

ASSIGNMENT- 2

Date	May 10, 2023
Team ID	NM2023TMID11348
Project Title	SMART BILLING SYSTEM FOR WATER SUPPLIERS

★ 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 :

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
```

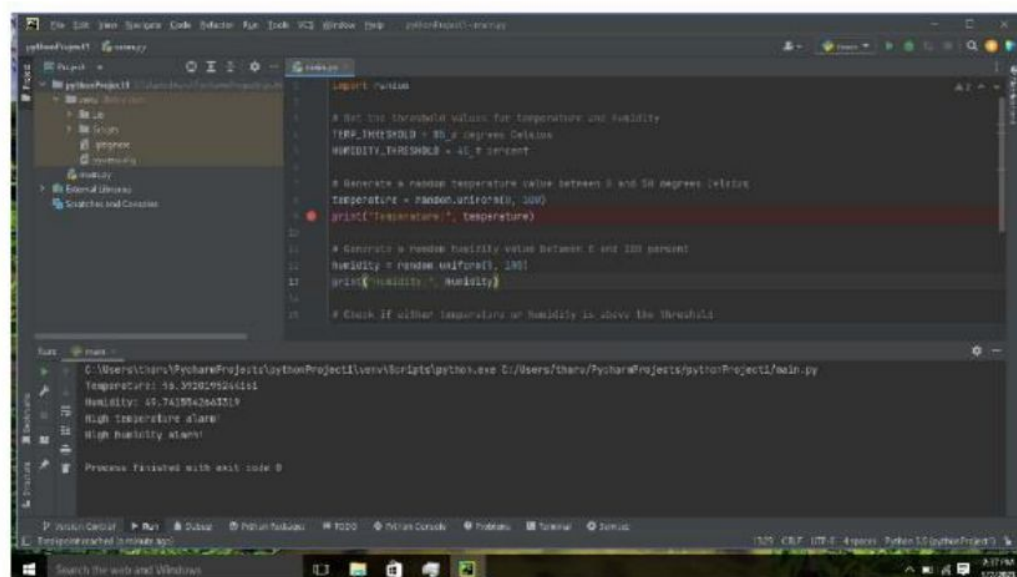
```
if temperature > TEMP_THRESHOLD:
```

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

```
if humidity > HUMIDITY_THRESHOLD:
```

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

OUTPUT:



The screenshot shows a Python IDE with a dark theme. The left sidebar displays a project tree for 'pythonProject1'. The main editor window contains the following Python code:

```
1 import random
2
3 # Set the threshold values for temperature and humidity
4 TEMP_THRESHOLD = 30.0 #degrees Celsius
5 HUMIDITY_THRESHOLD = 45.0 # percent
6
7 # Generate a random temperature value between 0 and 50 degrees Celsius
8 temperature = random.uniform(0, 50)
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 output console at the bottom shows the execution results:

```
File: C:\Users\Charu\PycharmProjects\pythonProject1\env\Scripts\python.exe C:\Users\Charu\PycharmProjects\pythonProject1\main.py
Temperature: 39.392099264461
Humidity: 45.7438842665119
High Temperature alarm!
High Humidity alarm!
Process finished with exit code 0
```

The status bar at the bottom indicates the file is 'main.py', the interpreter is 'Python 3.9.6 (tags/v3.9.6:4h3nc7b, Oct 6, 2021)', and the system clock shows 1:20 PM on 5/17/2022.