

```

1 //Quick Sort
2
3 #include<stdio.h>
4 #include<stdlib.h>
5
6 void swap(int *a,int *b)
7 {
8     int t=*a;
9     *a=*b;
10    *b=t;
11 }
12
13 int partition(int array[],int low,int high)
14 {
15     int j;
16     int pivot=array[high];
17     int i=(low-1);
18     for(j=low;j<high;j++){
19         if(array[j]<=pivot){
20             i++;
21             swap(&array[i],&array[j]);
22         }
23     }
24     swap(&array[i+1],&array[high]);
25     return i+1;
26 }
27
28 void quicksort(int array[],int low,int high)
29 {
30     if(low<high){
31
32         int pi=partition(array,low,high);
33         quicksort(array,low,pi-1);
34         quicksort(array,pi+1,high);
35     }
36 }
37
38 void printarray(int array[],int size)
39 {
40     for(int i=0;i<size;i++){
41         printf("%d ",array[i]);
42     }
43     printf("\n");
44 }
45
46 int main()
47 {
48     int data[]={8,6,33,75,69,32,70,56};
49     int n=sizeof(data)/sizeof(data[0]);
50     printf("Unsorted Array : ");
51     printarray(data,n);
52     quicksort(data,0,n-1);
53     printf("\nQuick Sort array : ");
54     printarray(data,n);
55 }

```