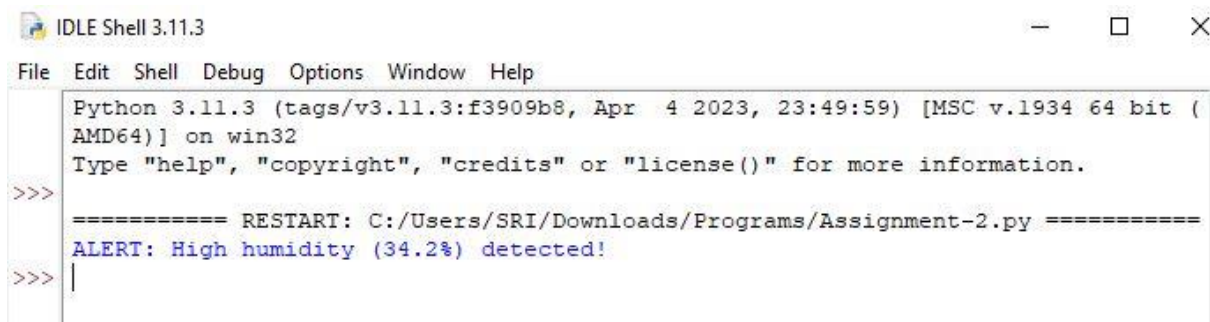ASSIGNMENT 2

```python
import random

import winsound

# generate random temperature and humidity values

temperature = random.uniform(20, 40) # in Celsius

humidity = random.uniform(30, 70) # in percentage

# set threshold values for temperature and humidity

temp_threshold = 30 # in Celsius

humidity_threshold = 30 # in percentage

# define frequency and duration for alarm sound

freq = 2500 # in hertz

dur = 1000 # in milliseconds

# check if temperature or humidity exceed threshold values

if temperature > temp_threshold or humidity > humidity_threshold:

    if temperature > temp_threshold and humidity > humidity_threshold:

        print("ALERT: High temperature ({:.1f}C) and high humidity ({:.1f}%) detected!".format(temperature, humidity))

    elif temperature > temp_threshold:

        print("ALERT: High temperature ({:.1f}C) detected!".format(temperature))

    else:

        print("ALERT: High humidity ({:.1f}%) detected!".format(humidity))

    winsound.Beep(freq, dur)

else:

    print("Temperature: {:.1f}C, Humidity: {:.1f}%".format(temperature, humidity))
```

IDLE Shell 3.11.3 — □ ×

File Edit Shell Debug Options Window Help

```
Python 3.11.3 (tags/v3.11.3:f3909b8, Apr  4 2023, 23:49:59) [MSC v.1934 64 bit (
AMD64)] on win32
Type "help", "copyright", "credits" or "license()" for more information.
>>>
=========== RESTART: C:/Users/SRI/Downloads/Programs/Assignment-2.py ===========
ALERT: High humidity (34.2%) detected!
>>>
```