



Started on	Wednesday, 5 November 2025, 4:07 AM
State	Finished
Completed on	Wednesday, 5 November 2025, 4:08 AM
Time taken	1 min 1 sec
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 67 34 12 98 78	12 34 67 78 98

Answer:

```

1  #include <stdio.h>
2
3  // Function to swap two elements
4  void swap(int *a, int *b) {
5      int temp = *a;
6      *a = *b;
7      *b = temp;
8  }
9
10 // Partition function
11 int partition(int arr[], int low, int high) {
12     int pivot = arr[high]; // Choosing the last element as pivot
13     int i = low - 1;
14
15     for (int j = low; j < high; j++) {
16         if (arr[j] < pivot) {
17             i++;
18             swap(&arr[i], &arr[j]);
19         }
20     }
21
22     swap(&arr[i + 1], &arr[high]);
23     return i + 1;
24 }
25
26 // Quick Sort function
27 void quickSort(int arr[], int low, int high) {
28     if (low < high) {
29         int pi = partition(arr, low, high);
30
31         quickSort(arr, low, pi - 1);
32         quickSort(arr, pi + 1, high);
33     }
34 }
35
36 int main() {
37     int n;
38     scanf("%d", &n);
39     int arr[n];
40
41     for (int i = 0; i < n; i++) {
42         scanf("%d", &arr[i]);
43     }
44
45     quickSort(arr, 0, n - 1);
46
47     for (int i = 0; i < n; i++) {
48         printf("%d ", arr[i]);
49     }
50
51     return 0;
52 }

```

	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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