https://course.acciojob.com/idle?question=63605eda-4a6b-438f-826d-9e8225d706c3

- EASY
- Max Score: 30 Points

Single Number

Given an array of integers `A`. Every element in the array appears twice but there is one element which occurs only once. Find the single element which appears for only once.

Note: Your algorithm should have a linear runtime complexity. Could you implement it without using extra memory?

Your task is to complete the function `singleElement` which receives the array `A` as parameter and prints the only single number present in the array.

Input Format

The first line contains an integer `n`, the size of the array `A`.

The second line contains `n` space separated integers which are the elements of the array `A`.

Output Format

Print a single integer denoting the single element.

Example 1

Input

```
5
1 2 2 3 1
```

Output

```
3
```

Explanation

Except for 3 every element in the array is occuring twice. So 3 is the single number.

Example 2

Input

```
3
1 2 2
```

Output

```
1
```

Explanation

Only 1 occurs once in the array. So 1 will be the answer.

Constraints

2 <= n <= 200000

0 <= A[i] <= 200000

Topic Tags

- **Bit Manipulation**

My code

```
// in java
import java.util.*;
```

```
import java.lang.*;
import java.io.*;

public class Main
{
	public static void main (String[] args) throws java.lang.Exception
	{
		//your code here

//use here hashing it is wrong way.

	Scanner s=new Scanner(System.in);
	int n=s.nextInt();
	int arr[]=new int[n];
	for(int i=0;i<n;i++)
	  arr[i]=s.nextInt();
	Arrays.sort(arr);
	 if(n==1) {System.out.println(arr[0]);return;}
	for(int i=0;i<n-1;i=i+2)
	  {
	    if(arr[i]!=arr[i+1]) {System.out.println(arr[i]);return;}
	  }
	System.out.println(arr[n-1]);
	  }
}
```