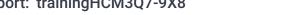
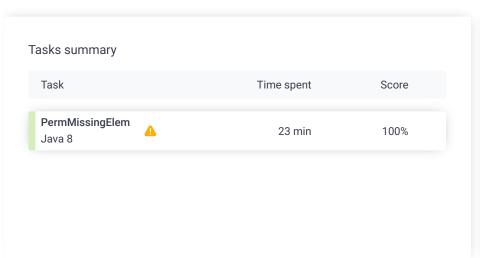
# Codility\_

# Candidate Report: trainingHCM3Q7-9X8

Test Name:

Summary Timeline







Check out Codility training tasks

100%

## **Tasks Details**



## 1. PermMissingElem

Find the missing element in a given permutation.



# 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

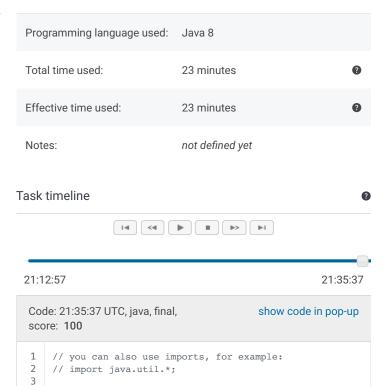
A[3] = 5

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



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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
             // write your code in Java SE 8
10
             int len = A.length;
             if(len == 0) return 1;
11
12
13
             int sumA = 0;
14
             for(int i=0; i < len; i++){</pre>
15
                 sumA += A[i];
16
17
18
19
             int sumI = 0;
20
             for(int i=1;i <= len +1; i++){
21
                 sumI += i;
22
23
24
             return sumI - sumA;
25
         }
26 }
```

### Analysis summary

The solution obtained perfect score.

# Analysis

expand all Example		xample tests	
•	example example test	~	OK
expand all Correctness tests			
•	empty_and_single empty list and single element	<b>✓</b>	OK
•	missing_first_or_last the first or the last element is	•	OK
•	single single element	V	OK
•	double two elements	~	OK
•	simple simple test	~	OK
expand all Performance tests			
•	medium1 medium test, length = ~10,000	•	OK
•	medium2 medium test, length = ~10,000	•	OK
•	large_range range sequence, length = ~10		OK
•	large1 large test, length = ~100,000	<b>V</b>	ОК
•	large2	V	OK