



**Started on** Wednesday, 17 September 2025, 3:43 PM

**State** Finished

**Completed on** Wednesday, 17 September 2025, 3:45 PM

**Time taken** 1 min 17 secs

**Marks** 1.00/1.00

**Grade** **10.00** out of 10.00 (**100%**)

Write a Program to Implement the Quick Sort Algorithm

Input Format:

The first line contains the no of elements in the list-n

The next n lines contain the elements.

Output:

Sorted list of elements

For example:

Input	Result
5	12 34 67 78 98
67 34 12 98 78	

Answer:

```

1  #include <stdio.h>
2
3  void swap(int *a, int *b) {
4      int temp = *a;
5      *a = *b;
6      *b = temp;
7  }
8
9  int partition(int arr[], int low, int high) {
10     int pivot = arr[high];
11     int i = low - 1;
12
13     for (int j = low; j < high; j++) {
14         if (arr[j] < pivot) {
15             i++;
16             swap(&arr[i], &arr[j]);
17         }
18     }
19
20     swap(&arr[i + 1], &arr[high]);
21     return i + 1;
22 }
23
24 void quickSort(int arr[], int low, int high) {
25     if (low < high) {
26         int pi = partition(arr, low, high);
27
28         quickSort(arr, low, pi - 1);
29         quickSort(arr, pi + 1, high);
30     }
31 }
32
33 int main() {
34     int n;
35     scanf("%d", &n);
36
37     int arr[n];
38     for (int i = 0; i < n; i++)
39         scanf("%d", &arr[i]);
40
41     quickSort(arr, 0, n - 1);
42
43     for (int i = 0; i < n; i++)
44         printf("%d ", arr[i]);
45
46     return 0;

```

```
47 | }  
48 |
```

	Input	Expected	Got	
✓	5 67 34 12 98 78	12 34 67 78 98	12 34 67 78 98	✓
✓	10 1 56 78 90 32 56 11 10 90 114	1 10 11 32 56 56 78 90 90 114	1 10 11 32 56 56 78 90 90 114	✓
✓	12 9 8 7 6 5 4 3 2 1 10 11 90	1 2 3 4 5 6 7 8 9 10 11 90	1 2 3 4 5 6 7 8 9 10 11 90	✓

Passed all tests! ✓

Correct

Marks for this submission: 1.00/1.00.

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