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GitHub: https://github.com/tuzik1/IntroToProg-Python-Mod06

Assignment 6 – Functions

Introduction

The purpose of this article is to cover the steps that were taken in developing Assignment06.py, which demonstrates the ability to collect data from files, use dictionaries and lists, save data to files, and implement advanced error handling techniques. This assignment also implemented extensive use of functions and assigned them as methods to classes as part of an overarching effort to maintain what is considered standard code formatting techniques.

Creating the Program

The assignment provided as a starter file with some code for us to work from, but with the incorporation of functions (methods) and classes, this starter file was mostly reorganized and not as recognizable by the end of the assignment.

The first step was to outline the contents of the file – where are the constants defined, where are the variables defined, where are the classes and functions listed, and where is the main body of the program.

Using the guide in the assignment document, placeholders were first made throughout the program with the 'Pass' statement to create an outline of the program prior to adding detail code.

Adding Code to the Outline

The next phase of the assignment involved assigning the methods to the right classes. The 'read' and 'write' methods were added to the FileProcessor class, while the rest of the methods were added to the IO (input/output) class. Organizing the methods into these classes helps with maintaining logical flow throughout the code.

Next, I added detailed code for each static method to achieve the right functionality of that method, as described in the assignment guide.

The final touch involved writing the while loop and if statement in the main body of the program which provides instructions on what the program should do when the user selects different options from the 'MENU' when it is displayed in the terminal.

Summary

In this assignment we touched on the topic of methods and classes for the first time, which is a way to organize the code instructions and adds a layer of logic to the program. It presents a much cleaner view than the other formats we had previously used in other assignments.