

IT 140 Final Project Script Two Draft Guidelines and Rubric Grocery List Script

Overview: For your final project, you will be creating four small scripts. Collectively, the four scripts will demonstrate your ability to engage in the fundamental scripting and problem-solving approaches that are represented by the course outcomes.

Reminder: This is the first draft. Even if your script is not functioning perfectly, submit your draft and get feedback so that you can improve on it for the final submission in Module Six.

Prompt: The list object type is one of the most important and frequently used types in a Python program. A list is a container, an object that groups related objects together. A list is also a sequence: The contained objects maintain a left-to-right positional ordering. Elements of the list can be accessed via indexing operations that specify the position of the desired element in the list. Each element in a list can be a different type, such as string, integer, float, or even other list.

A dictionary is another type of container object that is different from sequences like strings, tuples, and lists. Dictionaries contain references to objects as key–value pairs: Each key in the dictionary is associated with a value, much like each word in an English language dictionary is associated with a definition. Unlike sequences, the elements of a dictionary do not have a relative ordering of positions. Adding a value to a dictionary can be done either with brackets or using the keyword *dict*.

A programmer can use loops to execute the same code repeatedly as long as some condition is true. The loop expression is evaluated when the program reaches the loop statement. If the loop expression is true, then the indented code block, known as the loop body, is executed. At the end of the loop body, execution goes back to the while loop statement. The loop expression is evaluated again, and if true, the loop body is executed again. But, if the expression evaluates to false, then execution instead proceeds to code below the loop body. Each execution of the loop body is called an iteration, and looping is also called iterating.

Your task for this project is to create a very simple grocery list script. This script emphasizes the importance of using lists, dictionaries, and loop types within your script, and how the use of those functions shapes your approach to creating a script.

You will be working on this project in the Project Two: Grocery List Script module in Codio. Following the directions in that module, you will also be able to determine the exact placement of the comments you will need to make in the code. In the Codio activity you will work on having your script do the following three things:

1. User Input
2. Loop through the grocery list
3. Provide output to the console

After completing the activity, annotate the code. Specifically, your submission for the Grocery List script should address the following critical elements:

I. In Your Script (Annotated Text File):

Refer to the directions in the module in Codio for how to export out and comment your completed script.

- A. Create examples of four uses of **list** operations in the script in your code. Be sure your examples address each of the following:
 - i. Creating lists
 - ii. Adding and removing data from a list
 - iii. Accessing values in a list
 - iv. Modifying values in a list
- B. Create examples of **dictionary** operations in your code. Be sure your examples address each of the following:
 - i. Creating dictionaries
 - ii. Adding and removing key–value pairs
 - iii. Accessing values using keys
 - iv. Modifying values
- C. Create examples of **loop** structures in your code. Be sure your examples address each of the following:
 - i. Item-based for loops
 - ii. Index-based (range) for loops
 - iii. While loops

Rubric

Guidelines for Submission: This is a draft of part of the final project. Complete the steps in Codio, then export and comment on the completed script. Once completed, submit the document with your commented code to Brightspace. Feedback will be provided by your instructor to incorporate in the final submission and the reflection document.

Critical Elements	Proficient (100%)	Needs Improvement (75%)	Not Evident (0%)	Value
List	Creates examples of list functions in the script	Creates examples of list functions in the script, but uses are inappropriate or inaccurate	Does not create examples of list functions in the script	30
Dictionary	Creates examples of dictionary functions	Creates examples of dictionary functions, but uses are inappropriate or inaccurate	Does not create examples of dictionary functions	30
Loop	Creates examples of loop functions in the code	Creates examples of loop functions, but uses are inappropriate or inaccurate	Does not create examples of loop functions	30
Script Comments	Code comments explain and facilitate navigation of the code	Comments provide little assistance with understanding the code	Code is not fully annotated, or submission does not explain the code or does not facilitate navigation of your code	10
Total				100%