

**Assignment -2**  
Python Programming

Assignment Date	9 November 2022
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Maximum Marks	2 Marks

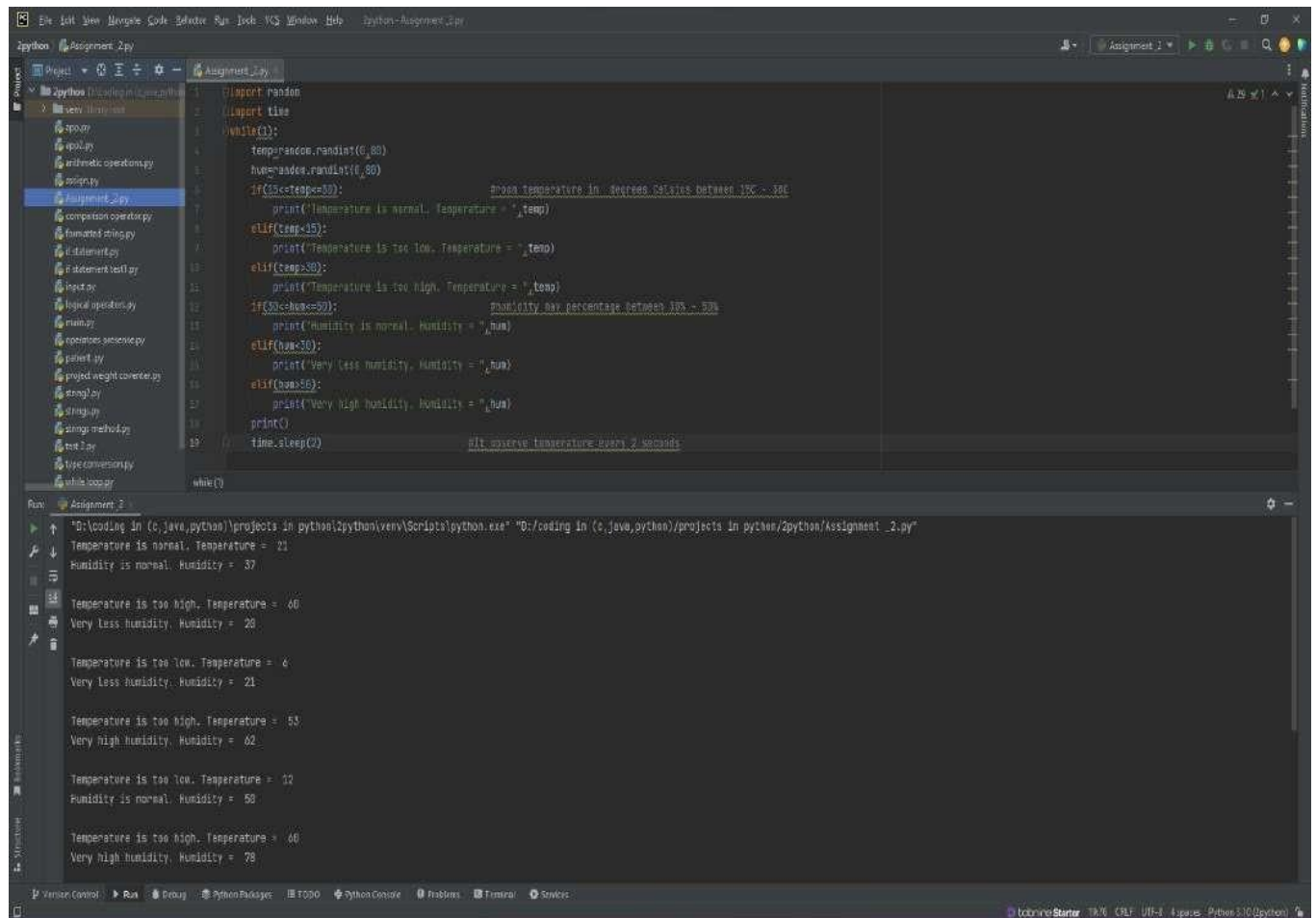
**Question-1:**

Build a python code, Assume u 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.

**Solution:**

```
import random
import time
while(1):
    temp=random.randint(0,80)
    hum=random.randint(0,80)
    if(15<=temp<=30):                #room temperature in degrees Celsius between
15C - 30C
        print("Temperature is normal. Temperature = ",temp)
    elif(temp<15):
        print("Temperature is too low. Temperature = ",temp)
    elif(temp>30):
        print("Temperature is too high. Temperature = ",temp)
    if(30<=hum<=50):                #humidity may percentage between 30% - 50%
        print("Humidity is normal. Humidity = ",hum)
    elif(hum<30):
        print("Very less humidity. Humidity = ",hum)
    elif(hum>50):
        print("Very high humidity. Humidity = ",hum)
    print()
    time.sleep(2)                    #It observe temperature every 2 seconds
```

## SAMPLE INPUT AND OUTPUT :



The screenshot displays a Python IDE with a project named 'Assignment\_2.py'. The code in the editor is a script that generates random temperature and humidity values and prints status messages based on these values. The code is as follows:

```
1 import random
2 import time
3 while(1):
4     temp=random.randint(0,80)
5     hum=random.randint(0,80)
6     if(15<=temp<=30):
7         print("Temperature is normal. Temperature = ",temp)
8     elif(temp<15):
9         print("Temperature is too low. Temperature = ",temp)
10    elif(temp>30):
11        print("Temperature is too high. Temperature = ",temp)
12    if(30<=hum<=50):
13        print("Humidity is normal. Humidity = ",hum)
14    elif(hum<30):
15        print("Very less humidity. Humidity = ",hum)
16    elif(hum>50):
17        print("Very high humidity. Humidity = ",hum)
18    print()
19    time.sleep(2)
20 while(1):
```

The output window shows the execution of the program, displaying the following messages:

```
"D:\coding In (c,java,python)\projects in python\python\Scripts\python.exe" "D:\coding In (c,java,python)\projects in python\python\Assignment_2.py"
Temperature is normal. Temperature = 21
Humidity is normal. Humidity = 37

Temperature is too high. Temperature = 40
Very less humidity. Humidity = 20

Temperature is too low. Temperature = 6
Very less humidity. Humidity = 21

Temperature is too high. Temperature = 53
Very high humidity. Humidity = 62

Temperature is too low. Temperature = 12
Humidity is normal. Humidity = 50

Temperature is too high. Temperature = 40
Very high humidity. Humidity = 78
```

The IDE interface includes a file explorer on the left, a terminal at the bottom, and a status bar at the very bottom showing the current file, line, column, and encoding information.