

Assignment -2

Python Programming

Assignment Date	26 September 2022
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Maximum Marks	2 Marks

Question:

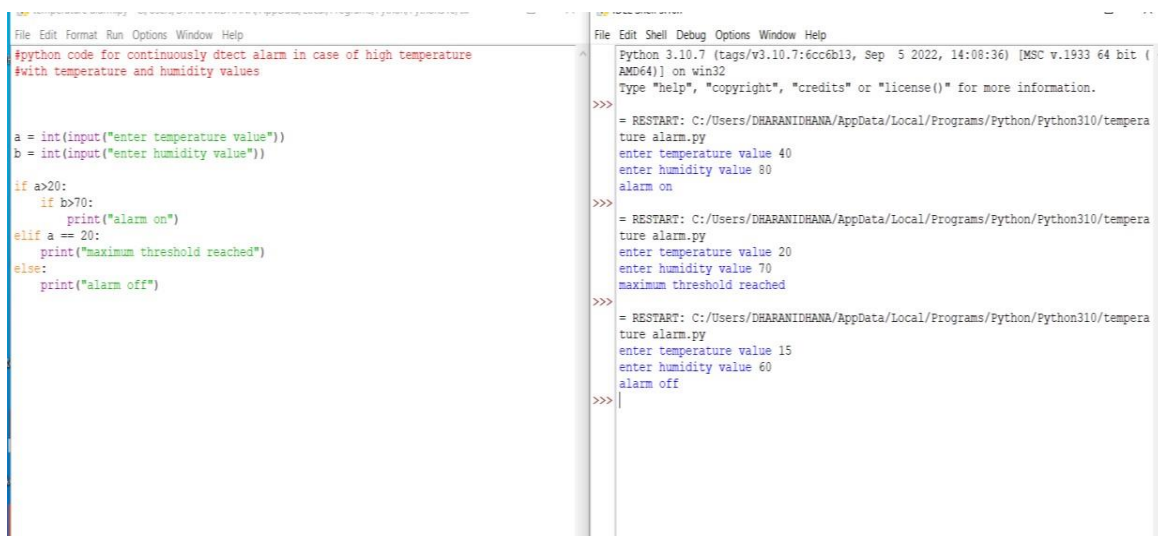
Build a python code, assume you get temperature and humidity values (generated with random function to a variable) and write a condition to continuously detect alarm in case of high temperature.

Solution:

```
a = int(input("enter temperature value"))
b = int(input("enter humidity value"))

if a>20:
    if b>70:
        print("alarm on")
elif a == 20:
    print("maximum threshold reached")
else:
    print("alarm off")
```

Output:



The image displays two side-by-side screenshots of a Python IDE. The left screenshot shows the source code for a temperature and humidity alarm system. The code prompts the user to enter temperature and humidity values, then uses conditional logic to print 'alarm on' if both values are high, 'maximum threshold reached' if the temperature is at a threshold, or 'alarm off' otherwise. The right screenshot shows the execution of this code. It displays the command prompt interface where the user enters values (40 for temperature, 80 for humidity), and the program outputs 'alarm on'. Subsequent runs show the program correctly identifying when the temperature reaches the threshold (20) or when the alarm should be turned off (e.g., temperature 15, humidity 60).

```
File Edit Format Run Options Window Help
#python code for continuously detect alarm in case of high temperature
#with temperature and humidity values

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

if a>20:
    if b>70:
        print("alarm on")
elif a == 20:
    print("maximum threshold reached")
else:
    print("alarm off")

File Edit Shell Debug Options Window Help
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/DHARANIDHANA/AppData/Local/Programs/Python/Python310/tempera
ture alarm.py
enter temperature value 40
enter humidity value 80
alarm on
>>>
= RESTART: C:/Users/DHARANIDHANA/AppData/Local/Programs/Python/Python310/tempera
ture alarm.py
enter temperature value 20
enter humidity value 70
maximum threshold reached
>>>
= RESTART: C:/Users/DHARANIDHANA/AppData/Local/Programs/Python/Python310/tempera
ture alarm.py
enter temperature value 15
enter humidity value 60
alarm off
>>>
```