Lecture 07 Exercises

CS 51P – Fall 2022

Draw the time sequence for the stack frame generated by the call foo(2, 3).

def foo(a, b):

1. x = a + b
2. y = 2 \* b
3. return 2 \* x + y

Assume the first user input is “hello” and the second user input is “47”. Draw the state of the stack immediately line 9 (the return statement in get\_pos\_int) gets executed.

def is\_pos\_int(s):

1. if str.isdigit(s):
2. return int(s) > 0
3. else:
4. return False

def get\_pos\_int():

1. done = False
2. while not done:
3. s = input()
4. done = is\_pos\_int(s)
5. return s

def main():

1. get\_pos\_int()

main()

What gets printed when the following program gets run?

def print\_example(s4, s5):  
 s1 = 3\*s4  
 s2 = s4+s5  
 print(s0)  
 print(s1)  
 print(s2)  
 return s1+s2  
  
s0 = '!'  
s1 = '?'  
print(s0)  
s3 = print\_example(s0, s1)  
print(s1)  
print(s3)  
print(s4)