BYU IDAHO CSE 110 | Programming Building Blocks

10 Prepare: Checkpoint

Overview

Practice working with list indexes.

Assignment

Ask the user for a list of list of items in a shopping list, stop asking for items when the user types "quit."

Then complete the following:

01. Loop through the items in the regular way (for example, **for thing in the_list**) and display each one to make sure you have the initial list built correctly.

02. Add another loop to go through and print the items in the list, but this time, instead of using the **for ... in** syntax, use an index (for example, **for ... in range**) and then access the item using the index and the square brackets. Print the index in front of the items like so: **0. Milk**

03. Ask the user for an index and a new shopping list item. Replace the item at that index with the new item. Then, display the whole list again.

The following examples show the expected output:

```
Please enter the items of the shopping list (type: quit to finish):
Item: Milk
Item: Bread
Item: Candy
Item: Carrots
Item: quit

The shopping list is:
Milk
Bread
```

```
Candy
Carrots

The shopping list with indexes is:
0. Milk
1. Bread
2. Candy
3. Carrots

Which item would you like to change? 2
What is the new item? Apples

The shopping list with indexes is:
0. Milk
1. Bread
2. Apples
3. Carrots
```

Sample Solution

When your program is finished, please view a sample solution of this program to compare your approach to that one.

You should work to complete this checkpoint program first, without looking at the sample solution. However, if you have worked on it for at least an hour and are still having problems, you may feel free to use the sample solution to help you finish your program.

» Sample solution: check10_sample.py

Testing Procedure

Verify that your program works correctly by following each step in this testing procedure:

01. Verify that you can add all the items to the list and display them. (Verify similar to the check point from the previous lesson.)

02. Iterate through the list using an index. Verify that your program displays the index before the item and that the index starts at 0 for the first item.

03. Verify that you can ask the user to type an index and a new item.

04. Set the value at that index to be the new item the user typed. Verify that this does not cause errors.

05. Print the items out again, and verify that your new item is in the list at the correct spot.

Submission

When complete, please report your progress in the associated I-Learn quiz.