The "Fundamentals of Computing" Specialization

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## Feedback - Quiz 2b

Help

You submitted this quiz on **Mon 29 Sep 2014 5:50 AM CDT**. You got a score of **100.00** out of **100.00**.

Question 1			
In the following code, what does the number 1	00 repres	sent?	
<pre>my_button = frame.add_button("My Label"</pre>	, button	_handler, 10	00)
Use the CodeSkulptor documentation to look it up			
Your Answer		Score	Explanation
Width of the button in pixels	~	10.00	
Height of the button in pixels			
Vertical position of the button in pixels			
Horizontal position of the button in pixels			
Total		10.00 / 10.00	0

# **Question 2**

How many control objects are allowed in a frame?

Your Answer		Score	Explanation
<b>1</b>			
<ul><li>Unlimited, i.e., 0 or more</li></ul>	<b>~</b>	10.00	Correct.
<b>0</b>			
Total		10.00 / 10.00	

Which of the following are valid ways of defining and using a label?

Note that ellipses denote code that is omitted from and irrelevant for the question. Feel free to fill in plausible parameters and test each choice in CodeSkulptor.

Your Answer	Score	Explanation
import simplegui  f = simplegui.create_frame ()  f.add_label("My label")	<b>✓</b> 4.00	
import simplegui  def label_handler():     print "Handler called."  f = simplegui.create_frame () f.add_label("My label",labe l_handler)	<b>✓</b> 1.00	This is not a valid way to add a label. Labels don't have handlers.
import simplegui simplegui.create_frame() I1 = simplegui.add_label(" Label one") I2 = simplegui.add_label(" Label two")	<b>✓</b> 1.00	This is not a valid way to add a label. It's not simplegui.add_label.
import simplegui  f = simplegui.create_frame ()  label = f.add_label("My lab el")  label.set_text("My new lab el")	<b>✓</b> 4.00	
Total	10.00 / 10.00	

When you enter text into an input field and press enter, the text is passed to the input field's event handler. What is the data type of the text?

Your Answer		Score	Explanation
A string or a number, depending on the text entered			
A string	<b>~</b>	10.00	The entered data is a string. The text entered into an input field is always passed to the input handler as a string even if the text corresponds to a number.
A number			
Total		10.00	
		/	
		10.00	

## **Question 5**

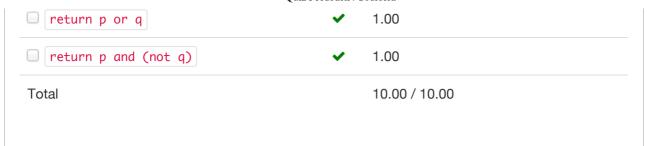
Consider the following conditional statement.

```
if p == False:
    return False
elif q == False:
    return False
else:
    return True
```

That is equivalent to which of the following simpler statements?

Try to reason logically about each of the statements, but also try each in CodeSkulptor.

Your Answer		Score	Explanation
return (not p) or (not q)	~	1.00	
✓ return p and q	~	7.00	



Which of the following describes the mistake in the following code?

```
def volume_cube(side):
    """ Returns the volume of a cube, given the length of its side. """
    print side ** 3

s = 5
print "The volume of a cube with sides", s, "long is", volume_cube(s), "."
```

#### **Your Answer** Score **Explanation** The call to volume\_cube shouldn't be within a print statement. More generally, function calls usually shouldn't be within print statements. (0) 10.00 Correct. In most cases, functions should return their The function should return, computed results. Furthermore, the documentation not print, its result. string here specifies that it should be returning that value.

All of the printing should be done within the function.

```
Total 10.00 / 10.00
```

What kind of errors can happen if you are missing a needed <code>global</code> declaration in one of your function definitions? For this question, you need only consider the case where the problem is in the function that is missing the <code>global</code> declaration.

If you are having trouble with this question, watch this week's Programming Tips video again.

Your Answer		Score	Explanation
▼ Error: local variable '' referenced before assignment	<b>~</b>	4.00	
AttributeError	~	0.67	
☐ NameError	~	0.67	
An incorrect computation that generates no error message	<b>~</b>	4.00	If you only assign to the variable, without trying to use its current value, you won't get any error message. Instead, Python assumes the variable is local, which might lead to an unexpected result.
SyntaxError	~	0.67	
Total		10.00 / 10.00	

## **Question 8**

Which of the following function definitions are in the recommended code style?

Your Answer		Score	Explanation
✓	~	7.00	
<pre>def my_function(x, y):     """ Add the two inp</pre>			
uts. """			
return x + y			

```
This does not follow recommended style, there
                              1.00
                                       shouldn't be a space before the parenthesis.
def f (x, y):
  """ Add the two inp
uts. """
  return x + y
                             1.00
                                       This does not follow recommended style, there should
def f(x,y):
                                       be a space after the comma.
  """ Add the two inp
uts. """
  return x + y
                              1.00
                                       This does not follow recommended style, a comment
def f(x, y):
                                       should be on a separate line.
  return x + y # Add
the two inputs.
                              10.00 /
Total
                              10.00
```

Cut and paste the following code into CodeSkulptor. Run it and make an attempt to understand how it works.

```
# Simple interactive application
import simplegui

# Define globals.

message = "Welcome!"
count = 0

# Define event handlers.

def button_handler():
    """Count number of button presses."""
    global count
    count += 1
    print message," You have clicked", count, "times."

def input_handler(text):
    """Get text to be displayed."""
    global message
    message = text
```

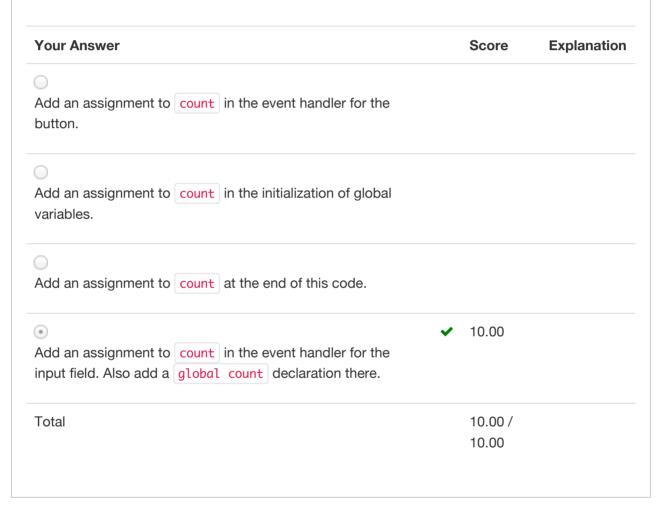
```
# Create frame and register event handlers.

frame = simplegui.create_frame("Home", 100, 200)
frame.add_button("Click me", button_handler)
frame.add_input("New message:", input_handler, 100)

# Start frame.

frame.start()
```

We'd like to modify the code so that the count is reset to zero whenever a new message is entered. Where would you need to modify this code to implement this change?



### **Question 10**

In the game "Guess the number", what is the minimum number of guesses necessary to guarantee that the guesser can *always* win if the secret number is chosen in range(0,

#### 400) ?

Review the mini-project description for "Guess the number" if you are having trouble with this problem.

<b>~</b>	10.00	
	10.00 /	
	10.00	