

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.

Code:

```
#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
def temp_sensor(name):
    k=True
    print("PRESS ctrl+c SWITCH OFF THE ALARM ")
    while k==True:
        import random
        import time
        temperature=random.uniform(35,90)
        print (f"The current temperature is {temperature:.2f}°C")
        humidity=random.randint(30,100)
        print(f"Humidity is {humidity}%")
        if temperature>60:
            print(f"🚨🚨 BEEP!!!!BEEP!!!!BEEP!!!!🚨🚨\n The temperature has
exceeded to {temperature:.2f}°C \n press BREAK to stop the alarm")
            while temperature>60:
                k=str(input())
                k=k.upper()
                if k=="BREAK" :
                    break
                else:
                    print('''Uh-oh I guess you've used wrong word kindly type
"BREAK" to stop the alarm ''')
                    continue
            break

        if temperature>60:
            print("The alarm has been switched off successfully")
        else:
            print("The temperature is normal")
```

```

        time.sleep(7)
        k=True

name=str(input("ENTER YOUR USERNAME: "))
print("\tASSIGNMENT 2 - DETECTING ALARM IN CASE OF HIGH TEMPERATURE")
temp_sensor(name)

```

Output:

```

PS C:\Users\Faraaz Ahmed\OneDrive\Desktop\IBM> & "C:/Users/Faraaz Ahmed/AppData/Local/Programs/Python/Python310/python.exe" "c:/Users/Faraaz Ahmed/OneDrive/Desktop/IBM/ASSIGNMENT 2.py"
ENTER YOUR USERNAME: Faraaz Ahmed
        ASSIGNMENT 2 - DETECTING ALARM IN CASE OF HIGH TEMPERATURE
PRESS ctrl+c SWITCH OFF THE ALARM
The current temperature is 35.54°C
Humidity is 96%
The temperature is normal
The current temperature is 53.48°C
Humidity is 42%
The temperature is normal
The current temperature is 72.56°C
Humidity is 30%
🔊🔊 BEEP!!!!BEEP!!!!BEEP!!!!🔊🔊
The temperature has exceeded to 72.56°C
press BREAK to stop the alarm
break
The alarm has been switched off successfully
The current temperature is 49.74°C
Humidity is 73%
The temperature is normal
The current temperature is 60.28°C
Humidity is 31%
🔊🔊 BEEP!!!!BEEP!!!!BEEP!!!!🔊🔊
The temperature has exceeded to 60.28°C
press BREAK to stop the alarm
stop
Uh-oh I guess you've used wrong word kindly type "BREAK" to stop the alarm
break
The alarm has been switched off successfully
The current temperature is 49.07°C
Humidity is 49%
The temperature is normal
Traceback (most recent call last):
  File "c:\Users\Faraaz Ahmed\OneDrive\Desktop\IBM\ASSIGNMENT 2.py", line 33, in <module>
    temp_sensor(name)
  File "c:\Users\Faraaz Ahmed\OneDrive\Desktop\IBM\ASSIGNMENT 2.py", line 28, in temp_sensor
    time.sleep(7)
KeyboardInterrupt
PS C:\Users\Faraaz Ahmed\OneDrive\Desktop\IBM>

```