

Question:

Assignment 2:

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.

Program:

```
import random as r                                #importing random module as r for generating random values from 0 to 99
class Measurement:                                #created a Measurement class for reusability and cleanliness of code
    def __init__(self, temperature, humidity):    #Passed two methods temperature and humidity
        self.temperature = temperature
        self.humidity = humidity
while(True):                                     #while loop for continuous monitoring of temperature and humidity value
    random_temp_value = int(r.randint(0,99))     #Generating value from 0 to 99 for temperature
    random_hum_value = int(r.randint(0,99))      #Generating value from 0 to 99 for humidity
    class_init = Measurement(random_temp_value , random_hum_value) #calling class Measurement with two arguments
    if(class_init.temperature >= 40 or class_init.humidity >= 70): #Control flow
        print("Alarm is HIGH!!")                # Alarm is HIGH!! when both the condition are true
    else:
        print("Alarm is LOW")                   #Alarm is LOW when both the condition are false
```

Output:

```
main.py Run Shell Clear
1 import random as r                #importing random module as r for generating random
   values from 0 to 99
2
3 class Measurement:                #created a Measurement class for reusability and
   cleanliness of code
4     def __init__(self, temperature, humidity):    #Passed two methods temperature and humidity
5         self.temperature = temperature
6         self.humidity = humidity
7
8 while(True):                      #While loop for continuous monitoring of temperature
   and humidity value
9
10    random_temp_value = int(r.randint(0,99))      #Generating value from 0 to 99 for temperature
11    random_hum_value = int(r.randint(0,99))        #Generating value from 0 to 99 for humidity
12
13    class_init = Measurement(random_temp_value , random_hum_value) #calling class Measurement with two
   arguments
14
15
16 if(class_init.temperature >= 40 or class_init.humidity >= 70): #Control flow
17     print("Alarm is HIGH!!")                # Alarm is HIGH!! when both the
   condition are true
18 else:
19     print("Alarm is LOW")                    #Alarm is LOW when both the
   condition are false
```