Started on	Friday, 19 September 2025, 9:47 PM
State	Finished
Completed on	Friday, 19 September 2025, 10:24 PM
Time taken	37 mins 14 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>
void swap(int *a, int *b){
    int temp = *a;
    *a = *b;
    *b = temp;
}

int partition(int arr[], int low, int high){
    int pivot = arr[high];
    int i = low-1;
    for(int j = low; j<high; j++){
        if(arr[j] <= pivot){
            i++;
            swap(&arr[i], &arr[j]);
        }
```

```
        }
    }
    swap(&arr[i+1], &arr[high]);
    return(i+1);
}
void quickSort(int arr[],int low,int high){
    if (low<high){
        int pi = partition(arr,low,high);
        quickSort(arr, low,pi-1);
        quickSort(arr,pi+1,high);
    }

}
int main()
{
    int n;
    scanf("%d",&n);
    int arr[n];
    for(int i=0;i<n;i++){
        scanf("%d",&arr[i]);}
        quickSort(arr,0,n-1);
        for(int i=0;i<n;i++){
        printf("%d",arr[i]);
        printf(" ");
        }
        // printf(" ");}
    return 0;
}

```

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

	Input	Expected	Got	
✔	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.