Python Minor Project

Create A Countdown Timer Using Python

Features To Include

Reset/ Stop
Pause /Resume

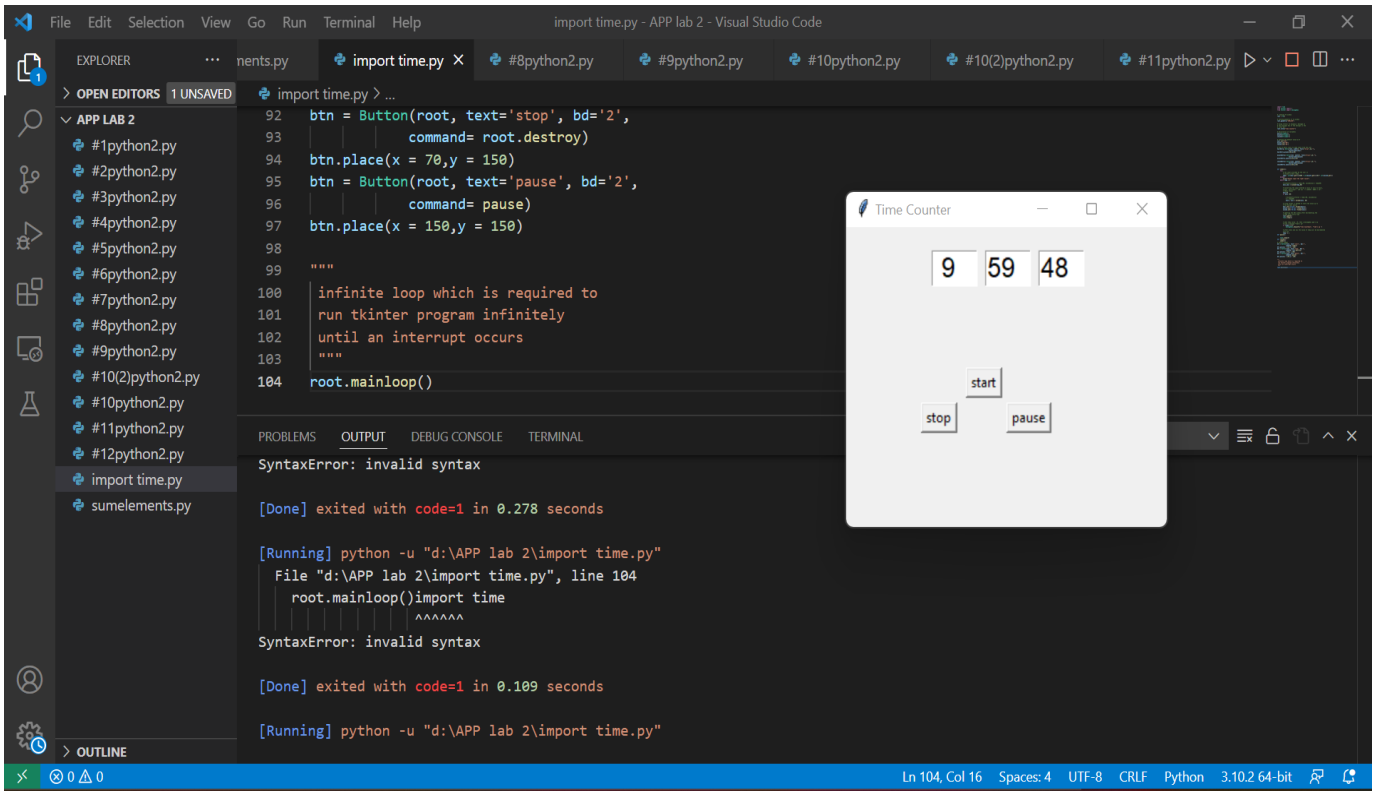
```
import time
from tkinter import *
from tkinter import messagebox


# creating Tk window
root = Tk()

# setting geometry of tk window
root.geometry("300x250")

# Using title() to display a message in
# the dialogue box of the message in the
# title bar.
root.title("Time Counter")

# Declaration of variables
hour=StringVar()
minute=StringVar()
second=StringVar()

# setting the default value as 0
hour.set("00")
```

```
minute.set("00")
second.set("00")

# Use of Entry class to take input from the user
hourEntry= Entry(root, width=3, font=("Arial",18,""),
                                    textvariable=hour)
hourEntry.place(x=80,y=20)

minuteEntry= Entry(root, width=3, font=("Arial",18,""),
                                    textvariable=minute)
minuteEntry.place(x=130,y=20)

secondEntry= Entry(root, width=3, font=("Arial",18,""),
                                    textvariable=second)
secondEntry.place(x=180,y=20)


def submit():
        try:
                # the input provided by the user is
                # stored in here :temp
                temp = int(hour.get())*3600 + int(minute.get())*60 + int(second.get())
        except:
                print("Please input the right value")
        while temp >-1:

                # divmod(firstvalue = temp//60, secondvalue = temp%60)
                mins,secs = divmod(temp,60)

                # Converting the input entered in mins or secs to hours,
                # mins ,secs(input = 110 min --> 120*60 = 6600 => 1hr :
                # 50min: 0sec)
```

```
                hours=0
                if mins >60:

                        # divmod(firstvalue = temp//60, secondvalue
                        # = temp%60)
                        hours, mins = divmod(mins, 60)

                # using format () method to store the value up to
                # two decimal places
                hour.set("{0:2d}".format(hours))
                minute.set("{0:2d}".format(mins))
                second.set("{0:2d}".format(secs))

                # updating the GUI window after decrementing the
                # temp value every time
                root.update()
                time.sleep(1)


                # when temp value = 0; then a message box pop's up
                # with a message:"Time's up"
                if (temp == 0):
                        messagebox.showinfo("Time Countdown", "Time's up ")

                # after every one sec the value of temp will be decremented
                # by one
                temp -= 1
def pause():

    time.sleep(5)
def resume():
    submit()
```

```
# button widget
btn = Button(root, text='start', bd='2',
                            command= submit)
btn.place(x = 112,y = 120)
btn = Button(root, text='stop', bd='2',
                            command= root.destroy)
btn.place(x = 70,y = 150)
btn = Button(root, text='pause', bd='2',
                            command= pause)
btn.place(x = 150,y = 150)

"""
 infinite loop which is required to
 run tkinter program infinitely
 until an interrupt occurs
 """
root.mainloop()
```

OUTPUT-


File Edit Selection View Go Run Terminal Help
import time.py - APP lab 2 - Visual Studio Code
EXPLORER
import time.py
#8python2.py
#9python2.py
#10python2.py
#10(2)python2.py
#11python2.py
OPEN EDITORS 1 UNSAVED
APP LAB 2
#1python2.py
#2python2.py
#3python2.py
#4python2.py
#5python2.py
#6python2.py
#7python2.py
#8python2.py
#9python2.py
#10(2)python2.py
#10python2.py
#11python2.py
#12python2.py
import time.py
sumelements.py
OUTLINE
92 btn = Button(root, text='stop', bd='2',
93 command= root.destroy)
94 btn.place(x = 70,y = 150)
95 btn = Button(root, text='pause', bd='2',
96 command= pause)
97 btn.place(x = 150,y = 150)
98
99 """
100 infinite loop which is required to
101 run tkinter program infinitely
102 until an interrupt occurs
103 """
104 root.mainloop()
PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL
SyntaxError: invalid syntax
[Done] exited with code=1 in 0.278 seconds
[Running] python -u "d:\APP lab 2\import time.py"
File "d:\APP lab 2\import time.py", line 104
root.mainloop()import time
^^^^^^
SyntaxError: invalid syntax
[Done] exited with code=1 in 0.109 seconds
[Running] python -u "d:\APP lab 2\import time.py"
Time Counter
9 59 48
start
stop
pause
Ln 104, Col 16 Spaces: 4 UTF-8 CRLF Python 3.10.2 64-bit