

Assignment - 2

Python Programming

Assignment Date	20 September 2022
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Maximum Marks	2 Marks

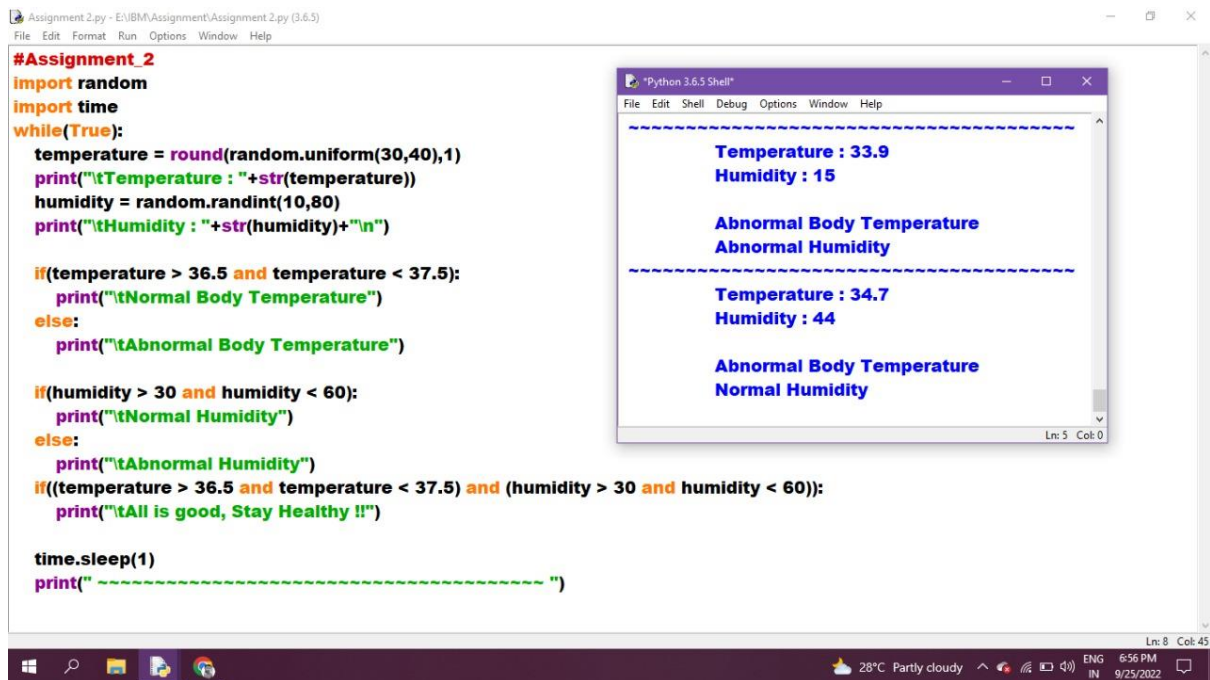
Question :

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(True):
    temperature = round(random.uniform(30,40),1)
    print("\tTemperature : "+str(temperature))
    humidity = random.randint(10,80)
    print("\tHumidity : "+str(humidity)+"\n")
    if(temperature > 36.5 and temperature < 37.5):
        print("\tNormal Body Temperature")
    else:
        print("\tAbnormal Body Temperature")
    if(humidity > 30 and humidity < 60):
        print("\tNormal Humidity")
    else:
        print("\tAbnormal Humidity")
    if((temperature > 36.5 and temperature < 37.5) and (humidity > 30 and humidity < 60)):
        print("\tAll is good, Stay Healthy !!")
    time.sleep(1)
    print(" ~~~~~~ ")
```

Output :



The image shows a screenshot of a Windows desktop with two windows. The main window is a Python IDE titled "Assignment 2.py - E:\IBM\Assignment\Assignment 2.py (3.6.5)". It contains a Python script that generates random temperature and humidity values and checks if they are normal or abnormal. The script uses the `random` module for generating values and the `time` module for a sleep function. It uses `print` statements to output the results. The script is as follows:

```
#Assignment 2
import random
import time
while(True):
    temperature = round(random.uniform(30,40),1)
    print("\tTemperature : "+str(temperature))
    humidity = random.randint(10,80)
    print("\tHumidity : "+str(humidity)+"\n")

    if(temperature > 36.5 and temperature < 37.5):
        print("\tNormal Body Temperature")
    else:
        print("\tAbnormal Body Temperature")

    if(humidity > 30 and humidity < 60):
        print("\tNormal Humidity")
    else:
        print("\tAbnormal Humidity")
    if((temperature > 36.5 and temperature < 37.5) and (humidity > 30 and humidity < 60)):
        print("\tAll is good, Stay Healthy !!")

    time.sleep(1)
    print("-----")
```

The second window is a "Python 3.6.5 Shell" window showing the output of the script. The output is as follows:

```
-----
Temperature : 33.9
Humidity : 15

Abnormal Body Temperature
Abnormal Humidity
-----
Temperature : 34.7
Humidity : 44

Abnormal Body Temperature
Normal Humidity
```

The Windows taskbar at the bottom shows the system clock as 6:56 PM on 9/25/2022, and the system status as 28°C Partly cloudy.