

CS 1803 Practice Exam 2

Approximate point values before each question. This practice test is slightly longer than your actual test. Take this test on a piece of paper, then move to your computer/look at the answers.

(6) What are the states that an entry label can have, and what are the differences between them?

(4) When should the root widget be created in relation to other widgets? Which of the following creates a root widget?

- a) First, `root.mainloop()`
- b) First, `myWin = Tk()`
- c) Second, `root.mainloop()`
- d) Second, `myWin = Tk()`

(5) Write a small piece of code that creates a list named `residents` which has 50 values. Each value in the list begins with the letter `a` and then has its position multiplied by 2 concatenated onto the end. So, the value at position 10 would be `"a20"`.

(10) Write a piece of code that will create a dictionary called `dorm1`. You are provided a list of resident names called `residents`. The position of the name in the list indicates their room number. (starting at room 0, etc...) Add each name into the dictionary by using the room number as the key and the name as the corresponding value. You may assume that all names in the list `residents` are strings.

Use the following code for the next 4 questions.

```
from tkinter import *

class Practice:
    global num
    num = 11
    def __init__(self,root):
        L1 = Label(root, text = "I hope you studied")
        L1.grid(row = 0, column = 0, columnspan = 2, sticky = E)

        F1 = Frame(root, relief = SUNKEN, width = 20, borderwidth = 1)

        self.i = 1
        self.tv1 = StringVar()
        self.tv2 = StringVar()

        self.E1 = Entry(F1, textvariable = self.tv2)
        self.E1.pack(anchor = E)

        self.E2 = Entry(F1, textvariable = self.tv1).pack(anchor = W)

        B1 = Button(root, text = 'What do I do?!', command = self.clicked)
        B1.grid(row = 8, column = 8, sticky = W)

        F1.grid(row = 1, column = 0)

    def clicked(self):
        global num
        self.tv2.set('%i'%self.i)
        self.i+=1
        self.tv1.set('%i'%num)
        num-=1
        self.E1.config(state = "readonly")

root = Tk()
obj = Practice(root)
root.mainloop()
```

(10) Draw the GUI produced from the code on the previous page before any buttons have been pressed.

(10) Draw the GUI produced from the code on the previous page, after the button has been clicked once.

(5) How many clicks does it take for the values in the two entry boxes to be the same value and what numbers show up in the entry boxes at this point in time?

(5) What is the value of num after 6 clicks?

(10) What is printed when the following code is run.

```
a = (0,1,2,3)
b = [0,3,2,1]
c = '0,1,2,3'
d = "0,1,2,3"
e = {0: 1, 2: 3}
f = 0.123

myTup = (a,b,c,d,e,f)
a = a*2
b.sort()
c*2
d = d*2
e[0]*2
print(max(e))
f*=2

print (myTup)

(f,e,d,c,b,a) = (a,b,c,d,e,f)

print(myTup)

print(a)
print(b)
print(c)
print(d)
print(e)
print(f)
```

(15) Write a program that reads in a file named "practice.txt" that is in the correct directory, and then writes a file named "practicechanged.txt" in the same directory. The file "practicechanged.txt" should have every other line in "practice.txt" beginning with the first line. You may assume there are no gaps between lines of text. Be sure to close all files when you are finished with them!