

ASSIGNMENT 2

Team ID: PNT2022TMID52298

Project Name: **Gas Leakage monitoring & Alerting system for Industries**

Submitted by **ANUSHA K (963519106009)**

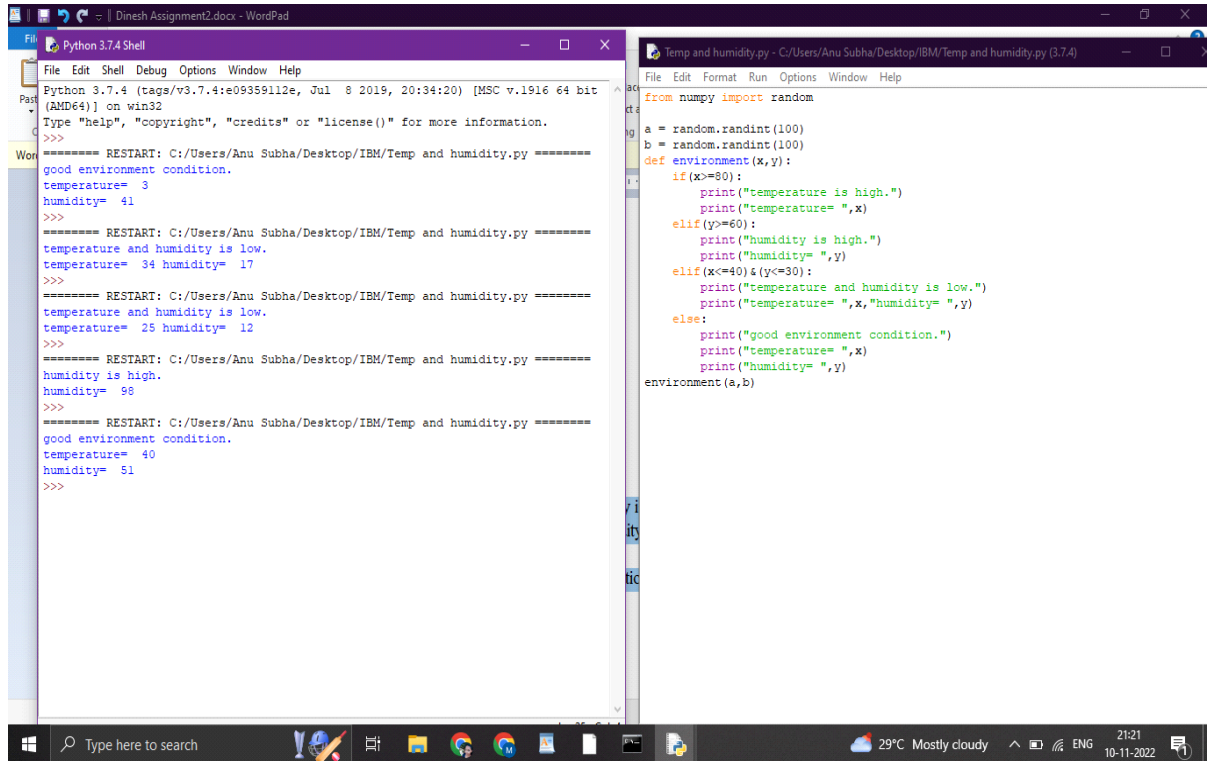
QUESTION: *Build a python code, Assume u get temperature and humidity values (generated with a random function to a variable) and write a condition to detect an alarm in case of high temperature continuously.*

Solution Code:

```
from numpy import random

a = random.randint(100)
b = random.randint(100)
def environment(x,y):
    if(x>=80):
        print("temperature is high.")
        print("temperature= ",x)
    elif(y>=60):
        print("humidity is high.")
        print("humidity= ",y)
    elif(x<=40)&(y<=30):
        print("temperature and humidity is low.")
        print("temperature= ",x,"humidity= ",y)
    else:
        print("good environment condition.")
        print("temperature= ",x)
        print("humidity= ",y)
environment(a,b)
```

OUTPUT:



The screenshot displays a Windows desktop environment. On the left, a 'Python 3.7.4 Shell' window is open, showing the execution of a script. The script generates random temperature and humidity values and checks for environmental conditions. The output shows several restarts of the script with varying results: 'good environment condition.', 'temperature and humidity is low.', and 'humidity is high.'. On the right, a text editor window titled 'Temp and humidity.py' shows the source code of the script. The code uses the 'random' module to generate values between 0 and 100 and implements conditional logic to print messages based on the generated values. The Windows taskbar at the bottom shows the system clock as 21:21 on 10-11-2022, along with weather and network status icons.

```
Python 3.7.4 Shell
File Edit Shell Debug Options Window Help
Python 3.7.4 (tags/v3.7.4:09359112e, Jul 8 2019, 20:34:20) [MSC v.1916 64 bit (AMD64)] on win32
Type "help", "copyright", "credits" or "license()" for more information.
>>>
===== RESTART: C:/Users/Anu Subha/Desktop/IBM/Temp and humidity.py =====
good environment condition.
temperature= 3
humidity= 41
>>>
===== RESTART: C:/Users/Anu Subha/Desktop/IBM/Temp and humidity.py =====
temperature and humidity is low.
temperature= 34 humidity= 17
>>>
===== RESTART: C:/Users/Anu Subha/Desktop/IBM/Temp and humidity.py =====
temperature and humidity is low.
temperature= 25 humidity= 12
>>>
===== RESTART: C:/Users/Anu Subha/Desktop/IBM/Temp and humidity.py =====
humidity is high.
humidity= 98
>>>
===== RESTART: C:/Users/Anu Subha/Desktop/IBM/Temp and humidity.py =====
good environment condition.
temperature= 40
humidity= 51
>>>

Temp and humidity.py - C:/Users/Anu Subha/Desktop/IBM/Temp and humidity.py (3.7.4)
File Edit Format Run Options Window Help
from numpy import random
a = random.randint(100)
b = random.randint(100)
def environment(x,y):
    if(x>=80):
        print("temperature is high.")
        print("temperature= ",x)
    elif(y>=60):
        print("humidity is high.")
        print("humidity= ",y)
    elif(x<=40 & (y<=30)):
        print("temperature and humidity is low.")
        print("temperature= ",x,"humidity= ",y)
    else:
        print("good environment condition.")
        print("temperature= ",x)
        print("humidity= ",y)
environment(a,b)
```