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[IT FDN 110 A](https://canvas.uw.edu/courses/1655585)

Assignment 04

For Loop Inventory

# Introduction

Week 4 of the course introduced data collections and for loops in python. The following paragraphs outline the methods that were used to capture user input from a menu, and either add a new item to a list, read the total list, or write the list to an external file.

# Intended Outcome

The intended outcome for this week is a script file that generates a menu for the user to choose from, and from this menu,

1. capture a list of household items and their estimated values
2. read the items contained is the list
3. write the list to an external file.

After each input from the user, the scripts checks to see if the user entered a specific value to exit the script.

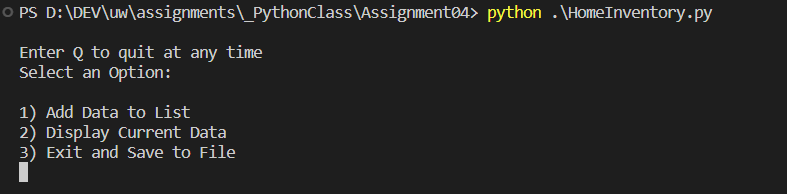


Figure 1: Intended Outcome: HomeIventory.py Menu

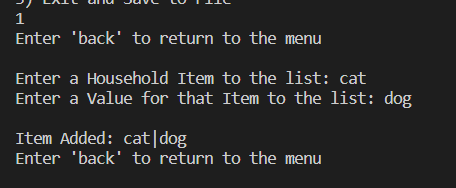


Figure 2: Intended Outcome: HomeIventory.py Menu 1

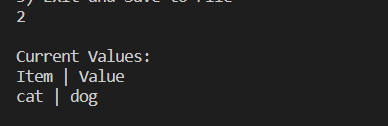


Figure 3: Intended Outcome: HomeIventory.py Menu 2



Figure 4: Intended Outcome: HomeIventory.py Menu 3

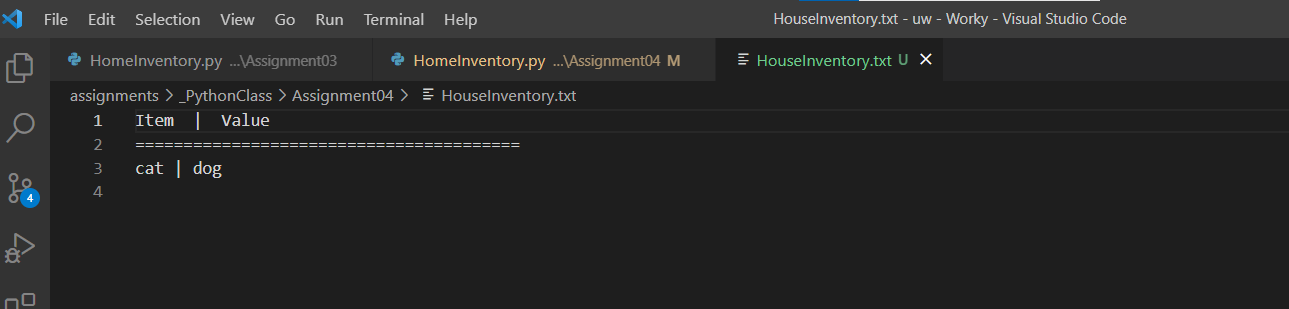


Figure 5: Intended Outcome: HomeIventory.txt Saved File Contents

**Step 1 – Display a Menu**

After the header section, I define a list that will contain the menu choices that will be presented to the user. I also create a variable that will open a text file that the user’s input will be saved to, and I create the list that will be written to that file.

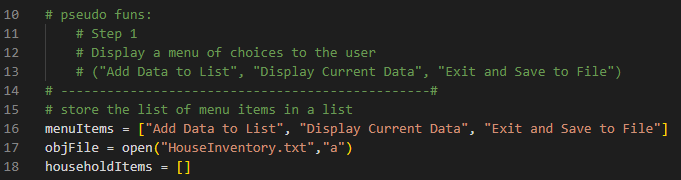
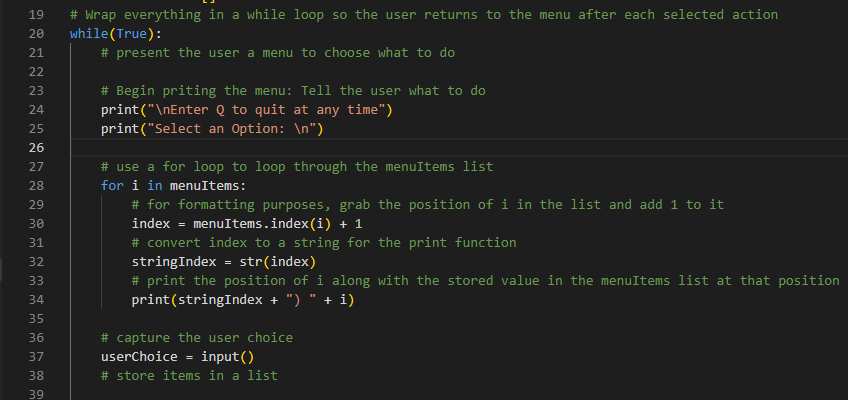


Figure 6: Step 1

## While Looping

Next, I wrap the rest of the script in a ‘while’ loop so the user will always be presented with the menu upon completion of the step they chose. I then print how to end the script and then use a ‘for’ loop to loop through the menuItems list and generate the list of choices for the user to select. Then, userChoice provides an input prompt to capture the user input (Python Loops, n.d.).

Figure 7: While Looping

# Add New Items, See the Items, Save data

Next, the script checks the userChoice value and determines what to do. Entering

* ‘Q’ - quits the script
* 1 – adds a new item to the houseHoldItems list
* 2 – Prints the contents of houseHoldItems to the console
* 3 – saves the contents of householdItems to a text file

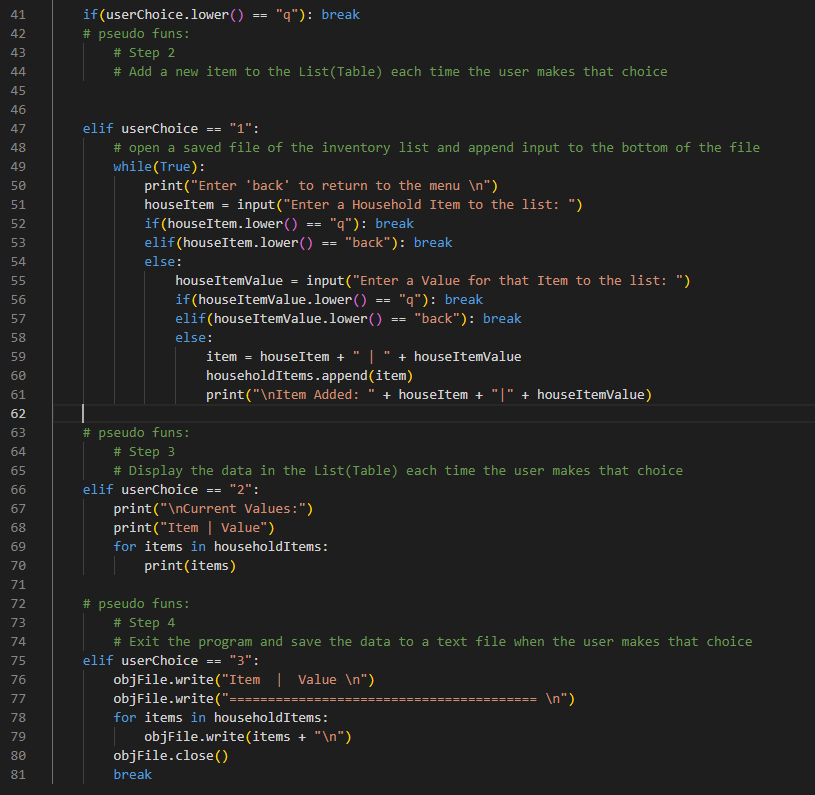


Figure 8: Script Options

# Observations

One of the problems I encountered early on was making sure that the userChoice evaluation at lines 47, 66, and 75 was comparing to a string. It took me a while to remember that input only produces stings. I also realized that I don’t need lines 50 or 57 as I initially had them coded as a ‘continue’, but realized that that wouldn’t jump out to the first while loop.

# Summary

In summary, utilizing all the resources provided to the class and the online lecture, this paper outlines all the steps that were taken to create a python script that results in a successful execution of the intended outcome (Figure 1). Following the steps outlined above will allow for the audience to recreate the presented result.

# References

*Python Loops*. (n.d.). Retrieved from Tutortials Point: https://www.tutorialspoint.com/python/python\_loops.htm