

ASSIGNMENT NO:2

Random generation of Temperature and Humidity values.

Done by
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Build python code, Generate Temperature and Humidity values (Use Random function to generate values) and write a condition to detect an alarm in case of high temperature and humidity.

For ex: Temperature is greater than 30C play alarm sound and same for humidity.

SOFTWARE REQUIRED:

- **Python IDLE-3.7.0** - Installation
- Necessary modules (like importing random and winsound) for performing the given credentials.

CODING:

```
import random
import winsound
for i in range(10):
    temperature=random.randint(-20,100)
    humidity=random.randint(15,70)
    if(temperature>35):
```

```
print("HIGH TEMPERATURE")

print("Warning:BEEP")

#winsound.Beep(2500,5000)

else:

    print("NORMAL TEMPERATURE")

if(humidity>30):

    print("HIGH HUMIDITY")

    print("Warning:BEEP")

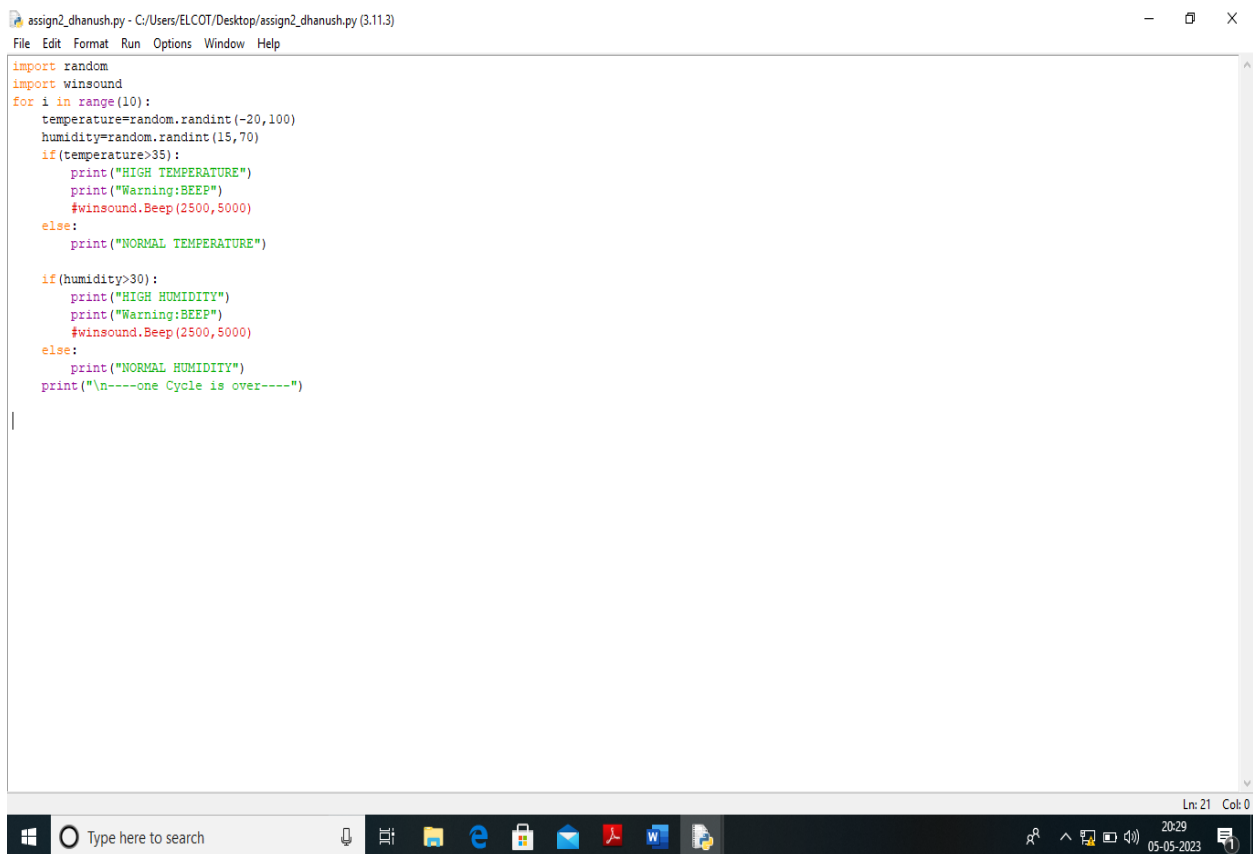
    #winsound.Beep(2500,5000)

else:

    print("NORMAL HUMIDITY")

print("\n----one Cycle is over----")
```

The codings which I made for this assignment are figured below..

A screenshot of a Windows desktop environment. At the top, a window titled 'assign2_dhanush.py - C:/Users/ELCOT/Desktop/assign2_dhanush.py (3.11.3)' is open. The window contains a Python script with the following code:

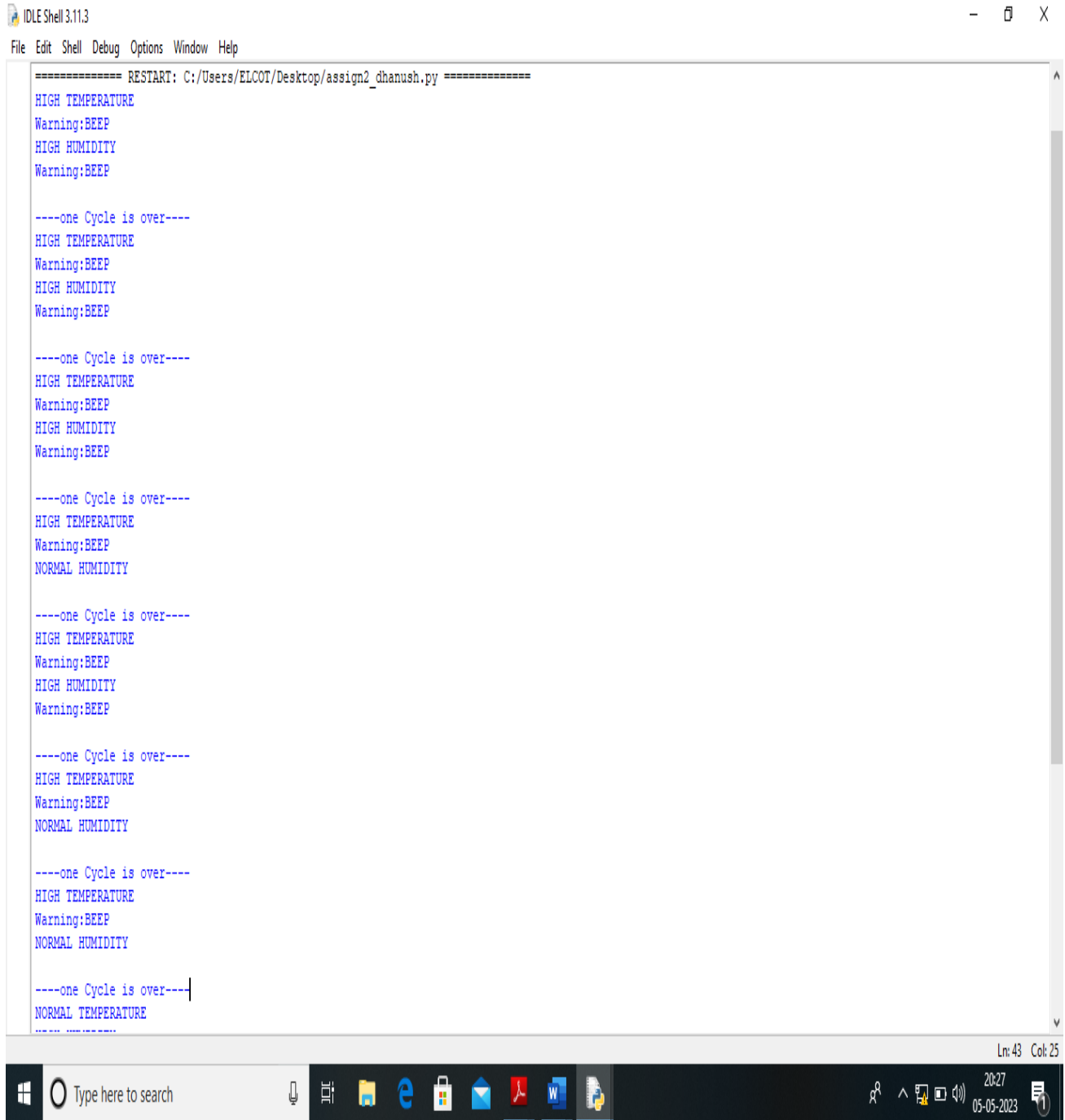
```
import random
import winsound
for i in range(10):
    temperature=random.randint(-20,100)
    humidity=random.randint(15,70)
    if(temperature>35):
        print("HIGH TEMPERATURE")
        print("Warning:BEEP")
        #winsound.Beep(2500,5000)
    else:
        print("NORMAL TEMPERATURE")

    if(humidity>30):
        print("HIGH HUMIDITY")
        print("Warning:BEEP")
        #winsound.Beep(2500,5000)
    else:
        print("NORMAL HUMIDITY")
print("\n----one Cycle is over----")
```

The script is color-coded: imports are orange, comments are green, and other code is black. The window has a standard menu bar (File, Edit, Format, Run, Options, Window, Help) and a toolbar. The Windows taskbar is visible at the bottom, showing the Start button, a search bar, and several pinned application icons. The system tray on the right shows the date and time as 20:29 on 05-05-2023.

OUTPUT:

The output of my assignment is shown below.



```
===== RESTART: C:/Users/ELCOT/Desktop/assign2_dhanush.py =====  
HIGH TEMPERATURE  
Warning:BEEP  
HIGH HUMIDITY  
Warning:BEEP  
  
----one Cycle is over----  
HIGH TEMPERATURE  
Warning:BEEP  
HIGH HUMIDITY  
Warning:BEEP  
  
----one Cycle is over----  
HIGH TEMPERATURE  
Warning:BEEP  
HIGH HUMIDITY  
Warning:BEEP  
  
----one Cycle is over----  
HIGH TEMPERATURE  
Warning:BEEP  
NORMAL HUMIDITY  
  
----one Cycle is over----  
HIGH TEMPERATURE  
Warning:BEEP  
HIGH HUMIDITY  
Warning:BEEP  
  
----one Cycle is over----  
HIGH TEMPERATURE  
Warning:BEEP  
NORMAL HUMIDITY  
  
----one Cycle is over----  
HIGH TEMPERATURE  
Warning:BEEP  
NORMAL HUMIDITY  
  
----one Cycle is over----  
NORMAL TEMPERATURE  
=====
```