https://course.acciojob.com/idle?question=6d4ccafe-6199-4509-baf9-a37e19f0d4f9

- EASY
- Max Score: 30 Points

Numbers Are Smaller Than the Current Number

Given the array `nums`, for each element of `nums` array, find out how many numbers in the array are smaller than it.

That is, for each nums[i] you have to count the number of valid j's such that `j != i` and `nums[j] < nums[i]`.

Print the required array.

Input Format

First line contains integer `N`

Second line contains `N` integers representing the elements of the array `nums`.

Output Format

Print the answer array

Example 1

Input

```
5
8 1 2 2 3
```

Output

```
4 0 1 1 3
```

Explanation

For nums[0]=8 there exist four smaller numbers than it (1, 2, 2 and 3).

For nums[1]=1 does not exist any smaller number than it.

For nums[2]=2 there exist one smaller number than it (1).

For nums[3]=2 there exist one smaller number than it (1).

For nums[4]=3 there exist three smaller numbers than it (1, 2 and 2).

Example 2

Input

```
4
7 7 7 7
```

Output

```
0 0 0 0
```

Explanation

For nums[0]=7 no number is smaller than 7

For nums[1]=7 no number is smaller than 7

For nums[2]=7 no number is smaller than 7

For nums[3]=7 no number is smaller than 7

Constraints

2 <= nums.length <= 10000

0 <= nums[i] <= 100

Topic Tags

- Hashing
- Sorting

My code

```
// in java
import java.util.*;
class Solution {
    public int[] smallerNumbersThanCurrent(int[] nums) {
        // Your code here
                int n=nums.length;
                int arr[]=new int[n];
                 for(int i=0; i<n; i++)
                        arr[i]=nums[i];
                Arrays.sort(arr);
                HashMap<Integer,Integer>hm=new HashMap<>();
                     for(int i=0;i<n;i++)
                                {
                                        if(!hm.containsKey(arr[i]))
                                        hm.put(arr[i],i);
                                }
                //put ans in arr
                 for(int i=0;i<n;i++)
                        {
                                arr[i]=hm.get(nums[i]);
                        }
                return arr;
}
}
```

```
public class Main {
    public static void main(String args[]) {
        Scanner sc=new Scanner(System.in);
        int n=sc.nextInt();
        int[] nums = new int[n];
        for(int i=0; i<n; i++)
        {
            nums[i]=sc.nextInt();
        }
        Solution Obj = new Solution();
        int[] ans = Obj.smallerNumbersThanCurrent(nums);
        for(int i=0;i<n;i++){
            System.out.print(ans[i]+" ");
        }
    }
}
```