

<https://course.acciojob.com/idle?question=d66b627a-f0fe-4c9a-aefb-3582a213de33>

● EASY

● Max Score: 30 Points

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Height Problem

n people are standing in a line numbered 1 to n from left to right. Each person wants to know the height of the person to left of him having height less than him. If there are multiple such people he wants to know the height of the person closest to him. If there is no such person report -1.

Input Format

line 1: contains an integer n denoting the size of array.

line 2: contains n separated integers denoting elements of array.

Output Format

The output should contain n space separated integers, the i th integer should be the height of the closest person on the left with a height less than that person (-1 if no person to the left is found whose height is less).

Example 1

Input

```
5
1 2 3 4 5
```

Output

```
-1 1 2 3 4
```

Explanation

For each index except the first, the closest person shorter than each index is immediately to their left. Hence our output is -1 1 2 3 4

Constraints

$$2 \leq n \leq 10^5$$
$$0 \leq \text{arr}[i] \leq 10^9$$

Topic Tags

- **Stacks**

My code

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

public class Main
{
    static int[] leshig(int arr[])
    {
        int n=arr.length;
        Stack<Integer>st=new Stack<>();
```

```

        int ans[]=new int[n];
        for(int i=0;i<n;i++)
        {
            int value=arr[i];
            while(st.size()>0 && st.peek()>=value)
            {
                st.pop();
            }
            if(st.size()==0)
            {
                ans[i]=-1;
            }
            else
            {
                ans[i]=st.peek();
            }
            st.push(value);
        }
        return ans;
    }

    public static void main (String[] args) throws
java.lang.Exception
    {
        //your code here
        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();
        int arb[]=lesbig(arr);
    }

```

```
        for(int val:arb)
            System.out.print(val+" ");
    }
}
```