75 Days of Code

Day18 Problem no: 1732. Find the Highest Altitude

There is a biker going on a road trip. The road trip consists of n + 1 points at different altitudes. The biker starts his trip on point 0 with altitude equal 0.

You are given an integer array gain of length n where gain[i] is the net gain in altitude between points i and i + 1 for all (0 <= i < n). Return the highest altitude of a point.

Example 1:

Input: gain = [-5,1,5,0,-7]
Output: 1
Explanation: The altitudes are [0,-5,-4,1,1,-6]. The highest is 1.
Example 2:

Input: gain = [-4,-3,-2,-1,4,3,2]
Output: 0
Explanation: The altitudes are [0,-4,-7,-9,-10,-6,-3,-1]. The highest is 0.

Solution of the above problem

1. We initialize two variable , one (sum) to know change in elevation at each index
2. Second (maxGain) to know maximum peak from origin
3. Initially both are initialize to zero as representing origin
4. In the loop we add elevations in sum for ith index and then compare till the last element

```
function largestAltitude(gain: number[]): number {
  let maxGain = 0,
    sum = 0;
  for (let numIndex = 0; numIndex < gain.length; numIndex++) {
    sum += gain[numIndex];
    maxGain = Math.max(sum, maxGain);
  }
  return maxGain;
}
let answer = largestAltitude([-4, -3, -2, -1, 4, 3, 2]);
console.log("Answer : ", answer);
```

```
[Running] node "c:\Users\Shubham\Desktop\75daysOfCode\75DaysOfCode\day18.js"
Answer :  0
```