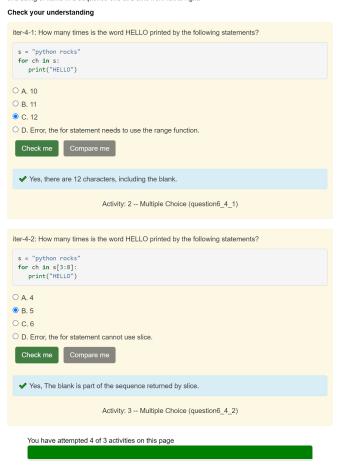# 7.4. Strings and `for` loops

Since a string is simply a sequence of characters, the `for` loop iterates over each character automatically. (As always, try to predict what the output will be from this code before your run it.)

Save & Run   4/30/2021, 8:36:05 PM - 2 of 2   Show in CodeLens

```
1 for achar in "Go Spot Go":
2     print(achar)
3
```

```
G
o

S
p
o
t

G
o
```

Activity: 1 -- ActiveCode (ac6_4_1)

The loop variable `achar` is automatically reassigned each character in the string "Go Spot Go". We will refer to this type of sequence iteration as **iteration by item**. Note that the for loop processes the characters in a string or items in a sequence one at a time from left to right.

Check your understanding

iter-4-1: How many times is the word HELLO printed by the following statements?

```
s = "python rocks"
for ch in s:
    print("HELLO")
```

○ A. 10

○ B. 11

◉ C. 12

○ D. Error, the for statement needs to use the range function.

Check me   Compare me

✔ Yes, there are 12 characters, including the blank.

Activity: 2 -- Multiple Choice (question6_4_1)

iter-4-2: How many times is the word HELLO printed by the following statements?

```
s = "python rocks"
for ch in s[3:8]:
    print("HELLO")
```

○ A. 4

◉ B. 5

○ C. 6

○ D. Error, the for statement cannot use slice.

Check me   Compare me

✔ Yes, The blank is part of the sequence returned by slice.

Activity: 3 -- Multiple Choice (question6_4_2)

You have attempted 4 of 3 activities on this page

✔ Completed. Well Done!