edX

MITx: 6.00.1x
Introduction to Computer Science and Programming Using Python

Help   josuecarames   ▼

Course > Week 1: Python Basics > 2. Core Elements of Programs (TIME: 54:14) > Exercise 7

Exercise 7
Exercise 7

5/5 points (graded)
ESTIMATED TIME TO COMPLETE: 10 minutes

Here is some code:

Code Sample

```
iteration = 0
count = 0
while iteration < 5:
    for letter in "hello, world":
        count += 1
    print("Iteration " + str(iteration) + "; count is: " + str(count))
    iteration += 1
```

We wish to re-write the above code, but instead of nesting a `for` loop inside a `while` loop, we want to nest a `while` loop inside a `for` loop. Which of the following loops gives the same output as the **Code Sample**?

Try to answer the following questions by just reading the code. Reading code is a very good skill to have (and will help you both in your programming career and on your exams!). It is okay to check your answers that you obtain from just reading the code, then in your interpreter run the code for the ones you got wrong on your first attempt.

🖉

Test 1

```
for iteration in range(5):
    count = 0
    while True:
        for letter in "hello, world":
            count += 1
        print("Iteration " + str(iteration) + "; count is: " +
str(count))
```

○ Yes, Test 1 gives the same output as the Code Sample

◉ No, Test 1 does not give the same output as the Code Sample ✔

Test 2

```
for iteration in range(5):
    count = 0
    while True:
        for letter in "hello, world":
            count += 1
        print("Iteration " + str(iteration) + "; count is: " +
str(count))
        break
```

○ Yes, Test 2 gives the same output as the Code Sample

◉ No, Test 2 does not give the same output as the Code Sample ✔

Test 3

```
count = 0
phrase = "hello, world"
for iteration in range(5):
    index = 0
    while index < len(phrase):
        count += 1
        index += 1
    print("Iteration " + str(iteration) + "; count is: " + str(count))
```

⦿ Yes, Test 3 gives the same output as the Code Sample ✔

◯ No, Test 3 does not give the same output as the Code Sample

Test 4

```
count = 0
phrase = "hello, world"
for iteration in range(5):
    while True:
        count += len(phrase)
        break
    print("Iteration " + str(iteration) + "; count is: " + str(count))
```

⦿ Yes, Test 4 gives the same output as the Code Sample ✔

◯ No, Test 4 does not give the same output as the Code Sample

Test 5

```
count = 0
phrase = "hello, world"
for iteration in range(5):
    count += len(phrase)
    print("Iteration " + str(iteration) + "; count is: " + str(count))
```

◉ Yes, Test 5 gives the same output as the Code Sample ✔

○ No, Test 5 does not give the same output as the Code Sample

Submit

Exercise 7

Topic: Lecture 2 / Exercise 7

Hide Discussion

Add a Post

Show all posts ⬍	by recent activity ⬍

? [error](#)
Hi all, when I try to test in python with the initial script, i get: TypeError: 'str' object is not call...   2

💬 [Lecture 2, Exercise 7, Test 3 Explanation](#)
[Test 1 Explanation here.][1] Now to explain Test 3: count = 0 phrase = "hello, world" for iter...   2

💬 [Lecture 2, Exercise 7, Test 1 Explanation](#)
So it's asking us if the code: for iteration in range(5): count = 0 while True: for letter in "hello,...   5 new

? [How to fix Test 1?](#)
Anyone has a solution? Thanks!   2

? [What does "while True" refer to?](#)
In Tests 1, 2, and 4, I don't understand what "while True" refers to? What condition is it evalu...   11

💬 [[SPOILER] My tortuous way to decipher these tests, through paper!](#)
Oh, I write down every single process, including the change of the value of the variables. No ...   3

? [What is the best approach for solving loop challenges like these on paper?](#)
Took me several trials and errors as I made several mistakes.   2

? [The Last Test is Dicey](#)
The question clearly mentions that we need to have a while loop inside a for loop. Though, t...   1

💬 ["Test 2" Experiment - Test your knowledge](#)
Found this one out the hard way - run the program for Test 2 in your environment, however...   3

💬 [Fix it :)](#)
Fun idea, try "fixing" the tests with different than the example code block outputs.   1

? [How does exercise 7 test 5 work?](#)
Just a bit confused about how this code runs the same as the example code, because when i...   3

💬 [Question 3 (*Spoiler*)](#)
If I enter the code of Test 3) into python, I get the following print: Iteration 0; count is: 12 Iter...   2

💬 [Wait, this question make my brain more usage ;)](#)
really very good question   3