

## ASSIGNMENT – 2

### PYTHON PROGRAMMING

Assignment Date	30 September 2022
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Student Roll Number	410819106001
Maximum Marks	2 Marks

#### Question-1:

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 :

```
from grovepi import *
from grove_rgb_lcd import *
from time import sleep
from math import isnan
import grovepi
buzzer = 6

dht_sensor_port = 7 # connect the DHT sensor to port 7
dht_sensor_type = 0 # use 0 for the blue-coloured sensor and 1 for the white-coloured sensor
setRGB(0,255,0)

while True:
    try:
        [temp,hum] = dht(dht_sensor_port,dht_sensor_type)
        print("temp=",temp,"C\thumidity=",hum,"%")

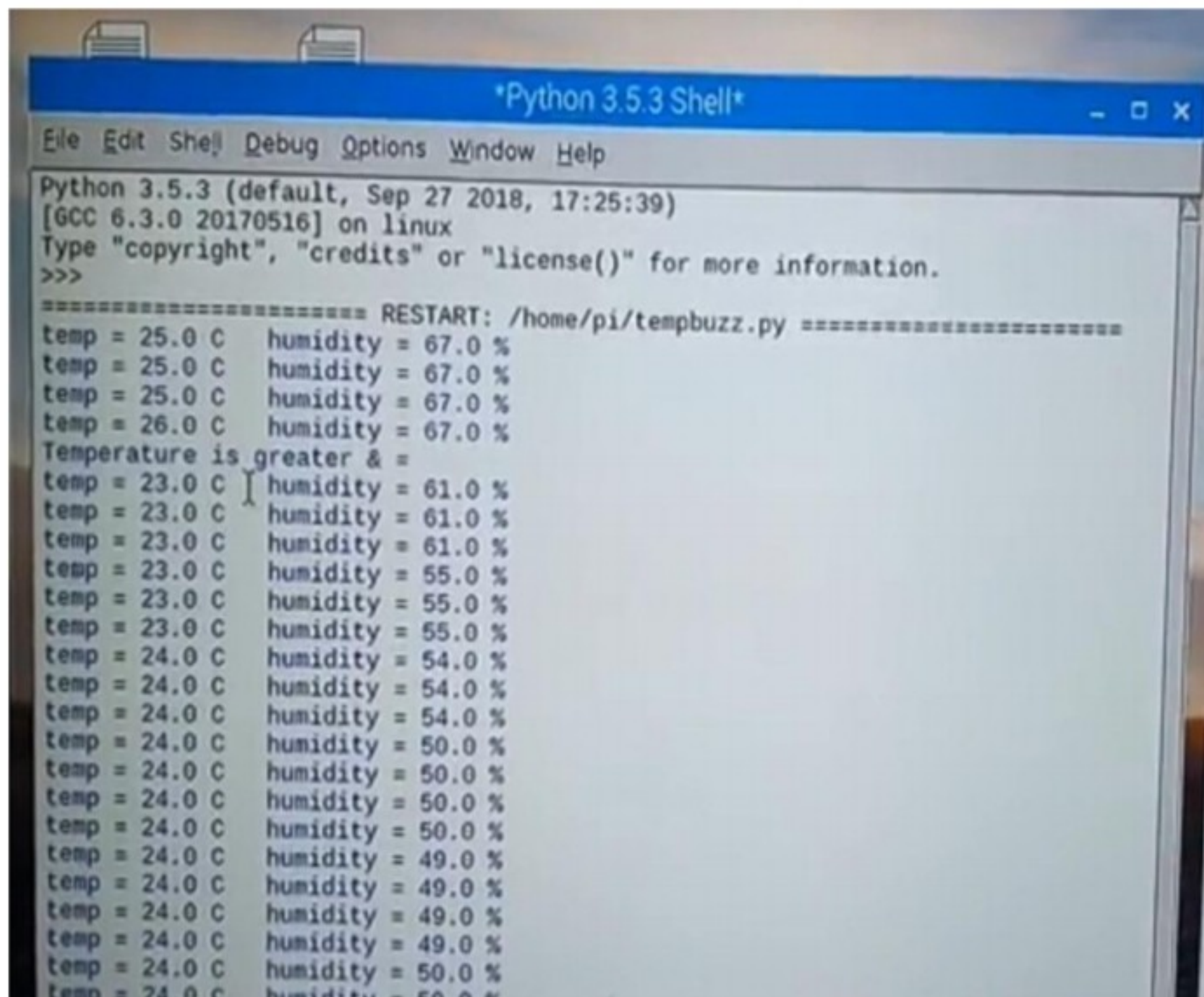
        if isnan(temp)is True or isnan(hum) is True:
            raise TypeError('nan error')

        t = str(temp)
        h = str(hum)

        setText_norefresh("Temp:" + t + "C\n" + "Humidity:" + h + "%")
        if temp >= 26:
            grovepi.digitalwrite(buzzer,1)
            print("Temperature is greater & =");
            time.sleep(1)
        else:
            grovepi.digitalWrite(buzzer,0)

    except (IOError, TypeError) as e:
        print(str(e))
        setText("")
    except KeyboardInterrupt as e:
        grovepi.digitalWrite(buzzer,0)
        print(str(e))
```

## Output:



```
Python 3.5.3 Shell*
File Edit Shell Debug Options Window Help
Python 3.5.3 (default, Sep 27 2018, 17:25:39)
[GCC 6.3.0 20170516] on linux
Type "copyright", "credits" or "license()" for more information.
>>>
===== RESTART: /home/pi/tempbuzz.py =====
temp = 25.0 C    humidity = 67.0 %
temp = 25.0 C    humidity = 67.0 %
temp = 25.0 C    humidity = 67.0 %
temp = 26.0 C    humidity = 67.0 %
Temperature is greater & =
temp = 23.0 C    humidity = 61.0 %
temp = 23.0 C    humidity = 61.0 %
temp = 23.0 C    humidity = 61.0 %
temp = 23.0 C    humidity = 55.0 %
temp = 23.0 C    humidity = 55.0 %
temp = 23.0 C    humidity = 55.0 %
temp = 24.0 C    humidity = 54.0 %
temp = 24.0 C    humidity = 54.0 %
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temp = 24.0 C    humidity = 49.0 %
temp = 24.0 C    humidity = 49.0 %
temp = 24.0 C    humidity = 50.0 %
temp = 24.0 C    humidity = 50.0 %
```