For the “Portfolio Programming Assignment”, I have added a Graphical User Interface using “tkinter” library, where the user can input the location (path) of the csv file with the stock data and I have added a submit button which when clicked performs the operations on the inputted file and plots a graph and shows it on the screen. If the wrong file or wrong file location is inputted, then there will be a message on the screen stating that “input correct file”. I have also added exception handling to handle the program when wrong file or data is inputted or taken to plot the graph.

**Describe the updates you included in your work based on the instructor feedback given in previous submissions. Are there areas you would like to still improve it in.**

In week 8 I have not added try/except in my code. In week10 I have added try/expect errors for my code. Also, I have changed the variable names. I have also added comments for the code to easily understand. Also, I tried plotting the graph using pygal library, I would like to improve the code in terms of plotting. I would like to improve the code by adding some test cases to check the data is correct or not. I Would like to improve my code using other functions and make it as concise code.

**Can you think of other functionality that would be beneficial?**

I tried running my code using python API (yahoo Finance) and pygal library for plotting the graph. For this program, Python API(Yahoo Finance) would help us to get the new stock name and current stock price.

**What was your experience implementing the new functionality?**

I found that matplotlib has more visualizations than pygal. It is easy to modify and export your plot using matplotlib. As I am new to python Visualization techniques, while working with pygal I had to face errors and tired to find a solution from online resources. Using tkinter for the GUI is very interesting and I would like to explore the library more to develop a good looking user interface.

**Was the functionality hard to implement?**

I felt it was hard to implement line chart using pygal data visualization technique. Since Pygal data visualization provides only Bar chart, tree map, Pie chart, Gauge chart. As I chose my line graph to be my output, I had to use matplotlib in order to get the desired Output. Tkinter was fairly easier to implement and the documentation for tkinter is very clear to understand.

**Was the documentation easy or difficult to find?**

I found easy to find the document. The way it was organized made easy to find and interpret the data. These documents were very useful and helpful for all my discussions and assignments.

**Show screenshots of your added functionality at work.**

**Tkinter implementation**

Graphical user interface, text, application

Description automatically generated

getGraph function plots the graph after the user input.

TRY/EXCEPT ERRROR

Graphical user interface, text, application, chat or text message

Description automatically generated

Tkinter UI

Graphical user interface, application

Description automatically generated

Github Link for all my codes.

<https://github.com/DheerajBeerelly/Python-ICT-.git>