

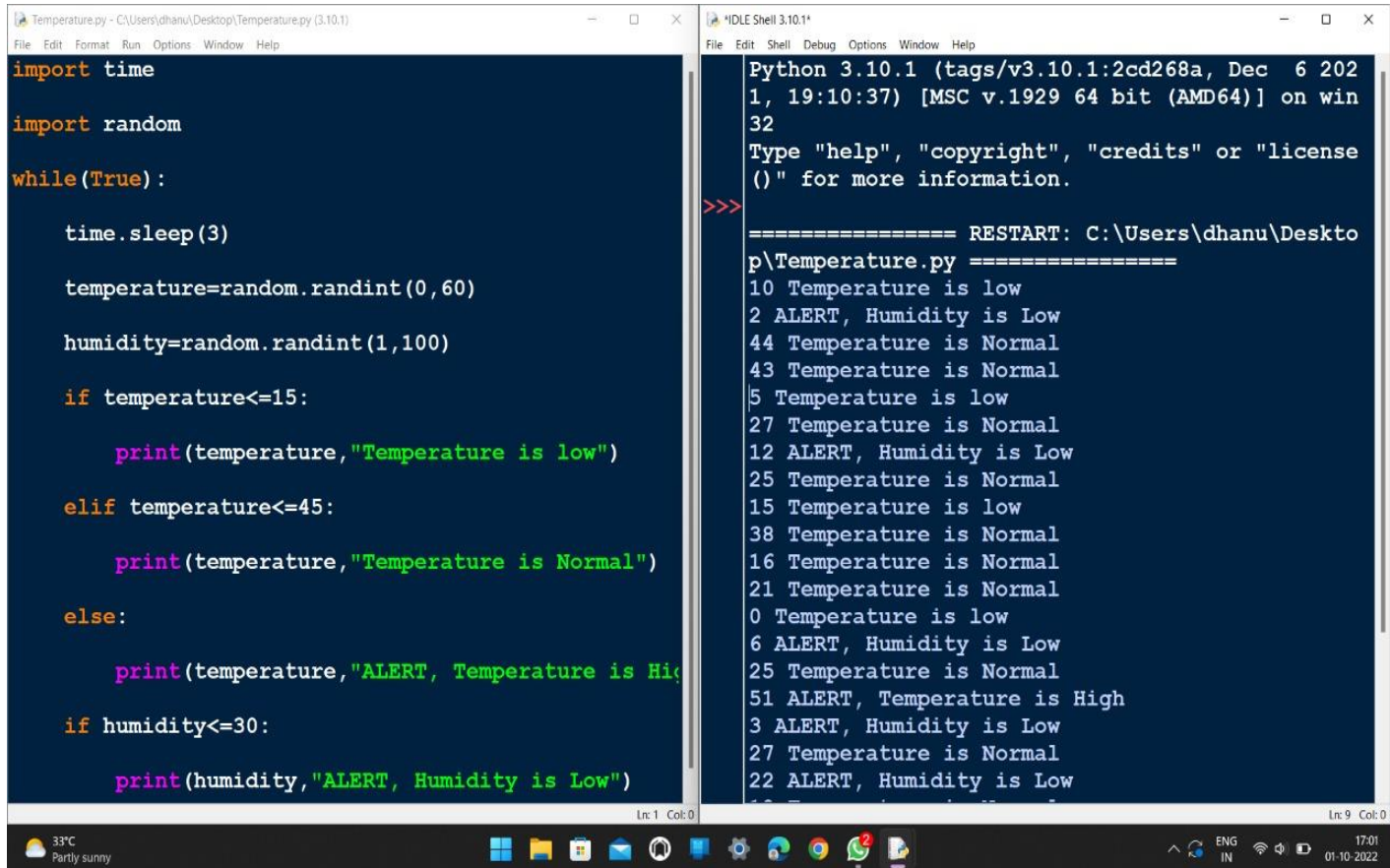
ASSIGNMENT – 2

TASK : Build a python code, Assume you 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.

CODE

```
import time
import random
while (True) :
    time.sleep(3)
    temperature=random.randint(0,60)
    humidity=random.randint(1,100)
    if temperature<=15:
        print(temperature,"Temperature is low")
    elif temperature<=45:
        print(temperature,"Temperature is Normal")
    else:
        print(temperature,"ALERT, Temperature is High")
    if humidity<=30:
        print(humidity,"ALERT, Humidity is Low")
    elif humidity<=70:
        print(humidity,"Humidity is Normal")
    else:
        print(humidity,"Humidity is High")
```

OUTPUT



The image shows a screenshot of a computer screen with two windows open. The left window is a code editor titled 'Temperature.py - C:\Users\dhana\Desktop\Temperature.py (3.10.1)'. It contains a Python script that uses the 'time' and 'random' modules to generate random temperature and humidity values. The script has a 'while(True):' loop that sleeps for 3 seconds between each iteration. It checks if the temperature is less than or equal to 15 (low), between 15 and 45 (normal), or greater than 45 (high). It also checks if the humidity is less than or equal to 30 (low) or greater than 30 (high). The right window is a terminal titled 'IDLE Shell 3.10.1*'. It shows the output of the script, which includes the Python version, the file path, and a series of messages indicating the current temperature and humidity status. The messages are: '10 Temperature is low', '2 ALERT, Humidity is Low', '44 Temperature is Normal', '43 Temperature is Normal', '5 Temperature is low', '27 Temperature is Normal', '12 ALERT, Humidity is Low', '25 Temperature is Normal', '15 Temperature is low', '38 Temperature is Normal', '16 Temperature is Normal', '21 Temperature is Normal', '0 Temperature is low', '6 ALERT, Humidity is Low', '25 Temperature is Normal', '51 ALERT, Temperature is High', '3 ALERT, Humidity is Low', '27 Temperature is Normal', '22 ALERT, Humidity is Low'. The taskbar at the bottom shows the system clock as 17:01 on 01-10-2022, and the weather as 33°C Partly sunny.

```
import time

import random

while(True):

    time.sleep(3)

    temperature=random.randint(0,60)

    humidity=random.randint(1,100)

    if temperature<=15:

        print(temperature,"Temperature is low")

    elif temperature<=45:

        print(temperature,"Temperature is Normal")

    else:

        print(temperature,"ALERT, Temperature is High")

    if humidity<=30:

        print(humidity,"ALERT, Humidity is Low")
```

Python 3.10.1 (tags/v3.10.1:2cd268a, Dec 6 2021, 19:10:37) [MSC v.1929 64 bit (AMD64)] on win32
Type "help", "copyright", "credits" or "license()" for more information.
>>>
===== RESTART: C:\Users\dhana\Desktop\Temperature.py =====
10 Temperature is low
2 ALERT, Humidity is Low
44 Temperature is Normal
43 Temperature is Normal
5 Temperature is low
27 Temperature is Normal
12 ALERT, Humidity is Low
25 Temperature is Normal
15 Temperature is low
38 Temperature is Normal
16 Temperature is Normal
21 Temperature is Normal
0 Temperature is low
6 ALERT, Humidity is Low
25 Temperature is Normal
51 ALERT, Temperature is High
3 ALERT, Humidity is Low
27 Temperature is Normal
22 ALERT, Humidity is Low