ASSIGNMENT-II

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Problem:

Build a python code, Assume you 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.

Python code:

```
import random
temp=random.randint (1,100)
hum=random.randint (1,50)
print("random temperature and humidity reading")
if((temp<50) & (hum<35)) :
print ("temperature is normal:",temp,"%")
print ("humidity is normal:",hum,"%")
print ("Alarm Off")
elif((temp<50) & (hum<30)):
print("temperature is low:",temp,"%")
print ("humidity is high:",hum,"%")
print("Alarm Off")
elif((temp>50) & (hum<30)) :
```

print("temperature is high:",temp,"%")

print ("humidity is high:",hum,"%")

print ("Alarm On")

elif((temp>50) & (hum>30)):

print("temperature is high:",temp,"%")

print ("humidity is low:",hum,"%")

print ("Alarm On")

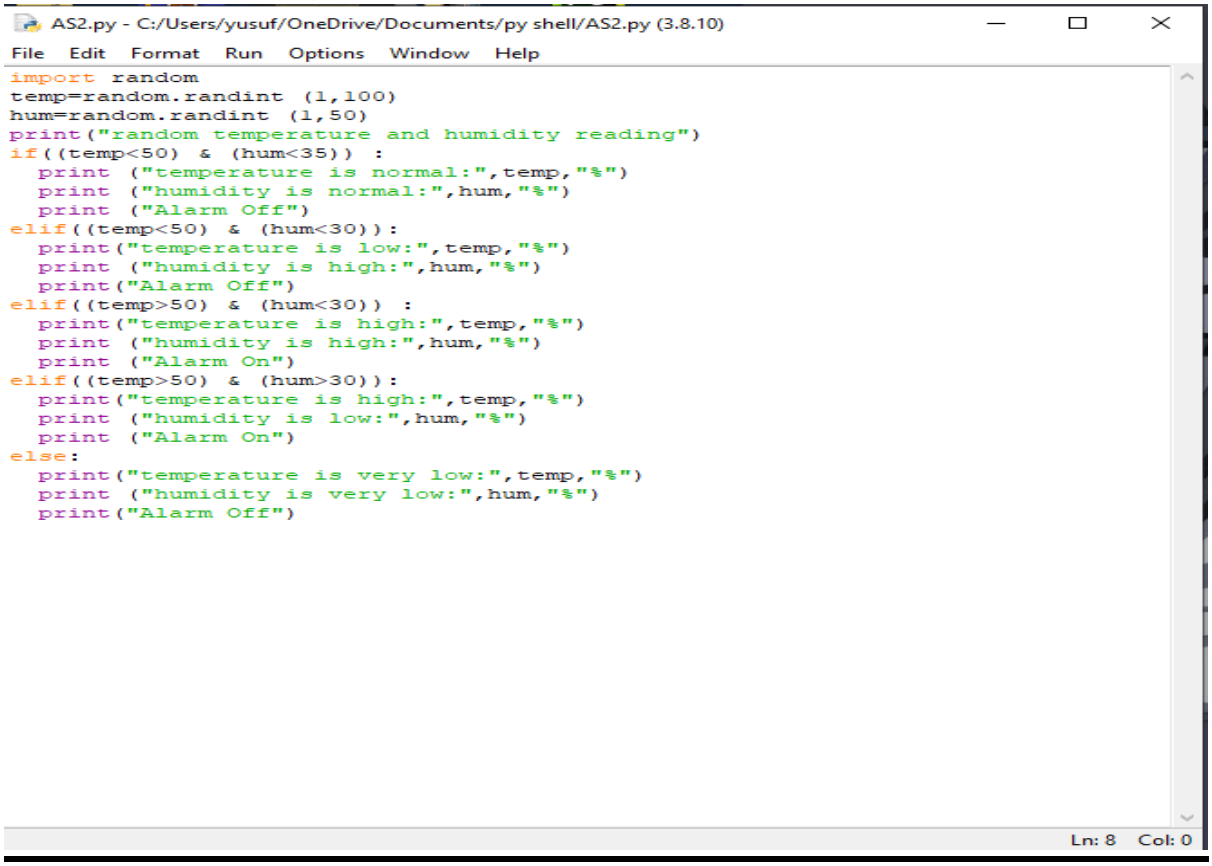
else:

print("temperature is very low:",temp,"%")

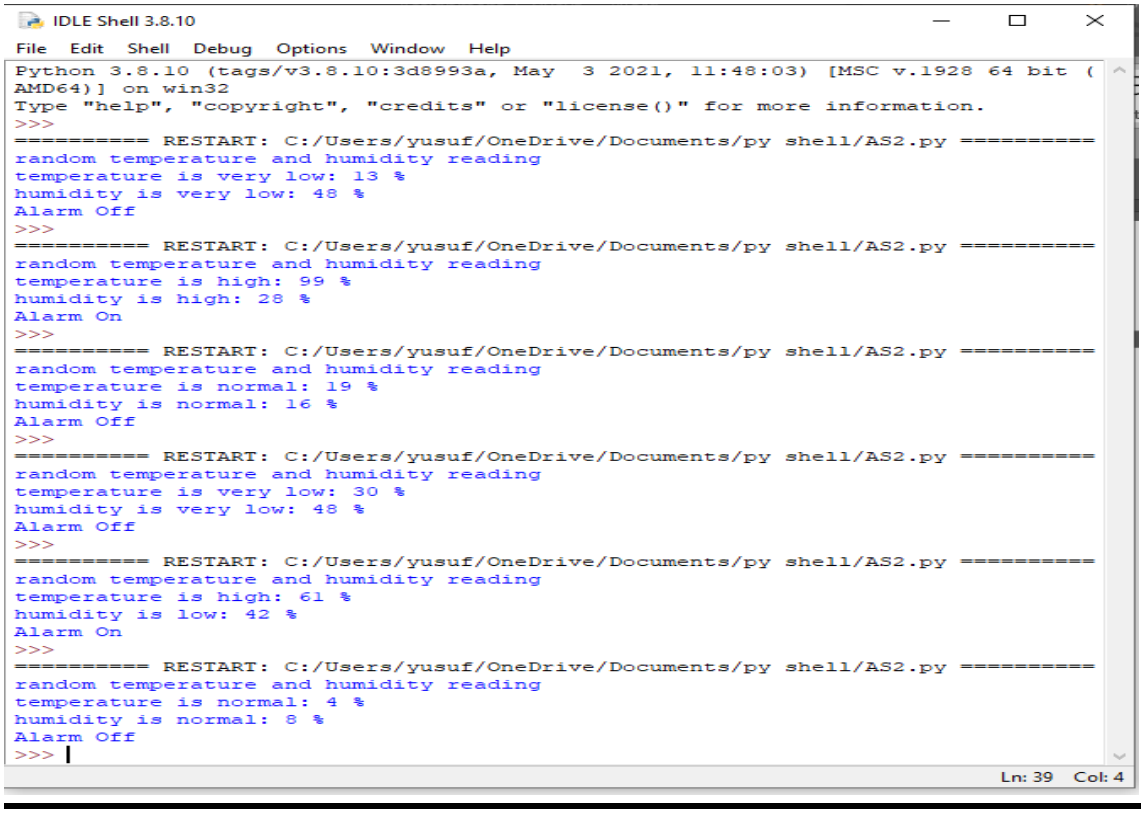
print ("humidity is very low:",hum,"%")

print("Alarm Off")

code execution:



Output:


IDLE Shell 3.8.10
File Edit Shell Debug Options Window Help
Python 3.8.10 (tags/v3.8.10:3d8993a, May 3 2021, 11:48:03) [MSC v.1928 64 bit (AMD64)] on win32
Type "help", "copyright", "credits" or "license()" for more information.
>>>
========== RESTART: C:/Users/yusuf/OneDrive/Documents/py shell/AS2.py ==========
random temperature and humidity reading
temperature is very low: 13 %
humidity is very low: 48 %
Alarm Off
>>>
========== RESTART: C:/Users/yusuf/OneDrive/Documents/py shell/AS2.py ==========
random temperature and humidity reading
temperature is high: 99 %
humidity is high: 28 %
Alarm On
>>>
========== RESTART: C:/Users/yusuf/OneDrive/Documents/py shell/AS2.py ==========
random temperature and humidity reading
temperature is normal: 19 %
humidity is normal: 16 %
Alarm Off
>>>
========== RESTART: C:/Users/yusuf/OneDrive/Documents/py shell/AS2.py ==========
random temperature and humidity reading
temperature is very low: 30 %
humidity is very low: 48 %
Alarm Off
>>>
========== RESTART: C:/Users/yusuf/OneDrive/Documents/py shell/AS2.py ==========
random temperature and humidity reading
temperature is high: 61 %
humidity is low: 42 %
Alarm On
>>>
========== RESTART: C:/Users/yusuf/OneDrive/Documents/py shell/AS2.py ==========
random temperature and humidity reading
temperature is normal: 4 %
humidity is normal: 8 %
Alarm Off
>>>
Ln: 39 Col: 4