

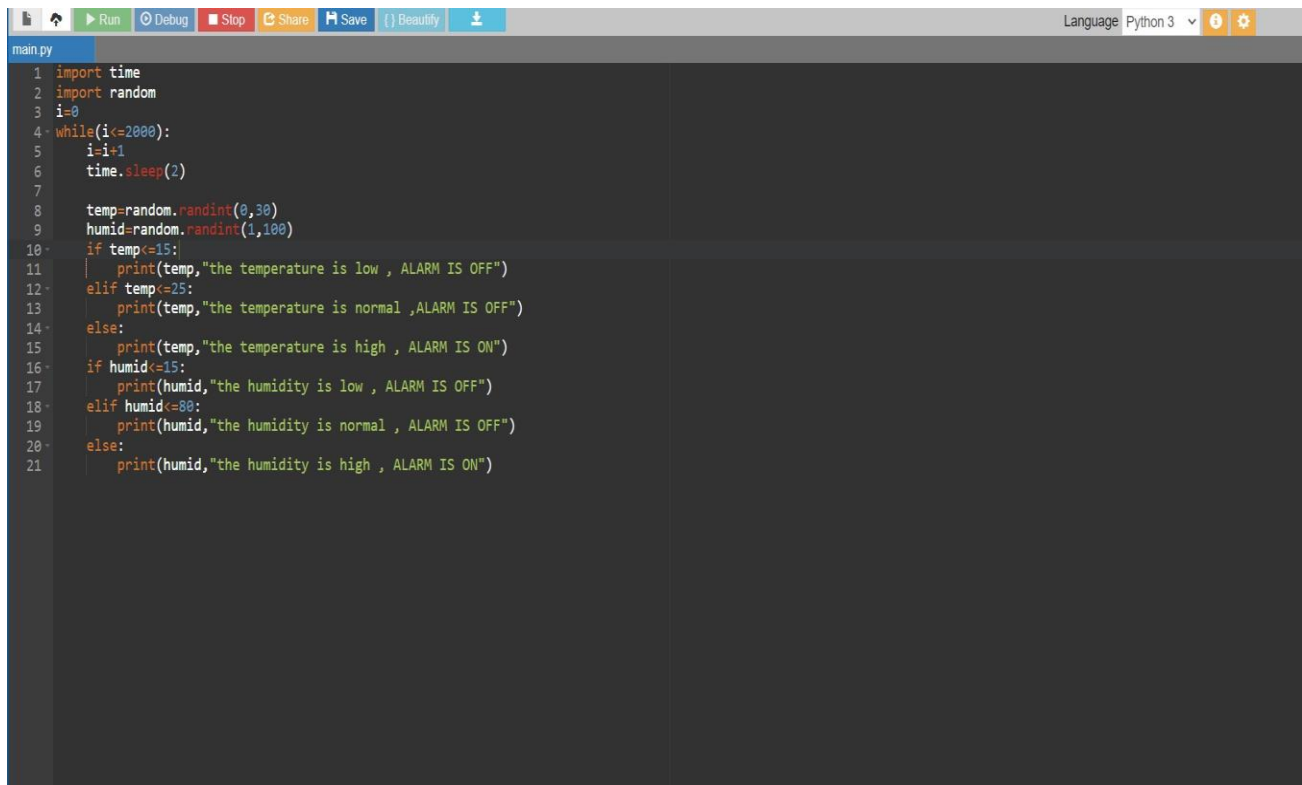
GAS LEAKAGE MONITORING AND ALERTING SYSTEM FOR INDUSTRIES

ASSIGNMENT-2

PROBLEM STATEMENT:

Build a python code, Assume you 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.

SOURCE CODE:

A screenshot of a Python IDE interface. The top toolbar includes icons for Run, Debug, Stop, Share, Save, and Beautify. The language is set to Python 3. The code is written in a dark-themed editor with line numbers 1 through 21. The code imports time and random modules, initializes a counter i to 0, and enters a while loop that runs 2000 times. Inside the loop, it generates random temperature and humidity values. It then uses if-elif-else statements to check for high temperature (alarm on) or low humidity (alarm on), and prints the status for each condition.

```
1 import time
2 import random
3 i=0
4 while(i<=2000):
5     i=i+1
6     time.sleep(2)
7
8     temp=random.randint(0,30)
9     humid=random.randint(1,100)
10    if temp<=15:
11        print(temp,"the temperature is low , ALARM IS OFF")
12    elif temp<=25:
13        print(temp,"the temperature is normal ,ALARM IS OFF")
14    else:
15        print(temp,"the temperature is high , ALARM IS ON")
16    if humid<=15:
17        print(humid,"the humidity is low , ALARM IS OFF")
18    elif humid<=80:
19        print(humid,"the humidity is normal , ALARM IS OFF")
20    else:
21        print(humid,"the humidity is high , ALARM IS ON")
```

OUTPUT:

S

```
input
2 the temperature is low , ALARM IS OFF
87 the humidity is high , ALARM IS ON
14 the temperature is low , ALARM IS OFF
88 the humidity is high , ALARM IS ON
5 the temperature is low , ALARM IS OFF
73 the humidity is normal , ALARM IS OFF
22 the temperature is normal ,ALARM IS OFF
54 the humidity is normal , ALARM IS OFF
2 the temperature is low , ALARM IS OFF
80 the humidity is normal , ALARM IS OFF
13 the temperature is low , ALARM IS OFF
69 the humidity is normal , ALARM IS OFF
30 the temperature is high , ALARM IS ON
68 the humidity is normal , ALARM IS OFF
4 the temperature is low , ALARM IS OFF
56 the humidity is normal , ALARM IS OFF
11 the temperature is low , ALARM IS OFF
78 the humidity is normal , ALARM IS OFF
3 the temperature is low , ALARM IS OFF
24 the humidity is normal , ALARM IS OFF
14 the temperature is low , ALARM IS OFF
14 the humidity is low , ALARM IS OFF
25 the temperature is normal ,ALARM IS OFF
22 the humidity is normal , ALARM IS OFF
26 the temperature is high , ALARM IS ON
5 the humidity is low , ALARM IS OFF
6 the temperature is low , ALARM IS OFF
28 the humidity is normal , ALARM IS OFF
6 the temperature is low , ALARM IS OFF
65 the humidity is normal , ALARM IS OFF
11 the temperature is low , ALARM IS OFF
44 the humidity is normal , ALARM IS OFF
8 the temperature is low , ALARM IS OFF
21 the humidity is normal , ALARM IS OFF
17 the temperature is normal ,ALARM IS OFF
12 the humidity is low , ALARM IS OFF
2 the temperature is low , ALARM IS OFF
3 the humidity is low , ALARM IS OFF
17 the temperature is normal ,ALARM IS OFF
```