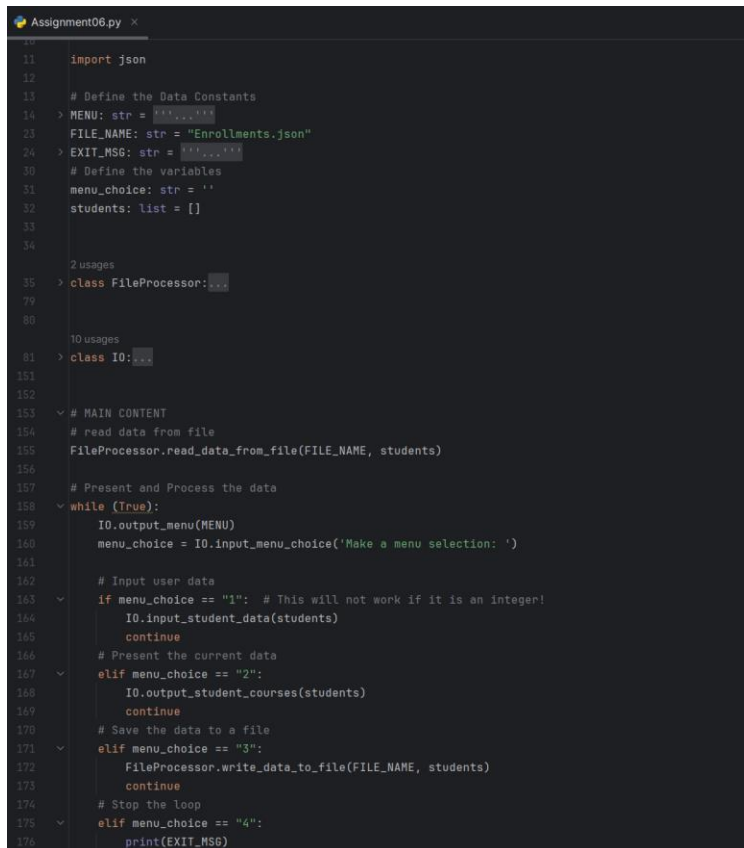


Assignment 06

Introduction

I can certainly see how functions can be useful in larger programs. If I relate it to using Tableau, it's almost like nesting calculated fields in other calculated fields. It makes repeat usage easier and the code more organized. But, for someone new to Python, they are tricky and I imagine if I encountered someone's code with a lot of functions in it, it would be challenging at first to decipher what it was doing.

File organization



```
11 import json
12
13 # Define the Data Constants
14 > MENU: str = """
23 FILE_NAME: str = "Enrollments.json"
24 > EXIT_MSG: str = """
30 # Define the variables
31 menu_choice: str = ''
32 students: list = []
33
34
35 > class FileProcessor:
79
80
81 > class IO:
151
152
153 # MAIN CONTENT
154 # read data from file
155 FileProcessor.read_data_from_file(FILE_NAME, students)
156
157 # Present and Process the data
158 > while (True):
159     IO.output_menu(MENU)
160     menu_choice = IO.input_menu_choice('Make a menu selection: ')
161
162     # Input user data
163     > if menu_choice == "1": # This will not work if it is an integer!
164         IO.input_student_data(students)
165         continue
166     # Present the current data
167     > elif menu_choice == "2":
168         IO.output_student_courses(students)
169         continue
170     # Save the data to a file
171     > elif menu_choice == "3":
172         FileProcessor.write_data_to_file(FILE_NAME, students)
173         continue
174     # Stop the loop
175     > elif menu_choice == "4":
176         print(EXIT_MSG)
```

Figure 1: PyCharm lets you collapse sections of code.

One of the things I really like about PyCharm is the ability to collapse certain sections of code. That came in handy this week as we added functions and classes to our programs. Collapsing those sections (Figure 1) helped keep the code nice and tidy and easy to follow.

Some trial, little error

As I was creating my code this week, and nesting sections of the starter file into functions, I didn't really test it as I went, unlike previous weeks. It paid off, too. I had very few issues once I felt my code was finished and only needed to go back to fix one or two things in one of the functions. It was nice to run my program for the first time without any issues. The fixes only came with I was testing the error handling.

I realized when I created a "while" loop in my "input_student_data" function (to be able to continuously ask for the first name and last name if there was a specific error), the part of the code that asked for the input again was "unreachable." After shuffling some things around and taking out the "raise" line, I was able to accomplish what I wanted.

Summary

This week I learned quite a bit about function syntax and how to properly call functions using parameters. I think I need to dig deeper into standards or guidelines on naming those parameters so that I don't confuse those with variables.