

Assignment -2
Python Programming

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| Assignment Date | 19 September 2022 |
| Student Name | Kalpna T |
| Student Roll Number | 621119106014 |
| Maximum Marks | 2 Marks |

Question:

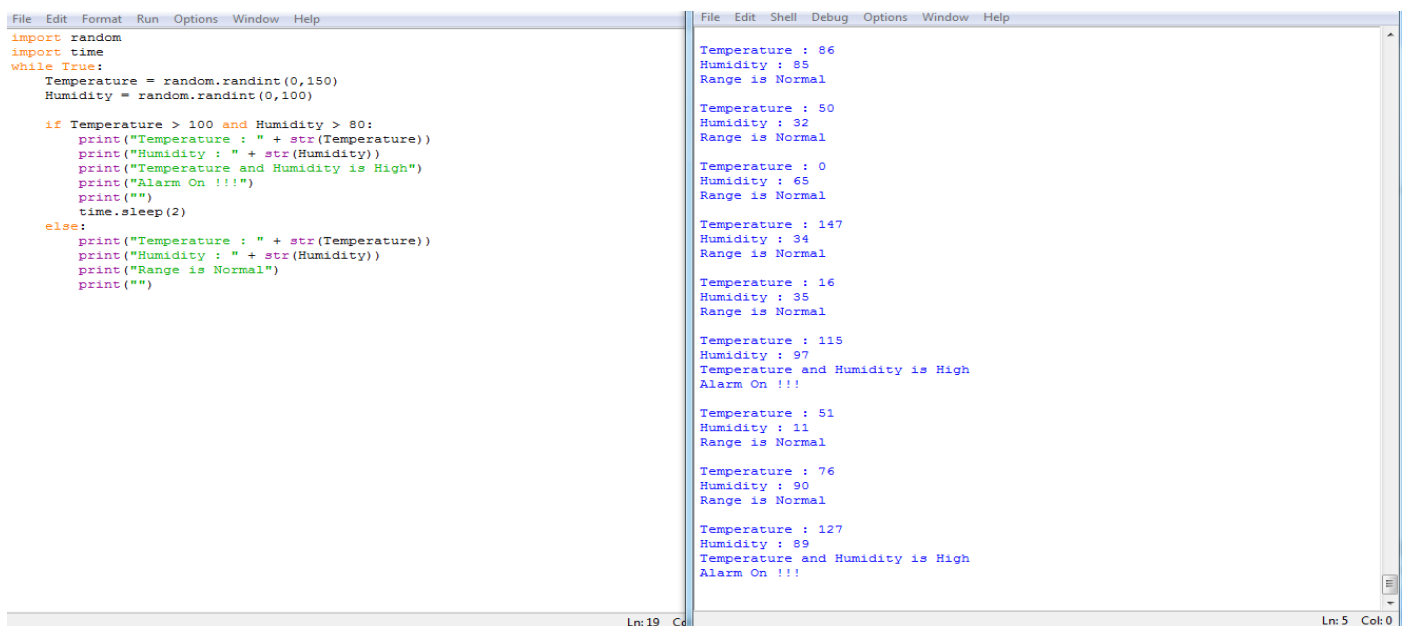
Build a python code, Assume u get temperature and humidity values (generated with random function to a variable) and write a condition to continuously detect alarm in case of high temperature.

Solution:

PROGRAM:

```
import random
import time
while True:
    Temperature = random.randint(0,150)
    Humidity = random.randint(0,100)
    if Temperature > 100 and Humidity > 80:
        print("Temperature : " + str(Temperature))
        print("Humidity : " + str(Humidity))
        print("Temperature and Humidity is High")
        print("Alarm On !!!")
        print("")
        time.sleep(2)
    else:
        print("Temperature : " + str(Temperature))
        print("Humidity : " + str(Humidity))
        print("Range is Normal")
        print("")
```

OUTPUT:



The screenshot shows a Python IDE with two panes. The left pane contains the Python code for the program, and the right pane shows the output of the program. The code is a while loop that generates random temperature and humidity values. If both are high (Temperature > 100 and Humidity > 80), it prints the values, a message indicating high values, and an alarm, then sleeps for 2 seconds. Otherwise, it prints the values and a normal range message.

```
File Edit Format Run Options Window Help
import random
import time
while True:
    Temperature = random.randint(0,150)
    Humidity = random.randint(0,100)
    if Temperature > 100 and Humidity > 80:
        print("Temperature : " + str(Temperature))
        print("Humidity : " + str(Humidity))
        print("Temperature and Humidity is High")
        print("Alarm On !!!")
        print("")
        time.sleep(2)
    else:
        print("Temperature : " + str(Temperature))
        print("Humidity : " + str(Humidity))
        print("Range is Normal")
        print("")
```

Temperature : 86
Humidity : 85
Range is Normal

Temperature : 50
Humidity : 32
Range is Normal

Temperature : 0
Humidity : 65
Range is Normal

Temperature : 147
Humidity : 34
Range is Normal

Temperature : 16
Humidity : 35
Range is Normal

Temperature : 115
Humidity : 97
Temperature and Humidity is High
Alarm On !!!

Temperature : 51
Humidity : 11
Range is Normal

Temperature : 76
Humidity : 90
Range is Normal

Temperature : 127
Humidity : 89
Temperature and Humidity is High
Alarm On !!!

Ln: 19 Col: 0