Kevin Amaral
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Course: Foundations Of Programming: Python
https://github.com/KevinAmaral2/IntroToProg-Python

Assignment 05 – Module 5

Introduction:

This is the fifth assignment for the Foundations Of Programming: PythonCourse at UW. In this document I will outline how I wrote the code for the Assignment05.py file.

Steps Performed:

In Vscode, I created a new file titled Assignment05.py and made the script header look similar to the template provided. I then followed the instructions in the Mod05-Assignment doc. To start I defined a series a constants and variables for the program. The variables defined include student first name, last name, course name, csv data, file, menu choice, and file name. In this assignment we also defined student_data as a dictionary and students as a list.

For this assignment we took the structure of the program we had from Module 4, and made some changes to the way it was written. The two major changes were 1. using a dictionary for student_data instead of a list of lists and 2. adding in error handling to the program. To accomplish the first part, when the file is read I updated the code to at the data to a dictionary instead of a list. I then updated the numerical keys (0, 1, 2) to strings whenever they were referenced in the menu steps below, like in the print statements for example.

Once the code was functional, I then needed to add some error handling to four elements of the program: when the file is read, when a first name is entered, when a last name is entered, and when the file is written to. To accomplish this I utilized the try, except, and finally features in Python. I also utilized the FileNotFoundError, ValueError, and TypeErrors in Python and printed a message to the user if those conditions were met. If the error were not, the program continues as expected through the menu choices.

Finally, we were then asked to post our file and this knowledge document to Github.

Summary:

In this assignment we became familiar with dictionaries, Github, and error handling. Allowing user input without appropriate restrictions in place is a common security vulnerability, and within this lab we began to learn a way to start restricting that input.