CS-500 Module Ten Journal

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This course has helped me develop a deeper understanding of Python. I already had Python experience in previous coursework and in my own projects, but when taking a course again, my knowledge becomes solidified. Python is an important language to study as it is used in many modern day programming applications, especially machine learning. Building a console-based finance calculator was particularly valuable as I was able to rethink how I apply the concerts of loops, conditionals, and object-oriented programming to my applications. I've built similar programs before, but creating one after reading another computer science textbook allowed me to refine my programming skills.

One of the biggest topics I had to revisit was the implementation of classes and objects. I didn't use much object oriented programming in my previous Python applications. There was a lot of syntax problems for me to revisit. Completing the finance calculator project helped solidify this knowledge. It also reminded me of the usefulness and importance of organizing code in such a manner.

To fix my imperfect knowledge of object oriented programming, I revisited the topics in zyBooks, watched some code examples on Youtube, and was willing to rewrite my code several times in order to get something professional. I believe this lengthy process helped me pay attention to detail, and now that I know the standard way to make such programs, I'll carry the new knowledge into future programs that I write.

In my upcoming courses, I plan on using the knowledge I've solidified here to create programs that have graphical user interfaces, make use of databases, or make use of APIs. This would be more applicable to a future career than a console-based program like the ones I've

written here. I'll also still use this knowledge in my personal projects as I continue to build my own machine learning models.

I tried to pay attention to zyBooks' details on programming principles and best practices. I focused on writing variable names that were short but fully described the purpose of the variable. I always questioned my code to determine whether it could be further modularized. I often found myself splitting up one function into two separate, distinct functions. I also made it a practice to test a new function immediately while the code was fresh in my mind. This helped with troubleshooting errors that came up later on.

This course helped me revisit Python to further refine my technical knowledge of both Python and basic programming practices in general. The coursework emphasized to me that programming is a practice of deep thinking and problem solving as much as it is about syntax and technical details. The challenges I encountered and surmounted have made me feel more confident as a programmer. I look forward to applying this knowledge as I continue my degree at SNHU.