https://course.acciojob.com/idle?question=8b7a387b-7cea-4efd-b705-b149b43c0215

- EASY
- Max Score: 30 Points
-

Noble Integer

Given an integer array `A`, find if an integer `p` exists in the array such that the number of integers greater than `p` in the array equals to `p`.

Input Format

First line contains integer `N`

Second line contains `n` integers `arr[i]`.

Output Format

Print `1` if any such integer `p` is found else return `-1`.

Example 1

Input

```
4
3 2 1 3
```

Output

```
1
```

Explanation

For integer 2, there are 2 greater elements in the array. So, return 1.

Example 2

Input

```
4
1 1 3 3
```

Output

```
-1
```

Explanation

There is no such integer exists.

Constraints:

```
1<= N <=10^5
```

```
0<= arr[i] <= 10^9
```

Topic Tags

- **Arrays**

My code

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

public class Main
{
```

```
public static int nobleInteger(int[] arr, int size){
  Set<Integer> hs = new HashSet<Integer>();
   int[] count =  new int[100001];
    for(int num: arr) {
      hs.add(num);
      count[num]++;
    }


    for(int i = 1; i < 100001; i++){
      count[i] += count[i-1];
    }

    for(int i = 0; i < 100001 && i < size; i++){
      //System.out.println((size - count[i+1]) +" " +(i+1));
      if((size - count[i+1]) == i+1 && hs.contains(i+1)) {
        return 1;
      }
    }

  return -1;
}
    public static void main (String[] args) throws java.lang.Exception
    {
            Scanner in = new Scanner(System.in);
    int size = in.nextInt();

    int[] arr = new int[size];

    for(int i = 0; i < size; i++){
      arr[i] = in.nextInt();
    }
```

```
        System.out.print(nobleInteger(arr, size));
        }
}
```