128. Longest Consecutive Sequence

Hard ௴ 1438 ♀ 64 ♡ Favorite ௴ Share

Given an unsorted array of integers, find the length of the longest consecutive elements sequence.

Your algorithm should run in O(n) complexity.

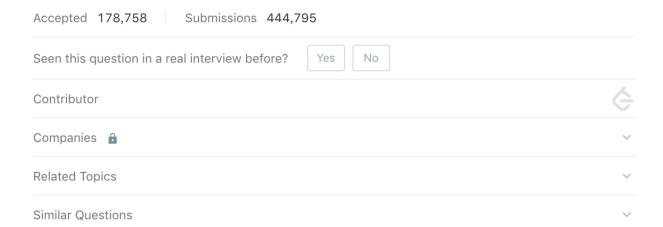
Example:

Input: [100, 4, 200, 1, 3, 2]

Output: 4

Explanation: The longest consecutive elements sequence is [1, 2, 3, 4].

Therefore its length is 4.



```
package Algorithm;
 2 import java.util.HashSet;
3⊕/*
 4 * 解题思路,将起先全部添加到hashset里面,为的就是去除重复数字,另外在便利一遍,往下取去除,往上取去除,维持一个最大数量值
 6 public class L128 {
      public int longestConsecutive(int[] nums) {
7⊖
8
          if(nums == null || nums.length == 0)
9
10
           HashSet<Integer> hashSet = new HashSet<Integer>();
11
           for(int i = 0; i < nums.length; i ++) {</pre>
12
               hashSet.add(nums[i]);
13
14
15
           int max = 0;
16
           for(int i = 0; i < nums.length; <math>i ++) {
17
               if(hashSet.contains(nums[i])) {
18
19
                  int count = 1;
                  hashSet.remove(nums[i]);
20
                  int low = nums[i] -1;
21
22
                   while (hashSet.contains(low)) {
                      hashSet.remove(low);
23
                      low--;
24
25
                       count++;
                  }
26
27
                  int high = nums[i] + 1;
                   while(hashSet.contains(high)) {
28
                      hashSet.remove(high);
29
30
                      high++;
                      count++;
31
                  }
32
33
                   max = Math.max(max, count);
               }
34
35
           }
           return max;
36
37
38 }
39
```