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COP2360 C# Programming I

**Module 6 TUTORIAL: Completing the Phonebook Application**

SCREENSHOT:

Graphical user interface, text, application

Description automatically generated

CODE:

using System;

using System.Collections.Generic;

using System.ComponentModel;

using System.Data;

using System.Drawing;

using System.Linq;

using System.Text;

using System.Threading.Tasks;

using System.Windows.Forms;

using System.IO;

namespace Phonebook

{

struct PhoneBookEntry

{

public string name;

public string phone;

}

public partial class Form1 : Form

{

// Field to hold a list of PhoneBookEntry objects.

private List<PhoneBookEntry> phoneList = new List<PhoneBookEntry>();

public Form1()

{

InitializeComponent();

}

// The ReadFile method reads the contents of the

// PhoneList.txt file and stores it as PhoneBookEntry

// objects in the phoneList.

private void ReadFile()

{

try

{

StreamReader inputFile; // To read the file

string line; // To hold a line from the file

// Create an instance of the PhoneBookEntry structure.

PhoneBookEntry entry = new PhoneBookEntry();

// Create a delimiter array.

char[] delim = { ',' };

// Open the PhoneList file.

inputFile = File.OpenText("PhoneList.txt");

// Read the lines from the file.

while (!inputFile.EndOfStream)

{

// Read a line from the file.

line = inputFile.ReadLine();

// Tokenize the line

string[] tokens = line.Split(delim);

// Store the tokens in the entry object.

entry.name = tokens[0];

entry.phone = tokens[1];

// Add the entry object to the List.

phoneList.Add(entry);

}

}

catch (Exception ex)

{

// Display an error message.

MessageBox.Show(ex.Message);

}

}

// The DisplayNames method displays the list of names

// in the namesListBox control.

private void DisplayNames()

{

foreach (PhoneBookEntry entry in phoneList)

{

nameListBox.Items.Add(entry.name);

}

}

private void Form1\_Load(object sender, EventArgs e)

{

// Read the PhoneList.txt file.

ReadFile();

// Display the names.

DisplayNames();

}

private void nameListBox\_SelectedIndexChanged(object sender, EventArgs e)

{

// Get the index of the selected item.

int index = nameListBox.SelectedIndex;

// Display the corresponding phone number.

phoneLabel.Text = phoneList[index].phone;

}

private void exitButton\_Click(object sender, EventArgs e)

{

// Close the form.

this.Close();

}

}

}

//Collaboration Statement: I worked alone