

Lab 5 by Bryant Tunbutr

The screenshot shows the 'Piecework' application window. It has a menu bar with 'File', 'Edit', and 'Help'. Below the menu bar, there are four input fields: 'Employee Name:' with the value 'a', 'Number of Pieces:' with the value '11', 'Amount Eamed:' with the value '\$5.50', and a 'Summary:' box containing the text '1 employees made 11 pieces earning a total of \$5.50. The average employee earning is \$5.50'. At the bottom, there are five buttons: 'Calculate', 'Summary' (highlighted with a blue border), 'Clear', 'Clear All', and 'Exit'.

Piecework

File Edit Help

Employee Name: a

Number of Pieces: 11

Amount Eamed: \$5.50

Summary: 1 employees made 11 pieces earning a total of \$5.50. The average employee earning is \$5.50

Calculate Summary Clear Clear All Exit

The screenshot shows the 'Piecework' application window in a second state. The 'Employee Name' is now 'b' and the 'Number of Pieces' is '222'. The 'Amount Eamed' is '\$122.10'. The 'Summary' box now contains the text '2 employees made 233 pieces earning a total of \$127.60. The average employee earning is \$63.80'. The 'Summary' button remains highlighted with a blue border.

Piecework

File Edit Help

Employee Name: b

Number of Pieces: 222

Amount Eamed: \$122.10

Summary: 2 employees made 233 pieces earning a total of \$127.60. The average employee earning is \$63.80

Calculate Summary Clear Clear All Exit

Piecework

File Edit Help

Employee Name: c

Number of Pieces: 3333

Amount Earned: \$2,166.45

Summary: 3 employees made 3566 pieces earning a total of \$2,294.05. The average employee earning is \$764.68

Calculate Summary

Clear Clear All Exit

Source code for PieceworkForm.cs

```
/*
 * Project: EX0406 - Exercise 5.1
 * Programmer: Bryant Tunbutr
 * Date: October 4 2012
 * Description: Calculates and displays the amount an employee earns for producing items.
 * Upgraded with menu options. I certify that the code below is my own work.
 */

using System;
using System.Collections.Generic;
using System.ComponentModel;
using System.Data;
using System.Drawing;
using System.Text;
using System.Windows.Forms;

namespace EX0406
{
    public partial class pieceWorkForm : Form
    {
        // Declare the variables.
        int piecesInt, totalPiecesInt, employeesInt;
        decimal amountEarnedDec, amountTotalEarnedDec, averageAmountEarnedDec;
        public pieceWorkForm()
        {
            InitializeComponent();
        }

        private void calculateButton_Click(object sender, EventArgs e)
        {
            try
            {
                if (piecesTextBox.Text != "")
                {
                    // Convert input values to numeric and assign to variables.
                    piecesInt = int.Parse(piecesTextBox.Text);

                    // Calculate values.
                    if (piecesInt < 200)
                    {
                        amountEarnedDec = piecesInt * 0.5m;
                        amountEarnedTextBox.Text = amountEarnedDec.ToString("C");
                    }
                    else
                    {
                        if (piecesInt < 400 && piecesInt > 199)
                        {
                            amountEarnedDec = piecesInt * 0.55m;
                            amountEarnedTextBox.Text = amountEarnedDec.ToString("C");
                        }
                        if (piecesInt < 600 && piecesInt > 399)
                        {
                            amountEarnedDec = piecesInt * 0.60m;
                            amountEarnedTextBox.Text = amountEarnedDec.ToString("C");
                        }
                        if (piecesInt > 599)
                        {
                            amountEarnedDec = piecesInt * 0.65m;
                            amountEarnedTextBox.Text = amountEarnedDec.ToString("C");
                        }
                    }
                }
            }
            catch { }
        }
    }
}
```

```

        // Add to summary totals.
        employeesInt++;
    }
    else MessageBox.Show("Missing data entry"); ;
}
catch
{
    MessageBox.Show("Bad input");
}
if (nameTextBox.Text == "")
    {MessageBox.Show("Missing data entry"); }
}

private void summaryButton_Click(object sender, EventArgs e)
{
    if (piecesTextBox.Text == "")
        {MessageBox.Show("Missing data entry"); }
    if (nameTextBox.Text == "")
        {MessageBox.Show("Missing data entry"); }
    // Add to summary totals.

    totalPiecesInt += piecesInt;
    amountTotalEarnedDec += amountEarnedDec;
    averageAmountEarnedDec = amountTotalEarnedDec / employeesInt;

    // Display the summary information in a message box.
    summaryTextBox.Text = employeesInt.ToString() + " employees made " +
totalPiecesInt.ToString() +
    " pieces earning a total of " + amountTotalEarnedDec.ToString("C") +
    ". The average employee earning is " +
averageAmountEarnedDec.ToString("C");
}

private void clearButton_Click(object sender, EventArgs e)
{
    piecesTextBox.Text = "";
    amountEarnedTextBox.Text = "";
    nameTextBox.Text = "";
}

private void clearAllButton_Click(object sender, EventArgs e)
{
    piecesTextBox.Text = "";
    amountEarnedTextBox.Text = "";
    nameTextBox.Text = "";
    summaryTextBox.Text = "";
}

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

private void pieceWorkForm_Load(object sender, EventArgs e)
{
}

private void colorToolStripMenuItem_Click(object sender, EventArgs e)
{
    // Change the form's ForeColor.

```

```

        // Applies to all conrols on the form that haven't had their
        // ForeColor explicitly modified.
        // Initialize the dialog box.
        colorDialog1.Color = this.ForeColor;
        // Display the dialog box.
        colorDialog1.ShowDialog();
        // Assign the new color.
        this.ForeColor = colorDialog1.Color;
    }

private void fOntToolStripMenuItem_Click(object sender, EventArgs e)
{
    // Change the font of the total label.
    fontDialog1.Font = amountEarnedTextBox.Font;
    fontDialog1.ShowDialog();
    amountEarnedTextBox.Font = fontDialog1.Font;

    // fontDialog1.ShowDialog();
    // this.Font = fontDialog1.Font;
}

private void aBoutToolStripMenuItem_Click(object sender, EventArgs e)
{
    MessageBox.Show("Piecework Written by Bryant Tunbutr");
}
}
}

```

Sometimes you have a choice between buttons and menus in a program. Explain a situation where buttons are better than menus in a program. Explain a situation where menus are better than buttons in a program.

If I were writing a program for children, I would definitely choose buttons, especially bigger buttons with simpler choices.

If I were writing a program for a gamer, I would choose lots of menus & have many hotkeys because they prefer to use the keyboard over the mouse because it is faster.