

ASSIGNMENT -2

DATE	11 may 2023
TEAM ID	NM2023TMID11354
PROJECT TITLE	Drowsiness Detection and Alerting System

PROBLEM STATEMENT :

Build Python code, Generate Temperature and Humidity values (Use Random function to generate values) and write a condition to detect an alarm in case of high temperature and high Humidity.

CODE :

```
import random

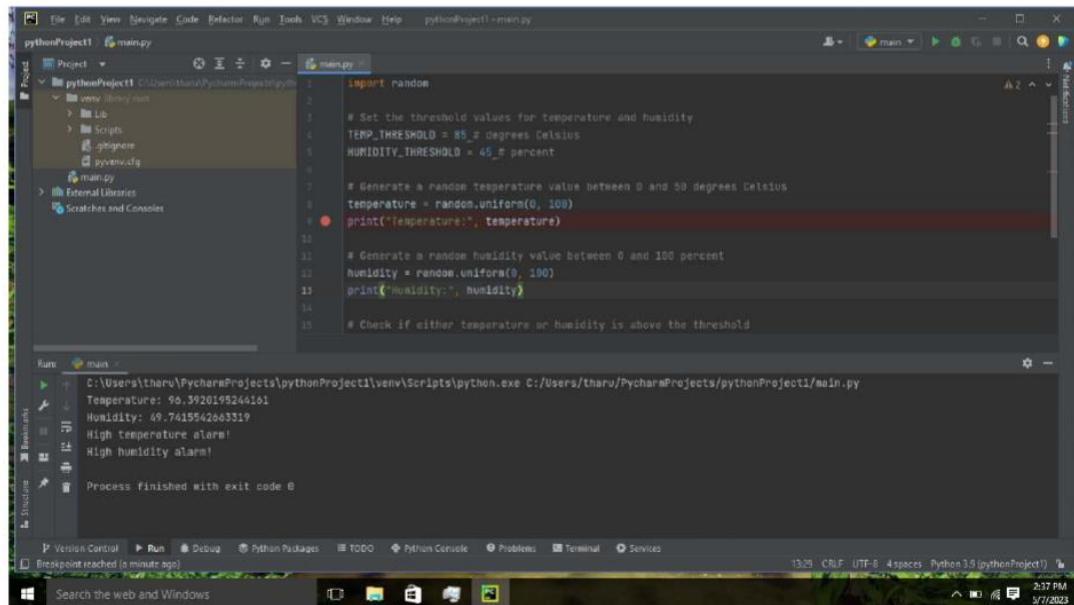
# Set the threshold values for temperature and humidity
TEMP_THRESHOLD = 85 # degrees Celsius
HUMIDITY_THRESHOLD = 45 # percent

# 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 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 = 85.5 degrees Celsius
5 HUMIDITY_THRESHOLD = 45.5 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 output of the script:

```
Run: main
C:\Users\tharu\PycharmProjects\pythonProject1\venv\Scripts\python.exe C:/Users/tharu/PycharmProjects/pythonProject1/main.py
Temperature: 96.3920195244161
Humidity: 49.7415542663319
High temperature alarm!
High humidity alarm!
Process finished with exit code 0
```

The status bar at the bottom indicates the file encoding is UTF-8 with 4 spaces, and the Python version is 3.9 (pythonProject1). The system clock shows 5:17 PM on 5/7/2023.