

```
#include <stdio.h>
```

```
void swap(int *x, int *y)
```

```
{
```

```
    int t = *x;
```

```
    *x = *y;
```

```
    *y = t;
```

```
}
```

```
int partition(int arr[], int left, int right)
```

```
{
```

```
    int pivot = arr[right];
```

```
    int pIndex = left;
```

```
    for (int i = left; i < right; i++)
```

```
    {
```

```
        if (arr[i] < pivot)
```

```
            swap(&arr[i], &arr[pIndex++]);
```

```
    }
```

```
    swap(&arr[pIndex], &arr[right]);
```

```
    return pIndex;
```

```
}
```

```
void quickSort(int arr[], int left, int right)
```

```
{
```

```
    if (left >= right)
```

```
        return;
```

```
    int pIndex = partition(arr, left, right);
```

```
    quickSort(arr, left, pIndex - 1);
```

```
    quickSort(arr, pIndex + 1, right);
```

```
}
```

```
int main()
```

```
{
```

```
    int arr[100], size;
```

```
    printf("\nEnter size ");
```

```
    scanf("%d", &size);
```

```
    printf("\nEnter array ");
```

```
    for (int i = 0; i < size; i++)
```

```
        scanf("%d", &arr[i]);
```

```
    quickSort(arr, 0, size - 1);
```

```
    printf("Qsort is = \n");
```

```
    for (int i = 0; i < size; i++)
```

```
        printf("%d ", arr[i]);
```

```
    return 0;
```

```
}
```

Enter array 56

34

23

89

67

223

90

45

Qsort is =

23 34 45 56 67 89 90 223