IBM ASSIGNMENT 2

To get Temperature and Humidity Values in Python Code

EMPATHY Mind Map



AIM:

To get temperature and humidity values with random function to a variable and write a condition to detect alarm in high temperature.

SOFTWARE USED:

Python Idle 3.10 (64-bit)

```
PROGRAM:
import random
import time
while True:
temp=random.randint(0,70)
humd=random.randint(10,60)
if temp > 50 and humd < 20:
print("Temperature=",temp,end=" ")
print("Humidity=",humd,"########ALARM ON######")
time.sleep(3)
else:
print("Temperature=",temp,end=" ")
print("Humidity=",humd)
time. Sleep(1)
```

OUTPUT:

temperature= 18 humidity= 61

temperature= 52 humidity= 61

temperature= 4 humidity= 63

temperature= 27 humidity= 38

temperature= 48 humidity= 59

temperature= 17 humidity= 48

temperature= 15 humidity= 46

temperature= 50 humidity= 29

ALARM ON

SIMULATION OUTPUT:

```
Temperature= 30 Humidity= 42
Temperature= 36 Humidity= 35
Temperature= 24 Humidity= 47
Temperature= 52 Humidity= 30
Temperature= 11 Humidity= 58
Temperature= 50 Humidity= 43
Temperature= 68 Humidity= 45
Temperature= 63 Humidity= 23
Temperature= 55 Humidity= 18 #########ALARM ON##########
Temperature= 45 Humidity= 46
Temperature= 54 Humidity= 59
Temperature= 28 Humidity= 29
Temperature= 42 Humidity= 55
Temperature= 6 Humidity= 28
Temperature= 6 Humidity= 48
Temperature= 63 Humidity= 20
Temperature= 32 Humidity= 53
Temperature= 30 Humidity= 44
Temperature= 22 Humidity= 32
```

CONDITIONS TO DETECT ALARM IN HIGH TEMPERATURE:

- 1. Check if the temperature is greater than 40 degrees then inform the fire brigade
- 2. Check if the temperate is greater than 50 degrees then sound the alarm
- 3. Else keep the alarm off.

RESULT:

I have successfully coded for temperature and humidity values with random function to a variable and write a condition to detect alarm in high temperature.