


The boxplot was really messy so I had to cut down the data to show only a reasonable data. I used the slice down function to slice down the data. Thanks to stack overflow where I took the reference <https://stackoverflow.com/questions/48423935/slicing-rows-from-csv-file>

After some trying I managed to somehow alter the data and come up with a solution.



This is the final output where we can see that the current file was “stockdata.csv” and I cut some data and then placed it in a new csv file so that it only shows the last 30 days. I used plotly library to make the boxplot work because it was simple and straight to the point. Problem solved and the final out put looks like this :



In conclusion, we used the certain libraries that come out from mathplotlib and mplfinance , which helps us to visualize the data and enhanced how we look at the data That we have predicted. After some challenges and obstacles I think all the requirements are met and I am open to feed back. Thanks for your time :)