

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.

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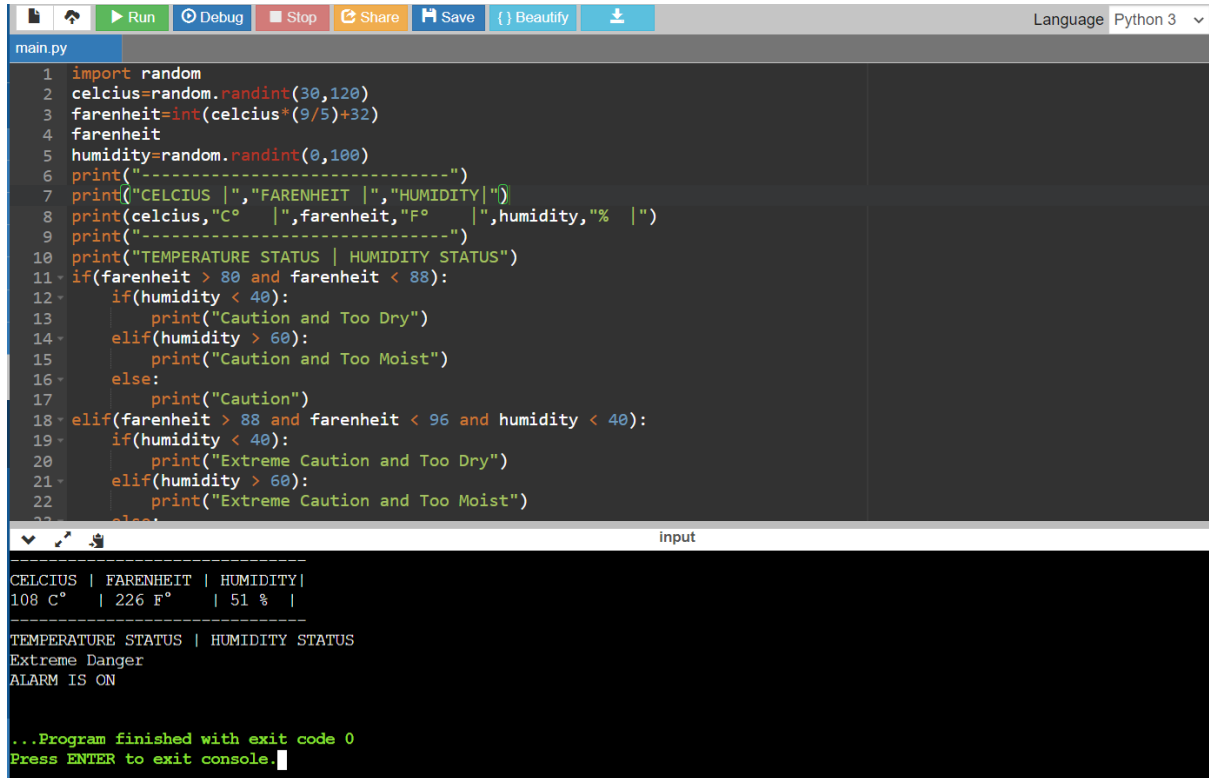
Roll no: 2116190801054

Code:

```
import random
celcius=random.randint(-30,120)
farenheit=int(celcius*(9/5)+32)
farenheit
humidity=random.randint(0,100)
print("-----")
print("CELCIUS |","FARENHEIT |","HUMIDITY|")
print(celcius,"C° |",farenheit,"F° |",humidity,"% |")
print("-----")
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 Python IDE with a dark theme. The top toolbar includes icons for file operations, running, debugging, and saving. The language is set to Python 3. The code in the editor is as follows:

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

The output console shows the following text:

```
CELCIUS | FARENHEIT | HUMIDITY|
108 C° | 226 F° | 51 % |
-----
TEMPERATURE STATUS | HUMIDITY STATUS
Extreme Danger
ALARM IS ON

...Program finished with exit code 0
Press ENTER to exit console.
```