

Student Name: _____ Bryant Tunbutr _____ Project Number: _____ 2 _____

Project Name: _____ BtunbutrProject2 _____ Visual Studio Version: _____ 2008 _____

Date Due: _____ 10/11/12 _____ Date Turned In: _____ 10/11/12 _____

Above to be completed by student

		Points (____ Possible)
Correctness/Efficiency:		
Output is accurate		_____
Meets all requirements		_____
Provide appropriate user interface		_____
Logic is efficient		_____
Documentation/Coding Style:		
Project can be open from the submitted zip file		_____
Folder is present and contains all necessary project files (no extra files)		_____
Use required coding template		_____
Use proper naming and spacing		_____
Submit all requested information		_____
Test Cases:		
List all required test cases		_____
Provide output forms for important test cases		_____
Other issues:		_____
Extra Credit:		_____
Timeliness:		_____
Project Score:		<div></div>

Project specification

This software is intended to summarize, calculate, and display costs for personalized shirts for the company Cool Boards. It is designed to be run in Visual Studio 2008 using the C# coding. It uses user input including the shirt size, quantity, additional features like monograms or pockets.

It displays total cost, summary, and provides information about the program with an about button.

Project status

The project is completed and finalized. Extra credit summary and order complete features are included.

Sketch of user interface

Provided on page 216 of textbook

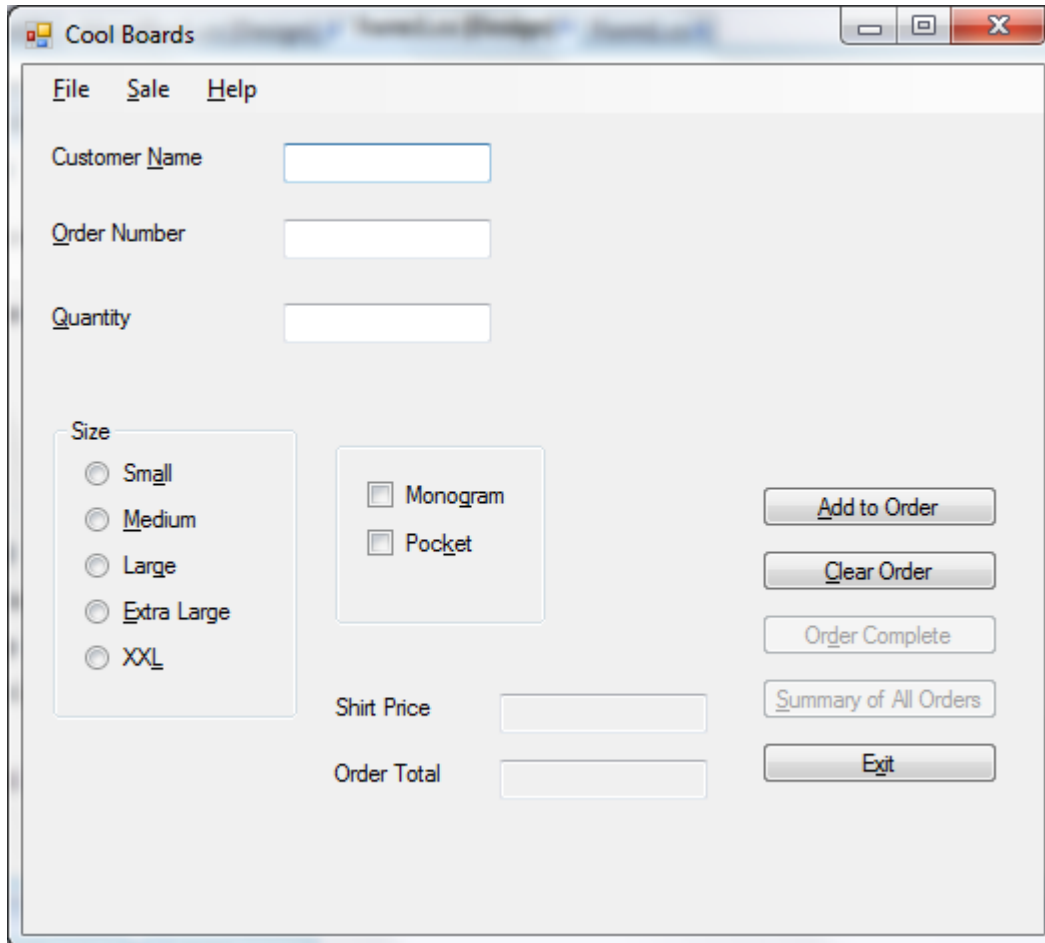
[illegible]

[illegible]

Test cases and captured screens

Test case #1

Ordering 10 small shirts with pockets



The screenshot shows a Windows application window titled "Cool Boards". The window has a menu bar with "File", "Sale", and "Help". Below the menu bar, there are three text input fields: "Customer Name", "Order Number", and "Quantity". To the left of these fields is a "Size" section with five radio buttons: "Small", "Medium", "Large", "Extra Large", and "XXL". To the right of the "Size" section are two checkboxes: "Monogram" and "Pocket". Below these checkboxes are two text input fields: "Shirt Price" and "Order Total". On the right side of the window, there are five buttons: "Add to Order", "Clear Order", "Order Complete", "Summary of All Orders", and "Exit".

Cool Boards

File Sale Help

Customer Name

Order Number

Quantity

Size

☒ Small

☐ Medium

☐ Large

☐ Extra Large

☐ XXL

☐ Monogram

☒ Pocket


Shirt Price

Order Total

Order Complete

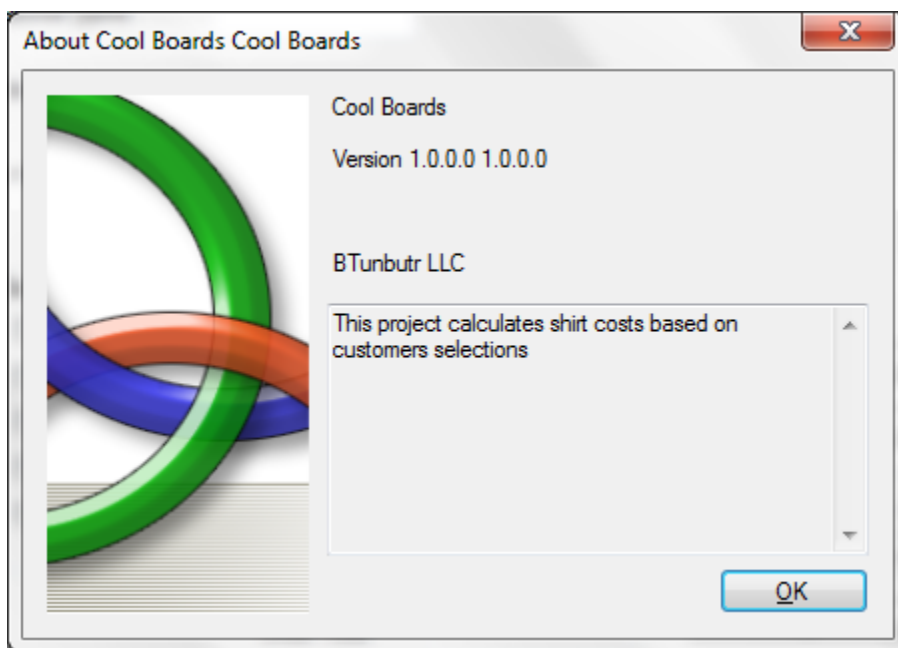
Amount Due \$110.00

Shirt Sales Summary

 Shirts Sold: 10

Number of Orders: 1

Total Sales: \$110.00



Test case #2

Ordering 20 large shirts, then adding 20 more large shirts with the same customer barb

The screenshot shows a Windows-style application window titled "Cool Boards". It has a menu bar with "File", "Sale", and "Help". The main area contains several input fields and buttons. The "Customer Name" field is filled with "barb", the "Order Number" field with "bb", and the "Quantity" field with "20". On the left, a "Size" section has five radio buttons: "Small", "Medium", "Large" (which is selected), "Extra Large", and "XXL". To the right of the size section are two checkboxes: "Monogram" and "Pocket", both of which are unchecked. At the bottom left, there are two labels: "Shirt Price" with a value of "\$10.00" and "Order Total" with a value of "\$200.00". On the right side, there are five buttons: "Add to Order" (highlighted with a blue dashed border), "Clear Order", "Order Complete", "Summary of All Orders", and "Exit".

Field	Value
Customer Name	barb
Order Number	bb
Quantity	20
Size	Large
Monogram	<input type="checkbox"/>
Pocket	<input type="checkbox"/>
Shirt Price	\$10.00
Order Total	\$200.00

Cool Boards

File Sale Help

Customer Name

Order Number

Quantity

Size

☐ Small

☐ Medium

☒ Large

☐ Extra Large

☐ XXL

☐ Monogram

☐ Pocket


Shirt Price

Order Total

Order Complete

Amount Due \$400.00

Shirt Sales Summary

 Shirts Sold: 40

Number of Orders: 1

Total Sales: \$400.00

Test case #3

A orders 11 XXL shirts with monograms and pockets

B then orders 22 large shirts

C then orders 333 XL shirts with pockets.

The 'Cool Boards' application window displays the following information:

- File Sale Help** (Menu bar)
- Customer Name:** a
- Order Number:** a
- Quantity:** 11
- Size Selection:** Small, Medium, Large, Extra Large, **XXL** (selected)
- Options:** ☒ Monogram, ☒ Pocket
- Buttons:** Add to Order, Clear Order, Order Complete, Summary of All Orders, Exit
- Shirt Price:** \$15.00
- Order Total:** \$165.00

The 'Order Complete' dialog box displays the following information:

- Amount Due:** \$165.00
- Button:** OK

Cool Boards

File Sale Help

Customer Name

Order Number

Quantity

Size

☐ Small

☐ Medium

☒ Large

☐ Extra Large

☐ XXL

☐ Monogram

☐ Pocket

Shirt Price

Order Total

Order Complete

Amount Due \$220.00

Cool Boards

File Sale Help

Customer Name

Order Number

Quantity

Size

☐ Small

☐ Medium

☐ Large

☒ Extra Large

☐ XXL

☐ Monogram

☒ Pocket


Shirt Price

Order Total

Order Complete

Amount Due \$3,996.00

Shirt Sales Summary

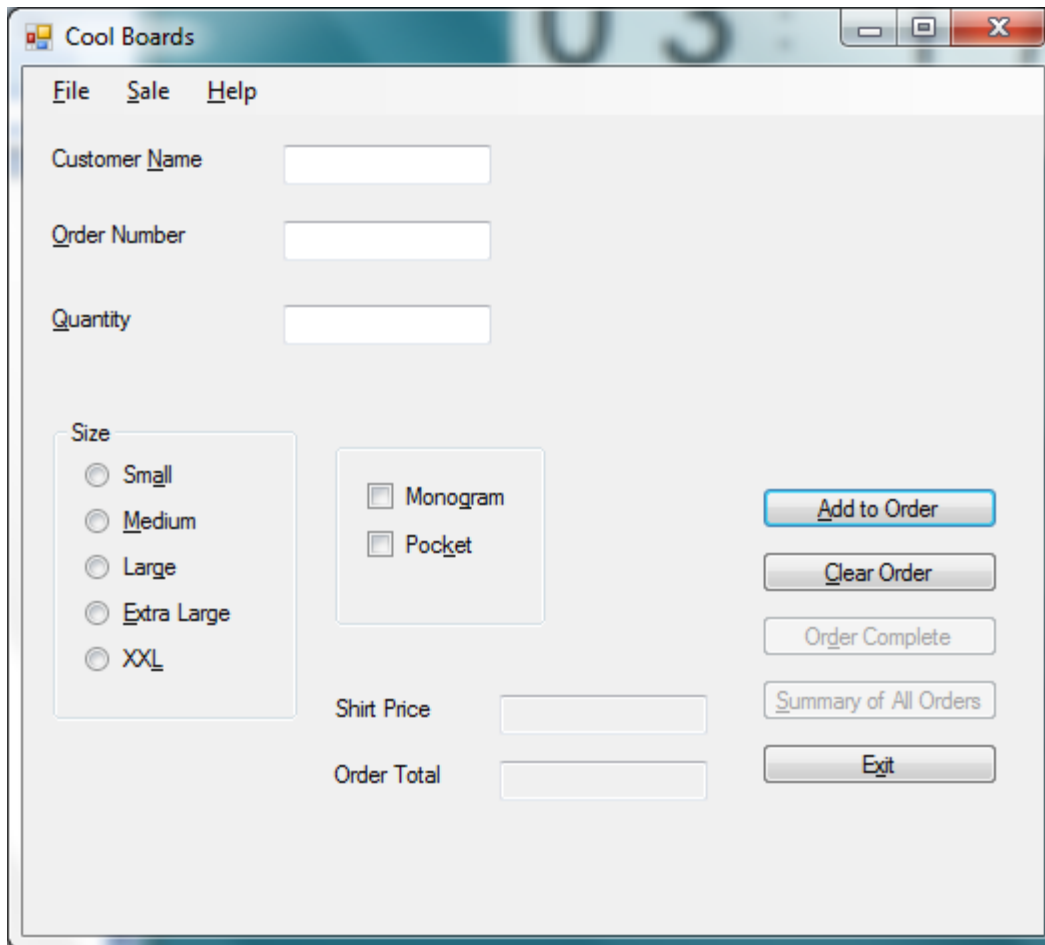
 Shirts Sold: 366

Number of Orders: 3

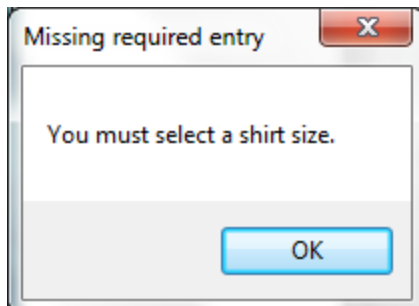
Total Sales: \$4,381.00

Test case #4

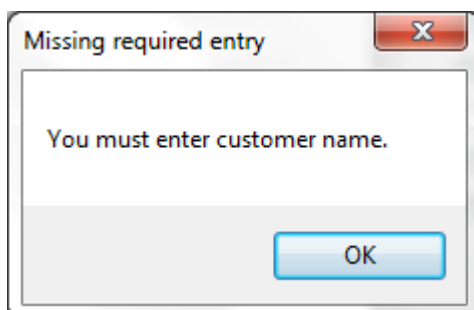
Person forgets to enter data and just clicks add to order



The image shows a Windows-style application window titled "Cool Boards". It has a menu bar with "File", "Sale", and "Help". The main area contains several input fields and buttons. On the left, there are three text boxes labeled "Customer Name", "Order Number", and "Quantity". Below these is a "Size" section with five radio buttons: "Small", "Medium", "Large", "Extra Large", and "XXL". To the right of the size section are two checkboxes: "Monogram" and "Pocket". At the bottom left, there are two more text boxes labeled "Shirt Price" and "Order Total". On the right side, there are five buttons: "Add to Order" (highlighted in blue), "Clear Order", "Order Complete", "Summary of All Orders", and "Exit".

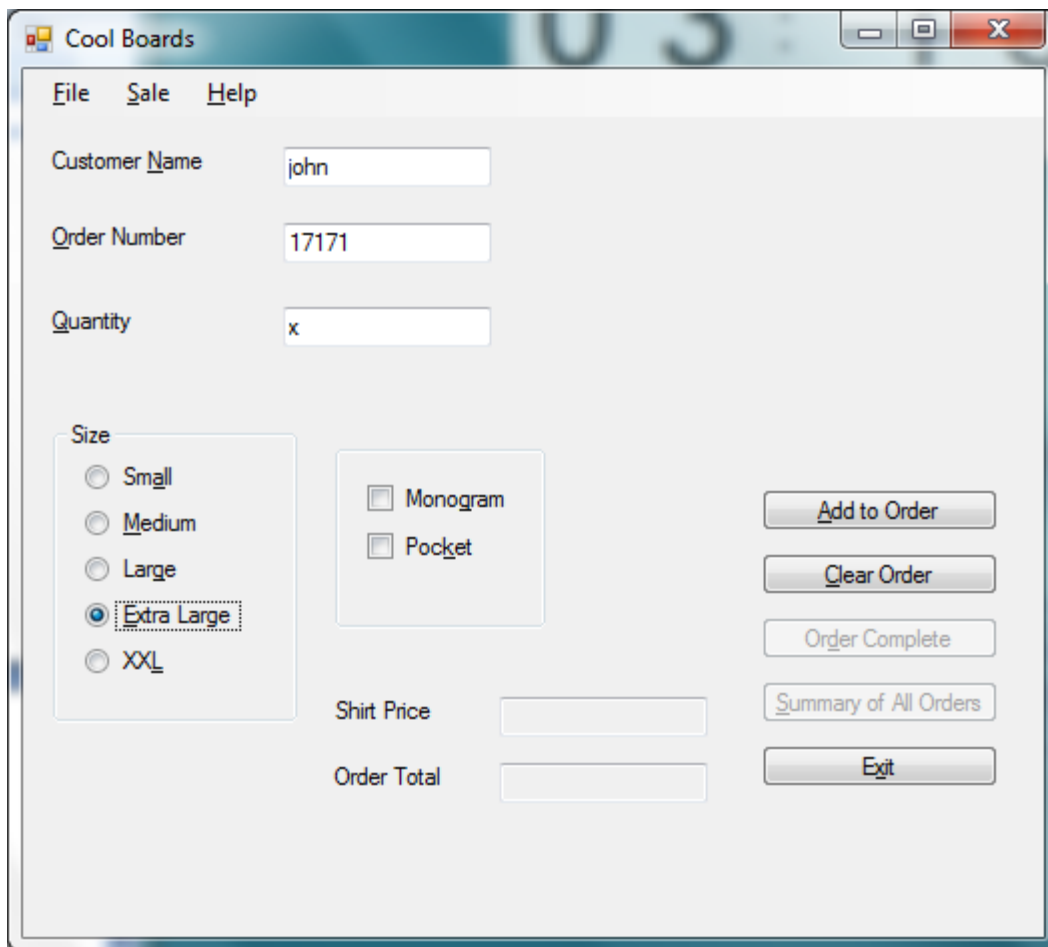


This is a small dialog box titled "Missing required entry" with a red "X" icon in the top right corner. The message inside says "You must select a shirt size." At the bottom, there is a blue "OK" button.

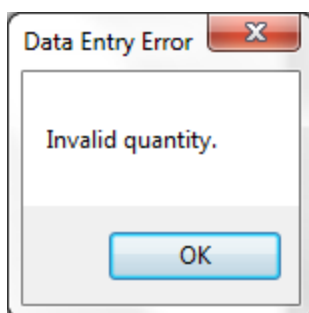


This is another small dialog box titled "Missing required entry" with a red "X" icon in the top right corner. The message inside says "You must enter customer name." At the bottom, there is a blue "OK" button.

Test case #5
John writes x as a quantity



The image shows a screenshot of a Windows application window titled "Cool Boards". The window has a menu bar with "File", "Sale", and "Help". Below the menu bar, there are three text input fields: "Customer Name" containing "john", "Order Number" containing "17171", and "Quantity" containing "x". Below these fields, there is a "Size" section with five radio buttons: "Small", "Medium", "Large", "Extra Large" (which is selected), and "XXL". To the right of the "Size" section, there are two checkboxes: "Monogram" and "Pocket". Below these checkboxes, there are two text input fields: "Shirt Price" and "Order Total". To the right of these fields, there are five buttons: "Add to Order", "Clear Order", "Order Complete", "Summary of All Orders", and "Exit".



The image shows a screenshot of a "Data Entry Error" dialog box. The dialog box has a title bar with "Data Entry Error" and a close button. The main text area contains the message "Invalid quantity." Below the text area, there is an "OK" button.

Source code

```
/*  Program:      Cool Boards
    Author:       Bryant Tunbutr
    Class:        CISP41-22726201220
    Date:         10/11/12
    Description:   This project calculates the amount due
                  based on the customer selection
                  and accumulates summary data for all customers.
                  Includes menus, common dialog boxes, and general methods.

    I certify that the code below is my own work.

    Exception(s): N/A

*/
using System;
using System.Windows.Forms;

namespace WindowsFormsApplication13
{
    public partial class Form1 : Form
    {
        // Declare class variables.
        private decimal itemPriceDecimal,
                       totalOrderDecimal,
                       shirtPriceDecimal,
                       totalSalesDecimal;
        private int shirtsInteger,
                   ordersInteger;
        public Form1()
        {
            InitializeComponent();
        }

        private void exitButton_Click(object sender, EventArgs e)
        {
            // To close program.
            this.Close();
        }

        private void addToOrderButton_Click(object sender, EventArgs e)
        {
            // Add the current item price and quantity to the order.
            int extrasInteger = 0;
            if (noSizeRadioButton.Checked)
            {
                // Error message for missing info.
                MessageBox.Show("You must select a shirt size.",
                                "Missing required entry");
            }
        }
    }
}
```

```

if (customerTextBox.Text == "")
{
    // Error message for missing info.
    MessageBox.Show("You must enter customer name.",
        "Missing required entry");
}
else
{
    try
    {
        // Calculate price based on size and quantity.
        int quantityInteger = int.Parse(quantityTextBox.Text);
        if (quantityInteger != 0)
        {
            if (smallRadioButton.Checked)
            {
                itemPriceDecimal = 10m;
            }
            if (mediumRadioButton.Checked)
            {
                itemPriceDecimal = 10m;
            }
            if (largeRadioButton.Checked)
            {
                itemPriceDecimal = 10m;
            }
            else if (extraLargeRadioButton.Checked)
            {
                itemPriceDecimal = 11m;
            }
            else if (xxlRadioButton.Checked)
            {
                itemPriceDecimal = 12m;
            }

            // Calculate price based on pockets and monograms.
            extrasInteger = 0;
            if (pocketCheckBox.Checked)
            {
                extrasInteger++;
            }
            if (monogramCheckBox.Checked)
            {
                extrasInteger+=2;
            }
            itemPriceDecimal += extrasInteger * 1m; // 1 dollar for
each item.

            // display price of one shirt.
            shirtPriceDecimal =
findshirtPriceDecimal(itemPriceDecimal, quantityInteger);
            shirtPriceTextBox.Text = itemPriceDecimal.ToString("C");

            shirtPriceTextBox.Text = itemPriceDecimal.ToString("C");

            // running total of shirts
            shirtsInteger += quantityInteger;

            // running total of orders
            totalOrderDecimal += shirtPriceDecimal;

```

```

        // total of cost of order
        orderTotalTextBox.Text =
totalOrderDecimal.ToString("C");

        customerTextBox.Enabled = false;
        orderTextBox.Enabled = false;
        orderCompleteButton.Enabled = true;

    }
    else
    {
        // Error message for missing info.
        MessageBox.Show("Please enter a quantity.",
            "Missing Required Entry");
    }

}
catch (FormatException)
{
    // Error message for bad info.
    MessageBox.Show("Invalid quantity.", "Data Entry Error");
    quantityTextBox.Focus();
    quantityTextBox.SelectAll();
}
}

private decimal findshirtPriceDecimal(decimal itemPriceDecimal, int
quantityInteger)
{
    // method to find price.
    return (itemPriceDecimal * quantityInteger);
}

private void clearOrderButton_Click(object sender, EventArgs e)
{
    // clear everything for next customer
    customerTextBox.Text = "";
    orderTextBox.Text = "";
    quantityTextBox.Text = "";
    shirtPriceTextBox.Text = "";
    orderTotalTextBox.Text = "";
    totalOrderDecimal = 0;
    customerTextBox.Enabled = true;
    orderTextBox.Enabled = true;
    summaryOfAllOrdersButton.Enabled = false;
}

private void orderCompleteButton_Click(object sender, EventArgs e)
{
    // Order is complete, add to summary and clear order.

    // Check if the last item was added to the total.
    if (shirtPriceTextBox.Text != "")
    {
        DialogResult responseDialogResult;
        string messageString = "Current Item not recorded. Add to
order?";

        responseDialogResult = MessageBox.Show(messageString,
            "Verify Last Shirt Purchase",

```

```

        MessageBoxButtons.YesNo,
        MessageBoxIcon.Question);
    if (responseDialogResult == DialogResult.Yes)
    {
        addToOrderButton_Click(sender, e);
    }
}

// Display amount due.
string dueString = "Amount Due " + totalOrderDecimal.ToString("C");
MessageBox.Show(dueString, "Order Complete");

// Add to summary totals.
ordersInteger++;
totalSalesDecimal += totalOrderDecimal;

// Reset buttons and total for new order.
summaryOfAllOrdersButton.Enabled = true;
orderCompleteButton.Enabled = false;
totalOrderDecimal = 0m;
}

private void summaryOfAllOrdersButton_Click(object sender, EventArgs e)
{
    // Display the summary information in a message box.

    string summaryString = "Shirts Sold:      "
        + shirtsInteger.ToString()
        + "\n\n" + "Number of Orders: "
        + ordersInteger.ToString()
        + "\n\n" + "Total Sales:      "
        + totalSalesDecimal.ToString("C");
    MessageBox.Show(summaryString, "Shirt Sales Summary",
        MessageBoxButtons.OK,
        MessageBoxIcon.Information);
}

private void aboutToolStripMenuItem_Click(object sender, EventArgs e)
{
    // show programmer info.
    AboutBox1 aboutForm = new AboutBox1();
    aboutForm.ShowDialog();
}
}
}

```