CS 499 Milestone Three

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* **Briefly describe the artifact. What is it? When was it created?**

This particular artifact was created approximately a year ago when I was playing around with python and PYgame. At this point I had very little experience with python and simply created this snake type game in an attempt to learn a few python structural fundamentals in a fun way. The result was a working snake app that would allow the user to control a snake to eat the apple (with standard W,A,S,D controls) and grow. The game would be over and display a message when out of bounds was reached. The code could also be modified to adjust difficulty level but I failed to add that in to the GUI at this time.

* **Justify the inclusion of the artifact in your ePortfolio. Why did you select this item? What specific components of the artifact showcase your skills and abilities in software development? How was the artifact improved?**

I felt that overall, this particular project was executed quite well both visually and systematically speaking. There were a few shortcomings that will be fixed with commenting and proper documentation but overall, it was a project that I felt good about and one that I feel could definitely be functional as is but also leaves a lot of room for growth and development in the future. This particular project taught me quite a bit about the python language including but not limited too creation of a window size and initializing it, creation of a frames per second controller, assigning color, checking for errors, assessing game variables, keeping a score tally and creating objects that can be consumed upon collision such as the apple with the snake. I also chose this project because it’s standalone and isn’t really specific such as the last project I showcased with the cash register type app in java.

* **Did you meet the course objectives you planned to meet with this enhancement in Module One? Do you have any updates to your outcome-coverage plans?**

I’m quite frankly a bit behind on the objectives that were set forth for this project. I was able to finish organizing and commenting the code but I still need a readme and setup guide (as PYgame is required in order to initialize this file). I also want to create a user-friendly options menu to change difficulty as well as maybe a few more settings in the future; as opposed to having to physically change the python code and reinitialize. I would also like to in the future add additional modes or stages and possibly even add a main menu that will allow a user to switch between different games that I can add to in the future. Overall though, the painstaking part of organization, commenting and testing has been completed and polishing the existing and adding features will become the primary objective.

* **Reflect on the process of enhancing and/or modifying the artifact. What did you learn as you were creating it and improving it? What challenges did you face?**

Even though the code was written by me and it was fairly organized, it was quite the pain to go back and comment every code block and actually hindered me from looking for or discovering any potential flaws or weakness in the code due to being preoccupied with that feat. That being said I was able to get the code organized and commented in a manner that I believe to be compliant with coding ethics and in a manner that is appealing to the eye which greatly improved my process in looking for errors. With regard to what I have learned; It’s important to start with best coding practices! Don’t just do whatever and then go back and try to make everything look better at the end you are just making more work for yourself and it can lead to aberrant behavior of code as well as other issues. I’m still a novice to coding in general but I would say that comments could be one of the most important aspects of the code. Needless to say, I will never forget the proper coding practices and will continue to build upon them.