import java.util.Scanner;

public class SelectionSort {

public static void main(String[] args) {

Scanner scanner = new Scanner(System.in);

System.out.println("Enter the size of the array:");

int size = scanner.nextInt();

int[] arr = new int[size];

System.out.println("Enter the elements of the array:");

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

arr[i] = scanner.nextInt();

}

System.out.println("Original array:");

printArray(arr);

selectionSort(arr);

System.out.println("Sorted array:");

printArray(arr);

scanner.close();

}

public static void selectionSort(int[] arr) {

int n = arr.length;

// One by one move boundary of unsorted subarray

for (int i = 0; i < n-1; i++) {

// Find the minimum element in unsorted array

int minIndex = i;

for (int j = i+1; j < n; j++) {

if (arr[j] < arr[minIndex]) {

minIndex = j;

}

}

// Swap the found minimum element with the first element

int temp = arr[minIndex];

arr[minIndex] = arr[i];

arr[i] = temp;

}

}

public static void printArray(int[] arr) {

for (int num : arr) {

System.out.print(num + " ");

}

System.out.println();

}

}