

IOT ASSIGNMENT 2

TOPIC: 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.

Name: KAMMAATCHI R

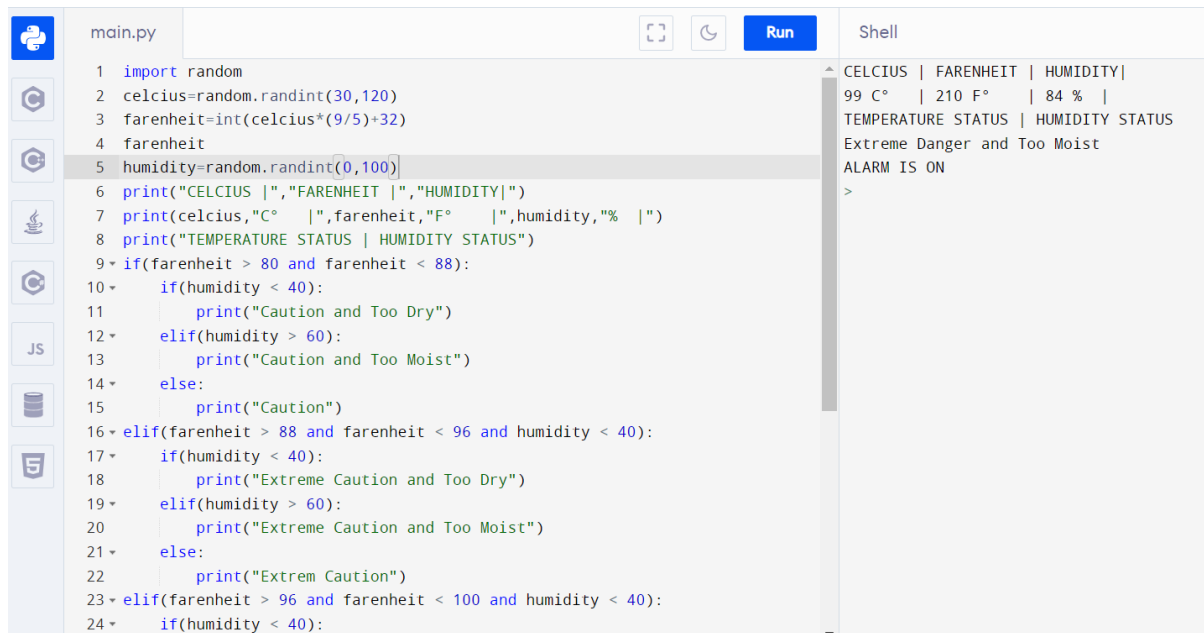
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Code:

```
import random
celcius=random.randint(30,120)
farenheit=int(celcius*(9/5)+32)
farenheit
humidity=random.randint(0,100)
print("CELCIUS |","FARENHEIT |","HUMIDITY|")
print(celcius,"C° |",farenheit,"F° |",humidity,"% |")
print("TEMPERATURE STATUS | HUMIDITY STATUS")
if(farenheit > 80 and farenheit < 88):
    if(humidity < 40):
        print("Caution and Too Dry")
    elif(humidity > 60):
        print("Caution and Too Moist")
    else:
        print("Caution")
elif(farenheit > 88 and farenheit < 96 and humidity < 40):
    if(humidity < 40):
        print("Extreme Caution and Too Dry")
```

```
elif(humidity > 60):
    print("Extreme Caution and Too Moist")
else:
    print("Extrem Caution")
elif(farenheit > 96 and farenheit < 100 and humidity < 40):
    if(humidity < 40):
        print("Danger and Too Dry")
    elif(humidity > 60):
        print("Danger and Too Moist")
    else:
        print("Danger")
elif(farenheit > 100 or humidity < 40):
    if(humidity < 40):
        print("Extreme Danger and Too Dry")
    elif(humidity > 60):
        print("Extreme Danger and Too Moist")
    else:
        print("Extreme Danger")
    print("ALARM IS ON")
else:
    print("ALARM IS OFF")
```

OUTPUT :



The screenshot shows a code editor with a file named `main.py`. The code generates random temperature and humidity values and prints them in a table-like format. It also includes conditional logic to print status messages based on these values.

```
1 import random
2 celcius=random.randint(30,120)
3 fahrenheit=int(celcius*(9/5)+32)
4 fahrenheit
5 humidity=random.randint(0,100)
6 print("CELCIUS |", "FARENHEIT |", "HUMIDITY|")
7 print(celcius,"C°   |",fahrenheit,"F°   |",humidity,"%   |")
8 print("TEMPERATURE STATUS | HUMIDITY STATUS")
9 if(fahrenheit > 80 and fahrenheit < 88):
10     if(humidity < 40):
11         print("Caution and Too Dry")
12     elif(humidity > 60):
13         print("Caution and Too Moist")
14     else:
15         print("Caution")
16 elif(fahrenheit > 88 and fahrenheit < 96 and humidity < 40):
17     if(humidity < 40):
18         print("Extreme Caution and Too Dry")
19     elif(humidity > 60):
20         print("Extreme Caution and Too Moist")
21     else:
22         print("Extrem Caution")
23 elif(fahrenheit > 96 and fahrenheit < 100 and humidity < 40):
24     if(humidity < 40):
```

The output in the Shell pane shows the following results:

```
CELCIUS | FARENHEIT | HUMIDITY|
99 C°   | 210 F°   | 84 %   |
TEMPERATURE STATUS | HUMIDITY STATUS
Extreme Danger and Too Moist
ALARM IS ON
>
```