using System;

using System.Collections.Generic;

using System.IO;

using System.Linq;

using System.Runtime.Serialization;

using System.Runtime.Serialization.Formatters.Soap;

using System.Text;

using System.Threading.Tasks;

using System.Text.Json;

using System.Text.Json.Serialization;

using System.Xml.Serialization;

using System.Runtime.Serialization.Json;

namespace ConsoleApp5

{

[Serializable, DataContract]

public class Point

{

[JsonPropertyName("X"), DataMember]

public int X { get; set; }

[JsonPropertyName("Y"), DataMember]

public int Y { get; set; }

public Point(){}

public Point(int x, int y)

{

X = x;

Y = y;

}

}

class Program

{

static void Main(string[] args)

{

Point[] points = { new Point(1,2), new Point(2,4), };

SoapFormatter formatter = new SoapFormatter();

// получаем поток, куда будем записывать сериализованный объект

using (FileStream fs = new FileStream("points.soap", FileMode.OpenOrCreate))

{

formatter.Serialize(fs, points);

Console.WriteLine("Объект сериализован");

}

// десериализация

using (FileStream fs = new FileStream("points.soap", FileMode.OpenOrCreate))

{

Point[] newPoints = (Point[])formatter.Deserialize(fs);

Console.WriteLine("Объект десериализован");

foreach (var p in newPoints)

{

Console.WriteLine("X: {0} --- Y: {1}", p.X, p.Y);

}

}

DataContractJsonSerializer js = new DataContractJsonSerializer(typeof(Point[]));

using (FileStream fs = new FileStream("points.json", FileMode.OpenOrCreate))

{

js.WriteObject(fs,points);

}

using (FileStream fs = new FileStream("points.json", FileMode.OpenOrCreate))

{

Point[] restoredPoints = (Point[])js.ReadObject(fs);

foreach (var p in restoredPoints)

{

Console.WriteLine("X: {0} --- Y: {1}", p.X, p.Y);

}

}

XmlSerializer formatterXmlSerializer = new XmlSerializer(typeof(Point[]));

using (FileStream fs = new FileStream("points.xml", FileMode.OpenOrCreate))

{

formatterXmlSerializer.Serialize(fs, points);

Console.WriteLine("Объект сериализован");

}

using (FileStream fs = new FileStream("points.xml", FileMode.OpenOrCreate))

{

Point[] newPoints = (Point[])formatterXmlSerializer.Deserialize(fs);

Console.WriteLine("Объект десериализован");

foreach (var p in newPoints)

{

Console.WriteLine("X: {0} --- Y: {1}", p.X, p.Y);

}

}

Console.ReadLine();

}

}

}