

Assignment -2

Assignment Date	20/09/2022
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Maximum Marks	2 Marks

Question:

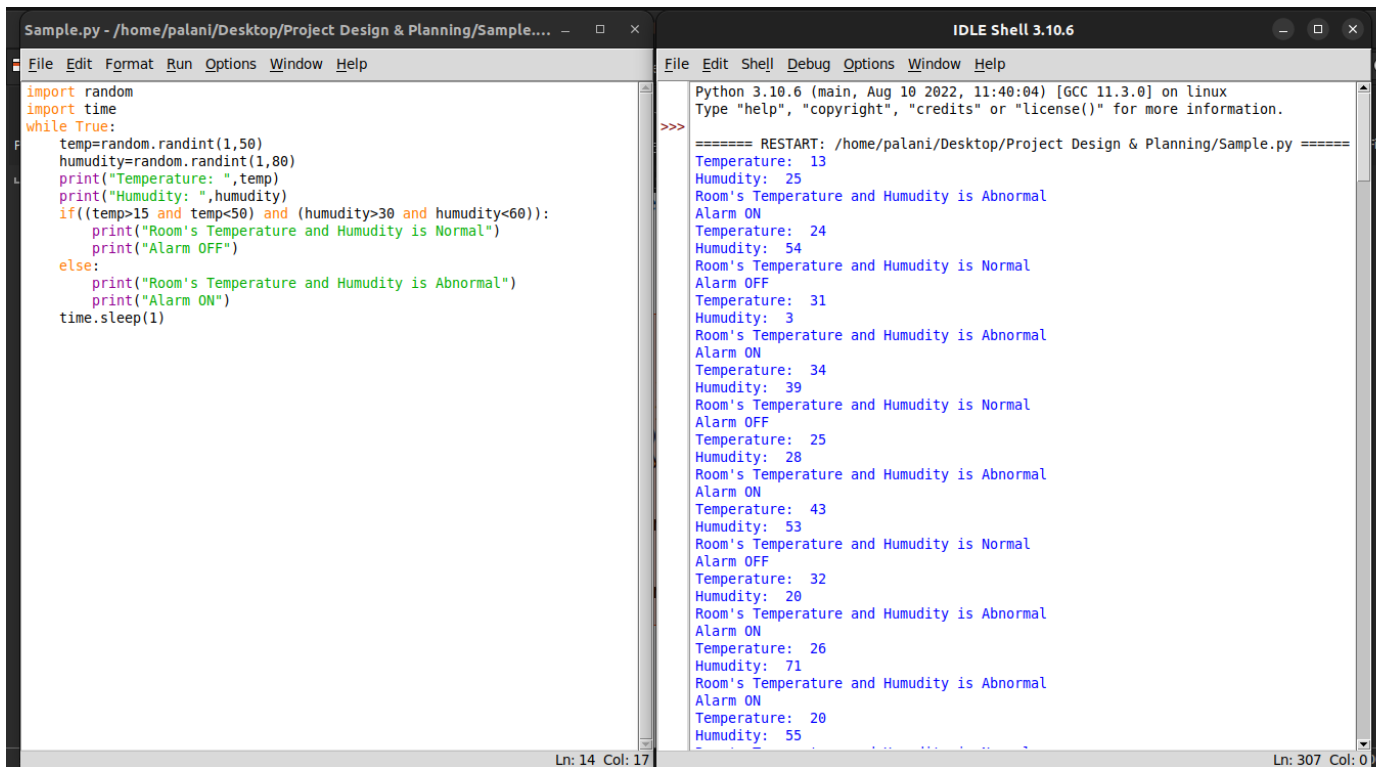
Build a python code, Assume u get temperature and humidity values (generated with random function to a variable) and write a condition to continuously detect alarm in case of high temperature.

Solution:

Python Code:

```
import random
import time
while True:
    temp=random.randint(1,50)
    humudity=random.randint(1,80)
    print("Temperature: ",temp)
    print("Humudity: ",humudity)
    if((temp>15 and temp<50) and (humudity>30 and
humudity<60)):
        print("Room's Temperature and Humudity is Normal")
        print("Alarm OFF")
    else:
        print("Room's Temperature and Humudity is Abnormal")
        print("Alarm ON")
    time.sleep(1)
```

Output:



The image shows a screenshot of an IDE with two windows. The left window, titled 'Sample.py - /home/palani/Desktop/Project Design & Planning/Sample...', contains a Python script. The right window, titled 'IDLE Shell 3.10.6', shows the output of the script.

```
import random
import time
while True:
    temp=random.randint(1,50)
    humidity=random.randint(1,80)
    print("Temperature: ",temp)
    print("Humidity: ",humidity)
    if((temp>15 and temp<50) and (humidity>30 and humidity<60)):
        print("Room's Temperature and Humudity is Normal")
        print("Alarm OFF")
    else:
        print("Room's Temperature and Humudity is Abnormal")
        print("Alarm ON")
    time.sleep(1)
```

The output in the IDLE Shell window shows the execution of the script, displaying the temperature and humidity values, and the resulting alarm status (ON or OFF) based on the conditions in the script.

```
Python 3.10.6 (main, Aug 10 2022, 11:40:04) [GCC 11.3.0] on linux
Type "help", "copyright", "credits" or "license()" for more information.
>>>
===== RESTART: /home/palani/Desktop/Project Design & Planning/Sample.py =====
Temperature: 13
Humidity: 25
Room's Temperature and Humudity is Abnormal
Alarm ON
Temperature: 24
Humidity: 54
Room's Temperature and Humudity is Normal
Alarm OFF
Temperature: 31
Humidity: 3
Room's Temperature and Humudity is Abnormal
Alarm ON
Temperature: 34
Humidity: 39
Room's Temperature and Humudity is Normal
Alarm OFF
Temperature: 25
Humidity: 28
Room's Temperature and Humudity is Abnormal
Alarm ON
Temperature: 43
Humidity: 53
Room's Temperature and Humudity is Normal
Alarm OFF
Temperature: 32
Humidity: 20
Room's Temperature and Humudity is Abnormal
Alarm ON
Temperature: 26
Humidity: 71
Room's Temperature and Humudity is Abnormal
Alarm ON
Temperature: 20
Humidity: 55
```