using System;

using System.IO;

using System.Globalization;

using CsvHelper;

using System.Collections.Generic;

using System.Xml;

using System.Diagnostics.CodeAnalysis;

using System.Collections.Immutable;

namespace ConsoleApp3

{

class Program

{

class User

{

public String FirstName { get; set; }

public String LastName { get; set; }

public String Occupation { get; set; }

}

static void Main(string[] args)

{

//var users = new List<User>

// {

// new User { FirstName = "Johneeeeeeeee", LastName = "Doeeeeeee",

// Occupation = "gardenereeeeee" },

// new User { FirstName = "Lucyeeeeeeeeeeeeee", LastName = "Smitheeeee",

// Occupation = "teachereeeeee" },

// new User { FirstName = "Brianeeeeeeeeeeeee", LastName = "Bethamyeee",

// Occupation = "programmereeeeee" },

// };

//using var writer = new StreamWriter("g3.csv");

//using var csvWriter = new CsvWriter(writer, CultureInfo.CurrentCulture);

//csvWriter.WriteHeader<User>();

//csvWriter.NextRecord(); // adds new line after header

//csvWriter.WriteRecords(users);

//writer.Flush();

using var streamReader = File.OpenText("g2.csv");

using var csvReader = new CsvReader(streamReader,

CultureInfo.CurrentCulture);

string value;

bool flag = true;

string[,] strings = new string[3, 22];

int j = 0;

while (csvReader.Read())

{

if (flag == true)

{

flag = false;

continue;

}

for (int i = 0; csvReader.TryGetField<string>(i, out value); i++)

{

Console.Write($"{value} ");

switch (i % 3)

{

case 0:

strings[0, j] = value;

break;

case 1:

strings[1, j] = value;

break;

case 2:

strings[2, j] = value;

break;

}

}

j++;

Console.WriteLine("");

}

Console.WriteLine("");

Console.WriteLine("The array before the myoon:");//א

for (int i=0;i<strings.GetLength(0);i++)

{

for(int m=0;m<strings.GetLength(1);m++)

{

Console.Write(""+strings[i,m]+"");

}

Console.WriteLine("");

}

string temp2;

for (int i = 0; i < strings.GetLength(1)-1; i++)

{

for (int m = 0; m < strings.GetLength(1) -1-i; m++)

{

if(strings[1,m].CompareTo(strings[1,m+1])>0)

{

temp2= strings[1,m];// מיון קודי הבחינה

strings[1,m] = strings[1,m + 1];

strings[1, m + 1] = temp2;

temp2 = strings[0, m];//מיון הציונים

strings[0, m] = strings[0, m + 1];

strings[0, m + 1] = temp2;

temp2 = strings[2, m];// מיון השמות של התלמידים

strings[2, m] = strings[2, m + 1];

strings[2, m + 1] = temp2;

}

}

}

Console.WriteLine("The array after the myoon:");

for (int i = 0; i < strings.GetLength(0); i++)

{

for (int m = 0; m < strings.GetLength(1); m++)

{

Console.Write("" + strings[i, m] + "");

}

Console.WriteLine("");

}

int sum = 0, min, max;

for(int i=0;i<strings.GetLength(1);i++)

{

sum+= int.Parse(strings[0, i]);

}

int avg = sum / strings.GetLength(0);

Console.WriteLine("The avg grade is"+avg);

min = int.Parse(strings[0, 0]);

for(int i=1;i<strings.GetLength(1);i++)

{

if(int.Parse(strings[0,i])<min)

{

min = int.Parse(strings[0, i]);

}

}

Console.WriteLine(" The min grade is"+min);

max = int.Parse(strings[0, 0]);

for (int i = 1; i < strings.GetLength(1); i++)

{

if (int.Parse(strings[0, i]) > max)

{

max = int.Parse(strings[0, i]);

}

}

Console.WriteLine(" The max grade is" + max);

int[] a = new int[strings.GetLength(1)];//ב

Console.WriteLine("The grades before the myoon is");

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

{

a[i] = int.Parse(strings[0, i]);

Console.Write(a[i]);

}

for(int i=0;i<a.Length-1;i++)

{

for(int w=i+1;w<a.Length;w++)

{

if(a[i]>a[w])

{

int temp1 = a[w];

a[w] = a[i];

a[i] = temp1;

}

}

}

Console.WriteLine("The grades After the myoon is");

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

{

Console.Write(a[i]);

}

Stack < int > st= new Stack<int>();//ג

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

{

st.Push(a[i]);

}

Stack<int> st1 = new Stack<int>();

while(!(st.IsEmpty()))

{

int num = st.Pop();

Console.WriteLine(num);

int abovefivepoints = num + 5;

int underfivepoints = num - 5;

if(abovefivepoints==avg|| underfivepoints==avg)

Console.WriteLine("yes");

else

Console.WriteLine("no");

st1.Push(num);

}

while (!(st1.IsEmpty()))

{

int num2 = st1.Pop();

Console.WriteLine(num2);

}

}

}

}