

## Assignment -2

### Question-1:

Build a python code, Assume u get temperature and humidity values(generated with random function to a variable) and write a condition to continuously detect alarm in case of high temperature.

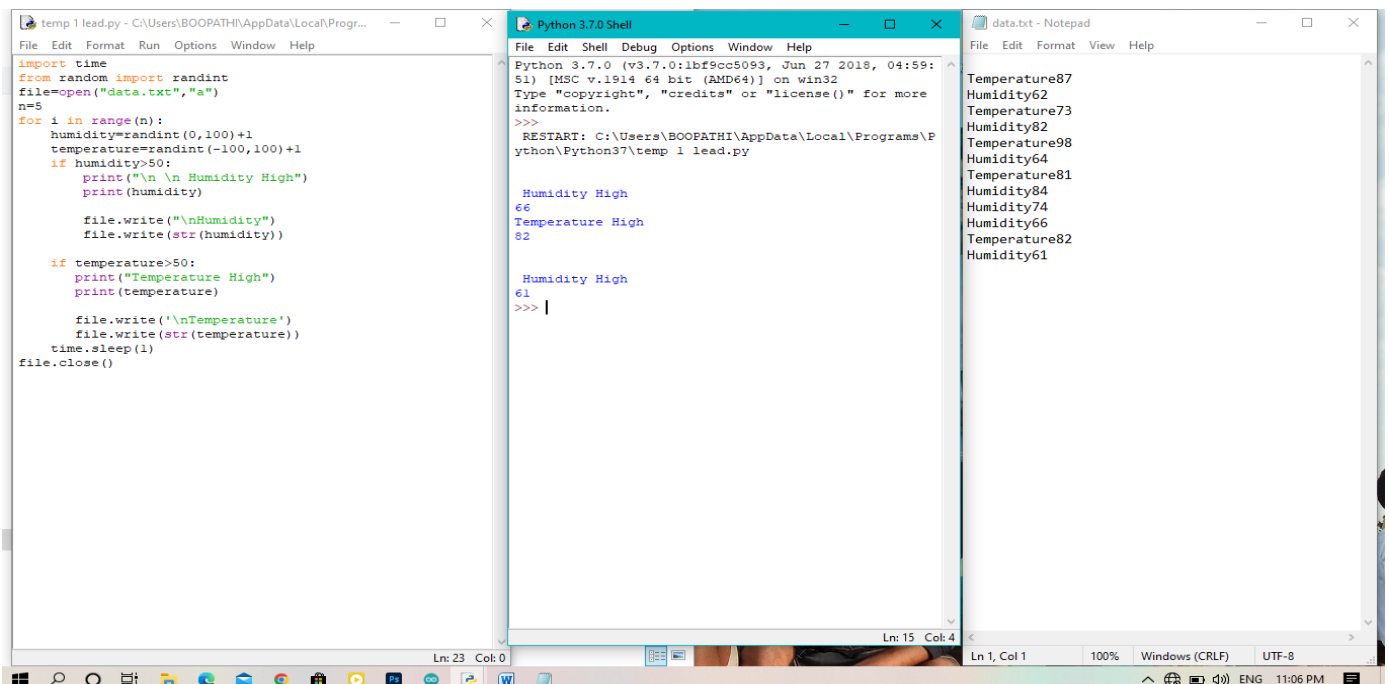
### Solution:

```
import time
from random import randint
file=open("data.txt","a")
n=5
for i in range(n):
    humidity=randint(0,100)+1
    temperature=randint(-100,100)+1
    if humidity>50:
        print("\n \n Humidity High")
        print(humidity)

        file.write("\nHumidity")
        file.write(str(humidity))

    if temperature>50:
        print("Temperature High")
        print(temperature)

        file.write('\nTemperature')
        file.write(str(temperature))
    time.sleep(1)
file.close()
```



The screenshot displays three windows on a Windows desktop. The leftmost window is a text editor showing a Python script named 'temp 1 lead.py'. The script imports 'time' and 'randint' from the 'random' module, opens a file named 'data.txt' in append mode, and runs a loop 5 times. In each iteration, it generates random values for 'humidity' and 'temperature'. If 'humidity' is greater than 50, it prints a message and the humidity value, and also writes them to 'data.txt'. Similarly, if 'temperature' is greater than 50, it prints a message and the temperature value, and also writes them to 'data.txt'. A 1-second sleep is included between iterations. The middle window is the 'Python 3.7.0 Shell', showing the execution of the script. It displays the Python version, system information, and the output of the script: 'Humidity High' followed by the value '66', 'Temperature High' followed by '82', and another 'Humidity High' followed by '61'. The rightmost window is 'data.txt - Notepad', showing the contents of the file: 'Temperature87', 'Humidity62', 'Temperature73', 'Humidity82', 'Temperature98', 'Humidity64', 'Temperature81', 'Humidity84', 'Humidity74', 'Humidity66', 'Temperature82', and 'Humidity61'.

```
temp 1 lead.py - C:\Users\BOOPATHI\AppData\Local\Progr...
File Edit Format Run Options Window Help
import time
from random import randint
file=open("data.txt","a")
n=5
for i in range(n):
    humidity=randint(0,100)+1
    temperature=randint(-100,100)+1
    if humidity>50:
        print("\n \n Humidity High")
        print(humidity)

        file.write("\nHumidity")
        file.write(str(humidity))

    if temperature>50:
        print("Temperature High")
        print(temperature)

        file.write('\nTemperature')
        file.write(str(temperature))
    time.sleep(1)
file.close()
```

```
Python 3.7.0 Shell
File Edit Shell Debug Options Window Help
Python 3.7.0 (v3.7.0:1bf9cc5093, Jun 27 2018, 04:59:
51) [MSC v.1914 64 bit (AMD64)] on win32
Type "copyright", "credits" or "license()" for more
information.
>>>
RESTART: C:\Users\BOOPATHI\AppData\Local\Programs\Py
thon\Python37\temp 1 lead.py

Humidity High
66
Temperature High
82

Humidity High
61
>>>
```

```
data.txt - Notepad
File Edit Format View Help
Temperature87
Humidity62
Temperature73
Humidity82
Temperature98
Humidity64
Temperature81
Humidity84
Humidity74
Humidity66
Temperature82
Humidity61
```

