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IT FDN 110 A
Assignment 07
GitHub: https://github.com/arloqm/IntroToProg-Python-Mod07

Exception Handling and Pickling

Intro

In this module we learned about Exception Handling and Pickling and provided examples to both concepts. I made the decision to put both examples in one file by using an Employee ID example for getting user input and storing in a file, while simultaneously incorporating Exception Handling and Pickling. Below shows the working code in Terminal along with descriptions:

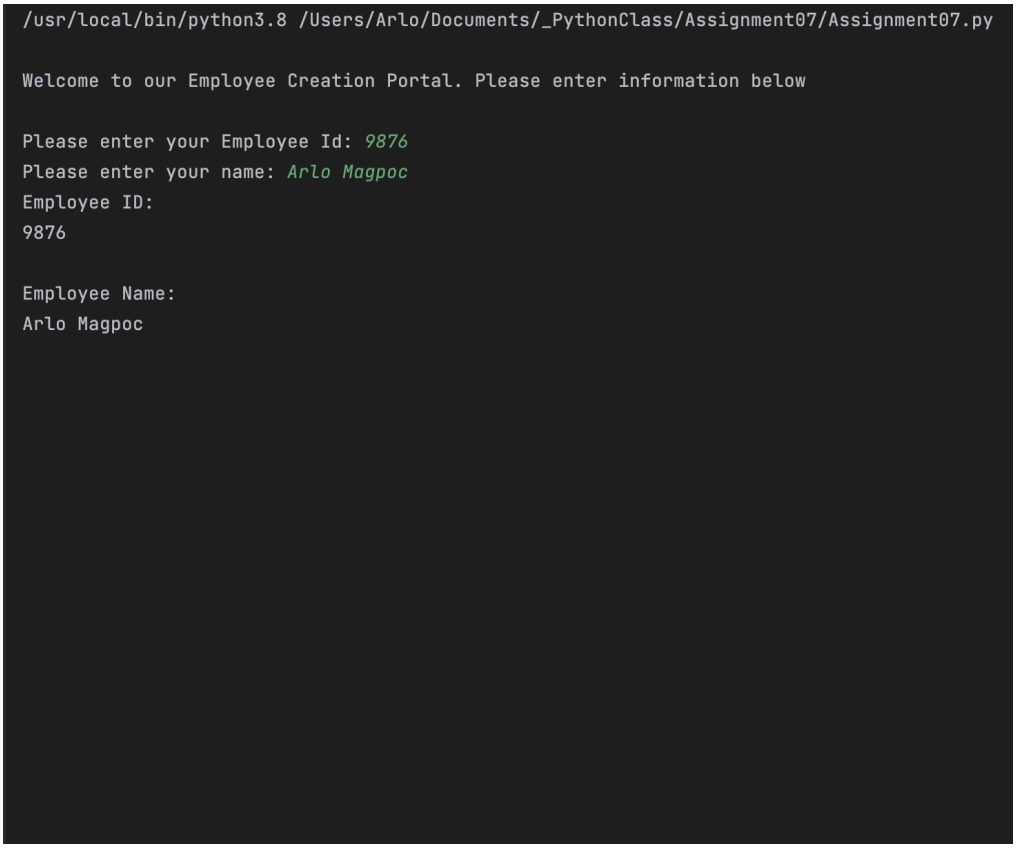

Figure 1.1 Gathering Employee Id and Name and outputting information to be stored

Exception Handling

The purpose of Exception Handling is to catch errors in order to keep the program running. Properly executed Exception Handling will allow the program itself to finish and run to its completion. This, in turn, helps with the user experience, and can identify potential issues that can occur within the program.

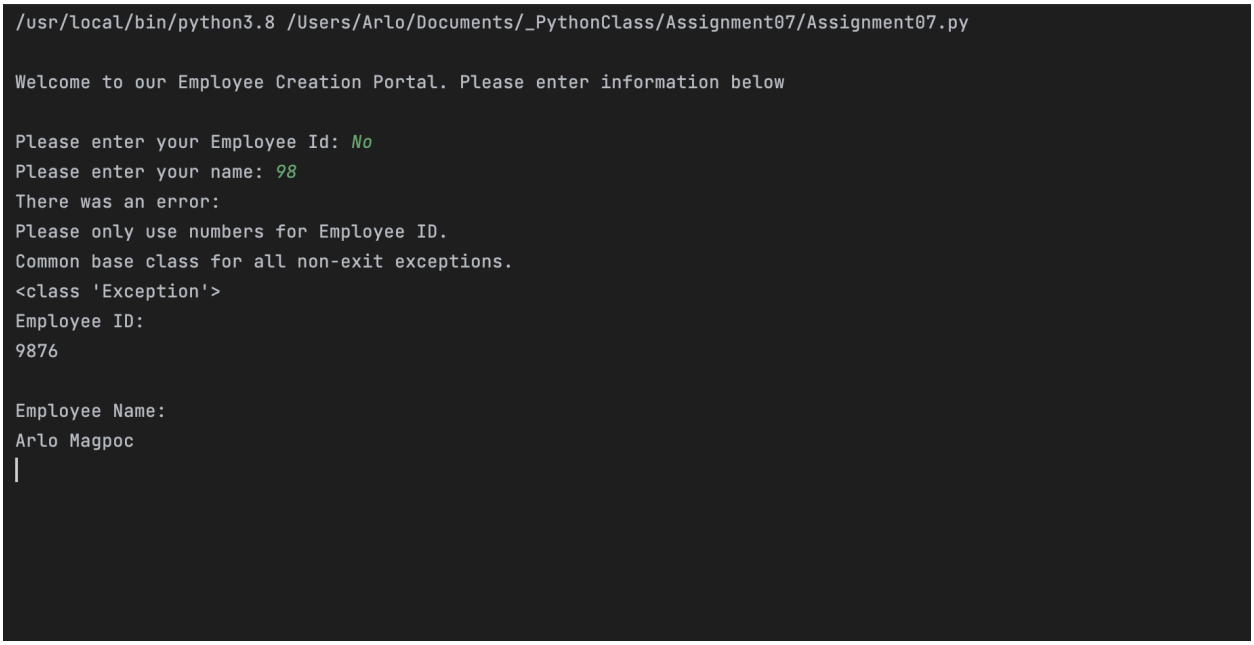

Figure 1.2 Exception Handling Executed when numbers are inputted instead of letters

Pickling

In Python, Pickling is used for reading, writing, and appending data into a .dat file. Any object in Python can be pickled to be saved on disk. It first ‘serializes’ the object before writing it to a file, and acts as a way to convert Python objects to ‘streams’. The concept involves having the ability and information required to put together the same object in another Python script.

Python3

```python
import pickle

# initializing data to be stored in db
Omkar = {'key' : 'Omkar', 'name' : 'Omkar Pathak',
'age' : 21, 'pay' : 40000}
Jagdish = {'key' : 'Jagdish', 'name' : 'Jagdish Pathak',
'age' : 50, 'pay' : 50000}

# database
db = {}
db['Omkar'] = Omkar
db['Jagdish'] = Jagdish

# For storing
# type(b) gives <class 'bytes'>;
b = pickle.dumps(db)

# For loading
myEntry = pickle.loads(b)
print(myEntry)
```

Figure 2.1 Pickling Example

```
{'Omkar': {'key': 'Omkar', 'name': 'Omkar Pathak', 'age': 21,
'pay': 40000},
'Jagdish': {'key': 'Jagdish', 'name': 'Jagdish Pathak', 'age': 50,
'pay': 50000}}
```

Figure 2.2 Pickling Output Example

Summary

This assignment consisted of understanding how to execute Pickling and Exception Handling in Python. The sample script provided was able to execute both concepts and give an example. The script created did have some limitations, such as only saving the first inputs that were entered into a dat file, which was the Employee ID and Employee Name. In order to create a new entry, the dat file would have to be deleted before running the program again. Due to lack of time available at my disposal for this particular assignment, the correction would have to wait into the next project, which would be an additional challenge I hope to tackle.

References

‘Understanding Python Pickling with example’ - https://www.geeksforgeeks.org/understanding-python-pickling-example/

‘Python Exception Handling’ - https://www.geeksforgeeks.org/python-exception-handling/