

IBM-NALAYATHIRAN

ASSIGNMENT- 2

Assignment Date	29 September 2022
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Maximum Marks	2 Marks

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.

PROGRAM:

```
import random

i=5 while(True):

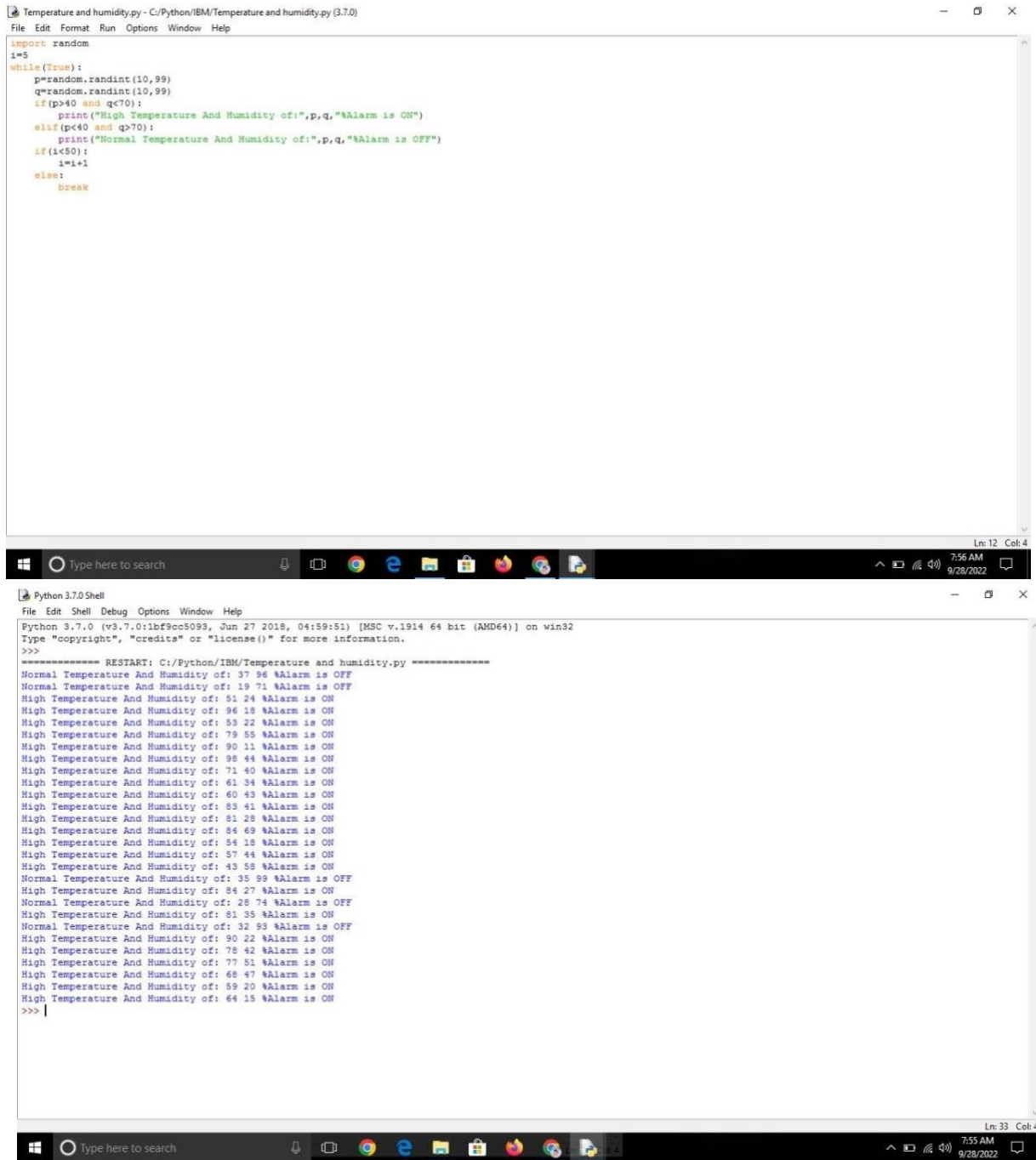
    p=random.randint(10,99)
    q=random.randint(10,99)    if(p>40
and q<70):

        print("High Temperature And Humidity of:",p,q,"%Alarm is ON")
    elif(p<40 and q>70):

        print("Normal Temperature And Humidity of:",p,q,"%Alarm is OFF")
    if(i<50):    i=i+1    else:

        break
```

OUTPUT:



The image shows a Windows desktop with two application windows. The top window is a text editor titled "Temperature and humidity.py - C:/Python/IBM/Temperature and humidity.py (3.7.0)". It contains a Python script that uses the random module to generate temperature (p) and humidity (q) values between 10 and 99. A while loop runs indefinitely, printing the values and the alarm status. The alarm is ON if both p > 40 and q < 70, and OFF otherwise. A counter i increments each iteration until it reaches 50, at which point the loop breaks.

```
import random
i=5
while(True):
    p=random.randint(10,99)
    q=random.randint(10,99)
    if(p>40 and q<70):
        print("High Temperature And Humidity of:",p,q,"Alarm is ON")
    elif(p<40 and q>70):
        print("Normal Temperature And Humidity of:",p,q,"Alarm is OFF")
    if(i<50):
        i=i+1
    else:
        break
```

The bottom window is a "Python 3.7.0 Shell" showing the execution of the script. It displays the output of the script, which consists of multiple lines of "Normal Temperature And Humidity of: [p] [q] Alarm is [status]" and "High Temperature And Humidity of: [p] [q] Alarm is [status]". The output shows a mix of "ON" and "OFF" alarm states, corresponding to the conditions in the script. The shell window also shows the standard Python startup messages and the file path of the script.

```
Python 3.7.0 Shell
File Edit Shell Debug Options Window Help
Python 3.7.0 (v3.7.0:1bf9cc5093, Jun 27 2018, 04:59:51) [MSC v.1914 64 bit (AMD64)] on win32
Type "copyright", "credits" or "license()" for more information.
>>>
===== RESTART: C:/Python/IBM/Temperature and humidity.py =====
Normal Temperature And Humidity of: 37 96 Alarm is OFF
Normal Temperature And Humidity of: 19 71 Alarm is OFF
High Temperature And Humidity of: 51 24 Alarm is ON
High Temperature And Humidity of: 96 18 Alarm is ON
High Temperature And Humidity of: 53 22 Alarm is ON
High Temperature And Humidity of: 79 55 Alarm is ON
High Temperature And Humidity of: 90 11 Alarm is ON
High Temperature And Humidity of: 98 44 Alarm is ON
High Temperature And Humidity of: 71 40 Alarm is ON
High Temperature And Humidity of: 61 34 Alarm is ON
High Temperature And Humidity of: 60 43 Alarm is ON
High Temperature And Humidity of: 83 41 Alarm is ON
High Temperature And Humidity of: 81 28 Alarm is ON
High Temperature And Humidity of: 84 69 Alarm is ON
High Temperature And Humidity of: 54 18 Alarm is ON
High Temperature And Humidity of: 57 44 Alarm is ON
High Temperature And Humidity of: 43 58 Alarm is ON
Normal Temperature And Humidity of: 35 99 Alarm is OFF
High Temperature And Humidity of: 84 27 Alarm is ON
Normal Temperature And Humidity of: 28 74 Alarm is OFF
High Temperature And Humidity of: 81 35 Alarm is ON
Normal Temperature And Humidity of: 32 93 Alarm is OFF
High Temperature And Humidity of: 90 22 Alarm is ON
High Temperature And Humidity of: 78 42 Alarm is ON
High Temperature And Humidity of: 77 51 Alarm is ON
High Temperature And Humidity of: 68 47 Alarm is ON
High Temperature And Humidity of: 59 20 Alarm is ON
High Temperature And Humidity of: 64 15 Alarm is ON
>>>
```