codility

Training center

Check out Codility training tasks

Candidate Report: Anonymous

Test Name:

SUMMARY TIMELINE

Test Score

100 out of 100 points

100%

Tasks in Test

	Time Spent	Task Score
OddOccurrencesInArray Submitted in: Java	1 min	100%

TASKS DETAILS

		Task Score	Correctness	Performance
EASY	1. OddOccurrencesInArray Find value that occurs in odd number of elements.	100%	100%	100%

Task description

A non-empty array A consisting of N integers is given. The array contains an odd number of elements, and each element of the array can be paired with another

Solution

Programming language used: Java

element that has the same value, except for one element that is left unpaired.

For example, in array A such that:

```
A[0] = 9  A[1] = 3  A[2] = 9
A[3] = 3  A[4] = 9  A[5] = 7
A[6] = 9
```

- the elements at indexes 0 and 2 have value 9,
- the elements at indexes 1 and 3 have value 3,
- the elements at indexes 4 and 6 have value 9,
- the element at index 5 has value 7 and is unpaired.

Write a function:

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

that, given an array A consisting of N integers fulfilling the above conditions, returns the value of the unpaired element.

For example, given array A such that:

```
A[0] = 9  A[1] = 3  A[2] = 9
A[3] = 3  A[4] = 9  A[5] = 7
A[6] = 9
```

the function should return 7, as explained in the example above.

Assume that:

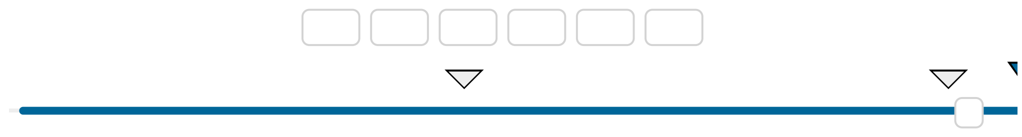
- N is an odd integer within the range [1..1,000,000];
- each element of array A is an integer within the range [1..1,000,000,000];
- all but one of the values in A occur an even number of times.

Complexity:

- expected worst-case time complexity is O(N);
- expected worst-case space complexity is O(1) (not counting the storage required for input arguments).

Total time used:	1 minutes
Effective time used:	1 minutes
Notes:	*not defined yet*

Task timeline



15:57:45 15:58:38

Code: 15:58:37 UTC, java, final, score: **100** show code in pop-up

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

// you can write to stdout for debugging purposes, e.g.
// System.out.println("this is a debug message");

class Solution {
  public int solution(int[] A) {
    // write your code in Java SE 8
    int elem = 0;
        for( int i = 0; i < A.length; i++ ){
            elem ^= A[i];
        }
        return elem;
  }
}
```

Analysis summary

The solution obtained perfect score.

Analysis ?

Detected time complexity: **O(N) or O(N*log(N))**

expand all	Example tests	
▶	example1 example test	✔ OK
expand all	Correctness tests	
▶	simple1 simple test n=5	✔ OK
▶	simple2 simple test n=11	✔ OK
▶	extreme_single_item [42]	✔ OK
▶	small1 small random test n=201	✔ OK
▶	small2 small random test n=601	✔ OK
expand all	Performance tests	
▶	medium1 medium random test n=2,001	✔ OK
▶	medium2 medium random test n=100,003	✔ OK
▶	big1 big random test n=999,999, multiple repetitions	✔ OK
▶	big2 big random test n=999,999	✔ OK