

Assignment -2

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Project Name	Smart Waste Management System for Metropolitan Cities

Question: Build a python code, Assume you get temperature and humidity values (generated with a random function to a variable) and write a condition to detect an alarm in case of high temperature continuously.

CODE:

```
import random

from time import sleep

while True:

    sleep(5)

    temperature = random.randrange(0, 200, 3)

    print("\nCurrent Temperature =", temperature, end="°C\n")

    humidity = random.randrange(0, 100, 6)

    print("Current Humidity    =", humidity, end="%\n\n")

    if temperature >= 38:

        print("Temperature : High - Alarm ON")

    if humidity >= 75:

        print("Humidity    :High - Alarm ON")
```

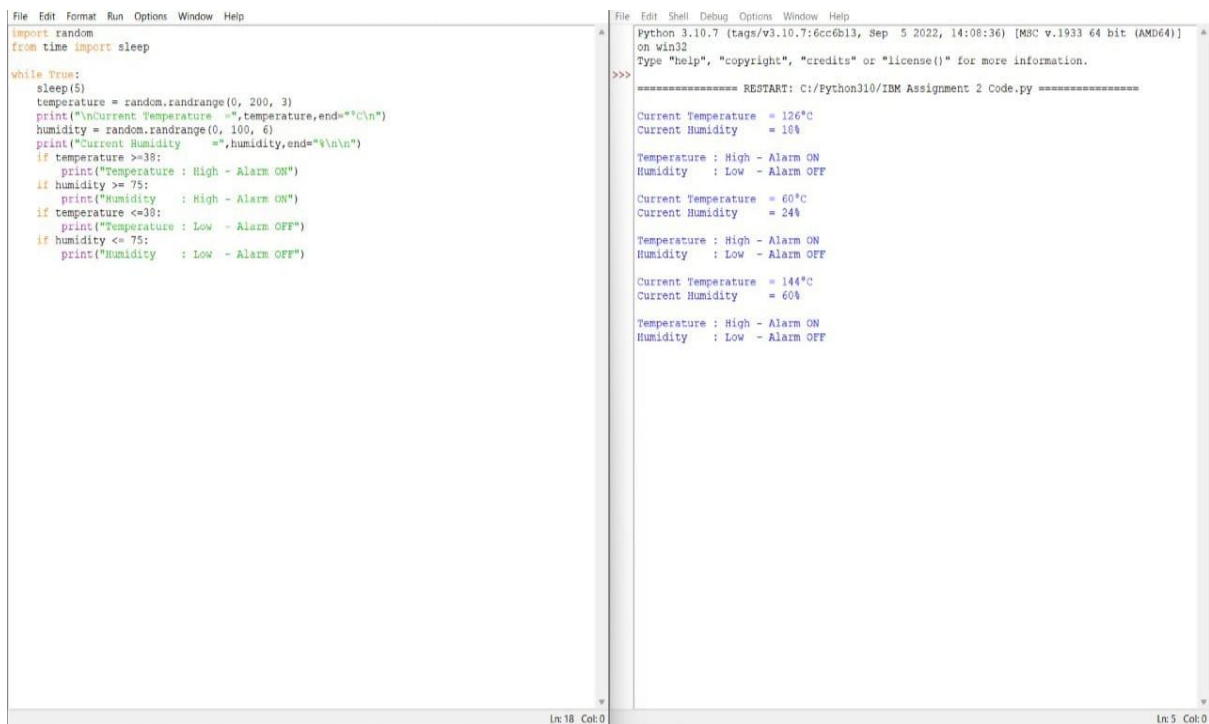
if temperature <=38:

print("Temperature : Low - Alarm OFF")

if humidity <= 75:

print("Humidity : Low - Alarm OFF")

SCREENSHOT:



The screenshot displays two side-by-side windows from a Python IDE. The left window contains a Python script that generates random temperature and humidity values and checks them against thresholds. The right window shows the output of this script, including a restart command and several data points.

```
File Edit Format Run Options Window Help
import random
from time import sleep

while True:
    sleep(5)
    temperature = random.randrange(0, 200, 3)
    print("\nCurrent Temperature = ", temperature, end="*C\n")
    humidity = random.randrange(0, 100, 6)
    print("Current Humidity = ", humidity, end="*\n\n")
    if temperature >=38:
        print("Temperature : High - Alarm ON")
    if humidity >= 75:
        print("Humidity : High - Alarm ON")
    if temperature <=38:
        print("Temperature : Low - Alarm OFF")
    if humidity <= 75:
        print("Humidity : Low - Alarm OFF")
```

Python 3.10.7 (tags/v3.10.7:6cc6b13, Sep 5 2022, 14:08:36) [MSC v.1933 64 bit (AMD64)]
on win32
Type "help", "copyright", "credits" or "license()" for more information.
>>>
===== RESTART: C:/Python310/IDM Assignment 2 Code.py =====

Current Temperature = 126°C
Current Humidity = 10%

Temperature : High - Alarm ON
Humidity : Low - Alarm OFF

Current Temperature = 60°C
Current Humidity = 24%

Temperature : High - Alarm ON
Humidity : Low - Alarm OFF

Current Temperature = 144°C
Current Humidity = 60%

Temperature : High - Alarm ON
Humidity : Low - Alarm OFF