

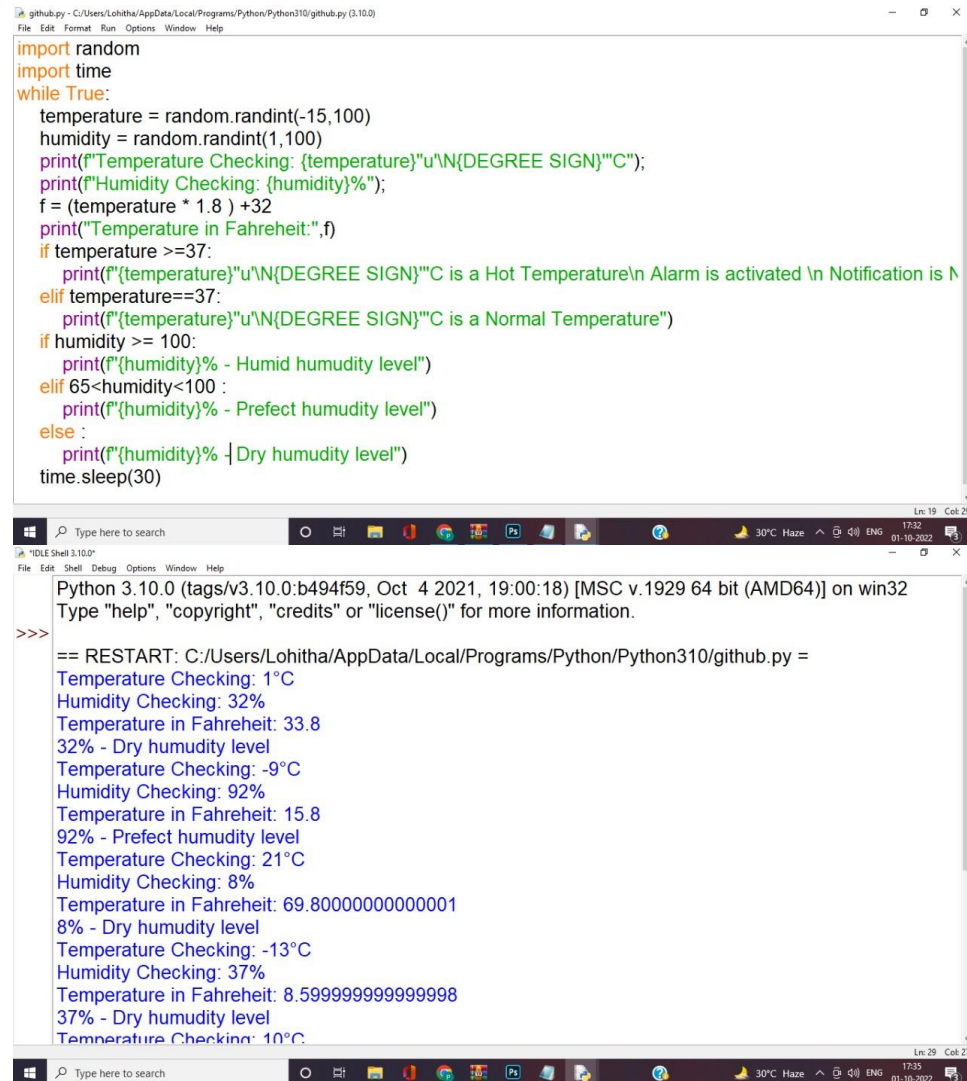
ASSIGNMENT-2

PYTHON CODE FOR TEMPERATURE AND HUMIDITY MONITORING ALERT SYSTEM

CODE:

```
import random
import time
while True:
    temperature = random.randint(-15,100)
    humidity = random.randint(1,100)
    print(f"Checking Temperature: {temperature}°C");
    print(f"Checking Humidity: {humidity}%");
    f = (temperature * 1.8) + 32
    print(" Fahrenheit temperature is:",f)
    if temperature >=37:
        print(f"{temperature}°C is a Hot Temperature\n Alarm
is activated \n Notification is Notified")
    elif temperature==37:
        print(f"{temperature}°C is a Normal Temperature")
    if humidity >= 100:
        print(f"{humidity}% high humidity level")
    elif 65<humidity<100 :
        print(f"{humidity}% ideal humidity level")
    else :
        print(f"{humidity}% Dry humidity level")
    time.sleep(30)
```

OUTPUT:



The image shows a screenshot of a Python script and its output. The script is named `github.py` and is located at `C:/Users/Lohitha/AppData/Local/Programs/Python/Python310/github.py`. The script uses the `random` and `time` modules to generate random temperature and humidity values and to introduce a 30-second delay between iterations. It checks if the temperature is greater than or equal to 37°C, and if so, prints a message indicating a hot temperature and that an alarm is activated. It also checks if the humidity is greater than or equal to 100%, and if so, prints a message indicating a humid humidity level. The script then prints the temperature in Fahrenheit and the humidity level, and finally prints the temperature in Celsius.

```
import random
import time
while True:
    temperature = random.randint(-15,100)
    humidity = random.randint(1,100)
    print(f"Temperature Checking: {temperature}°C");
    print(f"Humidity Checking: {humidity}%");
    f = (temperature * 1.8 ) + 32
    print(f"Temperature in Fahreheit: {f}")
    if temperature >= 37:
        print(f"{temperature}°C is a Hot Temperature\n Alarm is activated \n Notification is N")
    elif temperature <= 37:
        print(f"{temperature}°C is a Normal Temperature")
    if humidity >= 100:
        print(f"{humidity}% - Humid humidity level")
    elif 65 < humidity < 100 :
        print(f"{humidity}% - Prefect humidity level")
    else :
        print(f"{humidity}% - Dry humidity level")
    time.sleep(30)
```

The output shows the script running in a Python 3.10.0 shell. It displays the temperature and humidity values, the temperature in Fahrenheit, and the humidity level. The output is as follows:

```
Python 3.10.0 (tags/v3.10.0:b494f59, Oct 4 2021, 19:00:18) [MSC v.1929 64 bit (AMD64)] on win32
Type "help", "copyright", "credits" or "license()" for more information.
>>>
== RESTART: C:/Users/Lohitha/AppData/Local/Programs/Python/Python310/github.py =
Temperature Checking: 1°C
Humidity Checking: 32%
Temperature in Fahreheit: 33.8
32% - Dry humidity level
Temperature Checking: -9°C
Humidity Checking: 92%
Temperature in Fahreheit: 15.8
92% - Prefect humidity level
Temperature Checking: 21°C
Humidity Checking: 8%
Temperature in Fahreheit: 69.80000000000001
8% - Dry humidity level
Temperature Checking: -13°C
Humidity Checking: 37%
Temperature in Fahreheit: 8.599999999999999
37% - Dry humidity level
Temperature Checking: 10°C
```

OUTPUT:

Temperature Checking: 1°C

Humidity Checking: 32%

Temperature in Fahreheit: 33.8

32% - Dry humudity level

Temperature Checking: -9°C

Humidity Checking: 92%

Temperature in Fahreheit: 15.8

92% - Prefect humudity level

Temperature Checking: 21°C

Humidity Checking: 8%

Temperature in Fahreheit: 69.80000000000001

8% - Dry humudity level

Temperature Checking: -13°C

Humidity Checking: 37%

Temperature in Fahreheit: 8.599999999999998

37% - Dry humudity level

Temperature Checking: 10°C

Humidity Checking: 84%

Temperature in Fahreheit: 50.0

84% - Prefect humudity level

Temperature Checking: 17°C

Humidity Checking: 40%

Temperature in Fahreheit: 62.6

40% - Dry humudity level