

```
1 using System;
2 using System.Collections.Generic;
3 using System.ComponentModel;
4 using System.Data;
5 using System.Drawing;
6 using System.IO;
7 using System.Linq;
8 using System.Text;
9 using System.Threading.Tasks;
10 using System.Windows.Forms;
11
12 namespace ProductPerformance
13 {
14     public partial class frmPersons : Form
15     {
16         public frmPersons()
17         {
18             InitializeComponent();
19
20             //-- Clear controls on form load
21             ClearDataControls();
22
23             //-- Load existing persons
24             LoadPersonsListBox();
25         }
26
27
28
29         /// <summary>
30         /// Add person
31         /// </summary>
32         /// <param name="sender"></param>
33         /// <param name="e"></param>
34         private void btnAdd_Click(object sender, EventArgs e)
35         {
36             //-- Get person from form as object
37             Person person = HarvestData();
38
39             //-- Write the person
40             if (PersonDB.WritePerson(person))
41             {
42                 // -- Confirm write process successful
43                 MessageBox.Show("Person written successfully to DB");
44
45                 // -- Clear the data controls
46                 ClearDataControls();
47
48                 // -- Clear the list box before refresh because data
49                 // -- has been added
50                 ClearPersonsListBox();
51
52                 // -- reload the list box with the new person
53                 LoadPersonsListBox();
54             }
55         }
56     }
```

```
57     // -- Factory methods
58
59     private void LoadPersonsListBox()
60     {
61         using (StreamReader reader = new StreamReader(@"d:\persons.txt"))
62         {
63             while (true)
64             {
65                 string line = reader.ReadLine();
66                 if (line == null)
67                 {
68                     break;
69                 }
70
71
72                 string[] fields = line.Split(',');
73                 Person person = new Person();
74                 person.Forename = fields[0];
75                 person.Surname = fields[1];
76                 person.Postcode = fields[4];
77
78                 string listItem = person.PersonShortData();
79
80
81
82                 this.lbPersons.Items.Add(listItem);
83             }
84         }
85     }
86
87     Person HarvestData()
88     {
89         var myPerson = new Person();
90
91         //-- Manadatory data for short data is Forename, Surname amd Postcode
92         if (this.txtForename.Text != "")
93         {
94             myPerson.Forename = this.txtForename.Text;
95         }
96         else
97         {
98             MessageBox.Show("You must provide a Forename");
99         }
100
101         if (this.txtSurname.Text != "")
102         {
103             myPerson.Surname = this.txtSurname.Text;
104         }
105         else
106         {
107             MessageBox.Show("You must provide a Surname");
108         }
109
110         if (this.txtAddress.Text != "")
111         {
```

```
112         myPerson.Address = this.txtAddress.Text;
113     }
114     else
115     {
116         myPerson.Address = "";
117     }
118
119     if (this.txtTown.Text != "")
120     {
121         myPerson.Town = this.txtTown.Text;
122     }
123     else
124     {
125         myPerson.Town = "";
126     }
127
128     if (this.txtPostcode.Text != "")
129     {
130         myPerson.Postcode = this.txtPostcode.Text;
131     }
132     else
133     {
134         MessageBox.Show("You must provide a Postcode");
135     }
136
137     if (this.txtTelephone.Text != "")
138     {
139         myPerson.Telephone = this.txtTelephone.Text;
140     }
141     else
142     {
143         myPerson.Telephone = "";
144     }
145
146     return myPerson;
147 }
148
149 private void ClearDataControls()
150 {
151     this.txtForename.Text = "";
152     this.txtSurname.Text = "";
153     this.txtAddress.Text = "";
154     this.txtTown.Text = "";
155     this.txtPostcode.Text = "";
156     this.txtTelephone.Text = "";
157 }
158
159 private void ClearPersonsListBox()
160 {
161     this.lbPersons.Items.Clear();
162 }
163
164
165 private void exitToolStripMenuItem_Click(object sender, EventArgs e)
166 {
167     Utility.CloseApplication();
168 }
```

```
168     }
169
170     private void btnClear_Click(object sender, EventArgs e)
171     {
172         ClearDataControls();
173     }
174
175     private void btnObservation_Click(object sender, EventArgs e)
176     {
177         var formObservations = new frmObservations();
178         formObservations.Show();
179         this.Hide();
180     }
181 }
182 }
183
```