Started on	Tuesday, 22 October 2024, 1:38 PM
State	Finished
Completed on	Tuesday, 22 October 2024, 1:52 PM
Time taken	14 mins 11 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
#include<stdio.h>
int partition(int arr[], int l, int h) {
    int p = arr[l];
    int i = l;
    int j = h;

    while (i < j) {
        while (arr[i] <= p && i <= h - 1)
            i++;
        }
        while (arr[j] > p && j >= l + 1)
            j--;
        }
        if (i < j) {
            int temp = arr[i];
            arr[i] = arr[j];
            arr[j] = temp;
        }
    }
    int temp = arr[l];
    arr[l] = arr[j];
    arr[j] = temp;
    return j;
}

void QuickSort(int arr[], int l, int h){
    if (l < h){
        int pi = partition(arr, l, h);
        QuickSort(arr, l, pi - 1);
        QuickSort(arr, pi + 1, h);
    }
}

int main(){
    int n;
    scanf("%d",&n);
    int arr[n];
    for(int i=0;i<n;i++){
        scanf("%d",&arr[i]);
    }
    int l=0;
    int h = n-1;
    QuickSort(arr,l,h);
    for(int i=0;i<n;i++){
        printf("%d ",arr[i]);
```

```
45          printf("%d ",arr[i]);
46      }
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 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.

◄ 4-Two Elements sum to x

Jump to...

1-DP-Playing with Numbers ►