

Assignment II

Python Programming

Assignment Date	28 September,2022
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Maximum Marks	4 Marks

Question-1:

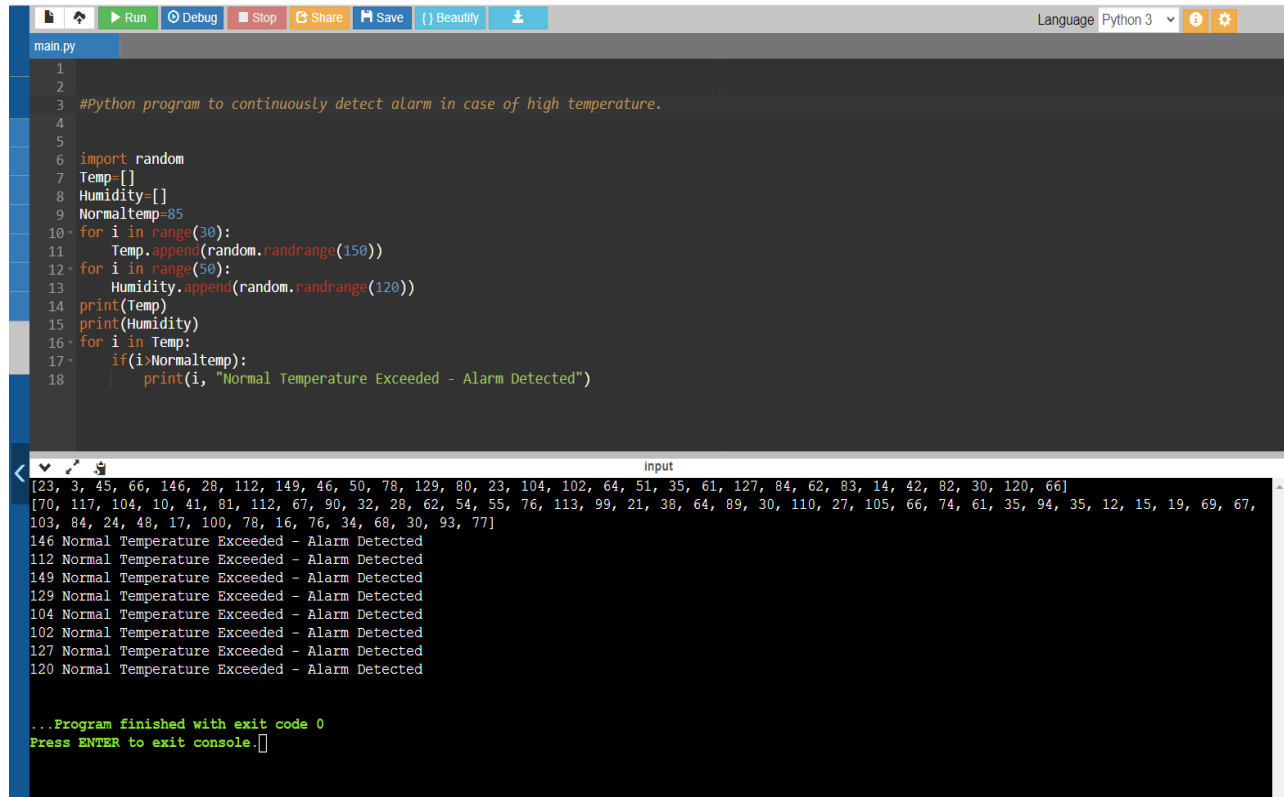
Build a python code, Assume you get temperature and humidity values (generated with random function to a variable) and write a condition to continuously detect alarm in case of high temperature.

SOLUTION:

PYTHON CODE:

```
import random
Temp=[]
Humidity=[]
Normaltemp=85
for i in range(30):
    Temp.append(random.randrange(150))
for i in range(50):
    Humidity.append(random.randrange(120))
print(Temp)
print(Humidity)
for i in Temp:
    if(i>Normaltemp):
        print(i, "Normal Temperature Exceeded - Alarm Detected")
```

OUTPUT:



The screenshot shows a Python IDE with a file named `main.py`. The code is a Python program designed to continuously detect an alarm in case of high temperature. It imports the `random` module and initializes two empty lists, `Temp` and `Humidity`, and a variable `Normaltemp` set to 85. The program then enters a loop where it generates random temperature and humidity values. It prints these values and checks if the temperature exceeds the normal threshold. If it does, it prints an alarm message.

```
1
2
3 #Python program to continuously detect alarm in case of high temperature.
4
5
6 import random
7 Temp=[]
8 Humidity=[]
9 Normaltemp=85
10 for i in range(30):
11     Temp.append(random.randrange(150))
12 for i in range(50):
13     Humidity.append(random.randrange(120))
14 print(Temp)
15 print(Humidity)
16 for i in Temp:
17     if i>Normaltemp:
18         print(i, "Normal Temperature Exceeded - Alarm Detected")
```

The output window shows the execution results. It displays the generated temperature and humidity lists, followed by several lines indicating that the normal temperature has been exceeded and an alarm has been detected. The program finished with exit code 0.

```
[23, 3, 45, 66, 146, 28, 112, 149, 46, 50, 78, 129, 80, 23, 104, 102, 64, 51, 35, 61, 127, 84, 62, 83, 14, 42, 82, 30, 120, 66]
[70, 117, 104, 10, 41, 81, 112, 67, 90, 32, 28, 62, 54, 55, 76, 113, 99, 21, 38, 64, 89, 30, 110, 27, 105, 66, 74, 61, 35, 94, 35, 12, 15, 19, 69, 67,
103, 84, 24, 48, 17, 100, 78, 16, 76, 34, 68, 30, 93, 77]
146 Normal Temperature Exceeded - Alarm Detected
112 Normal Temperature Exceeded - Alarm Detected
149 Normal Temperature Exceeded - Alarm Detected
129 Normal Temperature Exceeded - Alarm Detected
104 Normal Temperature Exceeded - Alarm Detected
102 Normal Temperature Exceeded - Alarm Detected
127 Normal Temperature Exceeded - Alarm Detected
120 Normal Temperature Exceeded - Alarm Detected

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