

## Internet of Things Assignment

### Assignment 2:

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

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### Python Code:

```
import random
import time
```

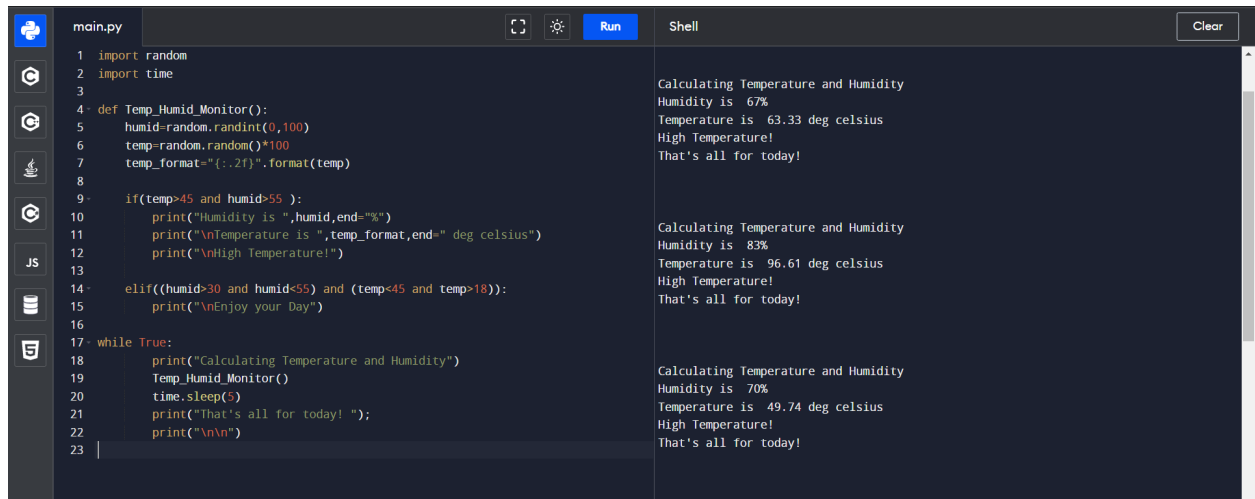
```
def Temp_Humid_Monitor():
    humid=random.randint(0,100)
    temp=random.random()*100
    temp_format="{:.2f}".format(temp)

    if(temp>45 and humid>55 ):
        print("Humidity is ",humid,end="%")
        print("\nTemperature is ",temp_format,end=" deg celsius")
        print("\nHigh Temperature!")

    elif((humid>30 and humid<55) and (temp<45 and temp>18)):
        print("\nEnjoy your Day")

while True:
    print("Calculating Temperature and Humidity")
    Temp_Humid_Monitor()
    time.sleep(5)
    print("That's all for today! ");
    print("\n\n")
```

## Screenshot:



The screenshot shows a code editor with a file named `main.py` and a terminal window below it. The Python script defines a function `Temp_Humid_Monitor()` that generates random humidity and temperature values, checks for high temperature, and prints the results. A `while True` loop calls this function every 5 seconds. The terminal shows the output of the script, which is repeated three times.

```
main.py
1 import random
2 import time
3
4 def Temp_Humid_Monitor():
5     humid=random.randint(0,100)
6     temp=random.random()*100
7     temp_format="{:.2f}".format(temp)
8
9     if(temp>45 and humid>55 ):
10         print("Humidity is ",humid,end=" ")
11         print("\nTemperature is ",temp_format,end=" deg celsius")
12         print("\nHigh Temperature!")
13
14     elif((humid>30 and humid<55) and (temp<45 and temp>18)):
15         print("\nEnjoy your Day")
16
17 while True:
18     print("Calculating Temperature and Humidity")
19     Temp_Humid_Monitor()
20     time.sleep(5)
21     print("That's all for today! ");
22     print("\n\n")
23
```

Shell

Calculating Temperature and Humidity  
Humidity is 67%  
Temperature is 63.33 deg celsius  
High Temperature!  
That's all for today!

Calculating Temperature and Humidity  
Humidity is 83%  
Temperature is 96.61 deg celsius  
High Temperature!  
That's all for today!

Calculating Temperature and Humidity  
Humidity is 70%  
Temperature is 49.74 deg celsius  
High Temperature!  
That's all for today!