

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)

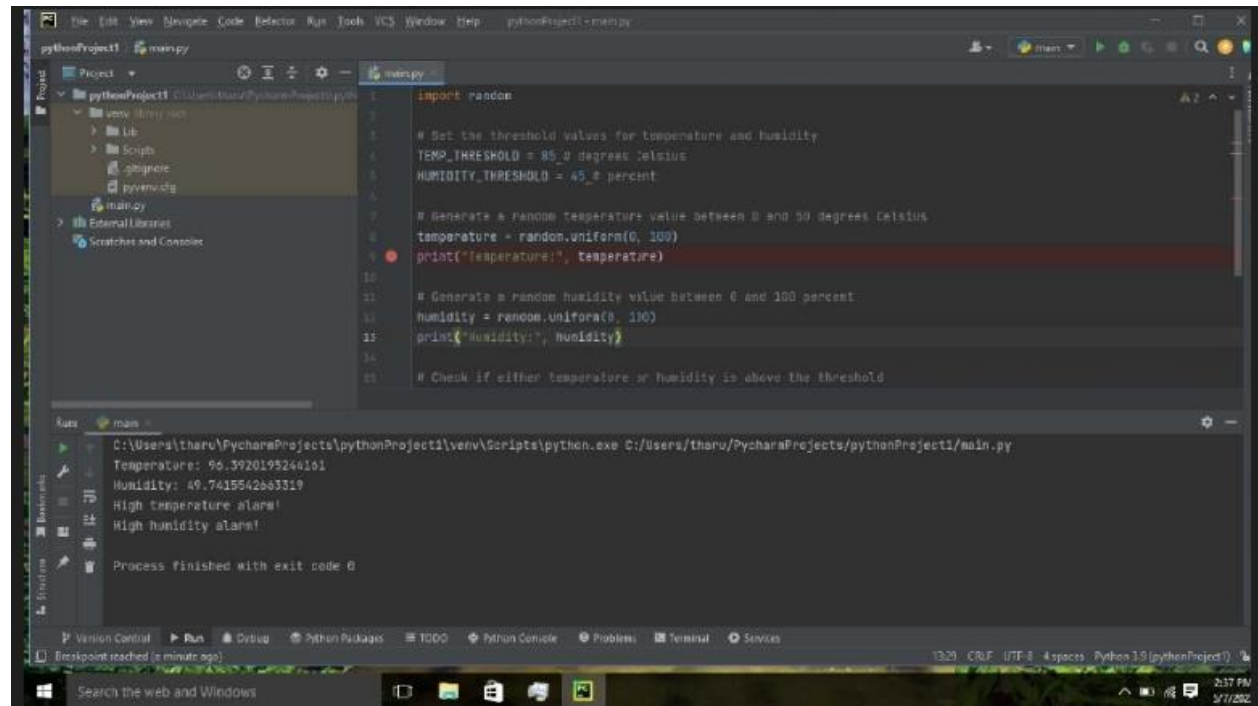
if temperature > TEMP_THRESHOLD:

#Check if either temperature or humidity is above the threshold if humidity > HUMIDITY
THRESHOLD:

print("High temperature alarm!")

print("High humidity alarm!")
```

OUTPUT:



The screenshot displays the PyCharm IDE interface. The main editor window shows a Python script named `main.py` with the following code:

```
1 import random
2
3 # Set the threshold values for temperature and humidity
4 TEMP_THRESHOLD = 85 # degrees Celsius
5 HUMIDITY_THRESHOLD = 45 # percent
6
7 # Generate a random temperature value between 0 and 50 degrees Celsius
8 temperature = random.uniform(0, 100)
9 print("temperature:", temperature)
10
11 # Generate a random humidity value between 0 and 100 percent
12 humidity = random.uniform(0, 100)
13 print("humidity:", humidity)
14
15 # Check if either temperature or humidity is above the threshold
```

The Run tool window at the bottom shows the execution output for the `main` configuration:

```
C:\Users\tharu\PycharmProjects\pythonProject1\venv\Scripts\python.exe C:\Users\tharu\PycharmProjects\pythonProject1/main.py
Temperature: 90.3920195244101
Humidity: 49.7415542663319
High temperature alarm!
High humidity alarm!
Process finished with exit code 0
```

The status bar at the bottom indicates the current file is `main.py`, the encoding is `UTF-8`, and the Python version is `Python 3.9 (pythonProject1)`. The system clock shows `13:29` on `5/7/2022`.