

Gabe Delgado

08-24-2021

IT FDN 110

Assignment 07

<https://github.com/gfdelgadow/IntroToProg-Python>

Lists and Dictionaries

Introduction

This python program captures user inputs and loads them into a binary file via pickling. The program then shows the user all of the data currently stored in the file.

Building the Script

Step 1: Gather user input data and place in list format.

```
import pickle

# Gathering user inputs
name = str(input("Enter a friend's name: "))
age = int(input("Enter a friend's age: "))
lstAge = [name, age]
```

Figure 1. Code for step 1

Step 2: Store data into binary file using pickle.dump method.

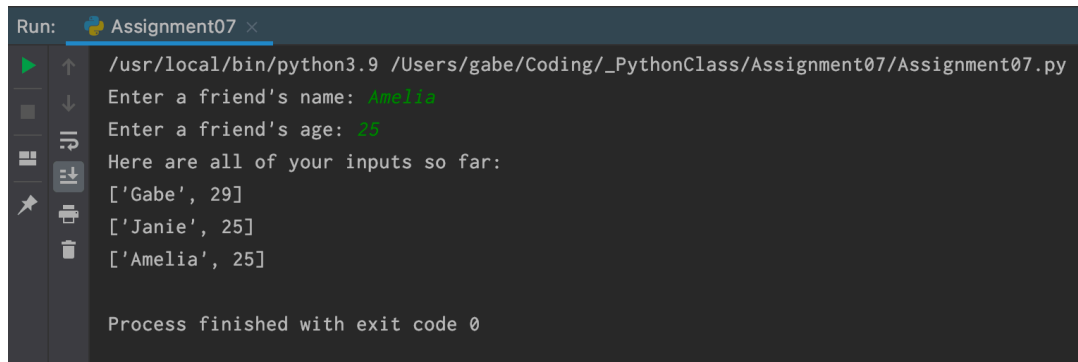
```
# Storing data into binary file
objFile = open("Assignment07.dat", "ab")
pickle.dump(lstAge, objFile)
objFile.close()
```

Figure 2. Code for step 2

Step 3: Read back pickled data in file via a list. Use try-except clause to pass end-of-file error.

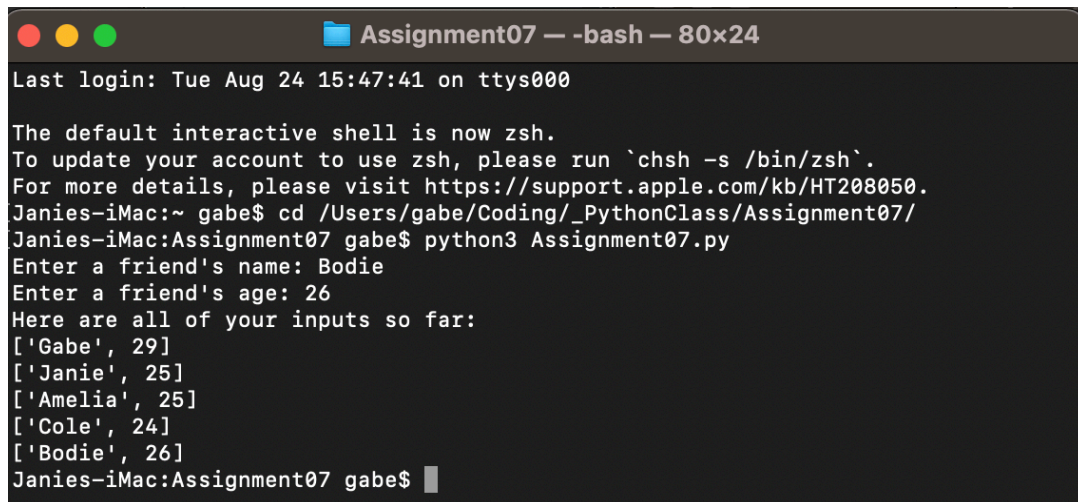
```
# Reading back pickled data in file
objFile = open("Assignment07.dat", "rb")
with objFile as f:
    unpickled = []
    while True:
        try:
            unpickled.append(pickle.load(f))
        except EOFError: # use try-except clause to bypass end-of-file error
            break
print("Here are all of your inputs so far: ")
for row in unpickled:
    print(row)
```

Figure 3. Code for step 3

A screenshot of the PyCharm Run window. The title bar says "Run: Assignment07 x". The console shows the execution of a Python script. It starts with the command `/usr/local/bin/python3.9 /Users/gabe/Coding/_PythonClass/Assignment07/Assignment07.py`. The program prompts for a friend's name, and "Amelia" is entered. It then prompts for a friend's age, and "25" is entered. The program then displays "Here are all of your inputs so far:" followed by a list of inputs: `['Gabe', 29]`, `['Janie', 25]`, and `['Amelia', 25]`. At the bottom, it says "Process finished with exit code 0".

```
Run: Assignment07 x
/usr/local/bin/python3.9 /Users/gabe/Coding/_PythonClass/Assignment07/Assignment07.py
Enter a friend's name: Amelia
Enter a friend's age: 25
Here are all of your inputs so far:
['Gabe', 29]
['Janie', 25]
['Amelia', 25]
Process finished with exit code 0
```

Figure 4. Program running in PyCharm

A screenshot of a terminal window titled "Assignment07 - -bash - 80x24". The terminal shows the user logging in on Tue Aug 24 15:47:41 on ttys000. It then shows the user switching to zsh. The user runs `cd /Users/gabe/Coding/_PythonClass/Assignment07/` and then `python3 Assignment07.py`. The program prompts for a friend's name, and "Bodie" is entered. It then prompts for a friend's age, and "26" is entered. The program then displays "Here are all of your inputs so far:" followed by a list of inputs: `['Gabe', 29]`, `['Janie', 25]`, `['Amelia', 25]`, `['Cole', 24]`, and `['Bodie', 26]`. The terminal ends with the prompt `Janies-iMac:Assignment07 gabe$`.

```
Assignment07 - -bash - 80x24
Last login: Tue Aug 24 15:47:41 on ttys000
The default interactive shell is now zsh.
To update your account to use zsh, please run `chsh -s /bin/zsh`.
For more details, please visit https://support.apple.com/kb/HT208050.
Janies-iMac:~ gabe$ cd /Users/gabe/Coding/_PythonClass/Assignment07/
Janies-iMac:Assignment07 gabe$ python3 Assignment07.py
Enter a friend's name: Bodie
Enter a friend's age: 26
Here are all of your inputs so far:
['Gabe', 29]
['Janie', 25]
['Amelia', 25]
['Cole', 24]
['Bodie', 26]
Janies-iMac:Assignment07 gabe$
```

Figure 5. Program running in terminal.

Summary

In this assignment, I learned how to use pickling to reduce file size, and how to use try-except clauses to handle errors.