Assignment 2

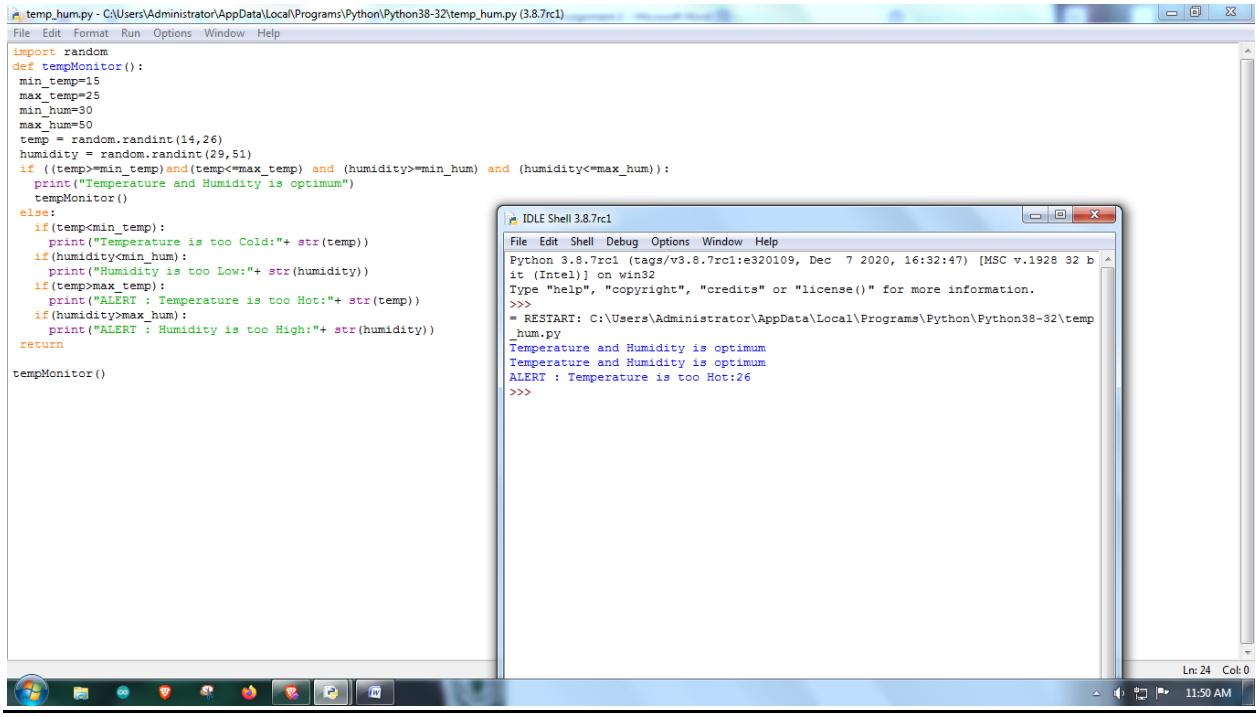
Temperature and humidity monitoring using python

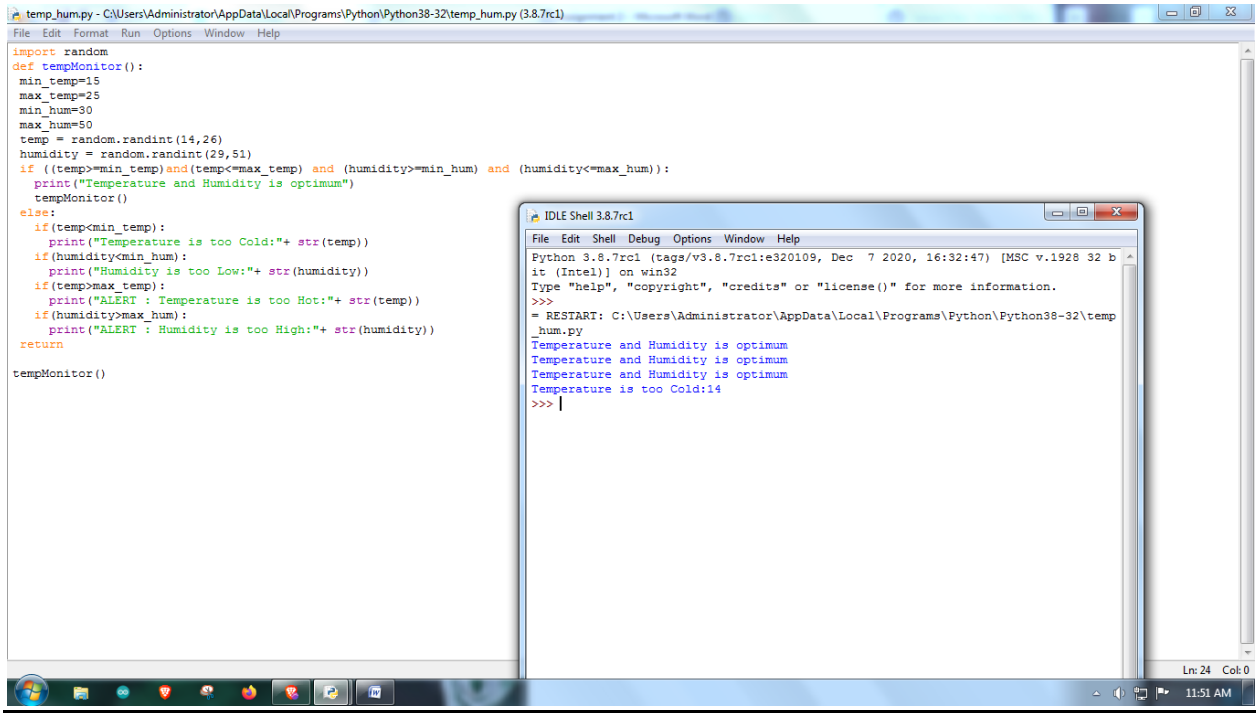
Python code:

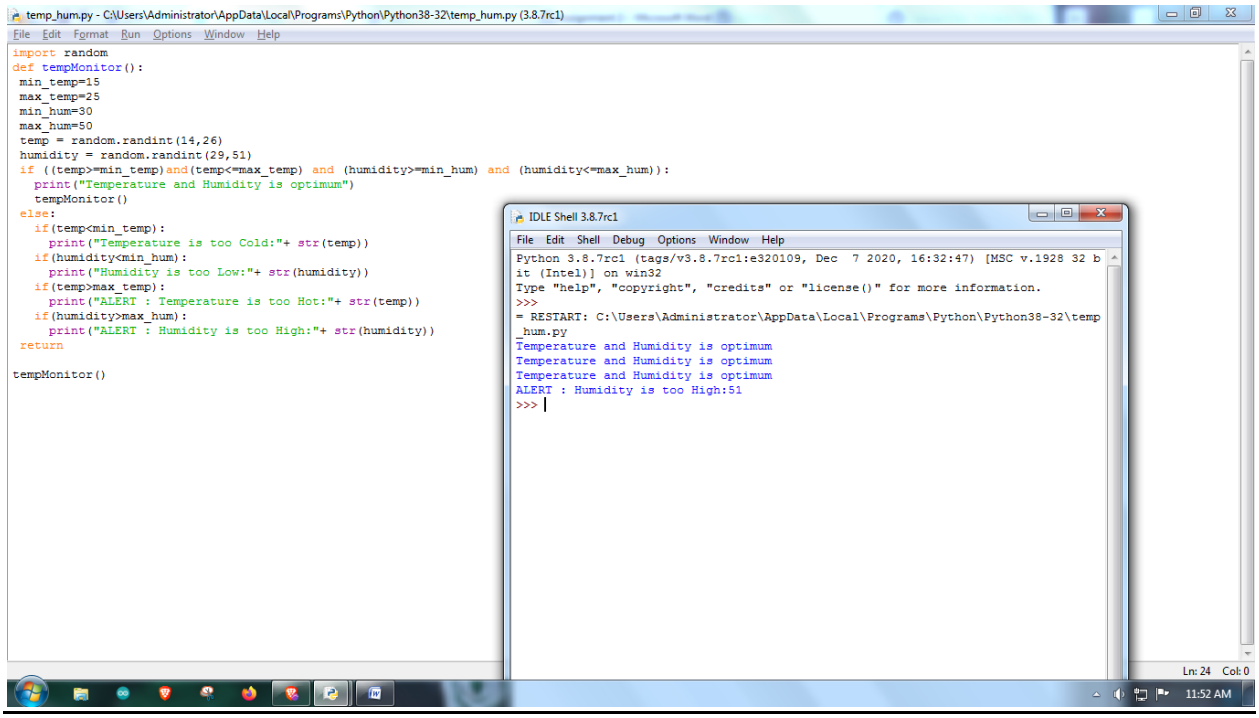
```
import random
def tempMonitor():
 min_temp=15
 max_temp=25
 min_hum=30
 max_hum=50
 temp = random.randint(14,26)
 humidity = random.randint(29,51)
 if ((temp>=min_temp)and(temp<=max_temp) and (humidity>=min_hum) and
(humidity<=max_hum)):
   print("Temperature and Humidity is optimum")
   tempMonitor()
 else:
   if(temp<min_temp):
     print("Temperature is too Cold:"+ str(temp))
   if(humidity<min_hum):
     print("Humidity is too Low:"+ str(humidity))
   if(temp>max_temp):
     print("ALERT : Temperature is too Hot:"+ str(temp))
   if(humidity>max_hum):
     print("ALERT : Humidity is too High:"+ str(humidity))
 return
```

tempMonitor()

IDLE OUTPUT:






temp_hum.py - C:\Users\Administrator\AppData\Local\Programs\Python\Python38-32\temp_hum.py (3.8.7rc1)
File Edit Format Run Options Window Help
import random
def tempMonitor():
min_temp=15
max_temp=25
min_hum=30
max_hum=50
temp = random.randint(14,26)
humidity = random.randint(29,51)
if ((temp>=min_temp)and(temp<=max_temp) and (humidity>=min_hum) and (humidity<=max_hum)):
print("Temperature and Humidity is optimum")
tempMonitor()
else:
if(temp<min_temp):
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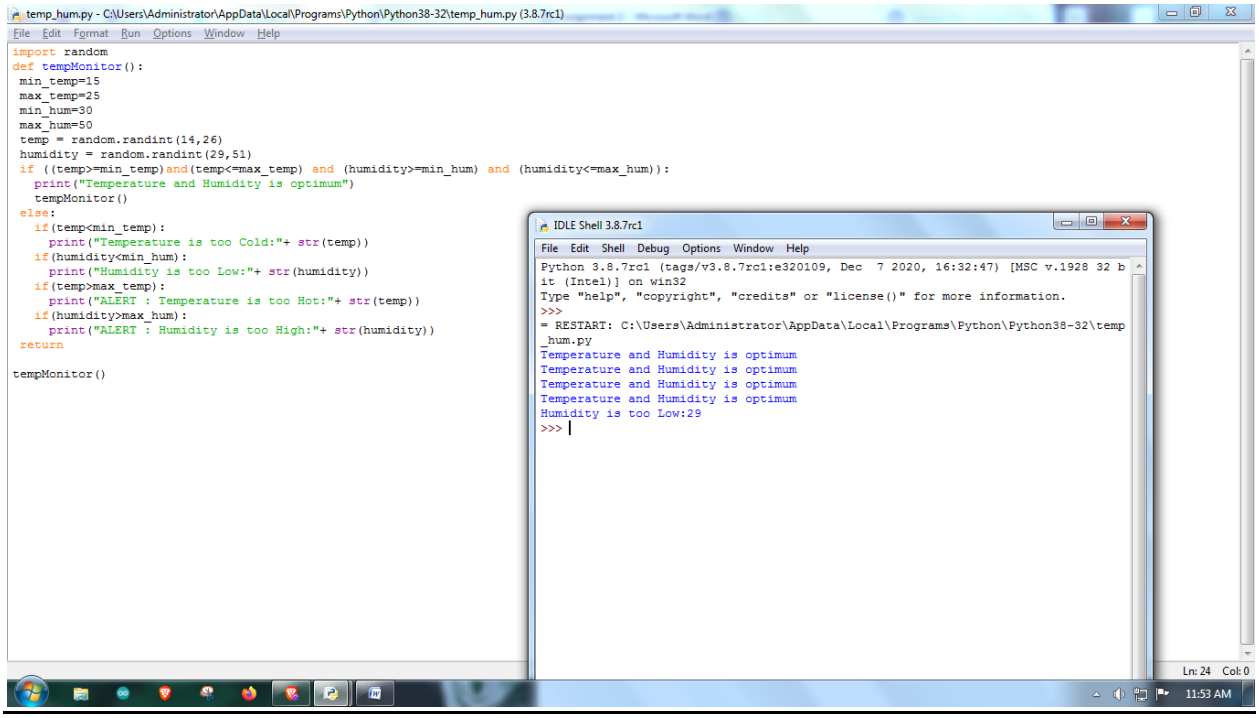
if(humidity<min_hum):
print("Humidity is too Low:"+ str(humidity))
if(temp>max_temp):
print("ALERT : Temperature is too Hot:"+ str(temp))
if(humidity>max_hum):
print("ALERT : Humidity is too High:"+ str(humidity))
return
tempMonitor()
IDLE Shell 3.8.7rc1
File Edit Shell Debug Options Window Help
Python 3.8.7rc1 (tags/v3.8.7rc1:e320109, Dec 7 2020, 16:32:47) [MSC v.1928 32 bit (Intel)] on win32
Type "help", "copyright", "credits" or "license()" for more information.
>>>
= RESTART: C:\Users\Administrator\AppData\Local\Programs\Python\Python38-32\temp_hum.py
Temperature and Humidity is optimum
Temperature and Humidity is optimum
Temperature and Humidity is optimum
ALERT : Humidity is too High:51
>>>
Ln: 24 Col: 0
11:52 AM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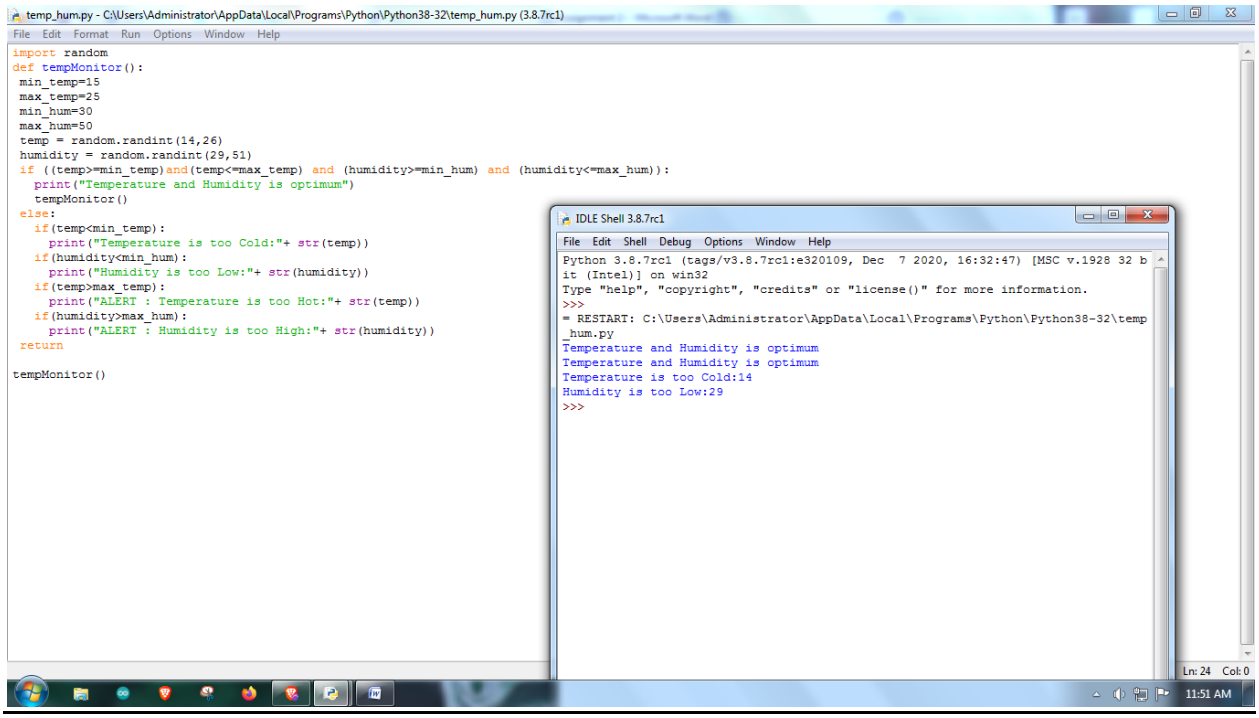
if(humidity<min_hum):
print("Humidity is too Low:"+ str(humidity))
if(temp>max_temp):
print("ALERT : Temperature is too Hot:"+ str(temp))
if(humidity>max_hum):
print("ALERT : Humidity is too High:"+ str(humidity))
return
tempMonitor()
IDLE Shell 3.8.7rc1
File Edit Shell Debug Options Window Help
Python 3.8.7rc1 (tags/v3.8.7rc1:e320109, Dec 7 2020, 16:32:47) [MSC v.1928 32 bit (Intel)] on win32
Type "help", "copyright", "credits" or "license()" for more information.
>>>
= RESTART: C:\Users\Administrator\AppData\Local\Programs\Python\Python38-32\temp_hum.py
Temperature and Humidity is optimum
Temperature and Humidity is optimum
Temperature and Humidity is optimum
Temperature and Humidity is optimum
Humidity is too Low:29
>>>
Ln: 24 Col: 0
11:53 AM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if(temp>max_temp):
print("ALERT : Temperature is too Hot:"+ str(temp))
if(humidity>max_hum):
print("ALERT : Humidity is too High:"+ str(humidity))
return
tempMonitor()
IDLE Shell 3.8.7rc1
File Edit Shell Debug Options Window Help
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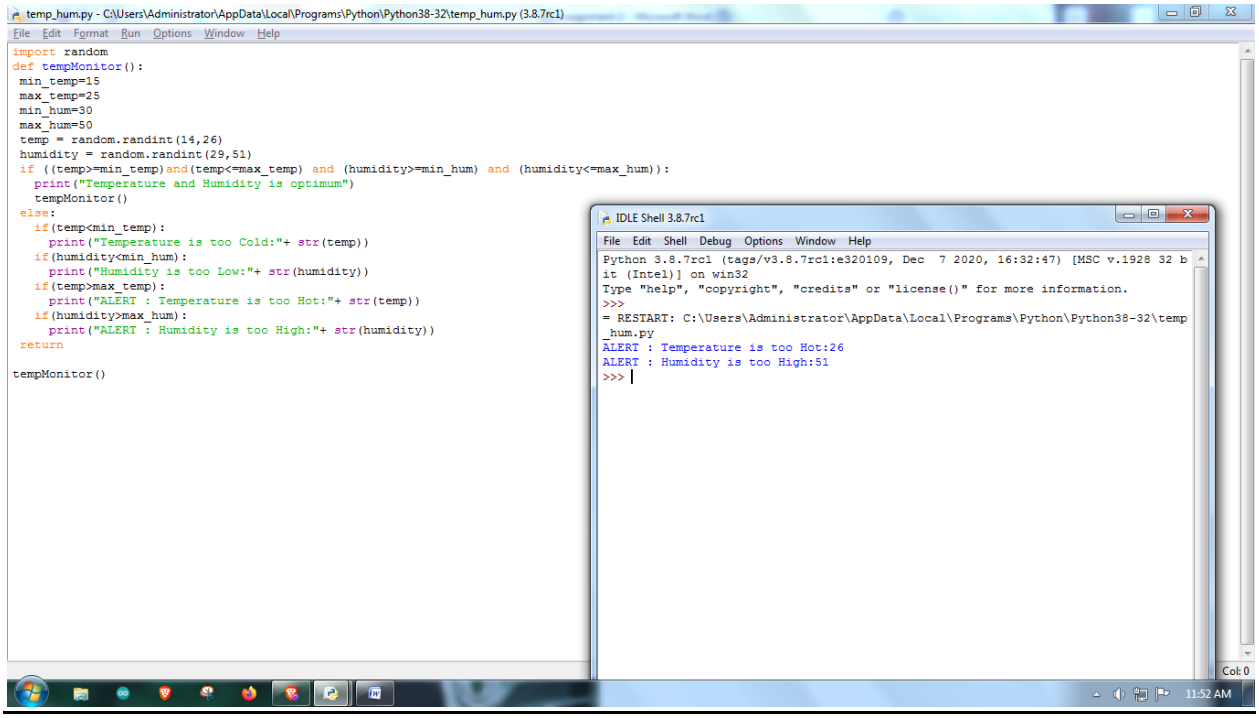
>>>
= RESTART: C:\Users\Administrator\AppData\Local\Programs\Python\Python38-32\temp_hum.py
Temperature and Humidity is optimum
Temperature and Humidity is optimum
Temperature is too Cold:14
Humidity is too Low:29
>>>
Ln: 24 Col: 0
11:51 AM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Type "help", "copyright", "credits" or "license()" for more information.
>>>
= RESTART: C:\Users\Administrator\AppData\Local\Programs\Python\Python38-32\temp_hum.py
ALERT : Temperature is too Hot:26
ALERT : Humidity is too High:51
>>>
Col: 0
11:52 AM

By

Dinakar S