**ICT 4370 Week Ten Portfolio Assignment**

Master of Science

Software Design & Programming

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**Introduction**

This assignment required use of a Python program to input stock shares by symbol using an external JSON file. There was a great deal of data involved in each stock transaction to include date, opening value, closing value, and overall volume. With the imported JSON file, additional functionality needed to be added. The ultimate goal of this assignment was to generate some calculated outputs and present the outputs on a line graph. The calculation I most wanted to focus on was difference between the opening value and closing value for each stock per date.

**Assignment Reflection**

While I have learned a great deal about Python in this course, I realize there is still a great deal left for me to learn. Given my, what I believe, beginner understanding of Python, I tried to keep the functionality for this assignment simple. I wanted to improve on what I learned for the previous assignment and reflect that knowledge in a different way. With that being said, there is a great deal of added functionality that could be added to this program. Simple adjustments could be generating an error is a stock loses value on a given day. Another function would be to provide an overall portfolio value at the end of each day’s trading.

My experience with what I tried to change in the program was that it didn’t work. In general, I feel there is a simple adjustment that I could make to produce the desired result. After much trial and error, though, I don’t seem to be able to resolve the error. The functionality itself wasn’t difficult to implement, but producing the output became troublesome. Given the resources available, I found it easy to find and interpret what I needed to further develop the program. One area that still challenges me is using code to generate calculations internally. Many of the resources I have found focus on printing the output. I have not found great resources that look at taking inputs and reusing them in the code for an output, as opposed to printing them.

**Conclusion**

All in all, I am excited about the knowledge I gained about Python. It is a fascinating program that I think I will be using more as my professional goals come to fruition. I especially enjoy how versatile Python is and can be used in varying projects such as web design and/or data analysis. Even though this class is over, I will be working to increase my knowledge in Python in the near future.