

5-Implementation of Quick Sort

Started on	Tuesday, 30 September 2025, 10:10 PM
State	Finished
Completed on	Tuesday, 30 September 2025, 10:38 PM
Time taken	28 mins 5 secs
Marks	1.00/1.00
Grade	10.00 out of 10.00 (100%)

Question 1 | Correct Mark 1.00 out of 1.00 [Flag question](#)

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

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     for(int j = low; j <= high - 1; j++) {
13         if(arr[j] <= pivot) {
14             i++;
15             swap(&arr[i], &arr[j]);
16         }
17     }
18     swap(&arr[i + 1], &arr[high]);
19     return i + 1;
20 }
21
22 void quickSort(int arr[], int low, int high) {
23     if(low < high) {
24         int pi = partition(arr, low, high);
25         quickSort(arr, low, pi - 1);
26         quickSort(arr, pi + 1, high);
27     }
28 }
29
30 int main() {
31     int n;
32     scanf("%d", &n);
33     int arr[n];
34     for(int i = 0; i < n; i++)
35         scanf("%d", &arr[i]);
36     quickSort(arr, 0, n - 1);
37     for(int i = 0; i < n; i++)
38         printf("%d ", arr[i]);
39     printf("\n");
40     return 0;
41 }

```

	Input	Expected	Got	
✓	5	12 34 67 78 98	12 34 67 78 98	✓
	67 34 12 98 78			

✓	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.

[Finish review](#)

[Back to Course](#)