

## **ASSIGNMENT-2**

**NAME:** NETHRAA T

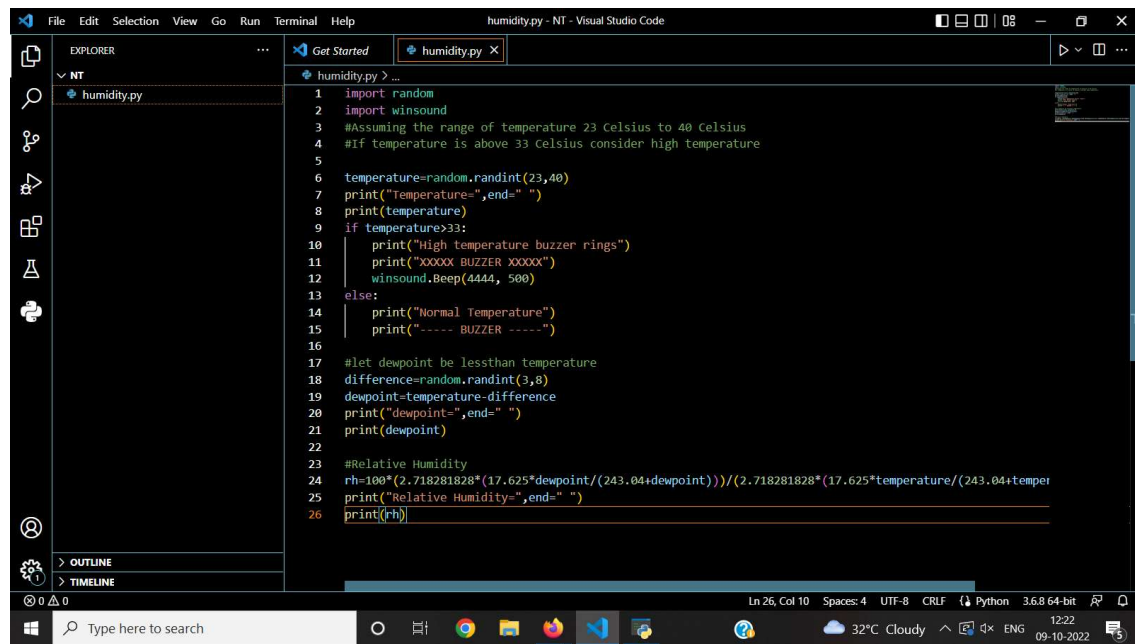
**REGISTER NUMBER:** 111519106104

**TEAM ID:** PNT2022TMID15088

**MAXIMUM MARKS:** 2 Marks

**QUESTION:** Build a python code by assuming temperature and humidity values using random function. And write a condition to continuously buzz an alarm in case of high temperature.

## PROGRAM:

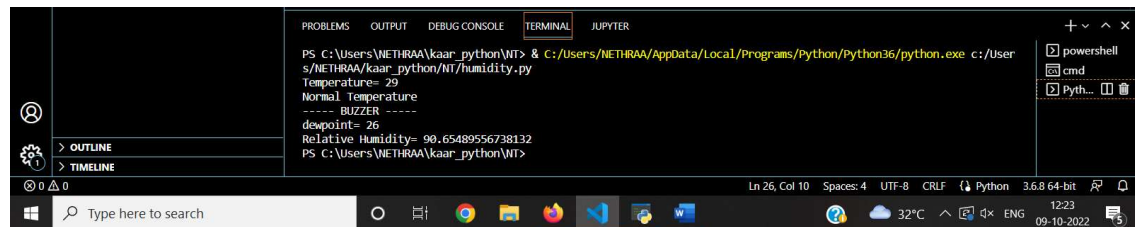


The screenshot shows the Visual Studio Code editor with a file named `humidity.py` open. The code is a Python script that generates random temperature and dewpoint values, checks if the temperature is high, and calculates relative humidity. The script uses the `random` and `winsound` modules. The output of the script is displayed in the terminal window at the bottom.

```
1 import random
2 import winsound
3 #Assuming the range of temperature 23 Celsius to 40 Celsius
4 #If temperature is above 33 Celsius consider high temperature
5
6 temperature=random.randint(23,40)
7 print("Temperature=",end=" ")
8 print(temperature)
9 if temperature>33:
10     print("High temperature buzzer rings")
11     print("XXXXX BUZZER XXXXX")
12     winsound.Beep(4444, 500)
13 else:
14     print("Normal Temperature")
15     print("----- BUZZER -----")
16
17 #let dewpoint be less than temperature
18 difference=random.randint(3,8)
19 dewpoint=temperature-difference
20 print("dewpoint=",end=" ")
21 print(dewpoint)
22
23 #Relative Humidity
24 rh=100*(2.718281828*(17.625*dewpoint/(243.04+dewpoint)))/(2.718281828*(17.625*temperature/(243.04+temper
25 print("Relative Humidity=",end=" ")
26 print(rh)
```

## OUTPUT:

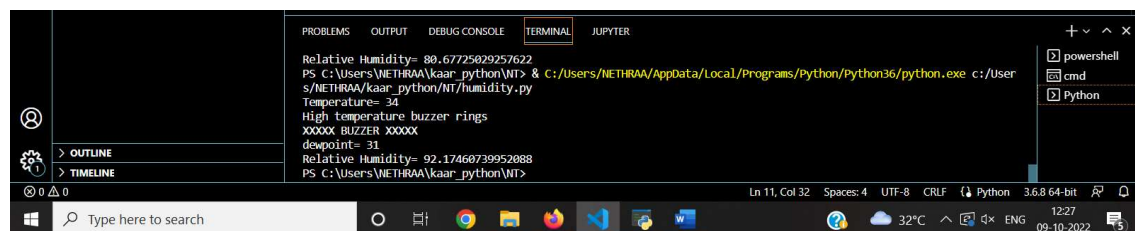
### Case(i): Normal Temperature



The screenshot shows the terminal window with the output of the `humidity.py` script for a normal temperature. The output is as follows:

```
PS C:\Users\NETHRAA\kaar_python\NT> & c:/Users/NETHRAA/AppData/Local/Programs/Python/Python36/python.exe c:/User
s/NETHRAA/kaar_python/NT/humidity.py
Temperature= 29
Normal Temperature
----- BUZZER -----
dewpoint= 26
Relative Humidity= 90.65489556738132
PS C:\Users\NETHRAA\kaar_python\NT>
```

### Case(ii): High Temperature



The screenshot shows the terminal window with the output of the `humidity.py` script for a high temperature. The output is as follows:

```
Relative Humidity= 80.67725829257622
PS C:\Users\NETHRAA\kaar_python\NT> & c:/Users/NETHRAA/AppData/Local/Programs/Python/Python36/python.exe c:/User
s/NETHRAA/kaar_python/NT/humidity.py
Temperature= 34
High temperature buzzer rings
XXXXX BUZZER XXXXX
dewpoint= 31
Relative Humidity= 92.17460739952088
PS C:\Users\NETHRAA\kaar_python\NT>
```