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ASSIGNMENT-2

PYTHON PROGRAMMING

QUESTION:

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

SOLUTION

```
import random
import time
threshold1=int(input("Enter the threshold value for temperature:"))
threshold2=int(input("Enter the threshold value for humidity:"))

while(1):
    temp=random.uniform(0,50)
    humidity=random.uniform(0,100)
```

```python
    print("temperature is : {0:.2f}".format(temp))

    print("humidity is : {0:.2f} %".format(humidity))

    time.sleep(1)

    if temp>=threshold1 and humidity>=threshold2:

        print("\nHIGH ALERT\nHumidity alarm and Temperature alarm are ON \n")

        time.sleep(2)

    elif(temp<threshold1 and humidity>=threshold2):

        print("\nHumidity alarm is ON and Temperature alarm is OFF \n")

        time.sleep(2)

    elif (temp>=threshold1 and humidity<threshold2):

        print("\nHumidity alarm is OFF and Temperature alarm is ON \n")

        time.sleep(2)

    else:

        print("\nBoth alarms are OFF \n")

        time.sleep(2)
```

```
Python 3.10.7 (tags/v3.10.7:6cc6b13, Sep  5 2022, 14:08:36) [MSC v.1933 64 bit (AMD64)] on win32
Type "help", "copyright", "credits" or "license()" for more information.
>>>
=========== RESTART: C:/Users/JANANI/Desktop/deshaw/assignmentibm2.py ==========
Enter the threshold value for temperature:25
Enter the threshold value for humidity:50
temperature is : 12.52
humidity is : 79.35 %

Humidity alarm is ON and Temperature alarm is OFF

temperature is : 44.01
humidity is : 35.40 %

Humidity alarm is OFF and Temperature alarm is ON

temperature is : 18.57
humidity is : 60.53 %

Humidity alarm is ON and Temperature alarm is OFF

temperature is : 40.06
humidity is : 6.90 %

Humidity alarm is OFF and Temperature alarm is ON

temperature is : 2.13
humidity is : 91.02 %

Humidity alarm is ON and Temperature alarm is OFF

temperature is : 12.25
humidity is : 14.65 %

Both alarms are OFF

temperature is : 37.64
humidity is : 41.93 %

Humidity alarm is OFF and Temperature alarm is ON
```