



# University Assignment

Year 2023

Third Assignment

Academic Year: 2023  
Institute of Mathematics & Computer Science

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

# OBJECTS AND PROPERTIES

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

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

<b>itemPriceTextBox</b>	Name Text ReadOnly TabStop	itemPriceTextBox (Blank) true false
<b>enrollButton</b>	Name Text Font FontSize	enrollButton Enroll Corbel 12pt
<b>enrollmentCompleteButton</b>	Name Text Font FontSize Enabled	enrollmentCompleteButton Enrollment Complete Corbel 12pt false
<b>summaryReportButton</b>	Name Text Font FontSize Enabled	summaryReportButton Summary Report Corbel 12pt false
<b>exitButton</b>	Name Text Font FontSize	exitButton Exit Corbel 12pt

## CODE

```

/* 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
    private decimal itemPriceDecimal, totalOrderDecimal, totalSalesDecimal;
    private int coursesInteger, ordersInteger;

    public OrderAndSummaryReportForm()
    {
        InitializeComponent();
    }

    private double totalItemPrice() {
        double itemPrice=0;
        if (webDevRadioButton.Checked)
        {
            itemPrice = 79.99;
        }
        else if (appDevRadioButton.Checked)
        {
            itemPrice = 89.99;
        }
        else if (mlRadioButton.Checked)
        {
            itemPrice = 99.99;
        }
        if (mentorshipCheckBox.Checked)
        {
            itemPrice += 9.99;
        }
        if (jobPlacementCheckBox.Checked)
        {
            itemPrice += 9.99;
        }
        if (codingResourcesCheckBox.Checked)
        {
            itemPrice += 9.99;
        }
        return itemPrice;
    }

    private void enrollButton_Click(object sender, EventArgs e)
    {
        // Add the current item price and quantity to the order.
        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;
    itemPriceDecimal = (decimal)totalItemPrice();
    totalOrderDecimal += itemPriceDecimal * quantityInteger;
    enrollmentCompleteButton.Enabled = true;

    // Reset Default for next item.
    noCourseRadioButton.Checked = true;
    reactJsRadioButton.Checked = true;
    codingResourcesCheckBox.Checked = false;
    jobPlacementCheckBox.Checked = false;
    mentorshipCheckBox.Checked = false;
    itemPriceTextBox.Clear();
    quantityTextBox.Text = "1";

}
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 enrollmentCompleteButton_Click(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);
        }
    }

    // Display amount 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;
        enrollmentCompleteButton.Enabled = false;
        totalOrderDecimal = 0m;
    }

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

```

# Graphical User Interface

The screenshot shows a window titled "Order and Summary Report" with a dark blue header bar containing standard window controls. The main content area is divided into several sections:

- Courses:** A list of three radio buttons: "Web Development 79.99", "App Development 89.99" (which is selected), and "Machine Learning 99.99".
- Extras - \$9.99 each:** A list of three checkboxes: "Access To Coding Resources" (checked), "Personal Mentorship" (unchecked), and "Job Placement Assistance" (checked).
- Number of Persons:** A text input field containing the number "2".
- Item Price:** An empty text input field.
- Select the course type:** A section with two sub-groups of radio buttons:
  - Web Development:** "React.js" (selected) and "Angular.js".
  - App Development:** "Andoid Development", "iOS Development", and "Flutter Development".
- Buttons:** On the right side, there are four buttons: "Enroll" (highlighted with a blue border), "Enrollment Complete" (disabled), "Summary Report" (disabled), and "Exit" (disabled).

## Enrollement Complete

This screenshot shows the same "Order and Summary Report" window, but with an "Enrollment Complete" dialog box overlaid in the center. The dialog box has a dark blue header with the title "Enrollment Complete" and a close button (X). The main text in the dialog says "Amount Due \$219.94". At the bottom of the dialog is an "OK" button.

The background window shows the following state:

- Courses:** Same as the first screenshot.
- Extras - \$9.99 each:** Same as the first screenshot.
- Number of Persons:** The input field now contains the number "1".
- Item Price:** Still an empty input field.
- Select the course type:** Same as the first screenshot.
- Buttons:** The "Enroll" button is now disabled, and the "Enrollment Complete" button is now highlighted with a blue border.



# Summary Report

Order and Summary Report



## Courses

- ☐ Web Development 79.99
- ☐ App Development 89.99
- ☐ Machine Learning 99.99

## Extras - \$9.99 ea

- ☐ Access To Course Materials
- ☐ Personal Mentorship
- ☐ Job Placement Assistance

Number of Persons

Item Price

## Select the course type

Web Development

- ☒ React.js
- ☐ Angular.js

App Development

Machine Learning

Full Stack Development

Backend Development

Enroll

Enrollment Complete

Summary Report

Exit

## CodeLab Courses Sold Summary Report



Courses sold: 2

Number of Orders: 1

Total Sales: \$219.94

OK