

## Assignment-2

```
Pythoncode import random
x=random.randint(1,100)
y=random.randint(1,50)
print("randomtemperatureandhumidityreading"
) if((x<50)&(y<30)):

    print("temperatureisnormal:",x,"%")
    print("humidityisnormal:",y,"%")
    print("AlarmOff")

elif((x<50)&(y>30)):
    print("temperatureislow:",x,"%")
    print("humidityishigh:",y,"%")
    print("AlarmOff")

elif((x>50)&(y<30)):
    print("temperatureishigh:",x,"%")
    print("humidityishigh:",y,"%")
    print("AlarmOn")

elif((x>50)&(y>30)):
    print("temperatureishigh:",x,"%")
    print("humidityislow:",y,"%") print("AlarmOn")

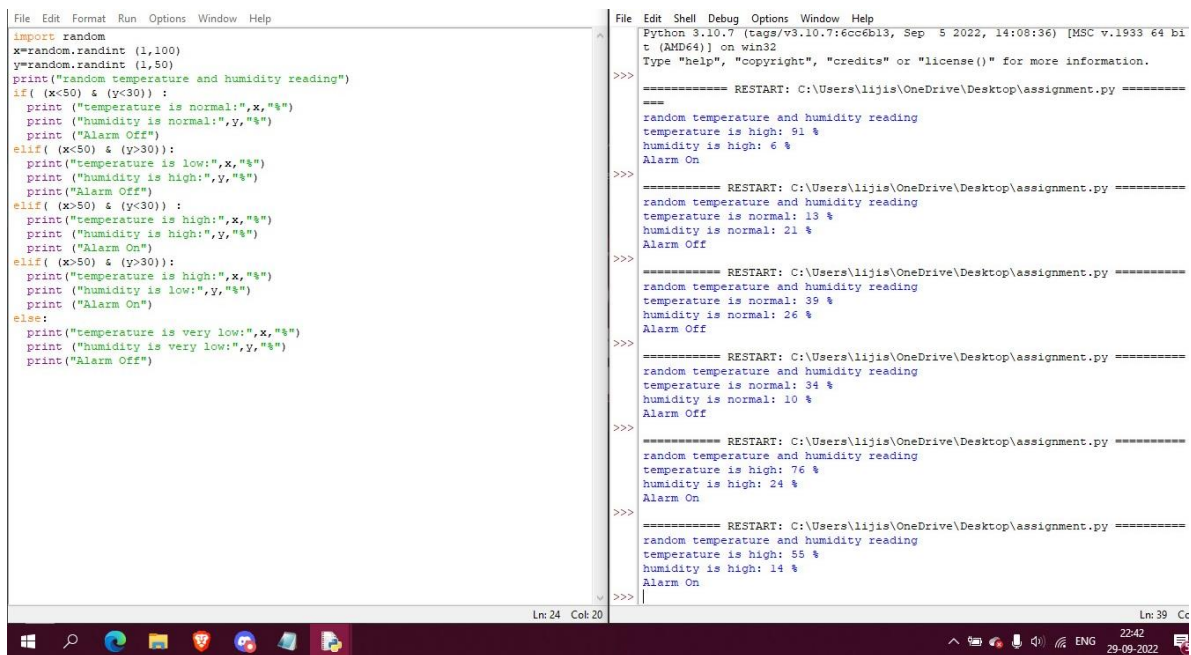
else:
```

```
print("temperatureisverylow:",x,"%")
```

```
print("humidityisverylow:",y,"%")
```

```
print("AlarmOff")
```

## Output



The screenshot displays a Python IDE with two windows. The left window shows the source code for a program that generates random temperature and humidity readings and prints an alarm status based on specific thresholds. The right window shows the output of the program, which includes several iterations of random readings and corresponding alarm status messages.

```
File Edit Format Run Options Window Help
import random
x=random.randint(1,100)
y=random.randint(1,50)
print("random temperature and humidity reading")
if( (x<50) & (y<30)) :
    print ("temperature is normal:",x,"%")
    print ("humidity is normal:",y,"%")
    print ("Alarm Off")
elif( (x<50) & (y>30)):
    print("temperature is low:",x,"%")
    print ("humidity is high:",y,"%")
    print("Alarm Off")
elif( (x>50) & (y<30)) :
    print("temperature is high:",x,"%")
    print ("humidity is high:",y,"%")
    print ("Alarm On")
elif( (x>50) & (y>30)):
    print("temperature is high:",x,"%")
    print ("humidity is low:",y,"%")
    print ("Alarm On")
else:
    print("temperature is very low:",x,"%")
    print ("humidity is very low:",y,"%")
    print("Alarm Off")
```

```
Python 3.10.7 (tags/v3.10.7:6cc6b13, Sep 5 2022, 14:08:36) [MSC v.1933 64 bi
t (AMD64)] on win32
Type "help", "copyright", "credits" or "license()" for more information.
>>>
===== RESTART: C:\Users\lijis\OneDrive\Desktop\assignment.py =====
random temperature and humidity reading
temperature is high: 91 %
humidity is high: 6 %
Alarm On
>>>
===== RESTART: C:\Users\lijis\OneDrive\Desktop\assignment.py =====
random temperature and humidity reading
temperature is normal: 13 %
humidity is normal: 21 %
Alarm Off
>>>
===== RESTART: C:\Users\lijis\OneDrive\Desktop\assignment.py =====
random temperature and humidity reading
temperature is normal: 39 %
humidity is normal: 26 %
Alarm Off
>>>
===== RESTART: C:\Users\lijis\OneDrive\Desktop\assignment.py =====
random temperature and humidity reading
temperature is normal: 34 %
humidity is normal: 10 %
Alarm Off
>>>
===== RESTART: C:\Users\lijis\OneDrive\Desktop\assignment.py =====
random temperature and humidity reading
temperature is high: 76 %
humidity is high: 24 %
Alarm On
>>>
===== RESTART: C:\Users\lijis\OneDrive\Desktop\assignment.py =====
random temperature and humidity reading
temperature is high: 55 %
humidity is high: 14 %
Alarm On
>>>
```

Ln: 24 Col: 20

Ln: 39 Co

22:42  
29-09-2022