Hi All,

# 1 does not correctly,

Example:

def any\_lowercase1(s):  
 for c in s:  
 if c.islower():  
 return True  
 else:  
 return False  
print(any\_lowercase1("Hello world"))

>>>False

Then, we replace the argument to “hello world”

def any\_lowercase1(s):  
 for c in s:  
 if c.islower():  
 return True  
 else:  
 return False  
print(any\_lowercase1("hello world"))

>>>True

Obviously, this example only checks the first letter of this string parameter if it is lower case or not.

In first example, when we start for loop in first iteration, variable c is ‘H’, which is the first letter of this string, s is not lowercase, then return False, function exit.

# 2 does not correctly,

def any\_lowercase2(s):  
 for c in s:  
 if 'c'.islower():  
 return 'True'  
 else:  
 return 'False'  
  
print(any\_lowercase2("hello world"))

>>>True

def any\_lowercase2(s):  
 for c in s:  
 if 'c'.islower():  
 return 'True'  
 else:  
 return 'False'  
  
print(any\_lowercase2("Hello world"))

>>>True

#2 make the same mistake as #1 only check the first letter, and what worse is, in #2 function if condition, ‘c’.islower() is a constant value True, therefore, whatever parameter string are, the return value will be always “True” (this example put a String as return value instead of Boolean value) .

# 3 does not correctly,

def any\_lowercase3(s):  
 for c in s:  
 flag = c.islower()  
 return flag  
  
print(any\_lowercase3("Hello world"))

>>>True

def any\_lowercase3(s):  
 for c in s:  
 flag = c.islower()  
 return flag  
  
print(any\_lowercase3("Hello worlD"))

>>>Flase

In #3, The function did a traversal, In second example we can insert a print function to debugging.

def any\_lowercase3(s):  
 for c in s:  
 flag = c.islower()  
 print(flag)  
 return flag  
  
any\_lowercase3("Hello WorlD")

False

True

True

True

True

False

False

True

True

True

False

The value of variable flag depends on the last letter of parameter string. In this test example, the last letter is ‘D’, result return value is False.

#4 does correctly,

def any\_lowercase4(s):  
 flag = False  
 for c in s:  
 flag = flag or c.islower()  
 return flag  
  
print(any\_lowercase4("Hello WorlD"))

>>>True

def any\_lowercase4(s):  
 flag = False  
 for c in s:  
 flag = flag or c.islower()  
 return flag  
  
print(any\_lowercase4("HELLO WORLD"))

>>> False

In #4, in the traversal, we use the OR operate, as long as there is one lowercase letter in string, the flag value will be instantly true.

#5 does not correctly,

def any\_lowercase5(s):  
 for c in s:  
 if not c.islower():  
 return False  
 return True  
print(any\_lowercase5("hello"))

>>>True

def any\_lowercase5(s):  
 for c in s:  
 if not c.islower():  
 return False  
 return True  
print(any\_lowercase5("hEllo"))

>>>False

In #5, in the traversal, as long as we found one uppercase letter, function return False and exit. only if all of the letter in string is lowercase, return value will be Ture.

My question is, in **8.10 String comparison.**

How can we compare two strings?

In what way?

Why “bc”>”abc” is True

References  
Downey, A. (2015). Think Python: How to think like a computer scientist. Green Tree Press.