

ASSIGNMENT 2

P RAMESH
PNT2022TMID01111

AIM:

Build a Python code ,Assume you get temperature and humidity values and write a condition to continuously detect the alarm in case of high temperature.

SOFTWARE REQUIRED:

Python – 3.7.0

PYTHON CODE:

```
import random

from time import sleep

from tkinter import messagebox

a=1

while(a==1):

    temp=random.randrange(0,100)

    if(temp < 50):

        humidity=random.randrange(21,50)

    else:

        humidity=random.randrange(0,20)
```

```
print("room temperature {} degree celsius".format(temp))
```

```
print(" room humidity {}".format(humidity))
```

```
if(temp>90 and humidity<50):
```

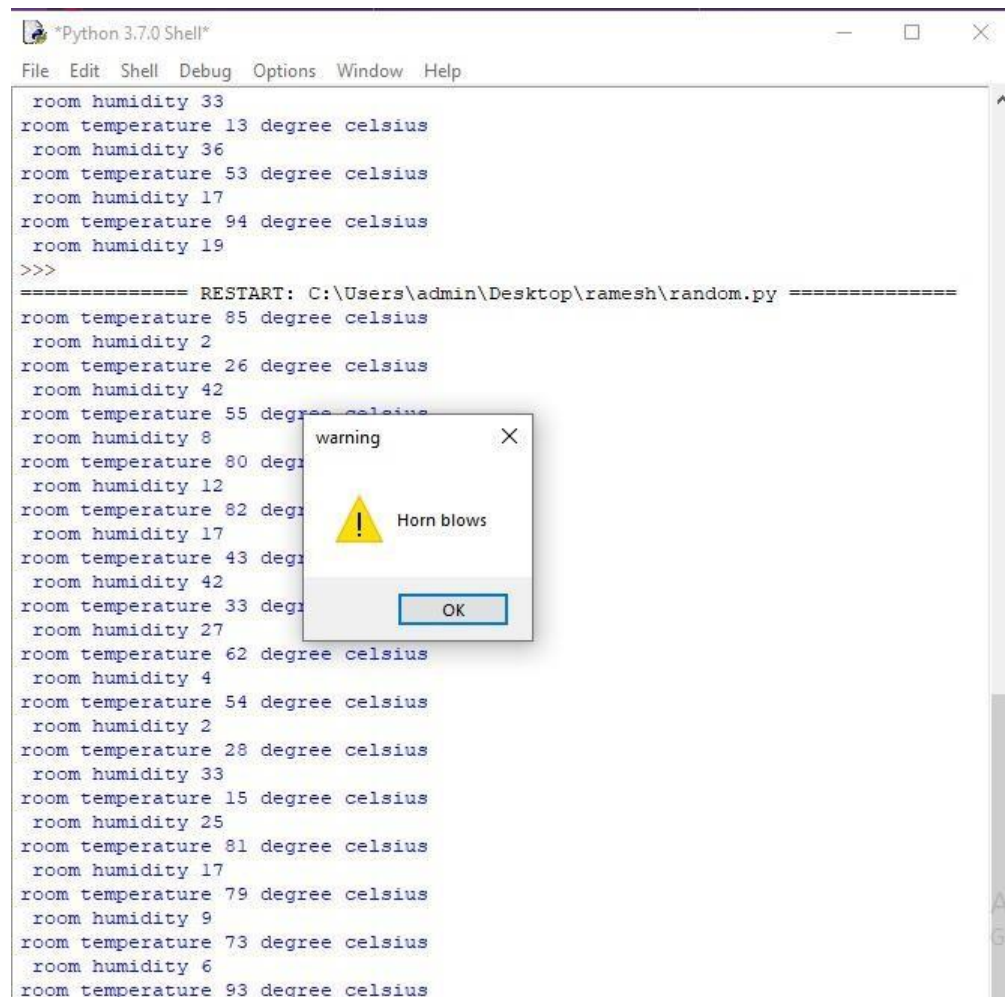
```
    messagebox.showwarning("warning","Horn blows")
```

```
    break
```

```
a=1
```

```
sleep(1)
```

STIMULATION OUTPUT:



```
*Python 3.7.0 Shell*
File Edit Shell Debug Options Window Help

room humidity 33
room temperature 13 degree celsius
room humidity 36
room temperature 53 degree celsius
room humidity 17
room temperature 94 degree celsius
room humidity 19
>>>
===== RESTART: C:\Users\admin\Desktop\ramesh\random.py =====
room temperature 85 degree celsius
room humidity 2
room temperature 26 degree celsius
room humidity 42
room temperature 55 degree celsius
room humidity 8
room temperature 80 degree celsius
room humidity 12
room temperature 82 degree celsius
room humidity 17
room temperature 43 degree celsius
room humidity 42
room temperature 33 degree celsius
room humidity 27
room temperature 62 degree celsius
room humidity 4
room temperature 54 degree celsius
room humidity 2
room temperature 28 degree celsius
room humidity 33
room temperature 15 degree celsius
room humidity 25
room temperature 81 degree celsius
room humidity 17
room temperature 79 degree celsius
room humidity 9
room temperature 73 degree celsius
room humidity 6
room temperature 93 degree celsius
```

REFERENCE LINK:

We have referred this below links and python program for pop out dialogue box and random numbers.

- https://www.tutorialspoint.com/python/tk_messagebox.htm#:~:text=The%20tkMessageBox%20module%20is%20used,askokcancel%2C%20askyesno%2C%20and%20askretryignore
- <https://www.javatpoint.com/python-tkinter-messagebox>
- <https://www.geeksforgeeks.org/random-numbers-in-python/>

RESULT:

The python code has been successfully executed and due to high temperature the alarm is turned ON.