

## Assignment -2

Assignment Date	20/09/2022
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Maximum Marks	2 Marks

### Question:

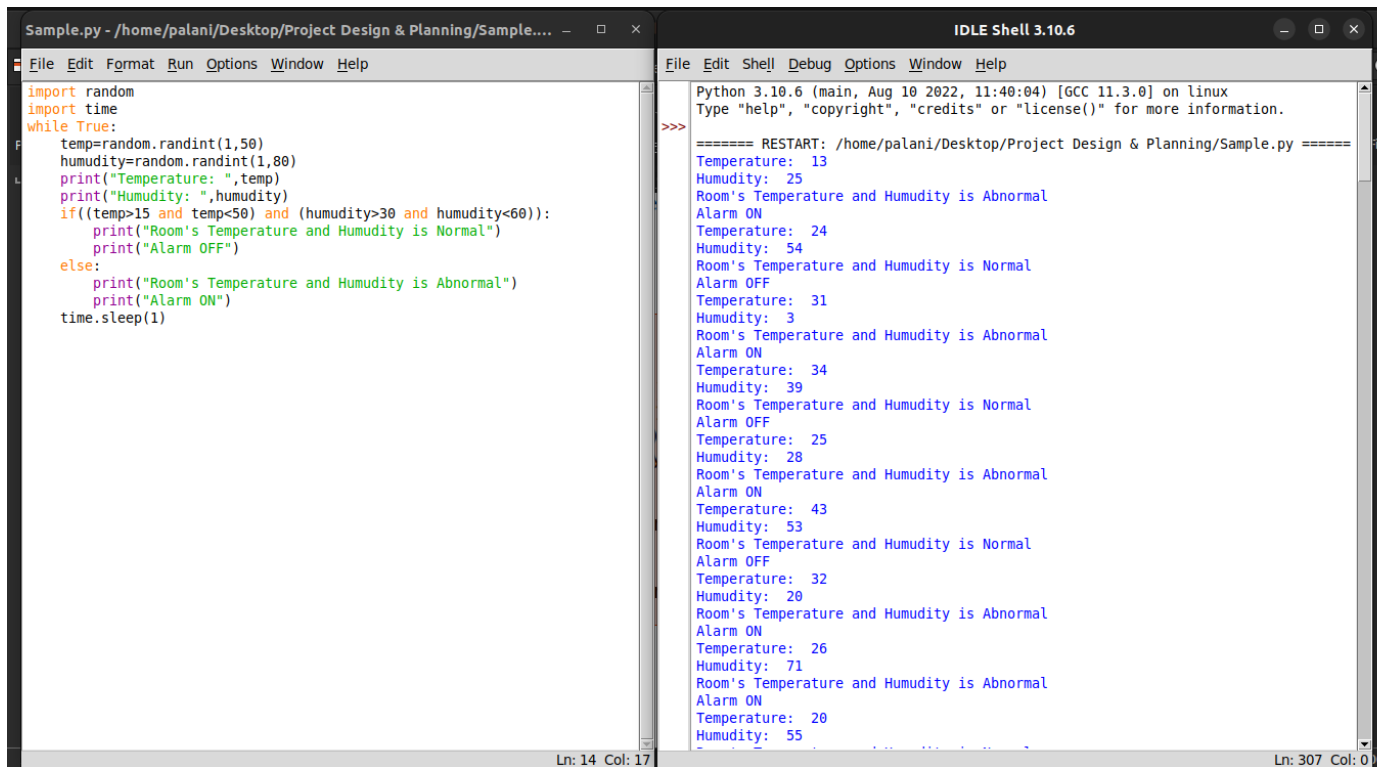
Build a python code, Assume u get temperature and humidity values (generated with random function to a variable) and write a condition to continuously detect alarm in case of high temperature.

### 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 script imports 'random' and 'time', and enters a 'while True' loop. Inside the loop, it generates random temperature and humidity values, prints them, and checks if they are within a normal range (15-50 for temperature, 30-60 for humidity). If normal, it prints 'Room's Temperature and Humudity is Normal' and 'Alarm OFF'. Otherwise, it prints 'Room's Temperature and Humudity is Abnormal' and 'Alarm ON', followed by a 1-second sleep. The right window, titled 'IDLE Shell 3.10.6', shows the output of the script. It starts with a Python version notice, followed by a restart command. The output then displays a series of temperature and humidity readings, alternating between 'Normal' and 'Abnormal' states with corresponding 'Alarm ON' or 'Alarm OFF' messages.

```
Sample.py - /home/palani/Desktop/Project Design & Planning/Sample...  
File Edit Format Run Options Window Help  
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)
```

```
IDLE Shell 3.10.6  
File Edit Shell Debug Options Window Help  
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  
Humudity: 25  
Room's Temperature and Humudity is Abnormal  
Alarm ON  
Temperature: 24  
Humudity: 54  
Room's Temperature and Humudity is Normal  
Alarm OFF  
Temperature: 31  
Humudity: 3  
Room's Temperature and Humudity is Abnormal  
Alarm ON  
Temperature: 34  
Humudity: 39  
Room's Temperature and Humudity is Normal  
Alarm OFF  
Temperature: 25  
Humudity: 28  
Room's Temperature and Humudity is Abnormal  
Alarm ON  
Temperature: 43  
Humudity: 53  
Room's Temperature and Humudity is Normal  
Alarm OFF  
Temperature: 32  
Humudity: 20  
Room's Temperature and Humudity is Abnormal  
Alarm ON  
Temperature: 26  
Humudity: 71  
Room's Temperature and Humudity is Abnormal  
Alarm ON  
Temperature: 20  
Humudity: 55
```

Ln: 14 Col: 17

Ln: 307 Col: 0