

Name: Alejandro Garcia

Date: May 18, 2024

Class: Python 100

GitHub URL: <https://github.com/AlGarCu/IntroToProg-Python-Mod05>

Assignment 05

My apologies for the late submission, a handful of unexpected events aligned through the past few days, which made it tough for me to find the time to work on this. I understand and fully accept the course policy that my baseline mark will be penalized in consequence.

Introduction

This report describes the steps taken to perform Assignment 05 for the Python 001 course, in which the main objective was to put together a Python script that would read from a .json file into a specific data format and provide the user with a menu of options, including collecting specific input to generate output repeatedly. In line with the module contents, the emphasis was on putting the concepts on Dictionaries and Exception Handling to use. Moreover, this task involved uploading the deliverables into a GitHub repository.

Taking stock

I reviewed the materials for Module 05 and took notes where necessary. I focused on the many new concepts laid out over the Dictionary data type and Error Handling sections of the notes and videos.

Before moving forward with the script I deep dived into building the feedback from Assignment 4 fully into my baseline code for Assignment 5. Once this was done and I felt confident in my ability to respond to all the questions in the “Tip” section of the course materials, I moved forward with the creation of the deliverable script.

Writing the Code

As always, I aimed to observe the programming best practices that have been thus far laid out in the course materials throughout my work.

I first included and updated the script header, and then adjusted the basis file comments and added new ones to *pseudocode* and give my work structure. Now that the code has become more complex and specific chunks are required to carry out different functions, I made more extensive use of comments to *Pseudocode* prior to entering and testing the actual functional script.

Testing

Prior to testing the behavior of the menu of options I checked that the code would correctly read the contents of the preexisting .json file into a list of dictionary rows. (Figure 1)

```
[{'FirstName': 'Bob', 'LastName': 'Smith', 'CourseName': 'Python 100'}]
---- Course Registration Program ----
Select from the following menu:
  1. Register a Student for a Course
  2. Show current data
  3. Save data to a file
```

Figure 1: Reading the .json file into a list of lists

I then checked that, once the Dictionary list and Error Handling chunks were added into the code, the expected behavior from each of the course menus worked. Indeed, the resulting output on the .json file within the source folder indeed aligned well with the desired behavior (Figure 2) when run from both Pycharm and the Console.

```
File Edit View
[{"FirstName": "Bob", "LastName": "Smith", "CourseName": "Python 100"}, {"FirstName": "a", "LastName": "b", "CourseName": "c"}, {"FirstName": "a", "LastName": "b", "CourseName": "c"}, {"FirstName": "d", "LastName": "e", "CourseName": "f"}, {"FirstName": "alejandro", "LastName": "garcia", "CourseName": "z"}]
```

Figure 2: Output aligned with the expected .json file

Summary

This report has sought to describe the steps taken to perform Assignment 05 for the Python 100 course, in which the two key deliverables included a Script that aligned with key programming guidelines emphasizing the contents of Module 5 and accomplished a specific task that involved Dictionaries, Error Handling and GitHub source coding.