using System;

using System.Collections.Generic;

using System.IO;

using System.Security.Cryptography;

namespace Homework12.\_10.\_23

{

public class Worker

{

private string name;

private int age;

private string position;

public Worker()

{

name = "";

age = 0;

position = "";

}

public Worker(string name, int age, string position)

{

this.name = name;

this.age = age;

this.position = position;

}

public string Name

{

get { return name; }

set { name = value; }

}

public int Age

{

get { return age; }

set { age = value; }

}

public string Position

{

get { return position; }

set { position = value; }

}

public void Print()

{

Console.WriteLine($"Имя: {name}");

Console.WriteLine($"Возраст: {age} лет");

Console.WriteLine($"Должность: {position}");

Console.WriteLine();

}

public override string ToString()

{

return $"Имя: {name} " + $"Возраст: {age} лет " + $"Должность: {position} ";

}

}

class ArrayWorker

{

private List<Worker> AW;

public ArrayWorker()

{

AW = new List<Worker>();

}

public void Add(Worker worker)

{

AW.Add( worker );

}

public void Del(int index)

{

AW.RemoveAt( index );

}

public void Print(string msg ="")

{

Console.WriteLine(msg);

foreach (Worker worker in AW)

worker.Print();

}

public void SaveToFileTxt(string filename) //!!!!!!!!!!!!!!!!!!!!!!!!!!!!

{

using(FileStream f=new FileStream(filename, FileMode.Create))

{

using(StreamWriter sw=new StreamWriter(f))

{

foreach (Worker worker in AW)

sw.WriteLine(worker.ToString());

}

}

}

public void ReadFromFileTxt(string filename)

{

using(FileStream f = new FileStream(filename, FileMode.Open))

{

if(AW.Count!=0)

AW.Clear();

using (StreamReader sr = new StreamReader(f))

{

while (!sr.EndOfStream)

{

string line = sr.ReadLine();

string[]parts = line.Split(' ');

//1 3 6

AW.Add(new Worker(parts[1], Convert.ToInt32(parts[3]), parts[6]));

}

}

}

}

public void SaveToFileBin(string filename)

{

using (FileStream f = new FileStream(filename, FileMode.Create))

{

using(BinaryWriter sr = new BinaryWriter(f))

{

foreach (Worker worker in AW)

{

sr.Write(worker.Name);

sr.Write(worker.Age);

sr.Write(worker.Position);

}

}

}

}

public void ReadFromFileBin(string filename)

{

using (FileStream f = new FileStream(filename, FileMode.Open))

{

using(BinaryReader br = new BinaryReader(f))

{

if (AW.Count != 0)

AW.Clear();

if (AW.Count != 0)

AW.Clear();

while (br.PeekChar() > -1)

{

string name = br.ReadString();

int age = br.ReadInt32();

string position = br.ReadString();

AW.Add(new Worker(name, age, position));

}

}

}

}

}

internal class Program

{

static void Main(string[] args)

{

//5

ArrayWorker workers = new ArrayWorker();

workers.Add(new Worker("sss",12,"sss"));

workers.Add(new Worker("dddd", 13,"dddd"));

workers.Add(new Worker("fffff", 13, "jkkkk"));

workers.Print("=>");

//workers.Del(1);

workers.Print("=>");

workers.SaveToFileTxt("file.txt");

Console.WriteLine("--------------------");

workers.ReadFromFileTxt("file.txt");

workers.Print("=>");

Console.WriteLine("-------------------------BIIIIN");

workers.SaveToFileBin("file.bin");

workers.ReadFromFileBin("file.bin");

workers.Print();

}

}

}