



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%**)

Question 1 | Correct Mark 1.00 out of 1.00

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 }
```

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 56 78 90 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.

[Back to Course](#)