Started on	Thursday, 12 September 2024, 11:03 AM
State	Finished
Completed on	Thursday, 12 September 2024, 11:27 AM
Time taken	23 mins 54 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 67 34 12 98 78	12 34 67 78 98

Answer:

```c
1   #include <stdio.h>
2
3   void quicksort(int arr[], int left, int right){
4       if(left < right){
5           int i = left+1;
6           int j = right;
7           while(i <= j){
8               while(arr[i] <= arr[left] && i<=right)
9                   i++;
10              while(arr[j] > arr[left])
11                  j--;
12              if(i<j){
13                  int temp = arr[i];
14                  arr[i] = arr[j];
15                  arr[j] = temp;
16              }
17          }
18          int temp = arr[left];
19          arr[left] = arr[j];
20          arr[j] = temp;
21          quicksort(arr, left, j-1);
22          quicksort(arr, j+1, right);
23      }
24  }
25
26  int main(){
27      int n;
28      scanf("%d",&n);
29      int arr[n];
30      for(int i=0 ; i<n ; i++)
31          scanf("%d",&arr[i]);
32
33      int left = 0;
34      int right = n-1;
35      quicksort(arr, left, right);
36      for(int i=0 ; i<n ; i++)
37          printf("%d ",arr[i]);
38  }
```

	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	✔

	Input	Expected	Got	
✔	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! ✔

<div style="border:1px solid;padding:2px">Correct</div>

Marks for this submission: 1.00/1.00.

◄ 4-Two Elements sum to x

Jump to...

1-DP-Playing with Numbers ►