

ASSESSMENT-2

ASSESSMENT DATE	26 SEPTEMBER 2022
NAME	VAISHNAVI K
REGISTER NUMBER	621319106097
MARKS	2 Marks

PROBLEM:

Build a python code, Assume you 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.

CODE:

```
import time from random
import rand
int 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()
```

SIMULATION SCREENSHOT:

The screenshot shows a Windows desktop with three open windows. The leftmost window is a Python script editor showing a file named 'temp 1 lead.py'. The script imports 'time' and 'random', opens a file named 'data.txt' in append mode, and runs a loop 'n' times. Inside the loop, it generates random 'humidity' and 'temperature' values. If humidity is greater than 50, it prints 'Humidity High' and the humidity value, then writes them to 'data.txt'. If temperature is greater than 50, it prints 'Temperature High' and the temperature value, then writes them to 'data.txt'. It also includes a 1-second sleep and closes the file. The middle window is a 'Python 3.7.0 Shell' showing the execution of 'temp 1 lead.py'. It displays the Python version, system info, and the output of the script: 'Humidity High 66' and 'Temperature High 82'. The rightmost window is a Notepad file named 'data.txt', which contains the output of the simulation: 'Temperature87', 'Humidity62', 'Temperature73', 'Humidity82', 'Temperature98', 'Humidity64', 'Temperature81', 'Humidity84', 'Humidity74', 'Humidity66', 'Temperature82', and 'Humidity61'. The Windows taskbar at the bottom shows the time as 11:06 PM.

```
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
```