

Assignment 2:

Python coding

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Pradeep.py - C:/Users/Ninja Kaviyarasu/Documents/Pradeep.py (3.7.0)
File Edit Format Run Options Window Help

import random
import winsound

def generate_random_temperature():
    return random.uniform(20, 40) # Random temperature between 20°C and 40°C

def generate_random_humidity():
    return random.uniform(40, 80) # Random humidity between 40% and 80%

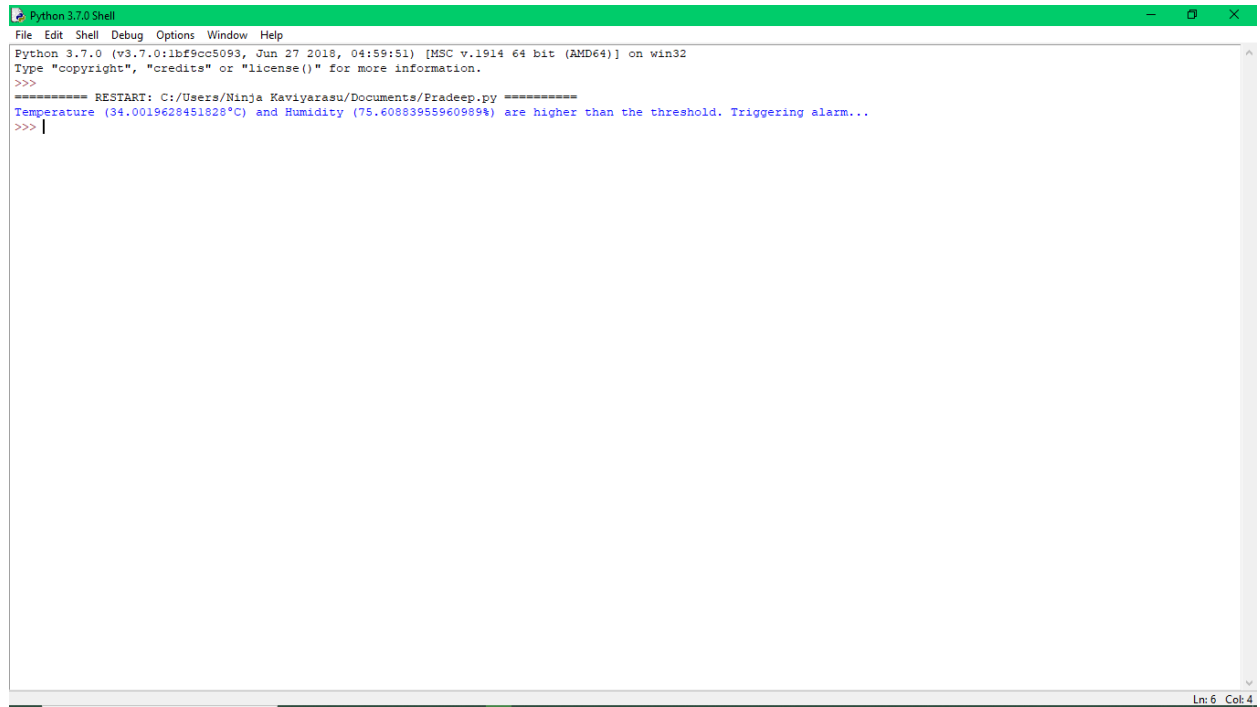
def trigger_alarm():
    frequency = 2500 # Set the alarm sound frequency (in Hz)
    duration = 2000 # Set the alarm sound duration (in milliseconds)
    winsound.Beep(frequency, duration)

# Generate temperature and humidity values
temperature = generate_random_temperature()
humidity = generate_random_humidity()

# Check if temperature or humidity exceeds the threshold
if temperature > 30 and humidity > 70:
    print(f"Temperature {(temperature)}°C and Humidity {(humidity)}% are higher than the threshold. Triggering alarm...")
    trigger_alarm()
elif temperature > 30:
    print(f"Temperature {(temperature)}°C is higher than 30°C. Triggering alarm...")
    trigger_alarm()
elif humidity > 70:
    print(f"Humidity {(humidity)}% is higher than 70%. Triggering alarm...")
    trigger_alarm()
|
```

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Python code Output:



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Python 3.7.0 Shell
File Edit Shell Debug Options Window Help
Python 3.7.0 (tags/v3.7.0:1bf9cc5093, Jun 27 2018, 04:59:51) [MSC v.1914 64 bit (AMD64)] on win32
Type "copyright", "credits" or "license()" for more information.
>>>
===== RESTART: C:/Users/Ninja Kaviyarasu/Documents/Pradeep.py =====
Temperature (34.0019628451828°C) and Humidity (75.60883955960989%) are higher than the threshold. Triggering alarm...
>>> |
```

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