

## ASSIGNMENT 2

ASSIGNMENT DATE	22-SEP-2022
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MAXIMUM MARK	2MARK

### Question:

Build a Python code, Assume u get temperature and humidity values (generated with a random function to a variable) and write a condition detect alarm in case of high temperature.

### **Solution:**

#### **CODE:**

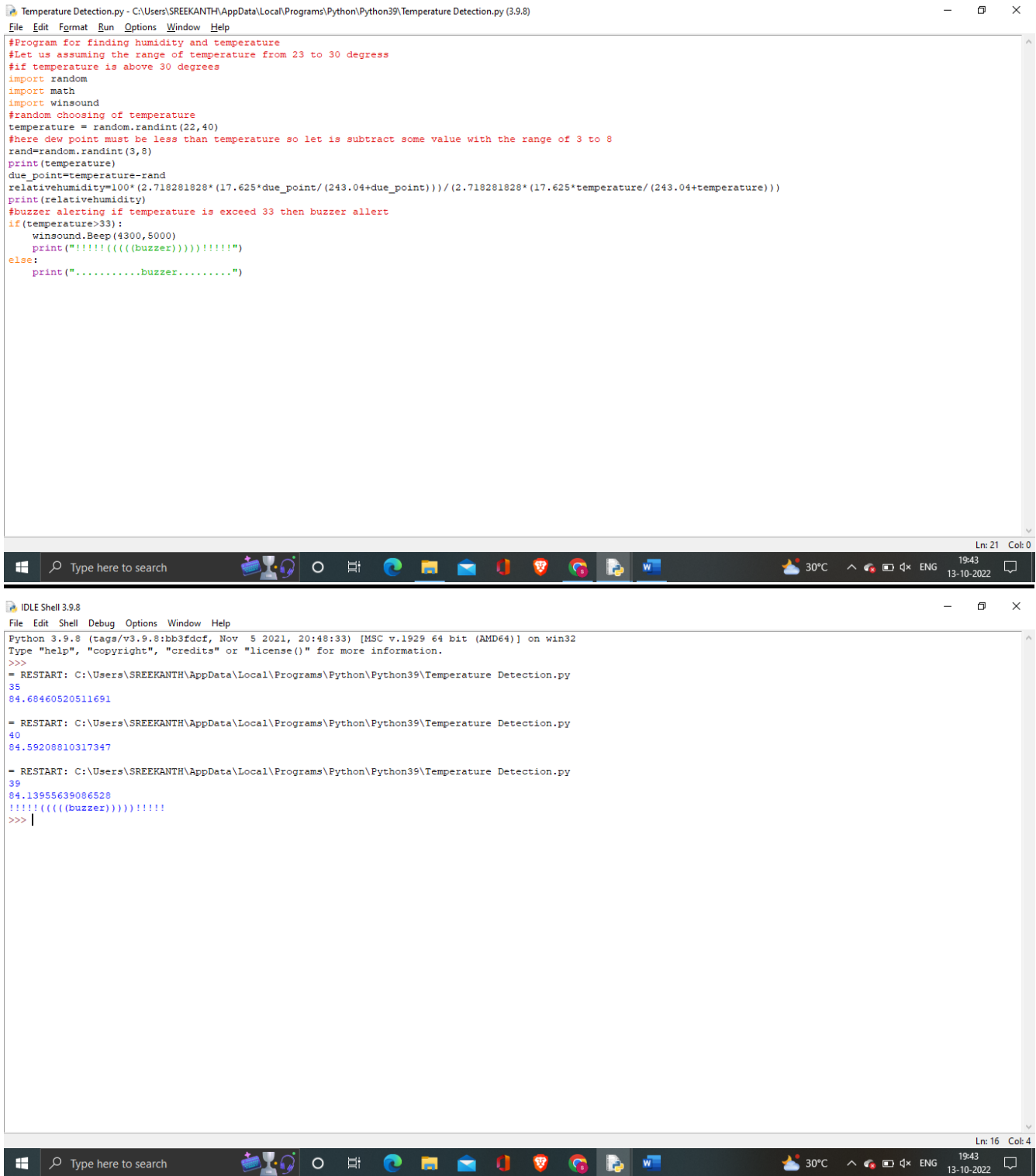
```
#Program for finding humidity and temperature
#Let us assuming the range of temperature from 23 to 30 degrees
#if temperature is above 30 degrees
import random
import math
import winsound
#random choosing of temperature
temperature = random.randint(22,40)
#here dew point must be less than temperature so let is subtract some value with
the range of 3 to 8
rand=random.randint(3,8)
print(temperature)
due_point=temperature-rand
relativehumidity=100*(2.718281828*(17.625*due_point/(243.04+due_point)))/(2.7
18281828*(17.625*temperature/(243.04+temperature)))
print(relativehumidity)
#buzzer alerting if temperature is exceed 33 then buzzer allert
if(temperature>33):
    winsound.Beep(4300,5000)
```

```
print("!!!!((((buzzer))))!!!!")
```

else:

```
print(".....buzzer.....")
```

## OUTPUT:



The image shows a Windows desktop with two application windows. The top window is a text editor titled 'Temperature Detection.py - C:\Users\SREEKANTH\AppData\Local\Programs\Python\Python39\Temperature Detection.py (3.9.8)'. It contains a Python script that generates random temperature and dew point values, calculates relative humidity, and prints them. If the temperature is above 30 degrees, it triggers a buzzer alert by printing a string of exclamation marks and the word 'buzzer' in parentheses. The bottom window is the 'IDLE Shell 3.9.8' terminal, showing the execution of the script. It displays three restarts of the program, each showing the calculated temperature, dew point, and relative humidity. The third restart shows the buzzer alert being triggered because the temperature (39.06528) is greater than 30.

```
Temperature Detection.py - C:\Users\SREEKANTH\AppData\Local\Programs\Python\Python39\Temperature Detection.py (3.9.8)
File Edit Format Run Options Window Help
#Program for finding humidity and temperature
#Let us assuming the range of temperature from 23 to 30 degrees
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#random choosing of temperature
temperature = random.randint(22,40)
#here dew point must be less than temperature so let is subtract some value with the range of 3 to 8
rand=random.randint(3,8)
print(temperature)
dew_point=temperature-rand
relativehumidity=100*(2.718281828*(17.625*dew_point/(243.04+dew_point)))/(2.718281828*(17.625*temperature/(243.04+temperature)))
print(relativehumidity)
#buzzer alerting if temperature is exceed 33 then buzzer allert
if(temperature>33):
    winsound.Beep(4300,5000)
    print("!!!!((((buzzer))))!!!!")
else:
    print(".....buzzer.....")

IDLE Shell 3.9.8
File Edit Shell Debug Options Window Help
Python 3.9.8 (tags/v3.9.8:bb3fdof, Nov 5 2021, 20:48:33) [MSC v.1929 64 bit (AMD64)] on win32
Type "help", "copyright", "credits" or "license()" for more information.
>>>
= RESTART: C:\Users\SREEKANTH\AppData\Local\Programs\Python\Python39\Temperature Detection.py
35
84.68460520511691

= RESTART: C:\Users\SREEKANTH\AppData\Local\Programs\Python\Python39\Temperature Detection.py
40
84.59208810317347

= RESTART: C:\Users\SREEKANTH\AppData\Local\Programs\Python\Python39\Temperature Detection.py
39
84.13955639086528
!!!!((((buzzer))))!!!!
>>>
```

