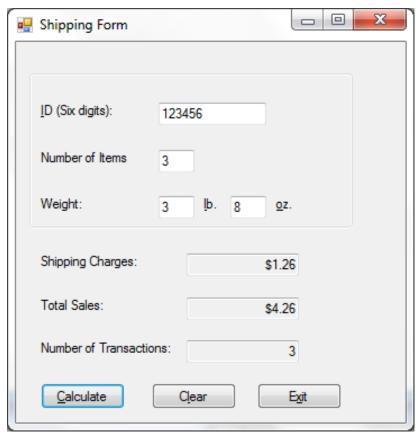
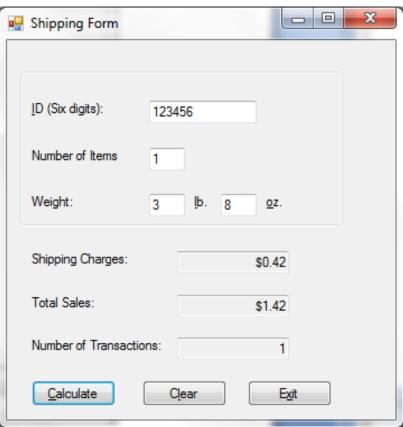
Lab 2 by Bryant Tunbutr





Source code for ShippingForm.cs

```
* Project:
                   EX0304 - Exercise 3.4
                  Bryant Tunbutr
 * Programmer:
 * Date: September 2012
* Description: Calculates and displays the charges for shipping a package.
 * I certify that the code below is my own work.
/* Modified by T. Vo to remove Print function and add some class-level variables.
 * Modified by Bryant Tunbutr to add summary processing -- transactions and total.
using System;
using System.Collections.Generic;
using System.ComponentModel;
using System.Data;
using System.Drawing;
using System.Text;
using System. Windows. Forms;
namespace EX0304
    public partial class ShippingForm : Form
        const decimal SHIP RATE Decimal = 0.12m;
        private int transactionsInteger = 0;
        private decimal totalDecimal = 0.0m;
        public ShippingForm()
            InitializeComponent();
        private void calcButton Click(object sender, EventArgs e)
            // Calculate and display the shipping charges
            decimal shippingChargeDecimal;
            int poundsInteger, ouncesInteger;
            try
                // Convert pounds if input was valid
                poundsInteger = int.Parse(poundsTextBox.Text);
                try
                    // Convert ounces if input was valid
                    ouncesInteger = int.Parse(ouncesTextBox.Text);
                    // Add code to calculate shipping charges
                    shippingChargeDecimal = (SHIP RATE Decimal *
int.Parse(ouncesTextBox.Text) / 16
                        + SHIP_RATE_Decimal * int.Parse(poundsTextBox.Text)) *
transactionsInteger;
                    // Add code to display shipping charges
                    chargesTextBox.Text = shippingChargeDecimal.ToString("C");
                    // Add code to update number transactions and total
                    transactionsInteger = int.Parse(numberOfItemsTextBox.Text);
                    totalDecimal = transactionsInteger + shippingChargeDecimal;
```

```
// Add code to display number transactions and total
                    totalSalesTextBox.Text = totalDecimal.ToString("C");
                    transactionsTextBox.Text = transactionsInteger.ToString();
                catch (FormatException)
                    // Handle if invalid amount entered for number of ounces
                    MessageBox.Show("Please input the number of ounces (as a whole
number).", "Input Error", MessageBoxButtons.OK, MessageBoxIcon.Exclamation);
                       ouncesTextBox.Focus();
                       ouncesTextBox.SelectAll();
            catch (FormatException)
                // Handle if invalid amount entered for number of pounds
                MessageBox. Show ("Please input the number of pounds (as a whole number).",
"Input Error", MessageBoxButtons.OK, MessageBoxIcon.Exclamation);
                    poundsTextBox.Focus();
                    poundsTextBox.SelectAll();
            }
            catch (Exception theException)
                // Handle all other exceptions.
                MessageBox.Show("Error: " + theException.Message);
        }
        private void clearButton Click(object sender, EventArgs e)
            // Clear the form
            // Add code to clear all text boxes
            idTextBox.Clear();
            numberOfItemsTextBox.Clear();
            poundsTextBox.Clear();
            ouncesTextBox.Clear();
            chargesTextBox.Clear();
            totalSalesTextBox.Clear();
            transactionsTextBox.Clear();
            // Add code to set focus on idTextBox
            idTextBox.Focus();
        }
        private void exitButton Click(object sender, EventArgs e)
            // End the program
            this.Close();
        }
    }
```

What would be the problem if we declared the two class-level variables (transactionsInteger and totalDecimal) in the calculateButton_Click method? You might want to try it out.

The problem is that the two variables are different, thus it adds extra steps because it is necessary to convert one of them in order to do a calculation. The program does not, unfortunately, allow implicit conversion.

You typically have to modify existing programs in the real world as part of your job as a developer. How is your experience with modifying this existing program?

It was honestly pretty challenging. The other labs had step by step instructions, but this one I had to think outside the box and do my best with the knowledge I have. For instance, I was not sure how much items cost, so I simply made them equal to the price of the quantity. It was a learning experience for sure.