

Assignment -2
Python Programming

Assignment Date	1 NOVEMBER 2022
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Maximum Marks	2 Marks

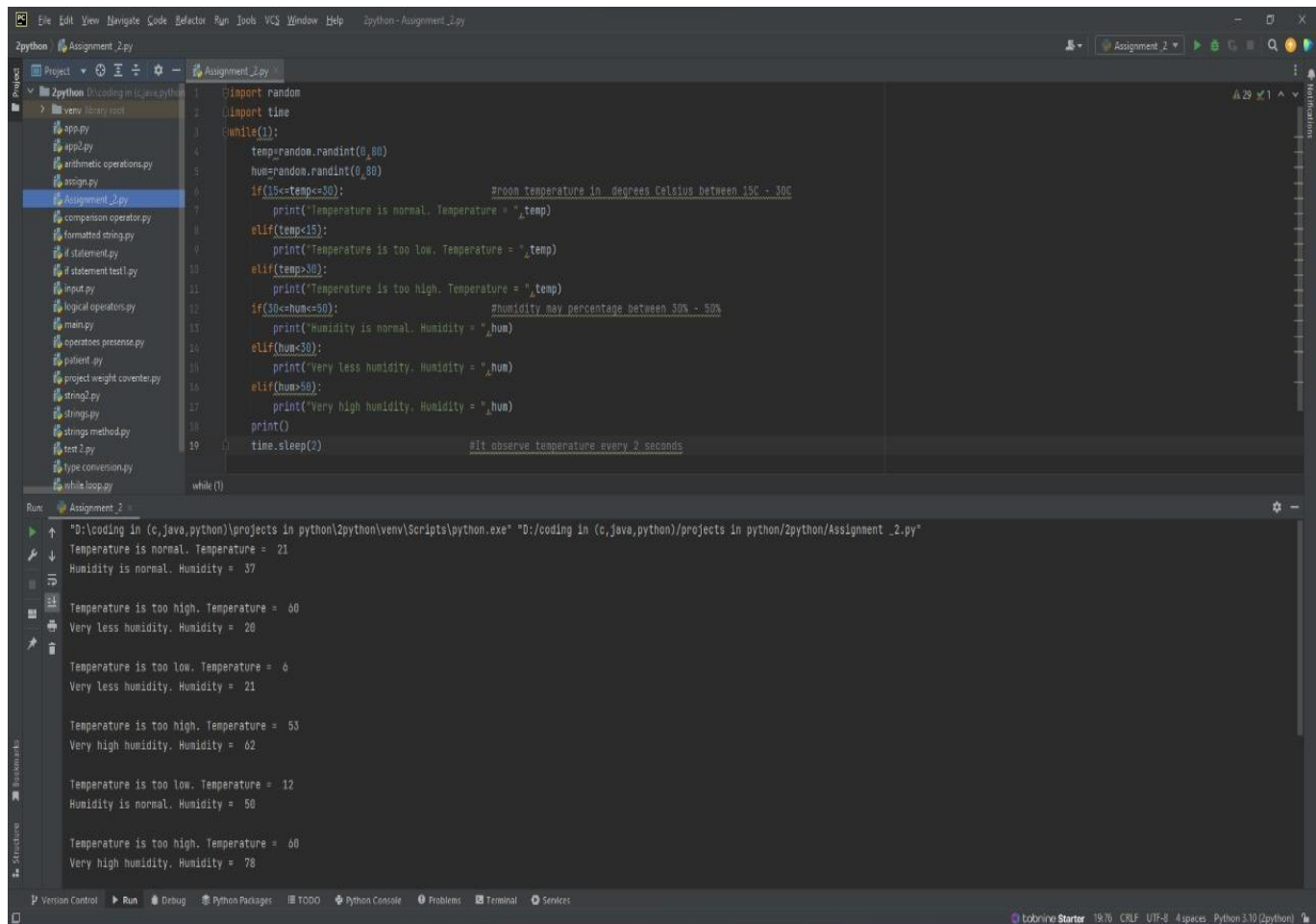
Question-1:

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 image shows a Python IDE window titled "2python - Assignment_2.py". The editor displays a script that generates random temperature and humidity values and prints status messages based on predefined ranges. The script includes comments for temperature and humidity ranges. The output window shows the results of the script's execution.

```
1 import random
2 import time
3 while(1):
4     temp=random.randint(0,80)
5     hum=random.randint(0,80)
6     #room temperature in degrees Celsius between 15C - 30C
7     if(15<=temp<=30):
8         print("Temperature is normal. Temperature = ",temp)
9     elif(temp<15):
10        print("Temperature is too low. Temperature = ",temp)
11    elif(temp>30):
12        print("Temperature is too high. Temperature = ",temp)
13    #humidity may percentage between 30% - 50%
14    if(30<=hum<=50):
15        print("Humidity is normal. Humidity = ",hum)
16    elif(hum<30):
17        print("Very less humidity. Humidity = ",hum)
18    elif(hum>50):
19        print("Very high humidity. Humidity = ",hum)
20    print()
21    time.sleep(2) #if observe temperature every 2 seconds
22 while(1):
```

Run: Assignment_2

```
"D:\coding in (c,java,python)\projects in python\2python\venv\Scripts\python.exe" "D:/coding in (c,java,python)/projects in python/2python/Assignment_2.py"
Temperature is normal. Temperature = 21
Humidity is normal. Humidity = 37

Temperature is too high. Temperature = 60
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 = 60
Very high humidity. Humidity = 78
```

Version Control | Run | Debug | Python Packages | TODO | Python Console | Problems | Terminal | Services

tabnine Starter 19/6 CRLF UTF-8 4 spaces Python 3.10 (2python)