ASSIGNMENT 2

Program:

```python
#assignment 2
'''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'''

a = int(input("enter temperature : "))
b = int(input("enter humidity : "))

#max function
def max(a,b):
    max_temp = 100;
    max_humid = 80;
    max_temp_threshold = 90;
    max_humid_threshold = 70;
    #temp
    if(a>max_temp):
        print("High temperature")
    elif(a==max_temp_threshold):
        print("temperature at max threshold")
    else:
        print("Temp: All good")


    #humid
    if(b>max_humid):
        print("Hazard detected,high humid")
    elif(b==max_humid_threshold):
        print("humidity at max threshold")
    else:
        print("Humidity: All good")

#min function
def min(a,b):
    min_temp = 50;
    min_humid = 30;
    min_temp_threshold = 55;
    min_humid_threshold = 35;
```

```python
    #temp
    if(a<min_temp):
        print("Low temperature")
    elif(a==min_temp_threshold):
        print("temperature at min threshold")
    else:
        print("Temp: All good")

    #humid
    if(b<min_humid):
        print("Low humidity")
    elif(b==min_humid_threshold):
        print("humidity at min threshold")
    else:
        print("Humidity: All good")


for i in range(0,9):
    print("Temperature: ",a,"and Humidity:",b)
    print("\n")
    print("Checking maximum value: ")
    max(a,b)
    print("Checking mininum value: ")
    min(a,b)
    print("\n")
    print("\n")

    a += 40
    b += 50
```

Output:

enter temperature : 90
enter humidity : 70
Temperature: 90 and Humidity: 70

Checking maximum value:
temperature at max threshold
humidity at max threshold
Checking mininum value:
Temp: All good
Humidity: All good

Temperature: 130 and Humidity: 120

Checking maximum value:
High temperature
Hazard detected,high humid
Checking mininum value:
Temp: All good
Humidity: All good

Temperature: 170 and Humidity: 170

Checking maximum value:
High temperature
Hazard detected,high humid
Checking mininum value:
Temp: All good
Humidity: All good

Temperature: 210 and Humidity: 220

Checking maximum value:
High temperature
Hazard detected,high humid
Checking mininum value:
Temp: All good
Humidity: All good

Temperature: 250 and Humidity: 270

Checking maximum value:
High temperature
Hazard detected,high humid
Checking mininum value:
Temp: All good
Humidity: All good

Temperature: 290 and Humidity: 320

Checking maximum value:
High temperature
Hazard detected,high humid
Checking mininum value:
Temp: All good
Humidity: All good

Temperature: 330 and Humidity: 370

Checking maximum value:
High temperature
Hazard detected,high humid
Checking mininum value:
Temp: All good
Humidity: All good

Temperature: 370 and Humidity: 420

Checking maximum value:
High temperature
Hazard detected,high humid
Checking mininum value:
Temp: All good
Humidity: All good

Temperature: 410 and Humidity: 470

Checking maximum value:
High temperature
Hazard detected,high humid
Checking mininum value:
Temp: All good
Humidity: All good

```python
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    max_humid_threshold = 70;
    #temp
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    elif(a==max_temp_threshold):
        print("temperature at max threshold")
    else:
        print("Temp: All good")

    #humid
    if(b>max_humid):
        print("Hazard detected,high humid")
    elif(b==max_humid_threshold):
        print("humidity at max threshold")
    else:
        print("Humidity: All good")

#min function
def min(a,b):
    min_temp = 50;
    min_humid = 30;
    min_temp_threshold = 55;
    min_humid_threshold = 35;
    #temp
    if(a<min_temp):
        print("Low temperature")
    elif(a==min_temp_threshold):
        print("temperature at min threshold")
    else:
        print("Temp: All good")

    #humid
    if(b<min_humid):
        print("Low humidity")
    elif(b==min_humid_threshold):
        print("humidity at min threshold")
    else:
```

```
>>> 
========= RESTART: C:/Users/91780/AppData/Local/Programs/Python/Python39/ass2.py ==========
enter temperature : 90
enter humidity : 70
Temperature: 90 and Humidity: 70

Checking maximum value:
temperature at max threshold
humidity at max threshold
Checking minimum value:
Temp: All good
Humidity: All good


Temperature: 130 and Humidity: 120

Checking maximum value:
High temperature
Hazard detected,high humid
Checking minimum value:
Temp: All good
Humidity: All good


Temperature: 170 and Humidity: 170

Checking maximum value:
High temperature
Hazard detected,high humid
Checking minimum value:
Temp: All good
Humidity: All good


Temperature: 210 and Humidity: 220
```