

```
1 // Q186: write a program to take an array arr[] of integers as input, the task is to find the next greater element for each element of the array in order of their appearance in the array.
2
3 /* N.B:
4 - Print the output for each element in a comma separated fashion.
5 - Do not use Stack, use brute force approach (nested loop) to solve. */
6
7 /*
8 Sample Test Cases:
9 Input :1:
10 arr = {1, 3, 2, 4}
11 Output :1:
12 3, 4, 4, -1
13
14 Input :2:
15 arr = {0, -8, 0, 1, 3}
16 Output :2:
17 -8, -1, 1, 3, -1
18
19 Input :3:
20 arr = {1, -2, 3, 5}
21 Output :3:
22 2, 3, 5, -1
23
24 Input :4:
25 arr = {5, 4, 3, 1}
26 Output :4:
27 -1, -1, -1, -1
28
29 */
30
31 #include <stdio.h>
32
33 int main() {
34     int n, i, j, next;
35     printf("Enter number of elements: ");
36     scanf("%d", &n);
37     int arr[n];
38     printf("Enter %d elements: ", n);
39     for (i = 0; i < n; i++) {
40         scanf("%d", &arr[i]);
41     }
42     for (i = 0; i < n; i++) {
43         next = -1;
44         for (j = i + 1; j < n; j++) {
45             if (arr[j] > arr[i]) {
46                 next = arr[j];
47                 break;
48             }
49         }
50         printf("%d", next);
51         if (i != n - 1)
52             printf(", ");
53     }
54     printf("\n");
55     return 0;
56 }
```

PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL PORTS

```
PS C:\Users\drago\OneDrive\Desktop\C.H.M> gcc ./abc.c
PS C:\Users\drago\OneDrive\Desktop\C.H.M> ./a.exe
Enter number of elements: 4
Enter 4 elements: 1 3 2 4
3, 4, 4, -1
PS C:\Users\drago\OneDrive\Desktop\C.H.M> gcc ./abc.c
PS C:\Users\drago\OneDrive\Desktop\C.H.M> ./a.exe
Enter number of elements: 5
Enter 5 elements: 6 8 0 1 2
8, -1, 3, 2, -1
PS C:\Users\drago\OneDrive\Desktop\C.H.M> gcc ./abc.c
PS C:\Users\drago\OneDrive\Desktop\C.H.M> ./a.exe
Enter number of elements: 4
Enter 4 elements: 1 2 3 5
2, 3, 5, -1
PS C:\Users\drago\OneDrive\Desktop\C.H.M> gcc ./abc.c
PS C:\Users\drago\OneDrive\Desktop\C.H.M> ./a.exe
Enter number of elements: 4
Enter 4 elements: 5 4 3 1
-1, -1, -1, -1
PS C:\Users\drago\OneDrive\Desktop\C.H.M>
```