using System;

using System.Collections.Generic;

using System.Linq;

using System.Text;

using System.Threading.Tasks;

using System.IO;

namespace ConsoleApplication25

{

class pi

{

int[] arr = new int[14];

int i = 0;

public int[] filing(string fname)

{

using (StreamReader sw = File.OpenText(fname))

{

string t;

while ((t = sw.ReadLine()) != null) { arr[i] = int.Parse(t); i++; }

}

return arr;

}

public void pigeonholesort(int[] arr, int n)

{

int min = arr[0];

int max = arr[0];

int range, index;

for (int a = 0; a < n; a++)

{

if (arr[a] > max)

max = arr[a];

if (arr[a] < min)

min = arr[a];

}

range = max - min + 1;

int[] temp = new int[range];

for (int i = 0; i < range; i++)

{

temp[i] = 0;

}

for (int i = 0; i < n; i++)

{

temp[arr[i] - min]++;

}

index = 0;

for (int j = 0; j < range; j++)

{

int te = temp[j]--;

int tempvalue = te;

while (tempvalue > 0)

{

arr[index++] = j + min;

tempvalue = temp[j]--;

}

}

}

class Program

{

static void Main(string[] args)

{

int[] arr = new int[14];

string filename = @"C:\Users\Hp i5\Desktop\pigeonhole.txt";

pi p1 = new pi();

if ((File.Exists(filename)))

{

arr = p1.filing(filename);

Console.WriteLine("Sorted order is : ");

p1.pigeonholesort(arr, arr.Length);

for (int i = 0; i < arr.Length; i++)

Console.WriteLine(arr[i] + " ");

Console.ReadKey();

}

else

{

Console.WriteLine("File Not Found!");

Console.ReadLine();

}

}

}

}

}