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IT FDN 110 B

Assignment 06

https://github.com/skym97/IntroToProg-Python-Mod06

Fixing Mistakes

Introduction

This week built off of the prior three assignments to improve our scripts by using functions, classes, and a separation of concerns programming patterns.

Process

This assignment proved to be a bit more difficult than I expected it to be going into it. Mostly due to the "methodology" of sorts I've adopted going into each assignment for the past month or so. Modifying the script was going well at first. However as I continued to work through the assignment the limitations of ChatGPT came through, or at the very least the free version/unpaid version of ChatGPT. While working through the assignment I found that I eventually wrote many errors in my code when I first attempted to run and test my code. Due to my errors, I would ask ChatGPT to help identify the errors to attempt and fix them. It started out fine, but because I had already exhausted their latest model, ChatGPT began using a different model to answer questions and from there that's when my issues began to occur. When addressing errors and fixes ChatGPT would occasionally repeat itself. On some occasion it would have me fix something that we already fixed moments before. It eventually got to the point as if there were more errors than I had than before. When I tried to run the program again I couldn't get the first menu option to work properly when I was able to before attempting to fix any mistakes.
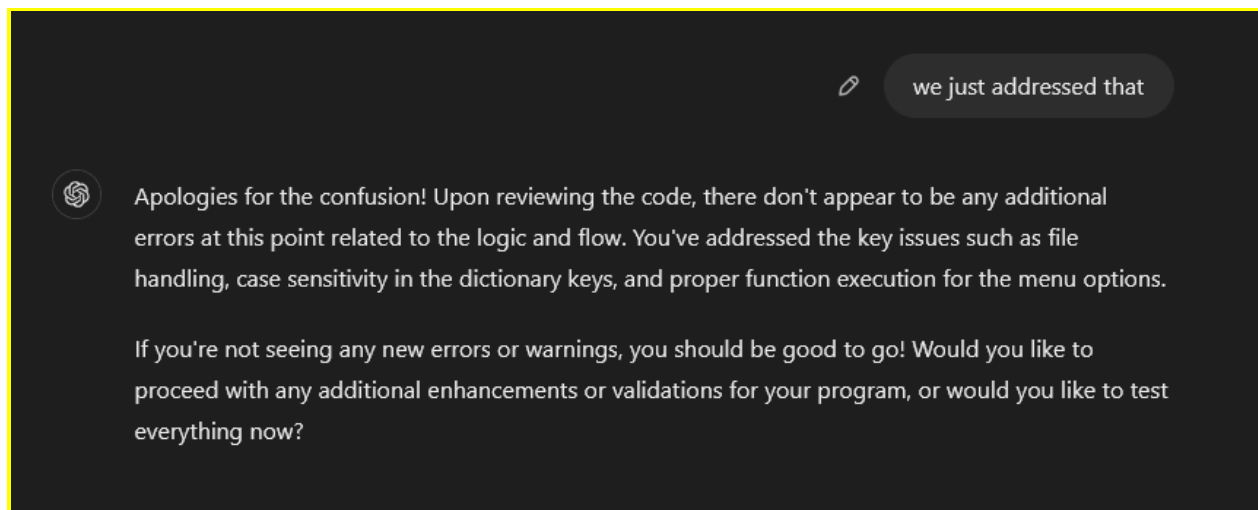

Figure 1: ChatGPT repeating itself

At first I attempted to change the way I was messaging with ChatGPT to help salvage the situation, but it seemed futile and eventually I had exhausted my free ChatGPT plan and my messages became limited. At that point, I contemplated just starting the assignment over. But that thought weighed on me. In the end, I decided not to as that would've thrown away all the time I had spent using to create the program. But instead of waiting a few hours for ChatGPT to allow me to send messages again. I instead decided to pivot and use Microsoft Copilot for the first time. Using PyCharm's local history function, I was able to revert my code to where it was before after I attempted to fix all my mistakes using ChatGPT and from there started over the process of fixing my code, but with Copilot instead. I wasn't entirely sure what to expect as I hadn't used Copilot before. To set myself up, I messaged Copilot letting them know what the assignment parameters were and shared my code, and it began providing answers.
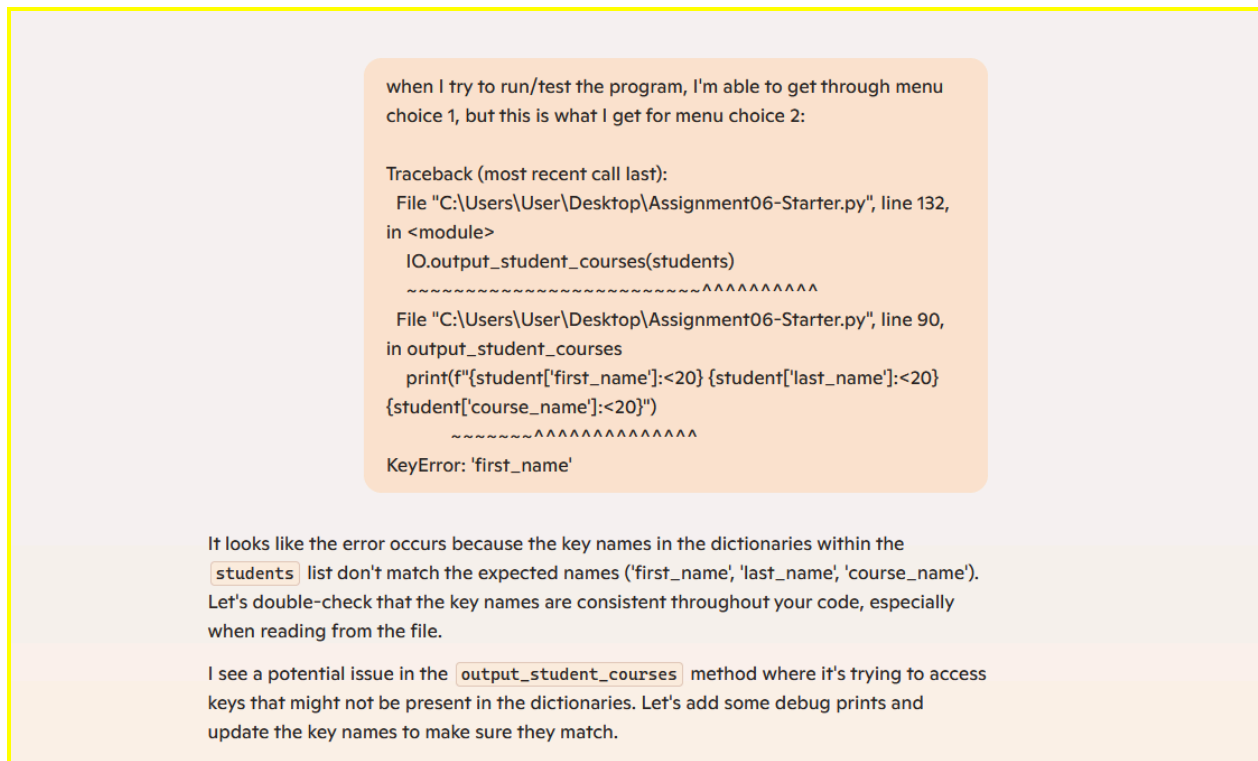

when I try to run/test the program, I'm able to get through menu choice 1, but this is what I get for menu choice 2:

Traceback (most recent call last):
  File "C:\Users\User\Desktop\Assignment06-Starter.py", line 132, in <module>
    IO.output_student_courses(students)
    ~~~~~~~~~~~~~~~~~~~~~~~~~~~^^^^^^^^^^
  File "C:\Users\User\Desktop\Assignment06-Starter.py", line 90, in output_student_courses
    print(f"{student['first_name']:<20} {student['last_name']:<20} {student['course_name']:<20}")
            ~~~~~~~^^^^^^^^^^^^^^^^
KeyError: 'first_name'

It looks like the error occurs because the key names in the dictionaries within the `students` list don't match the expected names ('first_name', 'last_name', 'course_name'). Let's double-check that the key names are consistent throughout your code, especially when reading from the file.

I see a potential issue in the `output_student_courses` method where it's trying to access keys that might not be present in the dictionaries. Let's add some debug prints and update the key names to make sure they match.

Figure 2: Copilot addressing an error

After a few more exchanges, Copilot was able to address all the issues that I had in my code and I was able to successfully run and test the program I had created without any issues. In a short time of using Copilot, all of my frustration from the thought of possibly having to start over my assignment and all the issues I seemed to be creating more of, washed away. While my experience with Copilot was brief, my experience with both ChatGPT and Copilot for this assignment has me reconsidering on which I should use for the next assignment.

Summary

While this assignment had a focus on improving our scripts by using functions, classes, and a separation of concerns programming patterns, I feel like I walked away with a better understanding on how to "problem-solve" in a way when things aren't going your way.