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FDN of Programming (Python)

Assignment 06

Working with Functions and learning Classes, Variable Scope and DocString

Introduction

This week we learned about functions, classes, variable scope and docstring. I learned by doing the assignments. I was having some trouble with loading the class videos and overall, it caused me to lose time. In any case, the book, notes and labs were helpful. The labs provided practice that led up to the assignment. However, I still ended up running into issues.

Lab A

Lab A was about working with functions. I created a function called starlight the attributes I assigned to it were arg1 and arg 2. Like in the example I used (dot)format and realized I didn’t need that as long as my function was defined my program would work the way it was intended. Granted, I needed to type intNumA, IntNumB into the parentheses of each of the print operations at the bottom of the script. In addition, I wrote arg1 and arg 2 in the return area to see how that would work and it worked just fine as well. I also ran into some errors because I did not define my function.

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Figure 1 - Lab\_A6

LAB B – C

Leading into Lab B was about creating a function that returns multiple values. We had been over this in class and in addition the document provided examples on functions as well as Lab A. This lab taught me that I can save time and space if I was to use a function to produce multiple outputs in one go. It is especially useful because it’s scalable. Lab C was about reusing Lab A again but this time I added code and docstrings to explain the functions.

I learned that docstrings have their own set of rules and you can find out about them by going to pydocstyle.org. I ended up using this for the assignment. I used both Visual Studio Code and Spyder as my IDE because I like to cross reference, sometimes there is discrepancy and I want to know why so it helps.

Learning

The assignment involved a lot of what was similar to Lab C by practicing functions, and docstrings, but also variable scope and classes. Classes are still new to me, and I am still learning them. Docstrings are simple because they are a quick reference to what the function or code is doing. I find them helpful. I learned a lot of information, about functions and their benefits. Functions need to be defined before calling them. Each block can only use the information given to it with in the block i.e., a defined function. I also learned that parameters and arguments are used interchangeably and that every function is essentially either None, “” or calling an argument. Also, I learned that a global scope is an environment where a particular variable or attribute it accessible throughout, but a local variable is only available in that block.

Conclusion

Overall, I know in order to retain the information I will need to keep doing it and trying out different methods and possibly going over the previous documents and chapters. The assignment was a challenge, and I am expecting no less of the next one. Figure – 2 Shows assignment 6 working in the terminal, adding a CD. Figure 3 and Figure 4 – Show the script working in Spyder.

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Figure 2 - Assignment \_06 Working in Terminal

Graphical user interface, text

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Figure 3 - Assignment\_06 Working in Spyder

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Figure 4 - Working in Spyder