codility

Congratulations

You have completed a Codility training

ning center Codility training tasks

Tweet this!

I scored 77% in #javascript on @Codility! https://codility.com/demo/take-sample-test/missing integer

Sign up for our newsletter!

Like us on Facebook!

Training ticket

Session

ID: training43N9ER-JYZ Time limit: 120 min.

Status: closed

Created on: 2017-01-29 03:36 UTC Started on: 2017-01-29 03:36 UTC Finished on: 2017-01-29 04:27 UTC

Tasks in test

MissingInteger Submitted in: JavaScript Correctness

60%

Performance

100%

Task score

77%

Test score 2

77%

77 out of 100 points

score: 77 of 100

1. MissingInteger

Find the minimal positive integer not occurring in a given sequence.

Task description

Write a function:

function solution(A);

that, given a non-empty zero-indexed array A of N integers, returns the minimal positive integer (greater than 0) that does not occur in A.

For example, given:

A[0] = 1

A[1] = 3

A[2] = 6

A[3] = 4A[4] = 1

A[5] = 2

the function should return 5.

Assume that:

- N is an integer within the range [1..100,000];
- · each element of array A is an integer within the range [-2,147,483,648..2,147,483,647].

Complexity:

- expected worst-case time complexity is O(N);
- expected worst-case space complexity is O(N), beyond input storage (not counting the storage required for

Solution

Programming language used: JavaScript

Total time used: 51 minutes

Effective time used: 51 minutes

Notes: not defined yet

Task timeline



03:36:22

04:27:13

show code in pop-up

Code: 04:27:13 UTC, js, final, score: 77

1 2 3 Write a function:

4 5 function solution(A); 6

that, given a non-empty zero-indexed array A of N integ

input arguments).

Elements of input arrays can be modified.

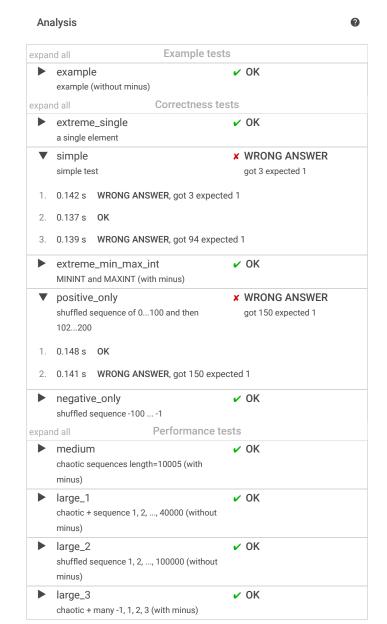
Copyright 2009–2017 by Codility Limited. All Rights Reserved. Unauthorized copying, publication or disclosure prohibited.

```
8
    returns the minimal positive integer (greater than 0) +
9
10
    For example, given:
11
12
       A[0] = 1
       A[1] = 3
13
       A[2] = 6
14
15
       A[3] = 4
16
       A[4] = 1
       A[5] = 2
17
18
     the function should return 5.
19
20
     Assume that:
21
22
     N is an integer within the range [1..100,000];
23
     each element of array A is an integer within the range
24
     Complexity:
25
26
     expected worst-case time complexity is O(N);
27
     expected worst-case space complexity is O(N), beyond in
28
    Elements of input arrays can be modified.
29
30
    Tests:
31
32
     [-5, -4, -3, -2, -1, 0, 1, 2, 3, 4, 5] \rightarrow 6
33
     [-5, -4, -3, -2, -1, 0, 1, 2, 4, 5]
                                              -> 3
34
     [-5, -4, -3, -2, -1, 0, 2, 3, 4, 5]
35
     [-5, -4, -3, -2, -1, 0, 1, 3, 4, 5]
    [-5, -4, -3, -2, -1, 1, 2, 3, 4, 5]
37
     [-5, -4, -3, -2, 0, 1, 2, 3, 4, 5]
                                              -> 6
38
     [-5, -4, -3, -1, 0, 1, 2, 3, 4, 5]
                                              -> 6
39
     [-1] -> 1
40
     [-2] -> 1
41
     [0] -> 1
42
     [1] -> 2
    [2] -> 1
43
44
     [3] -> 2
45
46
47
     ****/
48
49
50
     // you can write to stdout for debugging purposes, e.g
51
     // console.log('this is a debug message');
52
53
    function solution(A) {
54
         // write your code in JavaScript (Node.js 6.4.0)
55
56
         // If there is only one element, the min. missing (
57
         if (A.length === 1) {
58
             if (A[0] < 1 ) return 1;</pre>
59
             if (A[0] === 1) return 2;
60
             return A[0] - 1;
61
62
63
         // Sort the array
64
         A.sort(function(a, b){return a-b});
65
66
         var num1 = 0;
67
         var num2 = 0;
68
69
         // Find the first missing number starting with the
70
         for (i=0; i<A.length-1; i++) {</pre>
71
72
             // Skip all numbers that are < 1.
73
             if (A[i] < 0) continue;</pre>
74
75
             // We are either >= 1 at this point
76
             if (A[i] === 1 && i === A.length-1) return 2;
77
78
             num1 = A[i];
79
             num2 = A[i+1];
80
81
     //
               console.log("num1: ", num1, "num2: ", num2);
82
83
             if (num2 - num1 > 1) {
84
                 // We found the missing number
85
                 return num1 + 1;
86
             }
87
         }
```

Analysis summary

The following issues have been detected: wrong answers.

For example, for the input [4 , 5 , 6 , 2] the solution returned a wrong answer (got 3 expected 1).



Training center