

Angel Reddy
Luis Conejo Alpizar and Julian Peterson
Foundations in Programming (Python)
19 February 2024

Assignment 06

Introduction

This week's assignment built upon assignment 05 where we created a python program that demonstrates the use of constants, variables, and print statements to display a message about registering a student for a course. This week added the use of functions, classes, and using the separation of concerns pattern.

Drafting the Script

To begin, I defined the classes that I needed for this assignment. The two classes that I used were FileProcessor and IO. FileProcessor allowed me to store the script needed to read, write, and close the JSON file. IO allowed me to write the script needed for the various inputs from the user, such as menu choice and student data, along with the corresponding outputs. I also included error messages in case the user inputted something not accepted, such as the wrong type. These two classes used a great deal of my previous script that was stored directly under the choices. Under FileProcessor, I defined `read_data_from_file` and `write_data_to_file` to be able to open up the previous JSON file and write onto it with the new user data inputted. Under IO, I defined `output_menu`, `input_menu_choice`, `output_student_and_course_names`, and `input_student_data`. Each of these definitions wrote out the actions of each choice. For example, `output_menu` displayed the menu to the user. In the beginning of my script, when the program ran, I called to this class by using `IO.output_menu (men=MENU)`. Underneath each of my `if/elif/else` statements, I called to the classes and definitions needed for each choice in a similar fashion to displaying the menu. I either used IO or FileProcessor along with the definition to be able to run the appropriate script in Python.

Running the Script and Saving to GitHub

I was able to run this script with no issue! It took a great deal of trial and error along with following along with the videos walking through this assignment. I struggled to understand how to move my script around to fit the classes. However, I was able to get it to run successfully in PyCharm, IDLE, and the Terminal. I also was able to save it to GitHub here:

<https://github.com/chreddy1020/IntroToProg-Python-Mod06>.

Reflection and Summary

This assignment was much more difficult for me. I needed to use the videos and follow along with the demonstration provided for this assignment. That being said, I understood the choices being made by the instructor and was able to comment on the script in such a way that I

understood what was happening. The video was helpful, but I wish I was able to complete the assignment without needing to rely on the videos. Also, I was not able to include figure images as I usually do in my documentation due to the time crunch. In the future, I will be sure to complete the assignment in a more timely manner to be able to ask questions during office hours and include the proper documentation.