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1  //using is a directive
2  //System is a name space
3  //name space is a collection of features that our needs to run
4  using System;
5  using System.IO;
6  using System.Runtime.Serialization.Formatters.Binary;
7  using System.Diagnostics; //for notepad
8  //public means accessible anywhere
9  //partial means this class is split over multiple files
10 //class is a keyword and think of it as the outermost level of grouping
11 //:System.Web.UI.Page means our page inherits the features of a Page
12 [Serializable()]
13 public class Person  //make class serializable
14 {
15     public string Name { get; set; } //define name property
16     public decimal Salary { get; set; } //define Salary property
17     public override string ToString() //override ToString() from object class
18     {
19         return $"{Name} makes {Salary:C} per year."; //return pretty string to describe each
           person
20     }
21 }
22 public partial class _Default : System.Web.UI.Page
23 {
24     protected void Button1_Click(object sender, EventArgs e)
25     {
26         string file = @"c:\data\person.bin"; //define path where file will be saved
27         Person per = new Person() { Name = "John Smith", Salary = 78999 };//build an object
28         using (FileStream str = File.Create(file)) //enclose FileStream in a using because of
             low level access
29         {
30             BinaryFormatter binFormatter = new BinaryFormatter(); //make a formatter
31             binFormatter.Serialize(str, per); //this is the step that saves the information
32         }
33         Process.Start("notepad.exe", file); //start notepad and display file
34     }
35
36     protocol void Button2_Click(object sender, EventArgs e)
37     {
38         Person personRebuilt;//person object to hold the rebuilt person from the disk
39         string file = @"c:\data\person.bin"; //path
40         if(File.Exists(file)) //first confirm file exists
41         {
42             using (FileStream personStream = File.OpenRead(file)) //enclose FileStream in a
                 using
43             {
44                 BinaryFormatter binReader = new BinaryFormatter(); //make a formatter
45                 personRebuilt = (Person)binReader.Deserialize(personStream);//reconstruct
                   person using a cast
46                 sampLabel.Text = personRebuilt.ToString();//invoke to string on the person
47             }
48         }
49     }
```

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50 }
51
52
53
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