University
Assignment

Year 2023

Fourth Assignment

Academic Year: 2023
Institute of Mathematics & Computer Sience

Labheshwar| 2K20/CSM/50
Visual Programming (C#)
Date of Submission: June 7, 2023

OBJECTS AND PROPERTIES

Object	Property	Setting
OrderAndSummaryReportForm	Name Text AcceptButton CancelButton	**OrderAndSummaryReportForm** **Order and Summary Report** **enrollButton** **exitButton**
coursesGroupBox	Name Text Font FontSize	**coursesGroupBox** **Courses** **Corbel** **12pt**
webDevRadioButton	Name Text Font FontSize	**webDevRadioButton** **Web Development 79.99** **Corbel** **10pt**
appDevRadioButton	Name Text Font FontSize	**appDevRadioButton** **App Development 89.99** **Corbel** **10pt**
mlRadioButton	Name Text Font FontSize	**mlRadioButton** **Machine Learning 99.99** Corbel 10pt
noCourseRadioButton	Name Text Checked Visible	**noCourseRadioButton** **invisible** true false
extrasGroupBox	Name Text Font FontSize	**extrasGroupBox** **Extras - $9.99 each** **Corbel** **12pt**
codingResourcesCheckBox	Name Text Font FontSize	**codingResourcesCheckBox** **Access To Coding Resources** Corbel 12pt
mentorshipCheckBox	Name Text Font FontSize	**mentorshipCheckBox** **Personal Mentorship** Corbel 12pt
jobPlacementCheckBox	Name Text Font FontSize	**jobPlacementCheckBox** **Job Placement Assistance** Corbel 12pt

selectCourseGroupBox	Name Text Font FontSize	selectCourseGroupBox Select the course type Corbel 12pt
webDevLabel	Name Text Font FontSize	**webDevLabel** **Web Development** Corbel 11pt
reactJsRadioButton	Name Text Font FontSize Checked	reactJsRadioButton React.js Corbel 10pt true
angularRadioButton	Name Text Font FontSize	**angularRadioButton** **Angular.js** **Corbel** **10pt**
appDevLabel	Name Text Font FontSize	**appDevLabel** **App Development** Corbel 11pt
androidDevRadioButton	Name Text Font FontSize	**androidDevRadioButton** **Android Development** **Corbel** **10pt**
iosDevRadioButton	Name Text Font FontSize	**iosDevRadioButton** **iOS Development** Corbel 10pt
flutterDevRadioButton	Name Text Font FontSize	**flutterDevRadioButton** **Flutter Development** **Corbel** **10pt**
quantityLabel	Font FontSize Name Text	Corbel **12pt** quantityLabel **Number of Persons**
quantityTextBox	Name Text	**quantityTextBox** **(Blank)**
itemPriceLabel	Font FontSize Name Text	Corbel **12pt** **itemPriceLabel** **Item Price**

itemPriceTextBox	Name Text ReadOnly TabStop	**itemPriceTextBox** **(Blank)** **true** **false**
enrollButton	Name Text Font FontSize	**enrollButton** **Enroll** **Corbel** **12pt**
enrollmentCompleteButton	Name Text Font FontSize Enabled	**enrollmentCompleteButton** **Enrollment Complete** **Corbel** **12pt** **false**
summaryReportButton	Name Text Font FontSize Enabled	**summaryReportButton** **Summary Report** **Corbel** **12pt** **false**
exitButton	Name Text Font FontSize	**exitButton** **Exit** **Corbel** **12pt**
fileToolStripMenuItem	Name Text	**fileToolStripMenuItem** **File**
summaryToolStripMenuItem	Name Text	**summaryToolStripMenuItemFile** **Summary**
exitToolStripMenuItem	Name Text	**exitToolStripMenuItem** **Exit**
ExditToolStripMenuItem	Name Text	**editToolStripMenuItem** **Edit**
enrollToolStripMenuItem	Name Text	**enrollToolStripMenuItem** **Enroll**
enrollmentCompleteTooolS…	Name Text	enrollmentCompleteTooolStripMenuItem **Enrollment Complete**
fontToolStripMenuItem	Name Text	**fontToolStripMenuItem** **Font**
colorToolStripMenuItem	Name Text	**colorToolStripMenuItemFile** **Color**
helpToolStripMenuItem	Name Text	**helpToolStripMenuItemFile** **Help**
aboutToolStripMenuItem	Name Text	**aboutToolStripMenuItemFile** **About**
colorDialog1	Name	**colorDialog1**
fontDialog1	Name	**fontDialog1**

CODE

```csharp
/* Project: Sales Form
 * Programmer: Labheshwar
 * Roll Number: (2K20/CSM/50)
 * Description: This project generated summary report for orders and enrollments.
 * This project calculates the amount due based on the customer selection and
 * accumulates summary data for the day.
 * Includes error trapping and summary calculations.
 */

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 OrdersAndSummaryReport
{
    public partial class OrderAndSummaryReportForm : Form
    {
        // Declare Class Variables
        decimal coursePriceDecimal, totalOrderDecimal, totalSalesDecimal,
                    courseDecimal;
        int coursesInteger, ordersInteger;

        public OrderAndSummaryReportForm()
        {
            InitializeComponent();
        }

        private void enrollButton_Click(object sender, EventArgs e)
        {
            enroll();
        }

        private void enrollmentCompleteButton_Click(object sender, EventArgs e)
        {
            enrollmentComplete(sender, e);
        }

        private void summaryReportButton_Click(object sender, EventArgs e)
        {
            summaryReport();
        }
```

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

private void enrollToolStripMenuItem_Click(object sender, EventArgs e)
{
    enroll();
}

private void enrollmentCompleteToolStripMenuItem_Click(object sender,
                                                EventArgs e)
{
    enrollmentComplete(sender, e);
}

private void summaryToolStripMenuItem_Click(object sender, EventArgs e)
{
    summaryReport();
}

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

    string aboutString = "Programmed by Labheshwar\nVersion 1.1";
    string captionString =
    "About CodeLab By Labesh Courses Enrollment";
    MessageBox.Show(aboutString, captionString);
}

private void fontToolStripMenuItem_Click(object sender, EventArgs e)
{
    // Change the label's font.

    // Initialize the dialog box.
    fontDialog1.Font = headerLabel.Font;

    // Display the dialog box.
    fontDialog1.ShowDialog();

    // Assign the new font.
    headerLabel.Font = fontDialog1.Font;
}

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

    // Applies to all controls on the form that haven't had their
    // ForeColor explicitly modified.
```

```csharp
        // Initialize the dialog box.
        colorDialog1.Color = this.ForeColor;

        // Display the dialog box.
        colorDialog1.ShowDialog();

        // Assign the new color.
        this.ForeColor = colorDialog1.Color;
    }

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

    private void webDevRadioButton_CheckedChanged(object sender, EventArgs e)
    {
        findAndUpdateTextBox(sender);
    }

    private void appDevRadioButton_CheckedChanged(object sender, EventArgs e)
    {
        findAndUpdateTextBox(sender);
    }

    private void mlRadioButton_CheckedChanged(object sender, EventArgs e)
    {
        findAndUpdateTextBox(sender);
    }

    private void codingResourcesCheckBox_CheckedChanged(object sender,
                                                        EventArgs e)
    {
        updateItemTextPrice();
    }

    private void mentorshipCheckBox_CheckedChanged(object sender, EventArgs e)
    {
        updateItemTextPrice();
    }

    private void jobPlacementCheckBox_CheckedChanged(object sender,
                                                     EventArgs e)
    {
        updateItemTextPrice();
    }

    private void enroll()
    {
        // Add the current item price and quantity to the order.
```

```csharp
            if (noCourseRadioButton.Checked)
            {
                MessageBox.Show("You must select a course.",
                            "Missing Required Entry");
            }
            else
            {
                try
                {
                    int quantityInteger = int.Parse(quantityTextBox.Text);
                    if (quantityInteger > 0)
                    {
                        coursesInteger += quantityInteger;
                        totalOrderDecimal += courseDecimal * quantityInteger;
                        clearForNextItem();
                        enrollmentCompleteButton.Enabled = true;
                    }
                    else
                    {
                        MessageBox.Show("Please enter a quantity.",
                                    "Missing Required Entry");
                    }
                }
                catch (FormatException)
                {
                    MessageBox.Show("Invalid Quantity.", "Data Entry Error");
                    quantityTextBox.Focus();
                    quantityTextBox.SelectAll();
                }
            }
        }

        private void enrollmentComplete(object sender, EventArgs e)
        {
            // Enrollment is complete, add to summay and clear order.
            // Check if the last enrollment was added to the total
            if (itemPriceTextBox.Text != "")
            {
                DialogResult responseDialogResult;
                string messageString = "Current Item not recorded. Enroll first!";
                responseDialogResult = MessageBox.Show(messageString,
                                    "Verify Last Enrollment",
                                    MessageBoxButtons.YesNo,
                                    MessageBoxIcon.Question);

                if (responseDialogResult == DialogResult.Yes)
                {
                    enrollButton_Click(sender, e);
                }
            }
```

```csharp
            // Display amound due
            string dueString = "Amount Due " + totalOrderDecimal.ToString("C");
            MessageBox.Show(dueString, "Enrollment Complete");

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

            // Reset buttons and total for new order.
            summaryReportButton.Enabled = true;
            summaryToolStripMenuItem.Enabled = true;
            enrollmentCompleteButton.Enabled = false;
            enrollmentCompleteToolStripMenuItem.Enabled = false;
            totalOrderDecimal = 0m;
        }

        private void summaryReport()
        {
            // Display the summary information in a message box.

            string summaryString = "Courses sold:    "
                    + coursesInteger.ToString()
                    + "\n\n" + "Number of Orders:    "
                    + ordersInteger.ToString()
                    + "\n\n" + "Total Sales:      "
                    + totalSalesDecimal.ToString("C");
            MessageBox.Show(summaryString,
                        "CodeLab Courses Sold Summary Report",
                        MessageBoxButtons.OK,
                        MessageBoxIcon.Information);
        }

        private void clearForNextItem()
        {
            // Clear radio buttons, check boxes, text boxes.

            noCourseRadioButton.Checked = true;
            reactJsRadioButton.Checked = true;
            codingResourcesCheckBox.Checked = false;
            jobPlacementCheckBox.Checked = false;
            mentorshipCheckBox.Checked = false;
            itemPriceTextBox.Clear();
            quantityTextBox.Text = "1";
        }

        private decimal findExtrasPrice()
        {
            // Find price for additives.
            decimal extrasDecimal = 0;
```

```csharp
            if (jobPlacementCheckBox.Checked)
            {
                extrasDecimal += 9.99m;
            }
            if (mentorshipCheckBox.Checked)
            {
                extrasDecimal += 9.99m;
            }
            if (jobPlacementCheckBox.Checked)
            {
                extrasDecimal += 9.99m;
            }
            return extrasDecimal;
        }

        private void findAndUpdateTextBox(object sender)
        {
            // Calculate and display the price for the selected item.
            // Handles all check boxes and radio buttons.

            // Cast the sender to a RadioButton type.
            RadioButton selectedCourseRadioBUtton = (RadioButton)sender;
            switch (selectedCourseRadioBUtton.Name)
            {
                case "webDevRadioButton":
                    coursePriceDecimal = 79.99m;
                    break;
                case "appDevRadioButton":
                    coursePriceDecimal = 89.99m;
                    break;
                case "mlRadioButton":
                    coursePriceDecimal = 99.99m;
                    break;
            }
            courseDecimal = coursePriceDecimal + findExtrasPrice();
            itemPriceTextBox.Text = courseDecimal.ToString("C");
        }

        private void updateItemTextPrice()
        {
            // Check price of additives and display current price.
            // Handles all three check boxes.

            courseDecimal = courseDecimal + 9.99m;
            itemPriceTextBox.Text = courseDecimal.ToString("C");
        }
    }
}
```
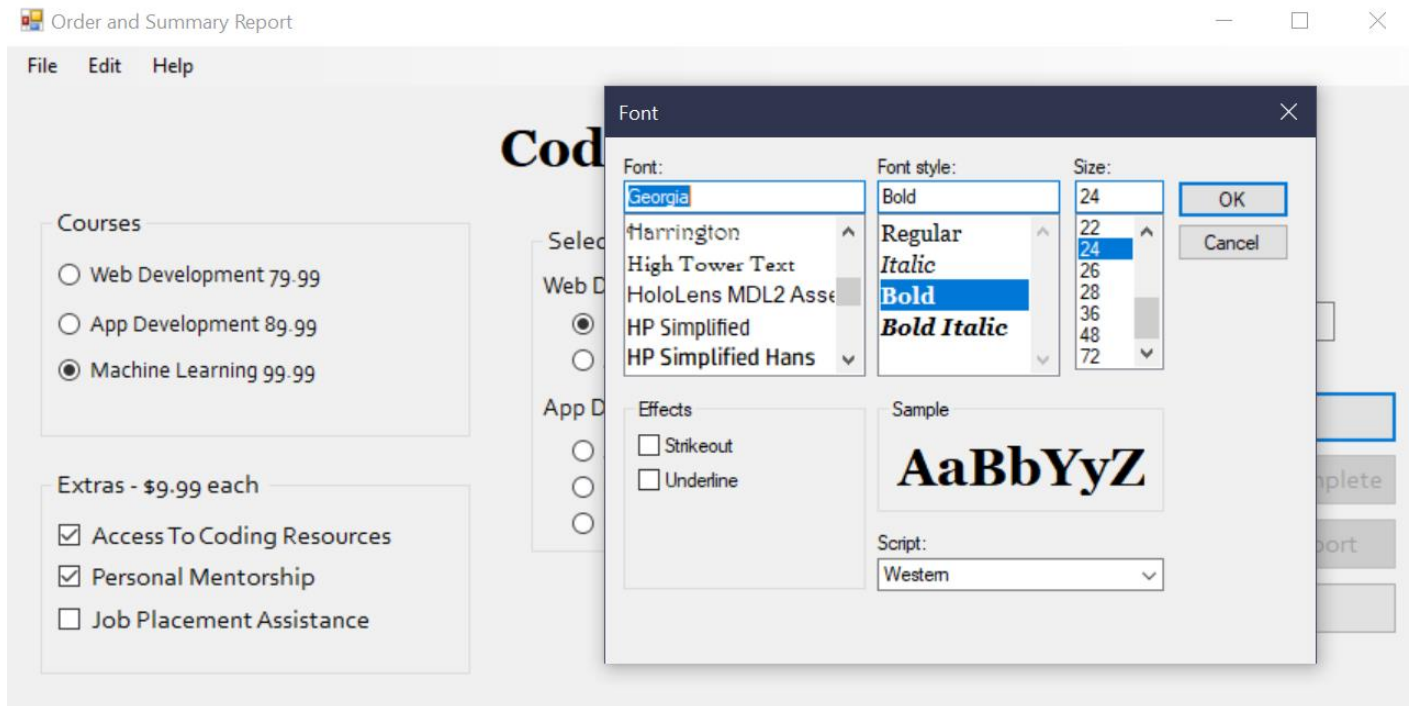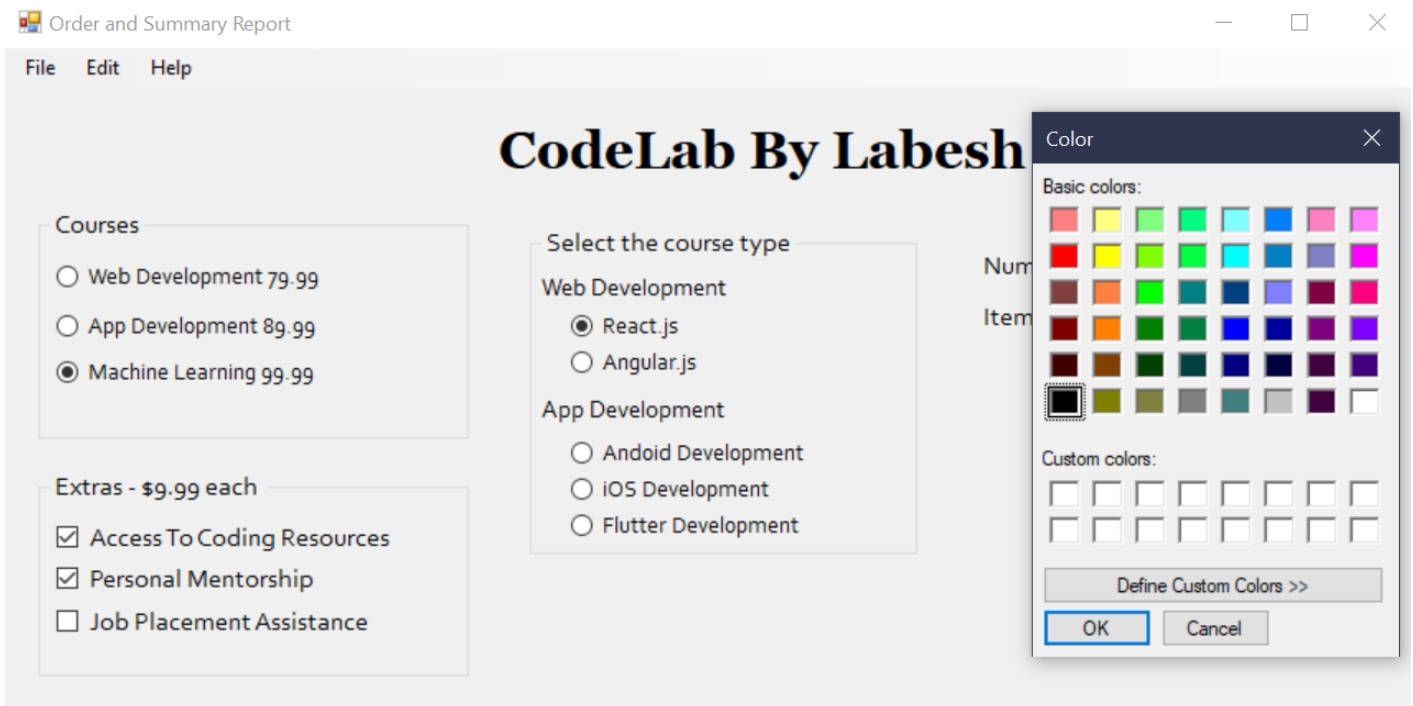
Graphical User Interface

Font:

Color:

Font and Color Applied:

Order and Summary Report

File   Edit   Help

CodeLab By Labesh

Courses

○ Web Development 79.99

○ App Development 89.99

○ Machine Learning 99.99

Extras - $9.99 each

☐ Access To Coding Resources

☐ Personal Mentorship

☐ Job Placement Assistance

Select the course type

Web Development

⦿ React.js

○ Angular.js

App Development

○ Andoid Development

○ iOS Development

○ Flutter Development

Number of Persons 1

Item Price

Enroll

nent Complete

mary Report

Exit

CodeLab Courses Sold Summary Report ✕

ⓘ   Courses sold: 1

Number of Orders: 1

Total Sales: $119.97

OK