package day4;

import java.util.Scanner;

public class Merge\_Sortedarray {

public static void mergeArrays(int[] arr1, int[] arr2, int n1,

int n2, int[] arr3)

{

int i = 0, j = 0, k = 0;

while (i<n1 && j <n2)

{

if (arr1[i] < arr2[j])

arr3[k++] = arr1[i++];

else

arr3[k++] = arr2[j++];

}

while (i < n1)

arr3[k++] = arr1[i++];

while (j < n2)

arr3[k++] = arr2[j++];

}

public static void main (String[] args)

{

Scanner s = new Scanner(System.in);

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

int n1 = s.nextInt();

int [] arr1 = new int[n1];

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

for(int i=0; i<n1; i++ ) {

arr1[i] = s.nextInt();

}

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

int n2 = s.nextInt();

int [] arr2 = new int[n2];

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

for(int i=0; i<n1; i++ ) {

arr2[i] = s.nextInt();

}

int[] arr3 = new int[n1+n2];

mergeArrays(arr1, arr2, n1, n2, arr3);

System.out.println("Array after merging");

for (int i=0; i < n1+n2; i++)

System.out.print(arr3[i] + " ");

}

}