Lab 13

Weather Analyzer

You are tasked with developing a Weather Analyzer that helps identify trends in daily temperatures. The user will input the recorded temperatures for several days, and your program will determine:

- The number of heat waves (3 or more consecutive days with temperatures above 30°C).
- The longest cold streak (number of consecutive days with temperatures below 15°C).
- The average temperature of the entire dataset.

At the end, your program will display the results, including the days where heat waves and cold streaks occurred.

Requirements:

1. The user will input the temperatures as a list of numbers (in Celsius), separated by spaces.
2. Use lists to store the temperatures and analyze the data.
3. Implement the following features:
    - Count heat waves: A heat wave is defined as 3 or more consecutive days where the temperature is above 30°C.
    - Find the longest cold streak: A cold streak is defined as consecutive days with temperatures below 15°C. You need to find the longest streak of such days.
    - Calculate the average temperature of all the days.
4. Example Input/Output:

Sample Input 1:

```
 Enter temperatures for each day separated by space: 32 33 34 29 12 10 14 25 26 30 31 32 33
```

Sample Output 1:

```
Number of heat waves: 2

Longest cold streak: 3 days
```

```
Average temperature: 25.23°C
```

Sample Input 2:

```
Enter temperatures for each day separated by space: 10 12 14 16 18
20 25 28 30 32 33 34 35 10 11 12
```

Sample Output 2:

```
Number of heat waves: 1

Longest cold streak: 3 days

Average temperature: 20.94°C
```

Hints:

- To find heat waves, you can loop through the list and check for 3 or more consecutive temperatures above 30°C.
- To find the longest cold streak, you will need to track the number of consecutive days below 15°C and update the longest streak accordingly.
- The average temperature can be calculated using the sum() function divided by the number of days.