

IoT Assignment 2

Code:

main.py

import random

Set the threshold values for temperature and humidity

TEMP_THRESHOLD = 85 *# degrees Celsius*

HUMIDITY_THRESHOLD = 45 *# percent*

Generate a random temperature value between 0 and 100 degrees Celsius

temperature = random.uniform(0, 100)

print("Temperature:", temperature)

Generate a random humidity value between 0 and 100 percent

humidity = random.uniform(0, 100)

print("Humidity:", humidity)

Check if either temperature or humidity is above the threshold

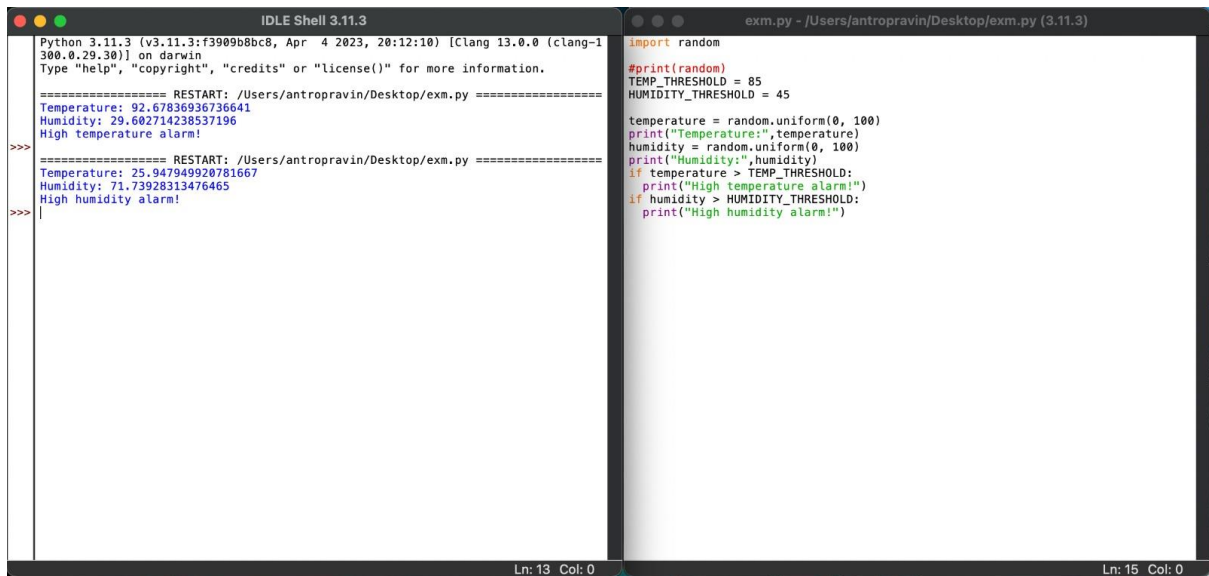
if temperature > TEMP_THRESHOLD:

print("High temperature alarm!")

if humidity > HUMIDITY_THRESHOLD:

print("High humidity alarm!")

OUTPUT



The image shows two side-by-side windows from a code editor. The left window, titled 'IDLE Shell 3.11.3', displays the output of a Python script. It shows two restarts of the script, each printing temperature and humidity values. The first restart shows a high temperature alarm, while the second does not. The right window, titled 'exm.py - /Users/antropravin/Desktop/exm.py (3.11.3)', shows the source code of the script. The code imports the 'random' module, sets thresholds for temperature (85) and humidity (45), and generates random values for both. It includes conditional checks to print 'High temperature alarm!' and 'High humidity alarm!' when the generated values exceed their respective thresholds.

```
Python 3.11.3 (v3.11.3:f3909b8bc8, Apr 4 2023, 20:12:10) [Clang 13.0.0 (clang-1300.0.29.30)] on darwin
Type "help", "copyright", "credits" or "license()" for more information.

===== RESTART: /Users/antropravin/Desktop/exm.py =====
Temperature: 92.67836936736641
Humidity: 29.602714238537196
High temperature alarm!
>>>

===== RESTART: /Users/antropravin/Desktop/exm.py =====
Temperature: 25.947949920781667
Humidity: 71.73928313476465
High humidity alarm!
>>>
```

```
import random

#print(random)
TEMP_THRESHOLD = 85
HUMIDITY_THRESHOLD = 45

temperature = random.uniform(0, 100)
print("Temperature:", temperature)
humidity = random.uniform(0, 100)
print("Humidity:", humidity)
if temperature > TEMP_THRESHOLD:
    print("High temperature alarm!")
if humidity > HUMIDITY_THRESHOLD:
    print("High humidity alarm!")
```

Ln: 13 Col: 0

Ln: 15 Col: 0