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Foundations of Programming: Python
Assignment 07

Pickling and Error Handling

Introduction

In week 7, we covered the topics of creating scripts using custom functions, working with binary files, and structured error handling. We also worked on building out advanced GitHub web pages by using markdown files. Pickling and error handling was briefly presented in the course materials, but we were instructed to learn more about the these topics on our own as a part of the assignment. Following our independent research, we were tasked with developing our own script to demonstrate our learning.

Pickling and Error Handling Research

I found both the resources below to be helpful as they are thorough in explaining each step of the process and providing example problem/solutions along the way (similar to the class notes). I appreciate the detail step by step notes to successfully complete the concepts that way we are able to make necessary adjustments from foundation knowledge.

Pickling URL: https://www.datacamp.com/community/tutorials/pickle-python-tutorial
Error Handling URL: https://realpython.com/python-exceptions/

Creating and Running My To Do List Script

After reviewing the given videos/course materials provided in Module 7, our seventh assignment was to independently research how pickling and error handling works and then demonstrate by writing our own script. From the information learned from the course materials and external sources, I wrote a script to capture fake salary data for employees, save, read, amend, pickle, and unpickle data files. To be able to use pickle functions, I had to import the pickle module at the beginning of my script. Next, I worked in error handling by using the try-except block within my Pickle Read function as there is a possibility the file does not exist in the directory.

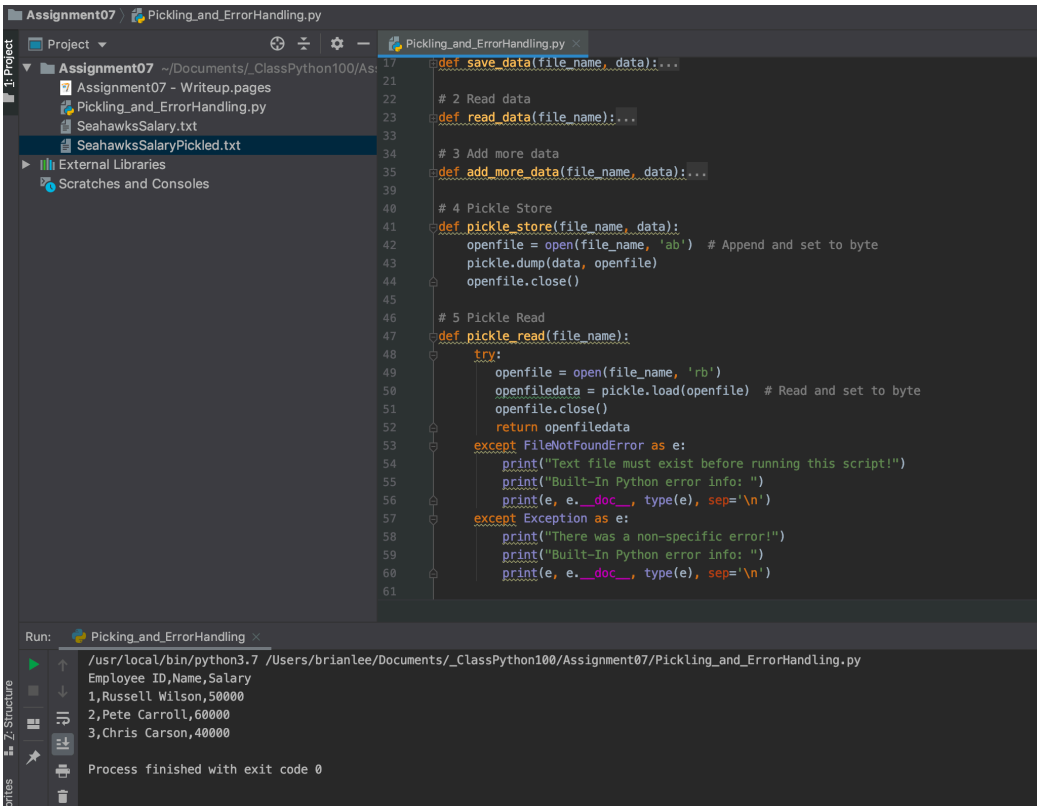

Figure 1. Code in PyCharm

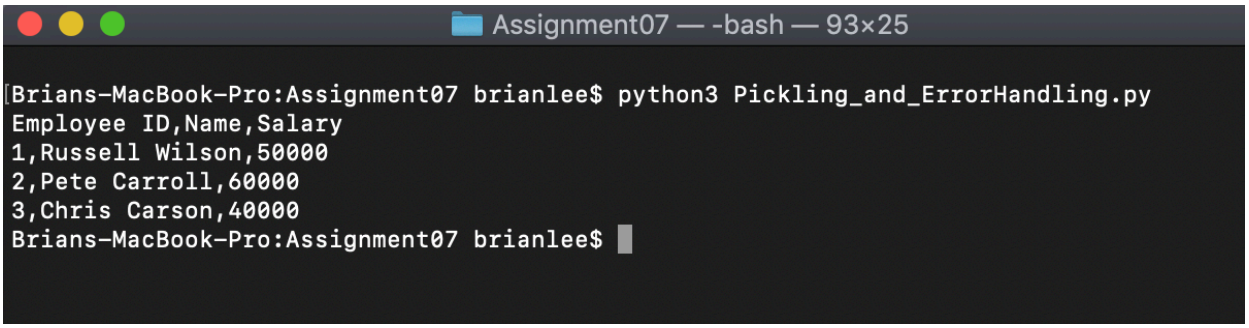

Figure 2. Running the Python Script in Terminal

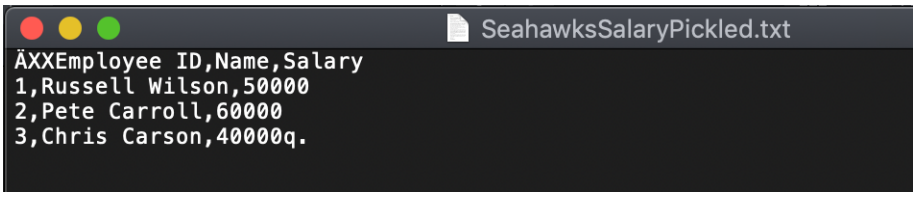

Figure 3. Output file from the Pickling_and_ErrorHandling.py Script

Summary

I enjoyed drilling into moving data in and out of data files as I believe that will be a huge part of how I will be utilizing Python. Pickling seems useful when transferring datasets from one environment to another, but from my research it sounded like pickling is Python specific and may cause some trouble even with different versions. Although this assignment required me to stretch my thinking as we had to write our own script, it would have also been nice to see how these concepts work within a real use case. Finally, I also found developing a GitHub web page to be extremely useful if you are looking to build out a portfolio or just document findings within your work - either way, extremely helpful to learn where I would have otherwise wouldn't have thought of doing.