This homework has the following goals:

- Introduce you to basic Python programming
- Demonstrate the differences between using the interactive shell to carry commands out immediately and writing a function that allows you to do the same tasks
- Get you started using and evaluating internet resources for learning Python

Assignment Problems:

1. (5 points) Research on Internet for one helpful Python resource. Post your link to Python Resources Thread on our class discussion board, along with a brief discussion of why you chose this resource.

2. (10 points) Try doing a task (printing stars like this→ *****) 3 different ways:
   a. Use an <u>interactive Python session</u> (shell) to print out a line of 5 stars 10 times (so there will be 10 lines of output with each line containing 5 stars).
   Spoiler Alert, here is a hint, use only if needed:
   https://repl.it/repls/WholeHandyVolcano

   b. Write a <u>function</u> that does the same thing as above, having each line printed individually.
   Spoiler Alert, here is a hint, use only if needed:
   https://repl.it/repls/BlushingSelfreliantScript

   c. Write a <u>function</u> that <u>uses a loop</u> to do the same thing.
   Spoiler Alert, here is a hint, use only if needed:
   https://repl.it/repls/SuperbStrictCareware

   <u>**List one advantage of each of the above three different ways of doing the same thing as you have demonstrated above.**</u>

3. (10 points) You have learned how to assign a value to a variable in Python:
   For example, **total = 0**
   It is easy to modify the value stored in a variable:
   total = total + value → now the value stored in **sum** is 10, if the variable **value** has 10

   <u>Use the loop index variable to write a program that will find the sum of all the numbers from 1 to 100</u>

   Hint#1: make use of built-in function: **range**; notice that when you use the construction: **for value in range(10), value** will go through all the integers from 0 to 9, so adjust your program accordingly.
   Hint#2: Spoiler Alert, here is a hint, use only if needed:
   https://repl.it/repls/MoccasinMindlessEmulators

Details:
Gather all your solutions into a text (*.txt) document as show below.

It is a good idea to start adding comments to your Python code. A title
comment at the top of Python Module, for example would look like:

```
# Mary Smith
# CSC 110 Programming Assignment #1
# Date: 4/24/2020
# -----------------
# Solution for part 2A
# <Copy/Paste your code here>
# -----------------
# Solution for part 2B
# <Copy/Paste your code here>
# -----------------
# Solution for part 2C
# <Copy/Paste your code here>
# -----------------
# Your answer for: List one advantage of each of the above three different ways…
# -----------------
# Solution for part 3
# <Copy/Paste your code here>
# -----------------
```

Turn In:

1. Post your Python resource link (for part 1) on the discussion topic on
   our Canvas class site
2. And, submit your responses to parts 2 and 3 by attaching a text document
   formatted as show above. If you need help with attaching a file when
   submitting an assignment, see this link.
   In coming weeks, you will learn how to submit your Python programs as .py
   files (also referred as Python modules)