

Started on Friday, 19 September 2025, 8:39 PM

State Finished

Completed on Friday, 19 September 2025, 9:58 PM

Time taken 1 hour 19 mins

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  {
5      int temp=*a;
6      *a=*b;
7      *b=temp;
8  }
9
10 int partition(int a[],int low,int high)
11 {
12     int p = a[high];
13     int i=(low-1);
14     for(int j=low;j<high;j++)
15     {
16         if(a[j]<=p)
17         {
18             i++;
19             swap(&a[i],&a[j]);
20         }
21     }
22     swap(&a[i+1],&a[high]);
23     return (i+1);
24 }
25
26 void quick(int a[],int low,int high)
27 {
28     if(low<high)
29     {
30         int q=partition(a,low,high);
31         quick(a,low,q-1);
32         quick(a,q+1,high);
33     }
34 }
35
36 int main()
37 {
38     int n;
39     scanf("%d",&n);
40     int a[n];
41     for(int i=0;i<n;i++)
42     {
43         scanf("%d",&a[i]);
44     }
45
46     quick(a,0,n-1);
47     for(int i=0;i<n;i++)
48     {
49         printf("%d ",a[i]);
50     }
51 }
```

	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.