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using System;
using System.Collections.Generic;
using System.ComponentModel;
using System.Data;
using System.Drawing;
using System.IO;
using System.Linq;
using System.Text;
using System.Threading.Tasks;
using System.Windows.Forms;

namespace ProductPerformance
{
    public partial class frmPersons : Form
    {
        public frmPersons()
        {
            InitializeComponent();

            //-- Clear controls on form load
            ClearDataControls();

            //-- Load existing persons
            LoadPersonsListBox();
        }

        /// <summary>
        /// Add person
        /// </summary>
        /// <param name="sender"></param>
        /// <param name="e"></param>
        private void btnAdd_Click(object sender, EventArgs e)
        {
            //-- Get person from form as object
            Person person = HarvestData();

            //-- Write the person
            if (PersonDB.WritePerson(person))
            {
                // -- Confirm write process successful
                MessageBox.Show("Person written successfully to DB");

                // -- Clear the data controls
                ClearDataControls();

                // -- Clear the list box before refresh because data
                // -- has been added
                ClearPersonsListBox();

                // -- reload the list box with the new person
                LoadPersonsListBox();
            }
        }

        // -- Factory methods

        private void LoadPersonsListBox()
        {
            using (StreamReader reader = new StreamReader(@"d:\persons.txt"))
            {
                while (true)
                {
                    string line = reader.ReadLine();
                    if (line == null)
                    {
                        break;
                    }
                }
            }
        }
    }
}

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        string[] fields = line.Split(',');
        Person person = new Person();
        person.Forename = fields[0];
        person.Surname = fields[1];
        person.Postcode = fields[4];

        string listItem = person.PersonShortData();

        this.lbPersons.Items.Add(listItem);
    }
}

Person HarvestData()
{
    var myPerson = new Person();

    //-- Manadatory data for short data is Forename, Surname amd Postcode
    if (this.txtForename.Text != "")
    {
        myPerson.Forename = this.txtForename.Text;
    }
    else
    {
        MessageBox.Show("You must provide a Forename");
    }

    if (this.txtSurname.Text != "")
    {
        myPerson.Surname = this.txtSurname.Text;
    }
    else
    {
        MessageBox.Show("You must provide a Surname");
    }

    if (this.txtAddress.Text != "")
    {
        myPerson.Address = this.txtAddress.Text;
    }
    else
    {
        myPerson.Address = "";
    }

    if (this.txtTown.Text != "")
    {
        myPerson.Town = this.txtTown.Text;
    }
    else
    {
        myPerson.Town = "";
    }

    if (this.txtPostcode.Text != "")
    {
        myPerson.Postcode = this.txtPostcode.Text;
    }
    else
    {
        MessageBox.Show("You must provide a Postcode");
    }

    if (this.txtTelephone.Text != "")
    {
        myPerson.Telephone = this.txtTelephone.Text;
    }
    else
    {

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        myPerson.Telephone = "";
    }

    return myPerson;
}

private void ClearDataControls()
{
    this.txtForename.Text = "";
    this.txtSurname.Text = "";
    this.txtAddress.Text = "";
    this.txtTown.Text = "";
    this.txtPostcode.Text = "";
    this.txtTelephone.Text = "";
}

private void ClearPersonsListBox()
{
    this.lbPersons.Items.Clear();
}

private void exitToolStripMenuItem_Click(object sender, EventArgs e)
{
    Utility.CloseApplication();
}

private void btnClear_Click(object sender, EventArgs e)
{
    ClearDataControls();
}

private void btnObservation_Click(object sender, EventArgs e)
{
    var formObservations = new frmObservations();
    formObservations.Show();
    this.Hide();
}
}
}
```