

 **Code Saved Successfully!!****Code Saved Successfully!!****Elite-S005-Stack**Solved Challenges **1/3**[Back To Challenges List](#)**Array - Next Greater Element****ID:11041    Solved By 528 Users**

The program must accept an integer array of size **N** as the input. The program must print the next greater element for every element in the array. If there is no next greater element for an element, the program must print the same element as they are.

**Boundary Condition(s):** $1 \leq N \leq 10^5$ **Input Format:**The first line contains **N**.The second line contains **N** integers separated by a space.**Output Format:**The first line contains the **N** integers which represent the next greater elements.**Example Input/Output 1:**

Input:

7

2 1 5 15 10 6 20

Output:

5 5 15 20 20 20 20

**Example Input/Output 2:**

Input:

10

7 5 3 15 100 60 200 15 999 1

Output:

15 15 15 100 200 200 999 999 999 1

**Max Execution Time Limit: 100 millisecs**

Ambiance



Reset

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```
1  #include<stdio.h>
2  #include<stdlib.h>
3
4  int stack[100000];
5  int top=-1;
6
7  void push(int val)
8  {
9      stack[++top] = val;
10 }
11
12 int pop()
13 {
14     return stack[top--];
15 }
16 int peek()
17 {
18     return stack[top];
19 }
20 int isEmpty()
21 {
22     return top== -1;
23 }
24
25 int main()
26 {
27     int N;
28     scanf("%d",&N);
29     int arr[100000];
30     for(int i =0;i<N;i++)
31         scanf("%d",&arr[i]);
32     int nextGreater = 0;
33
34     for(int index=N-1;index<=0;index--)
35     {
36         if(isEmpty())
37         {
38             push(arr[index]);
39         }
40         else if(peek()>arr[index])
41         {
42             nextGreater = peek();
43             push(arr[index]);
44             arr[index] = nextGreater;
45         }
46         else
47         {
```

```
48         while(!isEmpty() && peek() <= arr[index])
49         {
50             pop();
51         }
52         if(isEmpty())
53         {
54             push(arr[index]);
55         }
56         else
57         {
58             nextGreater = peek();
59             push(arr[index]);
60             arr[index] = nextGreater;
61         }
62     }
63 }
64 }
65 }
66
67 for(int index=0; index<N; index++)
68     printf("%d ", arr[index]);
69
```

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