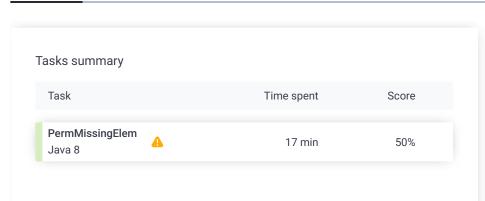
Codility_

Candidate Report: training3ZTYHQ-Q9K

Test Name:

Summary Timeline





Check out Codility training tasks

Tasks Details



1. PermMissingElem

Find the missing element in a given permutation.



Correctness 20%

Performance ② 80%

Task description

An array A consisting of N different integers is given. The array contains integers in the range [1..(N + 1)], which means that exactly one element is missing.

Your goal is to find that missing element.

Write a function:

class Solution { public int solution(int[] A); }

that, given an array A, returns the value of the missing element.

For example, given array A such that:

A[0] = 2

A[1] = 3

A[2] = 1

A[3] = 5

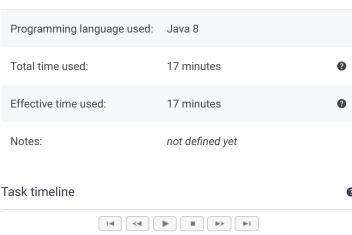
the function should return 4, as it is the missing element.

Write an efficient algorithm for the following assumptions:

- N is an integer within the range [0..100,000];
- the elements of A are all distinct;
- each element of array A is an integer within the range [1..(N + 1)].

Solution

3





Code: 20:24:39 UTC, java, final, show code in pop-up score: 50

1 // you can also use imports, for example: import java.util.*;

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```
4
     \ensuremath{//} you can write to stdout for debugging purposes, e.g.
 5
     // System.out.println("this is a debug message");
 6
     class Solution {
8
         public int solution(int[] A) {
9
             int missingElement = 0;
10
             // write your code in Java SE 8
11
             Arrays.sort(A);
12
13
             for(int i = 0; i < A.length; i++){
14
                 if(i+1 == A.length){
15
                     break; // no items missing
16
                 }
17
                 int currentVal = A[i];
18
                 int nextVal = A[i+1];
19
                 int expectedtNextVal = currentVal+1;
20
                 if(expectedtNextVal != nextVal && expectedt
21
                     missingElement = expectedtNextVal;
22
23
24
             }
25
             return missingElement;
26
         }
27
     }
```

Analysis summary

The following issues have been detected: wrong answers.

For example, for the input $[\]$ the solution returned a wrong answer (got 0 expected 1).

Analysis

expar	id all Example	tests
•	example	✓ OK
	example test	
expar		
	empty_and_single	× WRONG ANSWER
	empty list and single element	got 0 expected 1
▼	missing_first_or_last	WRONG ANSWER
	the first or the last element is missing	got 0 expected 6
1.	0.008 s WRONG ANSWER, got 0 ex	pected 6
2.	0.008 s WRONG ANSWER, got 0 ex	pected 1
•	single	× WRONG ANSWER
	single element	got 0 expected 2
1.	0.012 s WRONG ANSWER, got 0 ex	pected 2
2.	0.008 s WRONG ANSWER, got 0 ex	pected 1
•	double	× WRONG ANSWER
	two elements	got 0 expected 3
	simple	✓ OK
	simple test	
expar	d all Performan	ce tests
	medium1	∨ OK
	medium test, length = ~10,000	
•	medium2	∨ OK
	medium test, length = ~10,000	
•	large_range	× WRONG ANSWER
	range sequence, length = ~100,000	got 0 expected 100001

•	large1 large test, length = ~100,000	∠ OK	
•	large2 large test, length = ~100,000	∨ OK	

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