ASSIGNMENT 2

PROBLEM

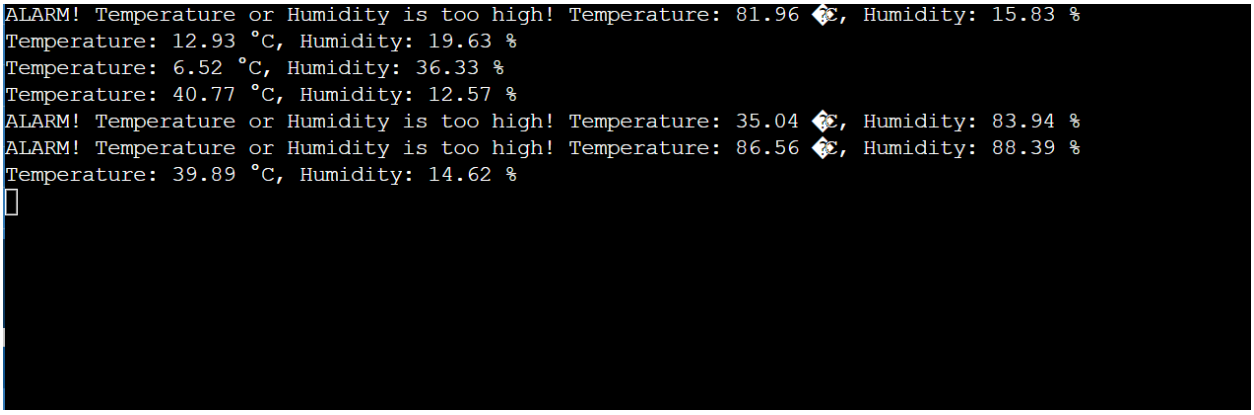
Build Python code, Generate Temperature and Humidity values (Use Random function to generate values) and write a condition to detect an alarm in case of high temperature and high Humidity.

SOLUTION

PROGRAM

```
import random

import time


# Set the threshold values for temperature and humidity

temp_threshold = 80

hum_threshold = 60


while True:

    # Generate random temperature and humidity values

    temperature = random.uniform(0, 100)

    humidity = random.uniform(0, 100)


    # Check if the temperature or humidity is above the threshold

    if temperature > temp_threshold or humidity > hum_threshold:

        print("ALARM! Temperature or Humidity is too high! Temperature: {:.2f} °C, Humidity: {:.2f} %".format(temperature, humidity))

    else:

        print("Temperature: {:.2f} °C, Humidity: {:.2f} %".format(temperature, humidity))


    # Wait for a few seconds before generating the next set of values

    time.sleep(5)
```

OUTPUT


ALARM! Temperature or Humidity is too high! Temperature: 81.96 °C, Humidity: 15.83 %
Temperature: 12.93 °C, Humidity: 19.63 %
Temperature: 6.52 °C, Humidity: 36.33 %
Temperature: 40.77 °C, Humidity: 12.57 %
ALARM! Temperature or Humidity is too high! Temperature: 35.04 °C, Humidity: 83.94 %
ALARM! Temperature or Humidity is too high! Temperature: 86.56 °C, Humidity: 88.39 %
Temperature: 39.89 °C, Humidity: 14.62 %