

ASSIGNMENT - 2

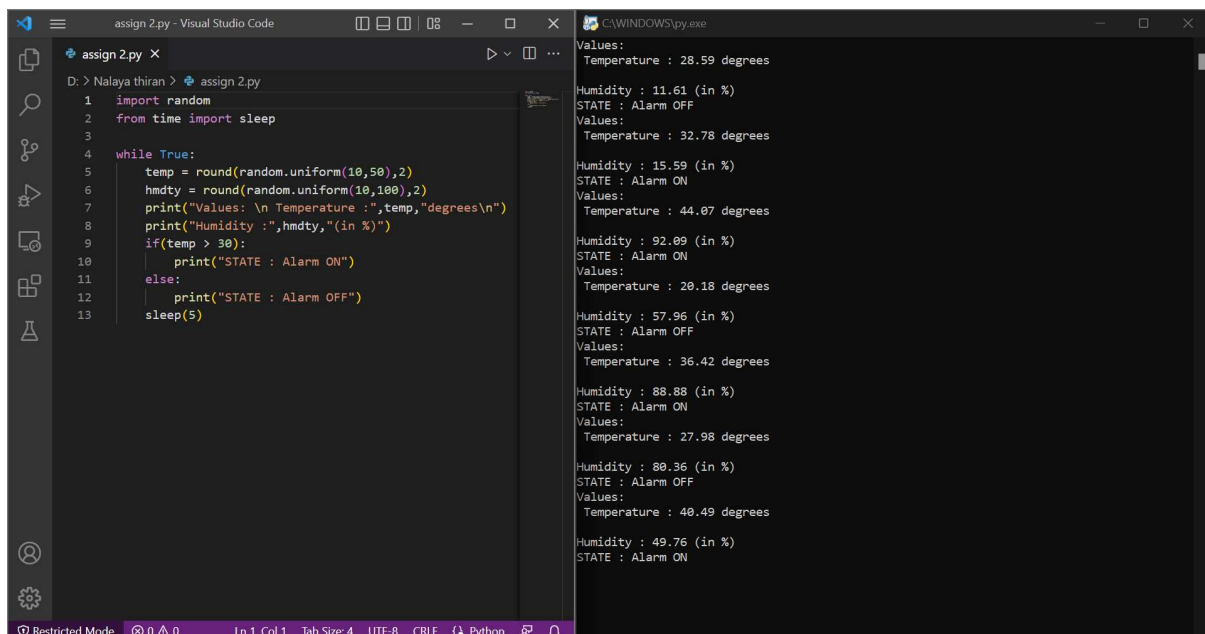
BUILD A PYTHON CODE, ASSUME U GET TEMPERATURE AND HUMIDITY VALUES (GENERATED WITH RANDOM FUNCTION TO A VARIABLE) AND WRITE A CONDITION TO CONTINUOUSLY DETECT ALARM IN CASE OF HIGH TEMPERATURE.

CODE:

```
import random
from time import sleep

while True:
    temp = round(random.uniform(10,50),2)
    hmdty = round(random.uniform(10,100),2)
    print("Values: \n Temperature :",temp,"degrees\n")
    print("Humidity :",hmdty,"(in %)")
    if(temp > 30):
        print("STATE : Alarm ON")
    else:
        print("STATE : Alarm OFF")
    sleep(5)
```

OUTPUT:



The screenshot shows a Visual Studio Code editor with a file named 'assign 2.py'. The code in the editor is as follows:

```
1 import random
2 from time import sleep
3
4 while True:
5     temp = round(random.uniform(10,50),2)
6     hmdty = round(random.uniform(10,100),2)
7     print("Values: \n Temperature :",temp,"degrees\n")
8     print("Humidity :",hmdty,"(in %)")
9     if(temp > 30):
10         print("STATE : Alarm ON")
11     else:
12         print("STATE : Alarm OFF")
13     sleep(5)
```

To the right of the editor, the output of the script is displayed in a terminal window. The output shows the program running in a loop, generating random temperature and humidity values and printing the state of the alarm. The state is 'Alarm ON' when the temperature is greater than 30 degrees and 'Alarm OFF' otherwise. The output is as follows:

```
Values:
Temperature : 28.59 degrees
Humidity : 11.61 (in %)
STATE : Alarm OFF
Values:
Temperature : 32.78 degrees
Humidity : 15.59 (in %)
STATE : Alarm ON
Values:
Temperature : 44.07 degrees
Humidity : 92.09 (in %)
STATE : Alarm ON
Values:
Temperature : 20.18 degrees
Humidity : 57.96 (in %)
STATE : Alarm OFF
Values:
Temperature : 36.42 degrees
Humidity : 88.88 (in %)
STATE : Alarm ON
Values:
Temperature : 27.98 degrees
Humidity : 80.36 (in %)
STATE : Alarm OFF
Values:
Temperature : 40.49 degrees
Humidity : 49.76 (in %)
STATE : Alarm ON
```