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 Data\_Structures\_Assessment3\_Ex4

{

public partial class frmFileExtensions : Form

{

//Dictionary for storing entries of <KEY, VALUE>

private Dictionary<string, string> dict = new Dictionary<string, string>();

public frmFileExtensions()

{

InitializeComponent();

ReadDataFile();

}

/// <summary>

/// helper method for writing data to data file

/// </summary>

private void UpdateDataFile()

{

//should write collection to file datafile.dat

try

{

using (StreamWriter file = new StreamWriter("datafile.dat"))

foreach (var entry in dict)

file.WriteLine("{0} : {1}", entry.Key, entry.Value);

}

catch (Exception ex) { MessageBox.Show(ex.Message); }

}

/// <summary>

/// helper method for reading data from data file

/// </summary>

private void ReadDataFile()

{

//should read in collection from file datafile.dat if it exists

try

{

using (StreamReader sr = new StreamReader("datafile.dat"))

{

while (!sr.EndOfStream) //Keep reading until we get to the end

{

string splitMe = sr.ReadLine();

string[] dataSplits = splitMe.Split(':'); //Split at the colons

dict.Add(dataSplits[0].Trim(), dataSplits[1].Trim());

}

}

string displayText = String.Empty;

foreach (var pair in dict)

{

displayText = displayText + pair.Key + " : " +

pair.Value + System.Environment.NewLine;

}

txtDisplay.Text = displayText;

}

catch (Exception ex) { MessageBox.Show(ex.Message); }

}

/// <summary>

/// Event handler method called when for load

/// should read entries from data file (if it exists)

/// or create a new collection object (the instance variable)

/// </summary>

/// <summary>

/// event handler method for clicking on Find Program button

/// </summary>

private void btnFindProgram\_Click\_1(object sender, EventArgs e)

{

// should update textDisplay appropriately if found

string temp = string.Empty;

foreach(var item in dict)

{

if(item.Key == textBoxFindProgram.Text)

{

temp = item.Value;

}

if (temp == string.Empty)

{

txtDisplay.Text = "Extension not associated with a program";

}

else txtDisplay.Text = temp;

}

}

/// <summary>

/// Event handler method for listing all of the entries in the phoneBook

/// </summary>

private void btnListAll\_Click\_1(object sender, EventArgs e)

{

//should iterate through collection object

//and append text to textDisplay text box

txtDisplay.Text = "";

string displayText = string.Empty;

foreach (var item in dict)

{

displayText = displayText + item.Value + System.Environment.NewLine;

}

txtDisplay.Text = displayText;

}

//Creates a new entry of Key, Value which is added/saved to the file

private void btnAdd\_Click\_1(object sender, EventArgs e)

{

try

{

dict.Add(this.txtExtension.Text, this.txtProgram.Text);

string displayText = String.Empty;

foreach (var pair in dict)

{

displayText = displayText + pair.Key + " : " + pair.Value + System.Environment.NewLine;

}

txtDisplay.Text = displayText;

UpdateDataFile();

MessageBox.Show("File Added");

}

catch (Exception ex)

{ MessageBox.Show(ex.Message); }

}

//Event handler method for deleting an existing entry

private void btnDelete\_Click\_1(object sender, EventArgs e)

{

if (txtDisplay.Text == string.Empty)

{

MessageBox.Show("There's nothing to delete");

}

else

{

try

{

dict.Remove(this.txtExtension.Text);

string displayText = String.Empty;

foreach (var pair in dict)

{

displayText = displayText + pair.Key + " : " +

pair.Value + System.Environment.NewLine;

}

txtDisplay.Text = displayText;

txtExtension.Text = "";

txtProgram.Text = "";

UpdateDataFile();

MessageBox.Show("File Deleted");

}

catch (Exception ex)

{ MessageBox.Show(ex.Message); }

}

}

// If confirmed will clear all values in collection

private void btnClearAll\_Click\_1(object sender, EventArgs e)

{

if (MessageBox.Show("Do you really want to delete all entries ?", "Confirm delete", MessageBoxButtons.YesNo) == DialogResult.Yes)

{

//clears all entries in collection

dict.Clear();

txtDisplay.Text = "";

txtExtension.Text = "";

txtProgram.Text = "";

UpdateDataFile();

MessageBox.Show("Cleared");

}

//Clears text fields

txtExtension.Text = "";

txtProgram.Text = "";

}

}

}