```csharp
// Jenet Baribeau
// CIS 199-01
// Program 4
// 26 April 2015

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;

namespace Program_4
{
    public partial class ParcelForm : Form
    {
        //Create a package
        private List<GroundPackage> pkgList = new List<GroundPackage>();

        public const int U_OF_L_ZIP = 40208;

        public ParcelForm()
        {
            InitializeComponent();
        }
        //Precondition: Add Package Button has been clicked
        //Postcondition: Add package to the list

        private void addPkgBtn_Click_1(object sender, EventArgs e)
        {
            originZipTxtBx.Focus();
            GroundPackage gPackage; //the package
            int originZip; //Package origin
            int destZip; //Package destination
            double length; //Package length
            double width; //Package width
            double height; //Package height
            double weight; //package weight
            double cost;

            //Validation
            if ((int.TryParse(originZipTxtBx.Text, out originZip) &&
int.TryParse(destZipTxtBx.Text, out destZip) &&
                double.TryParse(lengthTxtBx.Text, out length) &&
double.TryParse(widthTxtBx.Text, out width) &&
                double.TryParse(heightTxtBx.Text, out height) &&
double.TryParse(weightTxtBx.Text, out weight)))
            {
                if (originZip <0 || originZip > GroundPackage.MAX_ZIP)
                {
                    MessageBox.Show("Please enter Zip code between 00000-99999");
                    return;
                }

                if (destZip < 0 || destZip >GroundPackage.MAX_ZIP)
```

```csharp
            {
                MessageBox.Show("Please enter Zip code between 00000-99999");
                return;
            }

            if (length <= 0)
            {
                MessageBox.Show("Please enter length > 0");
                return;
            }

            if (width <= 0)
            {
                MessageBox.Show("Please enter width > 0");
                return;
            }

            if (height <= 0)
            {
                MessageBox.Show("Please enter height > 0");
                return;
            }

            if (weight <= 0)
            {
                MessageBox.Show("Please enter weight > 0");
                return;
            }


        //Create a Ground package object
        gPackage = new GroundPackage(originZip, destZip, length, width, height,
weight);
            cost = gPackage.CalcCost();

        //Add package to the list box
        pkgList.Add(gPackage);
        pkgListBox.Items.Add(cost.ToString("c"));

        //Clear text boxes
        originZipTxtBx.Clear();
        destZipTxtBx.Clear();
        lengthTxtBx.Clear();
        widthTxtBx.Clear();
        heightTxtBx.Clear();
        weightTxtBx.Clear();
        }
        else
        {
            MessageBox.Show("Please only use numbers.");
        }
    }

    //Precondition: User selected a price and clicked the Detail button
    //Postcondition: The package details are displayed
    private void detailBx_Click(object sender, EventArgs e)
    {
        int index = pkgListBox.SelectedIndex;
```

```csharp
            GroundPackage gPackage;
            index = pkgListBox.SelectedIndex;

            if (index >=0)
            {
                gPackage = pkgList[index];
                MessageBox.Show(pkgList[index].ToString());
            }
        }
        //Precondition: User selected a price and clicked the To UofL button
        //Postcondition: The package details are displayed
        private void toBtn_Click(object sender, EventArgs e)
        {
            int index;
            GroundPackage gPackage;
            double cost;

            index = pkgListBox.SelectedIndex;
            if (index >= 0)
            {
                gPackage = pkgList[index];
                gPackage.Destination = U_OF_L_ZIP;
                cost = gPackage.CalcCost();

                pkgListBox.Items[index] = cost.ToString("c");
            }
            else
            {
                MessageBox.Show("Please select package.");
            }
        }
        //Precondition: User selected a price and clicked the From UofL button
        //Postcondition: The package details are displayed
        private void fromBtn_Click(object sender, EventArgs e)
        {
            int index;
            GroundPackage gPackage;
            double cost;

            index = pkgListBox.SelectedIndex;
            if (index >= 0)
            {
                gPackage = pkgList[index];
                gPackage.Origin = U_OF_L_ZIP;
                cost = gPackage.CalcCost();

                pkgListBox.Items[index] = cost.ToString("c");
            }
            else
            {
                MessageBox.Show("Please select package");
            }

        }
    }
}
```

Brown Package Service

Enter the Package Information:

Package List:

Origin Zip: 42556
Destination Zip: 85353
Length: 12
Width: 5
Height: 2
Weight: 2

Details

Send
To U of L
From U of L

Add Package

Brown Package Service

Enter the Package Information:

Package List:

Origin Zip:
Destination Zip:
Length:
Width:
Height:
Weight:

$4.00
$2.20

Details

Send
To U of L
From U of L

Add Package

Brown Package Service

Enter the Package Information:

Package List:

Origin Zip:
Destination Zip:
Length:
Width:
Height:
Weight:

$4.00
$2.20

Details

Send
To U of L
From U of L

Add Package

TEST   ANALYZE   WINDOW

Origin Zip:53115
Destination Zip:40223
Length:5
Width2
Height1
Weight6

OK

```
51            MessageBox.Show("Please enter Zip
52            return;
53        }
54
```