Assignment 2

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.

Temp is greater than 30 c, play alarm sound. Same for humidity.

GUNA SELVI

Python Coding:

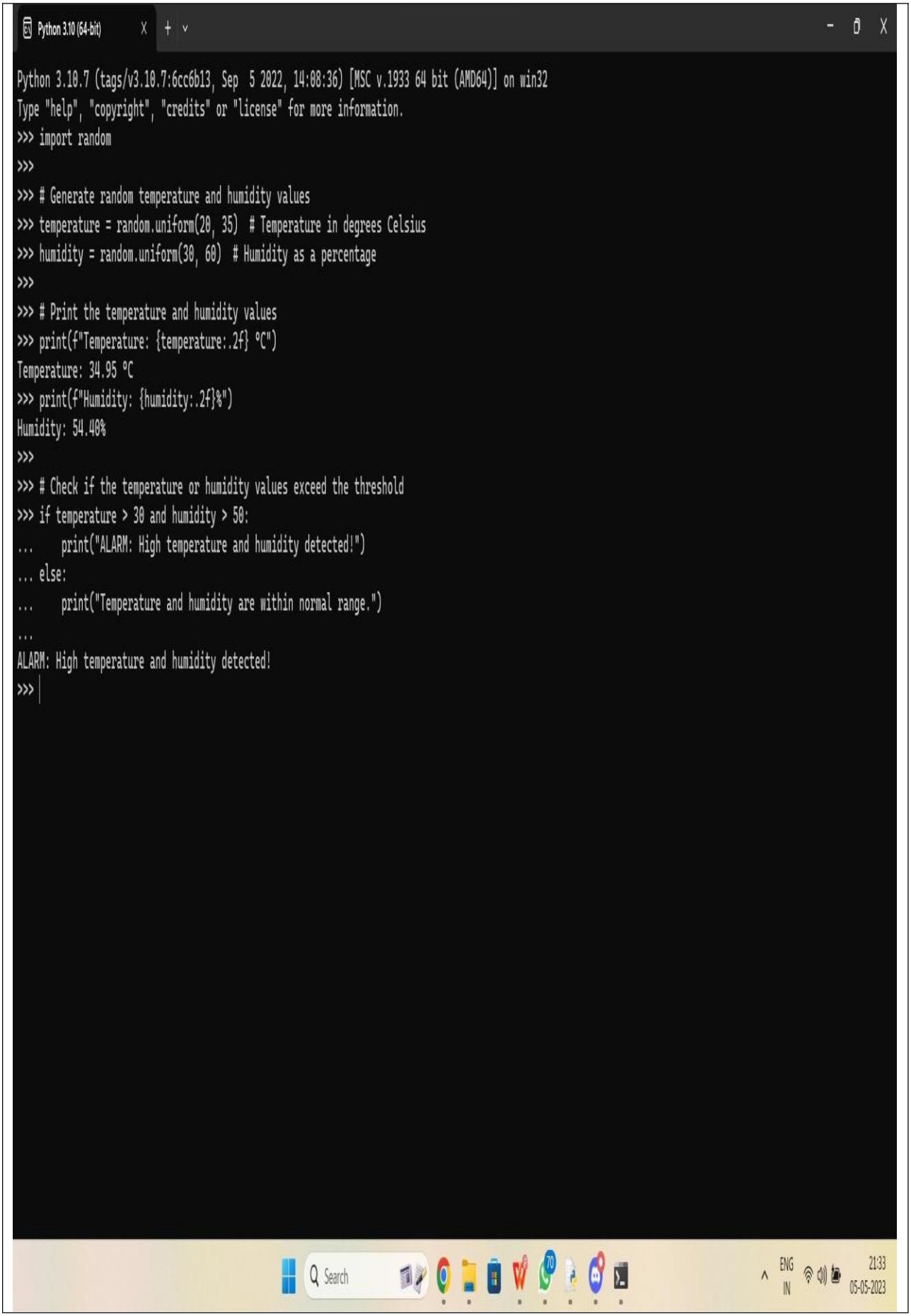
```
import random

# Generate random temperature and humidity values temperature =
random.uniform(20, 35) # Temperature in degrees Celsius humidity =
random.uniform(30, 60) # Humidity as a percentage

# Print the temperature and humidity values
print(f"Temperature: {temperature:.2f} °C")
print(f"Humidity: {humidity:.2f}%")

# Check if the temperature or humidity values exceed the threshold
if temperature > 30 and humidity > 30: print("ALARM: High
temperature and humidity detected!") else:
   print("Temperature and humidity are within normal range.")
```

```
>>> import random
>>>
>>> # Generate random temperature and humidity values
>>> temperature = random.uniform(20, 35)  # Temperature in degrees Celsius
>>> humidity = random.uniform(30, 60)  # Humidity as a percentage
>>>
>>> # Print the temperature and humidity values
>>> print(f"Temperature: {temperature:.2f} °C")
Temperature: 31.04 °C
>>> print(f"Humidity: {humidity:.2f}%")
Humidity: 53.74%
>>>
>>> # Check if the temperature or humidity values exceed the threshold
>>> if temperature > 30 and humidity > 30:
...     print("ALARM: High temperature and humidity detected!")
... else:
...     print("Temperature and humidity are within normal range.")
...
ALARM: High temperature and humidity detected!
>>>
```


Python 3.10 (64-bit)
Python 3.10.7 (tags/v3.10.7:6cc6b13, Sep 5 2022, 14:08:36) [MSC v.1933 64 bit (AMD64)] on win32
Type "help", "copyright", "credits" or "license" for more information.
>>> import random
>>>
>>> # Generate random temperature and humidity values
>>> temperature = random.uniform(20, 35) # Temperature in degrees Celsius
>>> humidity = random.uniform(30, 60) # Humidity as a percentage
>>>
>>> # Print the temperature and humidity values
>>> print(f"Temperature: {temperature:.2f} °C")
Temperature: 34.95 °C
>>> print(f"Humidity: {humidity:.2f}%")
Humidity: 54.40%
>>>
>>> # Check if the temperature or humidity values exceed the threshold
>>> if temperature > 30 and humidity > 50:
... print("ALARM: High temperature and humidity detected!")
... else:
... print("Temperature and humidity are within normal range.")
...
ALARM: High temperature and humidity detected!
>>>
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