Dishanth Iyer

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Foundations of Programming: Python

Assignment 07

https://github.com/dishiyer/IntroToProg-Python-Mod07/

Assignment 07: Files and Exceptions

The seventh module focused on creating scripts using Functions. As part of the module, I also learned about Classes, and debugging.

Preparing for Assignment

In preparation for completing the assignment, I followed the Assignment04.docx step by step to gather an understanding of the following:

a. Working with text files: read, append, combined modes
b. Working with binary files
c. Structured error handling using try and except
d. Using the structured error handling to catch and read errors
e. GitHub pages

In order to do so, I reviewed the module video, the references and websites. I also reviewed the textbook material.

Performing the Assignment

I followed the instructions to create the Folders in the C: drive and creating the Assignment starter script. In addition, I installed PyCharm and followed the directions to setup the environment and directory. I tried to use comments in script to remind myself about the organization and purpose of the code. I also watched the videos for the class to get an understanding of what is expected. I finally finished the assignment by uploading to GitHub.

I updated my assignment after reviewing the Assignment module.

Create Python script

I created the Python script using the PyCharm IDE. I tried to add comments to explain the code as well.

File - C:_PythonClass\Assignment07\Assignment07-DIyer.py

```
# ------------------------------------------------- #
# Title: Assignment07
# Description: Script demonstrates how Pickling
#               and Structured error handling work
# ChangeLog: (Who, When, What)
# ChangeLog: DIyer, 2/28/2022, Created
# ChangeLog: DIyer, 3/4/2022, modified after
reviewing Assignment07
# ------------------------------------------------- #

# This imports code from another code file!
import pickle

'''Pickling Demo'''

# # create the list of customers
# customer_id = int(input("Enter ID (integer): "))
# customer_name = str(input("Enter a Name (string
): "))
# customer_list = [customer_id, customer_name]
# print(customer_list)
#
# # store the data with pickle.dump method
# objFile = open("AppData.dat","ab")
# pickle.dump(customer_list, objFile)
# objFile.close()
#
# # read the data back with pickle.load method
# objFile = open("AppData.dat","rb")
# objFileData = pickle.load(objFile)
# objFile.close()
# print(objFileData)

'''Error handling demo'''

# try:
#     f = open("AppsData.dat", "rb")
# except Exception as e:
#     print("There is an error with your command, try
again!")
#     print("Built-in Python error info: ")
#     print(e)
#     print(type(e))
#     print(e.__doc__)
```


File - C:_PythonClass\Assignment07\Assignment07-DIyer.py

```
#     print(e.__str__())


''' Both at same time'''
try:
    customer_id = int(input("Enter ID (integer): "))
    customer_name = str(input("Enter a Name (string
): "))
    customer_list = [customer_id, customer_name]
    print(customer_list)

except Exception as e:
    print("Please use integers for ID")
    print("Built in error info:")
    print(e)
    print(type(e))
    print(e.__doc__)
    print(e.__str__())

# store the data with pickle.dump method
    objFile = open("AppData.dat","ab")
    pickle.dump(customer_list, objFile)
    objFile.close()

  # read the data back with pickle.load method
    objFile = open("AppData.dat","rb")
    objFileData = pickle.load(objFile)
    objFile.close()
    print(objFileData)
```


Utilizing the notes from the TA session and understanding how use Classes and Functions, I was able to complete the code.

I had to also review the Assignment answer to update my work.

Test Script

I tested the script within the IDE using the ‘Run’ function. The script executed successfully. The test also output the text file.

Below is a PDF output of the “Run” window results from PyCharm. I ran it twice to check the error handling as well as a good input.

File - Assignment07-DIyer

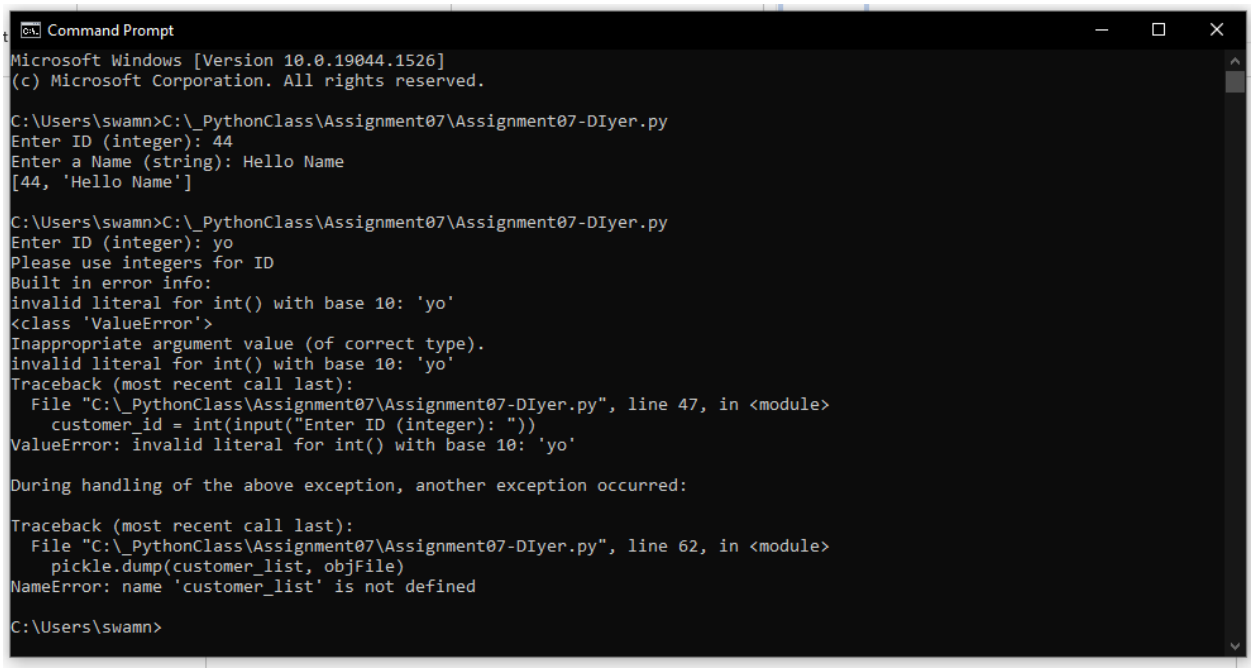
```
C:\_PythonClass\Assignment07\venv\Scripts\python.exe C:/_PythonClass/Assignment07/Assignment07-DIyer.py
Enter ID (integer): Hello
Please use integers for ID
Traceback (most recent call last):
  File "C:/_PythonClass/Assignment07/Assignment07-DIyer.py", line 47, in <module>
    customer_id = int(input("Enter ID (integer): "))
ValueError: invalid literal for int() with base 10: 'Hello'

During handling of the above exception, another exception occurred:

Traceback (most recent call last):
  File "C:/_PythonClass/Assignment07/Assignment07-DIyer.py", line 62, in <module>
    pickle.dump(customer_list, objFile)
NameError: name 'customer_list' is not defined
Built in error info:
invalid literal for int() with base 10: 'Hello'
<class 'ValueError'>
Inappropriate argument value (of correct type).
invalid literal for int() with base 10: 'Hello'

Process finished with exit code 1

```

File - Assignment07-DIyer

```
1 C:\_PythonClass\Assignment07\venv\Scripts\python.exe
  C:/_PythonClass/Assignment07/Assignment07-DIyer.py
2 Enter ID (integer): 44
3 Enter a Name (string): Hello Name
4 [44, 'Hello Name']
5
6 Process finished with exit code 0
7
```

Run Script

Once I was confident enough, I opened the Command Prompt in Windows and ran the script.



My code works as intended.