#include <stdio.h>

void quicksort (int [], int, int);

int main()

{

int list[50];

int size, i;

printf("Enter the number of elements: ");

scanf("%d", &size);

printf("Enter the elements to be sorted:\n");

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

{

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

}

quicksort(list, 0, size - 1);

printf("After applying quick sort\n");

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

{

printf("%d ", list[i]);

}

printf("\n");

return 0;

}

void quicksort(int list[], int low, int high)

{

int pivot, i, j, temp;

if (low < high)

{ pivot = low;

i = low;

j = high;

while (i < j)

{

while (list[i] <= list[pivot] && i <= high)

{

i++;

}

while (list[j] > list[pivot] && j >= low)

{

j--;

}

if (i < j)

{

temp = list[i];

list[i] = list[j];

list[j] = temp;

}

}

temp = list[j];

list[j] = list[pivot];

list[pivot] = temp;

quicksort(list, low, j - 1);

quicksort(list, j + 1, high);

}

}

