

Assignment -2
Python Programming

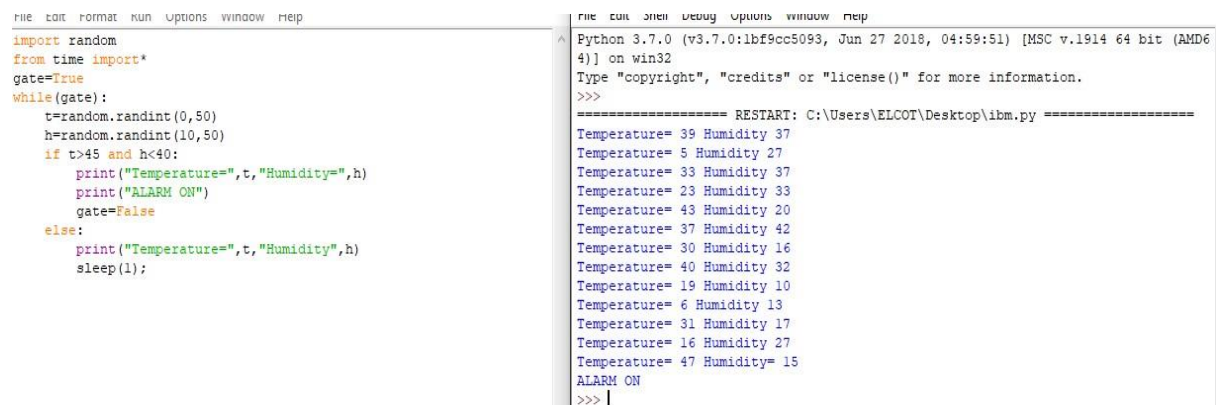
Assignment Date	27 September 2022
Student Name	Alpha A
Student Roll Number	960219106019
Maximum Marks	2 Marks

Question:

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.

Solution:

```
import random
from time import*
gate=True
while(gate):
    t=random.randint(0,50)
    h=random.randint(10,50)
    if t>45 and h<40:
        print("Temperature=",t,"Humidity=",h)
        print("ALARM ON")
        gate=False
    else:
        print("Temperature=",t,"Humidity=",h)
        sleep(1);
```



The screenshot shows a Python IDE with two panes. The left pane contains the source code, and the right pane shows the output of the program. The code is a while loop that generates random temperature (t) and humidity (h) values. If t is greater than 45 and h is less than 40, it prints the values and 'ALARM ON', then sets gate to False. Otherwise, it prints the values and sleeps for 1 second. The output shows multiple iterations of the loop, with the last iteration triggering the alarm.

```
File Edit Format Run Options Window Help
import random
from time import*
gate=True
while(gate):
    t=random.randint(0,50)
    h=random.randint(10,50)
    if t>45 and h<40:
        print("Temperature=",t,"Humidity=",h)
        print("ALARM ON")
        gate=False
    else:
        print("Temperature=",t,"Humidity=",h)
        sleep(1);
```

```
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\ELCOT\Desktop\ibm.py =====
Temperature= 39 Humidity 37
Temperature= 5 Humidity 27
Temperature= 33 Humidity 37
Temperature= 23 Humidity 33
Temperature= 43 Humidity 20
Temperature= 37 Humidity 42
Temperature= 30 Humidity 16
Temperature= 40 Humidity 32
Temperature= 19 Humidity 10
Temperature= 6 Humidity 13
Temperature= 31 Humidity 17
Temperature= 16 Humidity 27
Temperature= 47 Humidity= 15
ALARM ON
>>>
```

