UTM
UNIVERSITI TEKNOLOGI MALAYSIA

School of Professional and Continuing Education (SPACE)

UNIVERSITI TEKNOLOGI MALAYSIA
DEPARTMENT OF COMPUTER SCIENCE & SERVICES, UTM KL
SEMESTER I, SESSION 2022/2023

LAB SKILL 2

DDWD 2653: **VB.NET PROGRAMMING**

SECTION 38

NAME :

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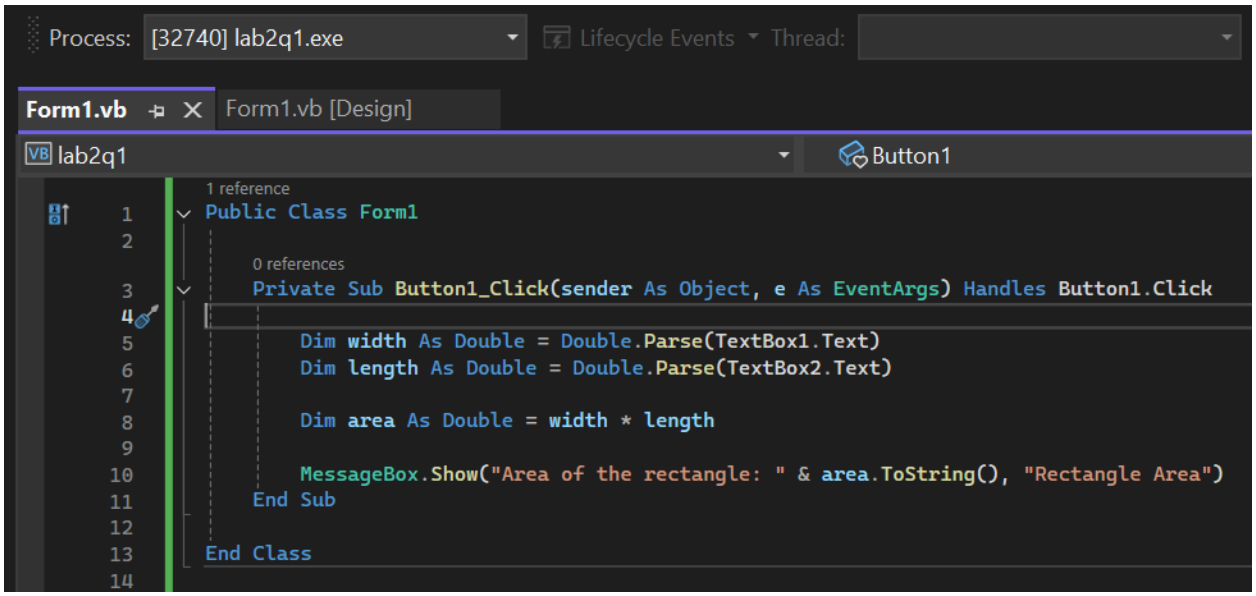
COURSE: 3 DDWD - DIPLOMA IN COMPUTER SCIENCE

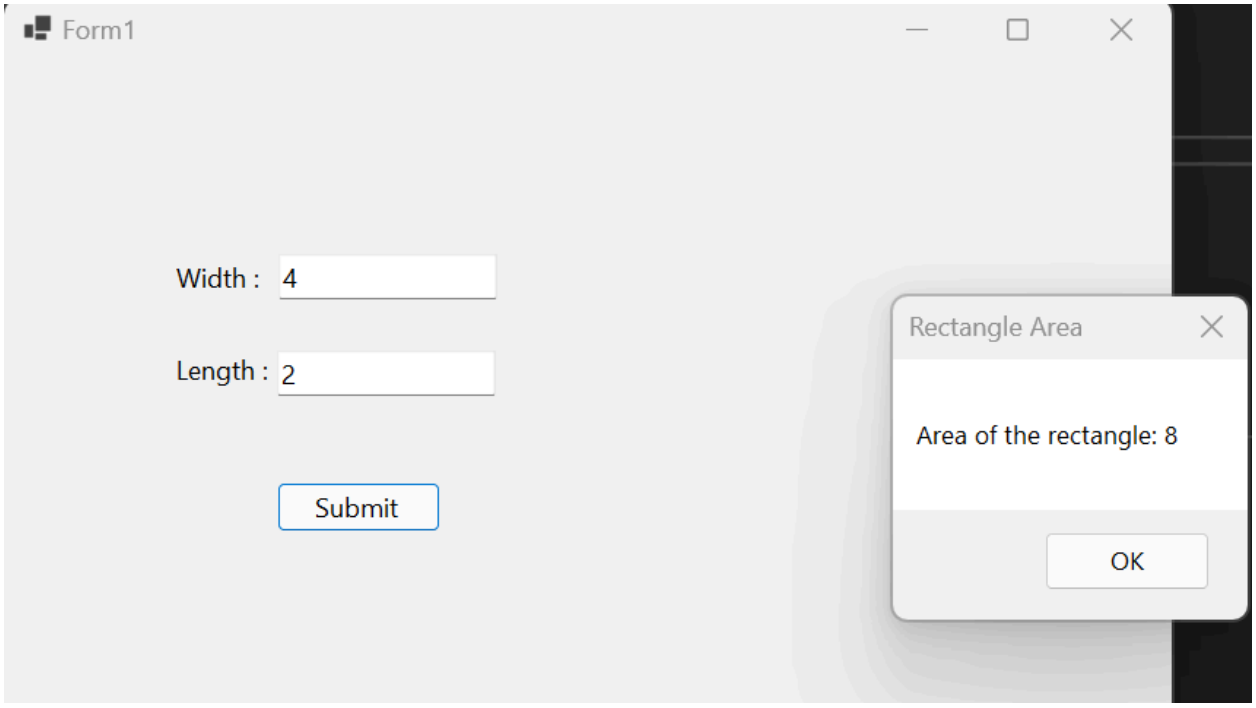
SUBMISSION DATE: 31 AUGUST 2024

LECTURER'S NAME: MISS NOR SYAFIQAH

1. Write a VB.Net program which can read a value of width and length for a rectangle and calculate the area for the rectangle.

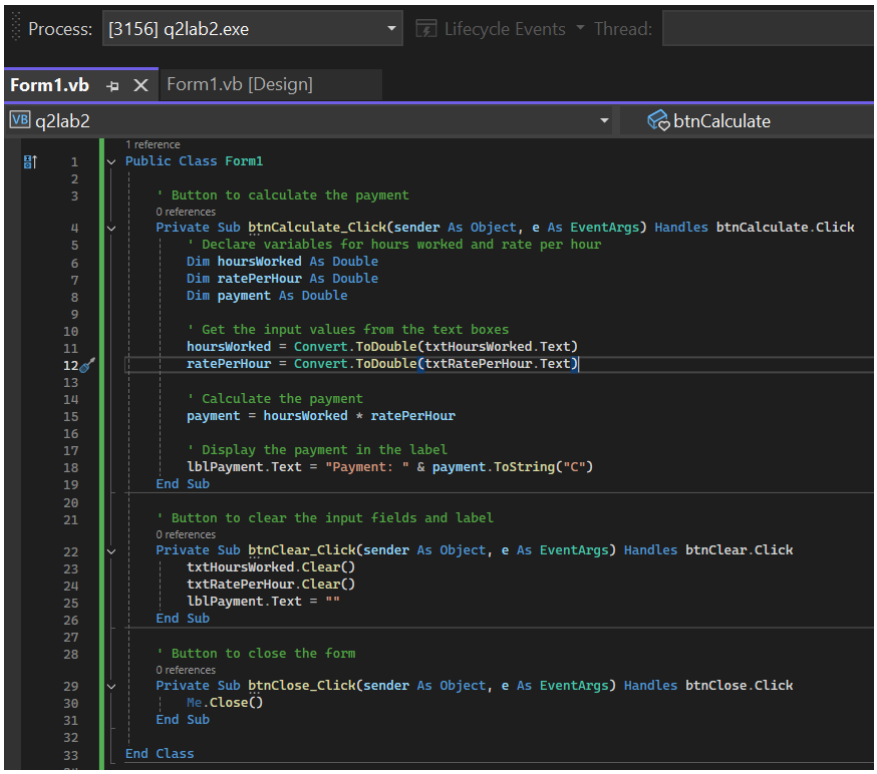
Answer:



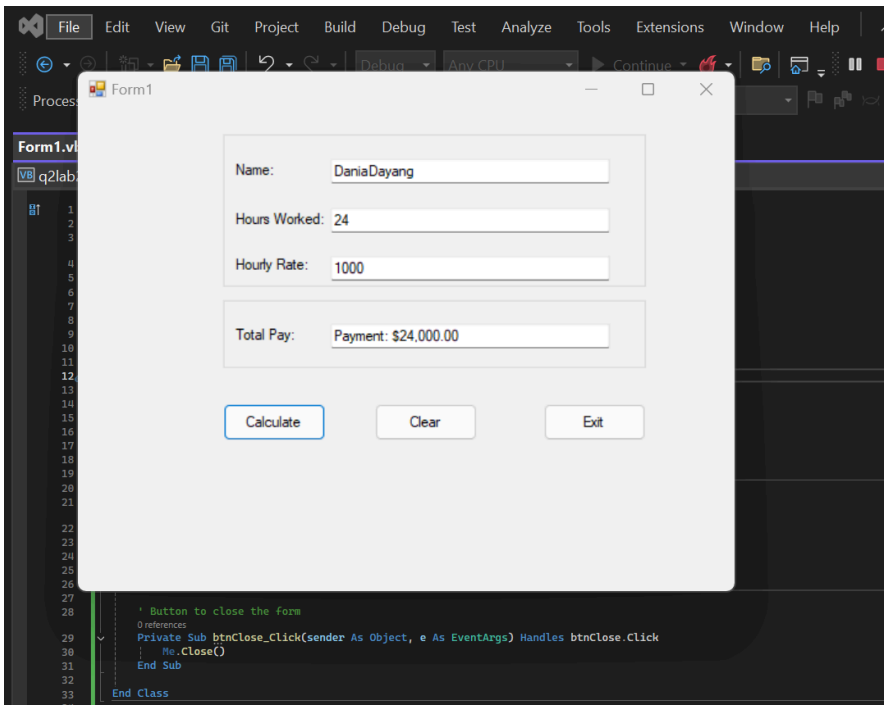


2. Based on the following Form, create a program to calculate the staff payment based on their hours working and rate per hour.

Answer:



```
Public Class Form1

    ' Button to calculate the payment
    Private Sub btnCalculate_Click(sender As Object, e As EventArgs) Handles btnCalculate.Click
        ' Declare variables for hours worked and rate per hour
        Dim hoursWorked As Double
        Dim ratePerHour As Double
        Dim payment As Double

        ' Get the input values from the text boxes
        hoursWorked = Convert.ToDouble(txtHoursWorked.Text)
        ratePerHour = Convert.ToDouble(txtRatePerHour.Text)

        ' Calculate the payment
        payment = hoursWorked * ratePerHour

        ' Display the payment in the label
        lblPayment.Text = "Payment: " & payment.ToString("C")
    End Sub

    ' Button to clear the input fields and label
    Private Sub btnClear_Click(sender As Object, e As EventArgs) Handles btnClear.Click
        txtHoursWorked.Clear()
        txtRatePerHour.Clear()
        lblPayment.Text = ""
    End Sub

    ' Button to close the form
    Private Sub btnClose_Click(sender As Object, e As EventArgs) Handles btnClose.Click
        Me.Close()
    End Sub

End Class
```



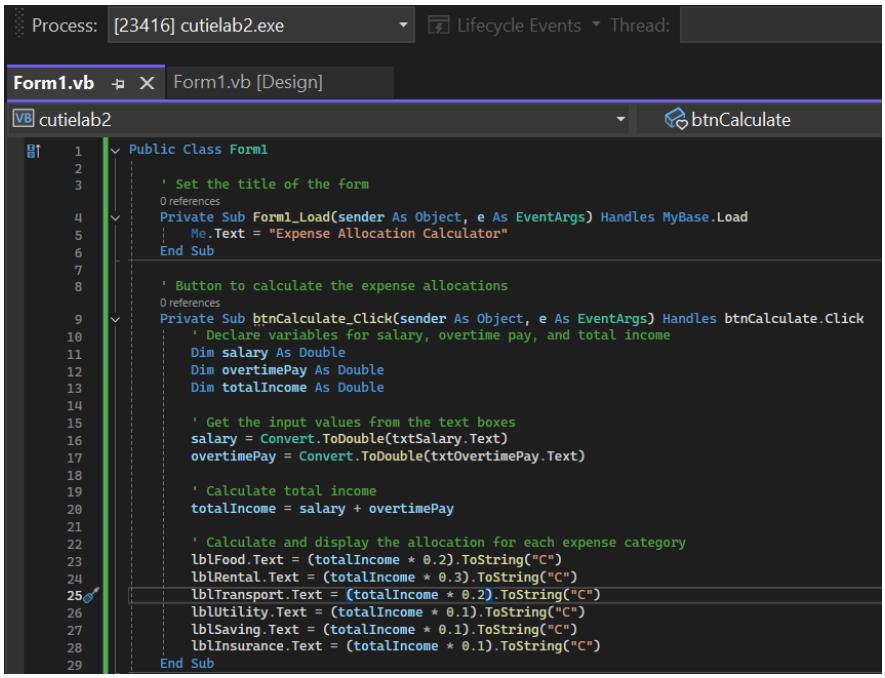
3. Write a program that can guide a consumer on how much to spend for food, rental, utility etc for each month based on their salary and their overtime pay. The guide for how much to allocate for each item are based on the following table:-

Type of expenses	Percentage of Allocation(%)
FOOD	20
RENTAL	30
TRANSPORT	20
UTILITY	10
SAVING	10
INSURANCE	10

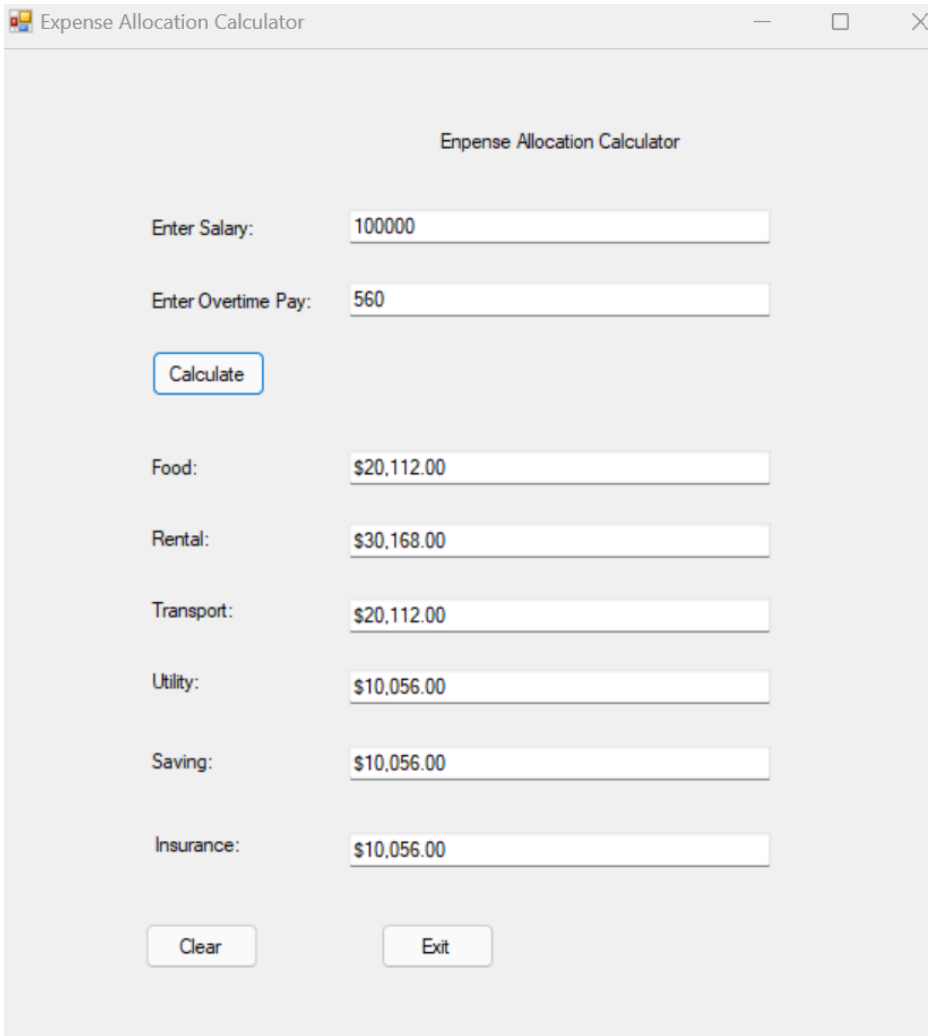
Table 1: Allocation of expenses

User will enter their name, salary and overtime pay and program should then display how much user should spend their income on each of the expenses category. Design suitable User Interface for this program.*(button, label, group box etc)*

ANSWER:

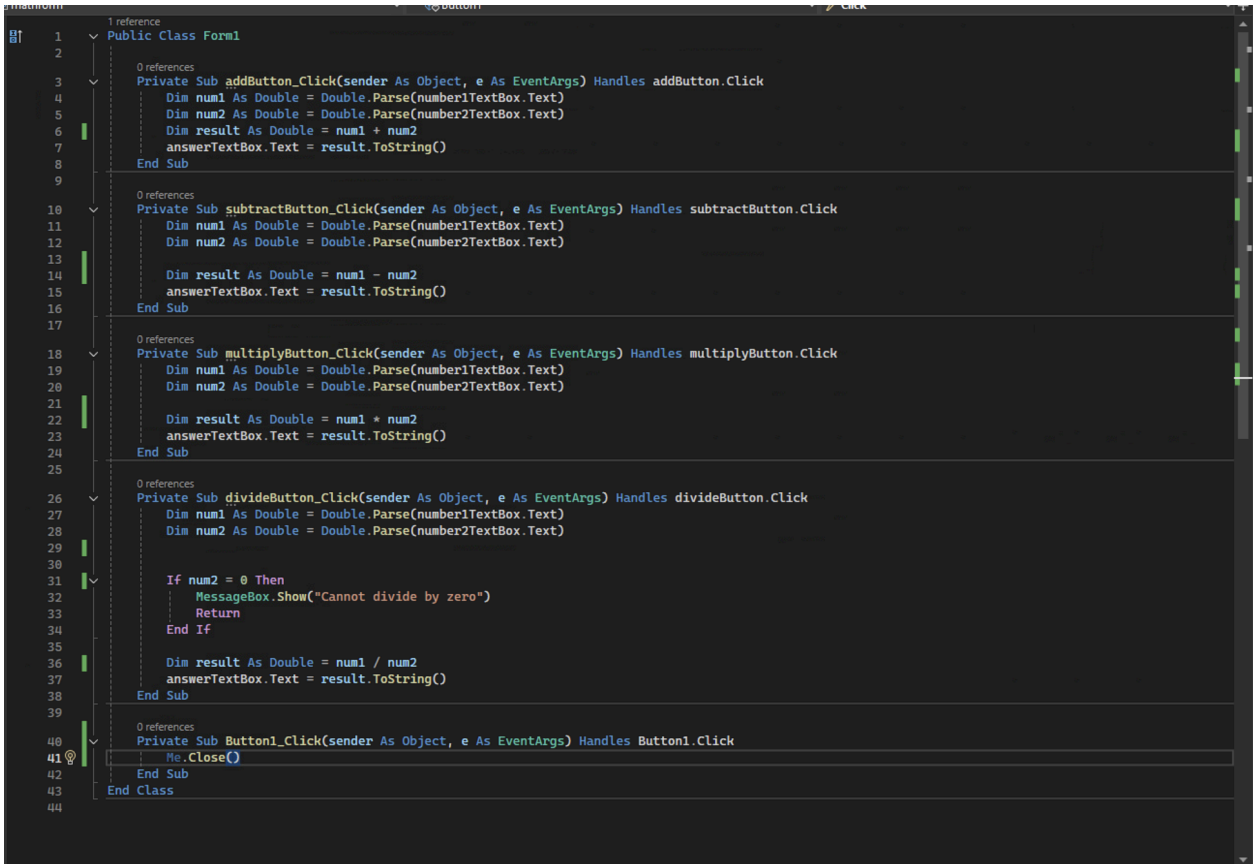


```
    ' Button to clear the input fields and labels
    0 references
    Private Sub btnClear_Click(sender As Object, e As EventArgs) Handles btnClear.Click
        txtSalary.Clear()
        txtOvertimePay.Clear()
        lblFood.Text = ""
        lblRental.Text = ""
        lblTransport.Text = ""
        lblUtility.Text = ""
        lblSaving.Text = ""
        Label9.Text = ""
    End Sub

    ' Button to close the form
    0 references
    Private Sub btnClose_Click(sender As Object, e As EventArgs) Handles btnClose.Click
        Me.Close()
    End Sub

End Class
```



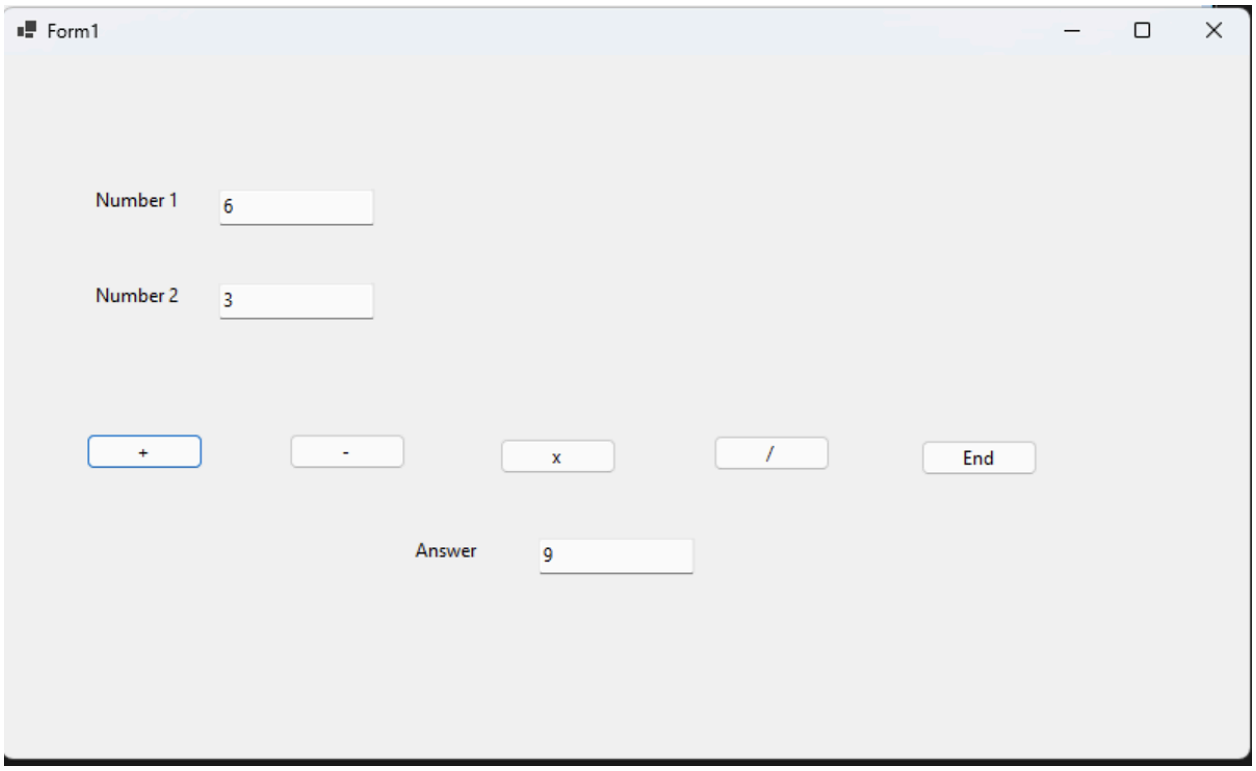
4. Write a VB.Net program which will allow user calculate the sum, subtraction, multiplication or division of 2 numbers.
Your program must have :-

2 text box for user to enter 2 number
5 button
o Add, Subtract, Multiply, Divide,End
One label for result

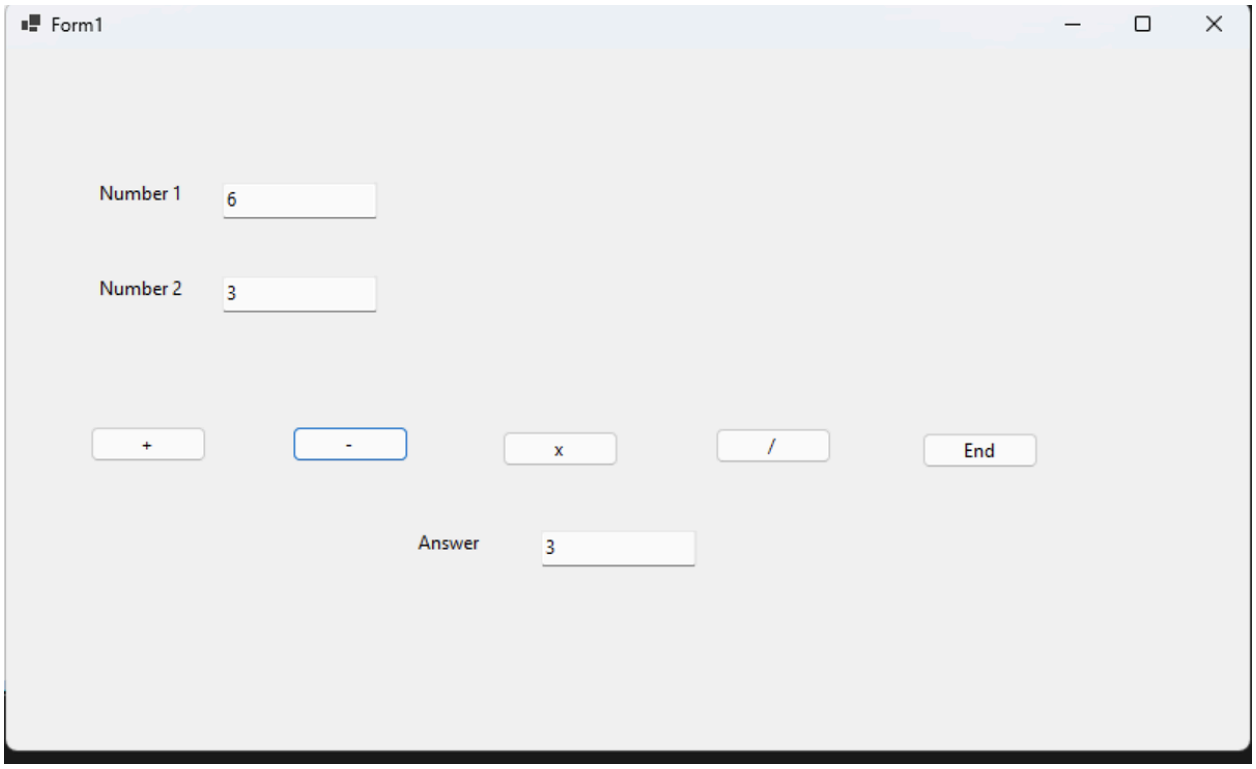


```
1 reference
Public Class Form1

    0 references
    Private Sub addButton_Click(sender As Object, e As EventArgs) Handles addButton.Click
        Dim num1 As Double = Double.Parse(number1TextBox.Text)
        Dim num2 As Double = Double.Parse(number2TextBox.Text)
        Dim result As Double = num1 + num2
        answerTextBox.Text = result.ToString()
    End Sub

    0 references
    Private Sub subtractButton_Click(sender As Object, e As EventArgs) Handles subtractButton.Click
        Dim num1 As Double = Double.Parse(number1TextBox.Text)
        Dim num2 As Double = Double.Parse(number2TextBox.Text)

        Dim result As Double = num1 - num2
        answerTextBox.Text = result.ToString()
    End Sub

    0 references
    Private Sub multiplyButton_Click(sender As Object, e As EventArgs) Handles multiplyButton.Click
        Dim num1 As Double = Double.Parse(number1TextBox.Text)
        Dim num2 As Double = Double.Parse(number2TextBox.Text)

        Dim result As Double = num1 * num2
        answerTextBox.Text = result.ToString()
    End Sub

    0 references
    Private Sub divideButton_Click(sender As Object, e As EventArgs) Handles divideButton.Click
        Dim num1 As Double = Double.Parse(number1TextBox.Text)
        Dim num2 As Double = Double.Parse(number2TextBox.Text)


        If num2 = 0 Then
            MessageBox.Show("Cannot divide by zero")
            Return
        End If

        Dim result As Double = num1 / num2
        answerTextBox.Text = result.ToString()
    End Sub

    0 references
    Private Sub Button1_Click(sender As Object, e As EventArgs) Handles Button1.Click
        Me.Close()
    End Sub
End Class
```

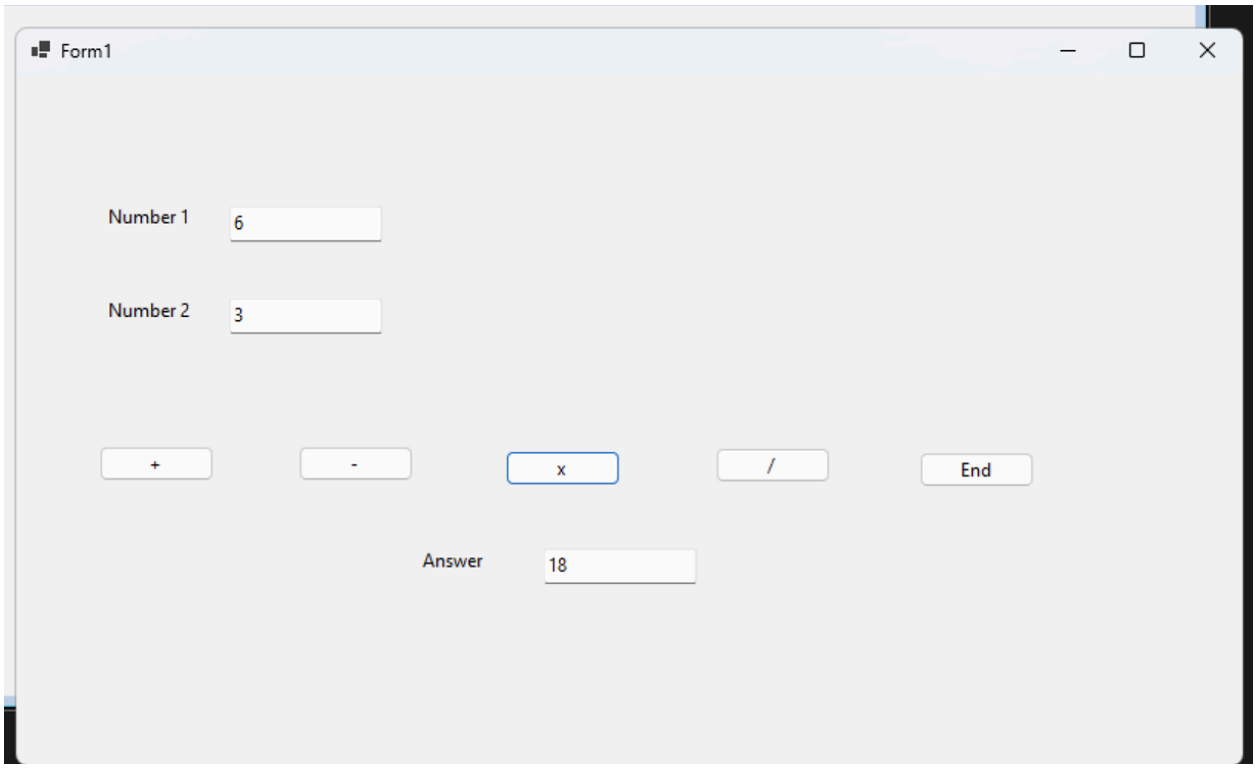
Output Add:



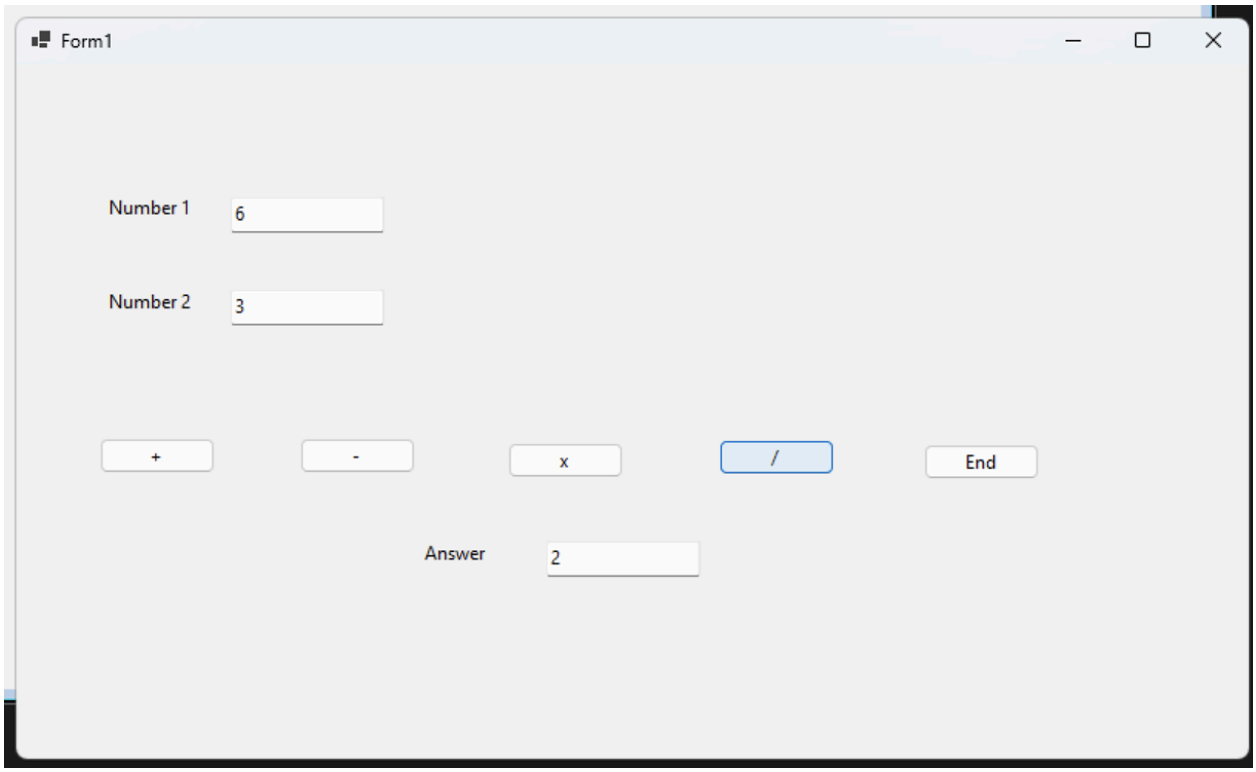
Output Minus:



Output Multiply:



Output Divide:



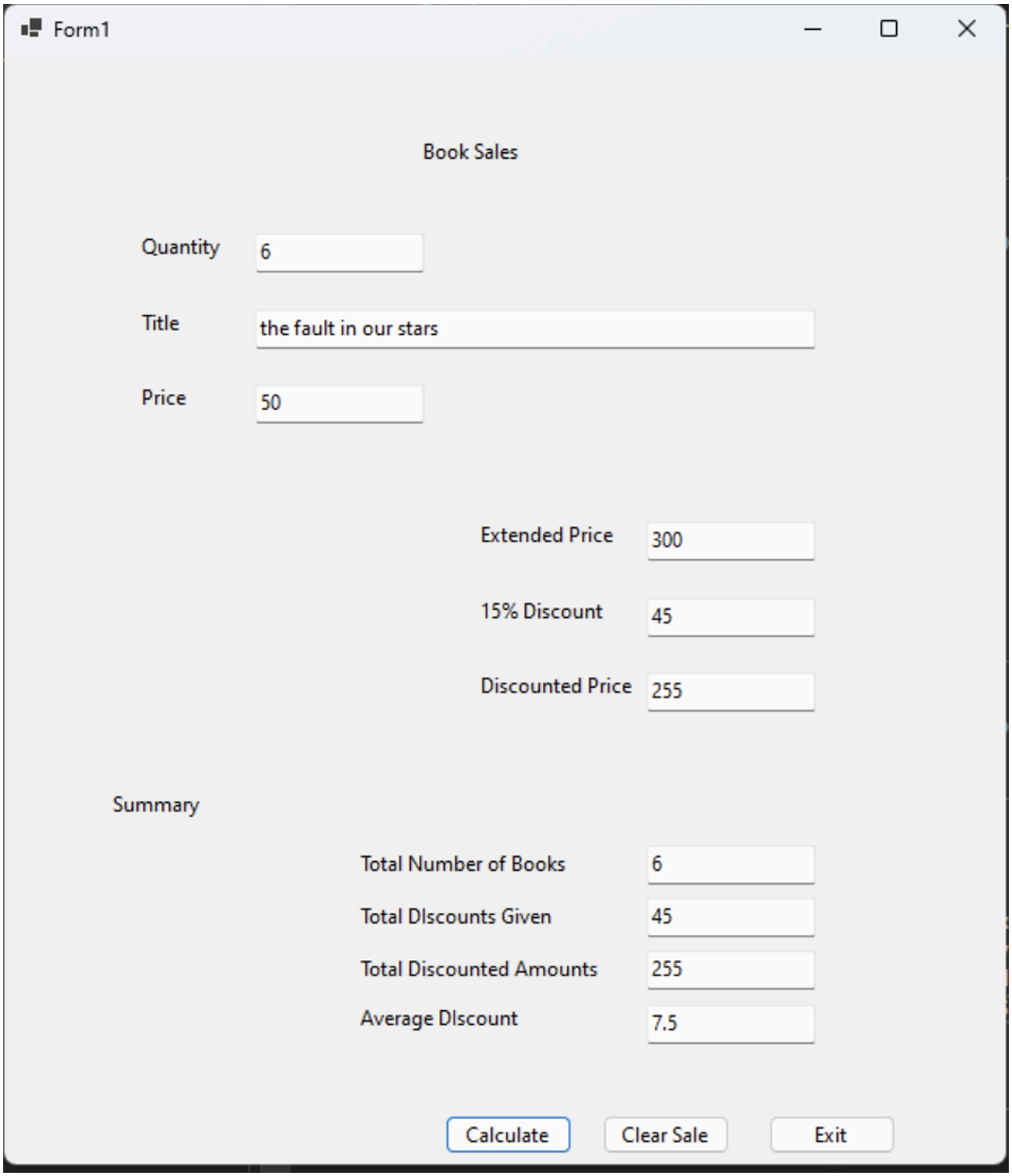
5. Write a Vb.net based on the following program output:-

```
1 reference
Public Class Form1

    Private TotalNumberOfBooks As Integer
    Private TotalDiscountsGiven As Decimal
    Private TotalDiscountedAmounts As Decimal
    Private AverageDiscount As Decimal
    0 references
    Private Sub calcbtn_Click(sender As Object, e As EventArgs) Handles calcbtn.Click
        Dim qty As Integer = Integer.Parse(qtybox.Text)
        Dim price As Double = Double.Parse(pricebox.Text)

        Dim eprice As Double = qty * price
        epricebox.Text = eprice.ToString()

        Dim disc As Double = eprice * 0.15
        discbox.Text = disc.ToString()

        Dim discprice As Double = eprice - disc
        discpricebox.Text = discprice.ToString

        TotalNumberOfBooks += qty
        TotalDiscountsGiven += disc
        TotalDiscountedAmounts += discprice
        AverageDiscount = TotalDiscountsGiven / TotalNumberOfBooks

        UpdateSummary()


    End Sub

    0 references
    Private Sub clearbtn_Click(sender As Object, e As EventArgs) Handles clearbtn.Click
        qtybox.Text = ""
        titlebox.Text = ""
        pricebox.Text = ""
        epricebox.Text = ""
        discbox.Text = ""
        discpricebox.Text = ""

        TotalNumberOfBooks = 0
        TotalDiscountsGiven = 0
        TotalDiscountedAmounts = 0
        AverageDiscount = 0

        UpdateSummary()
    End Sub

    0 references
    Private Sub exitbtn_Click(sender As Object, e As EventArgs) Handles exitbtn.Click
        Me.Close()
    End Sub
```

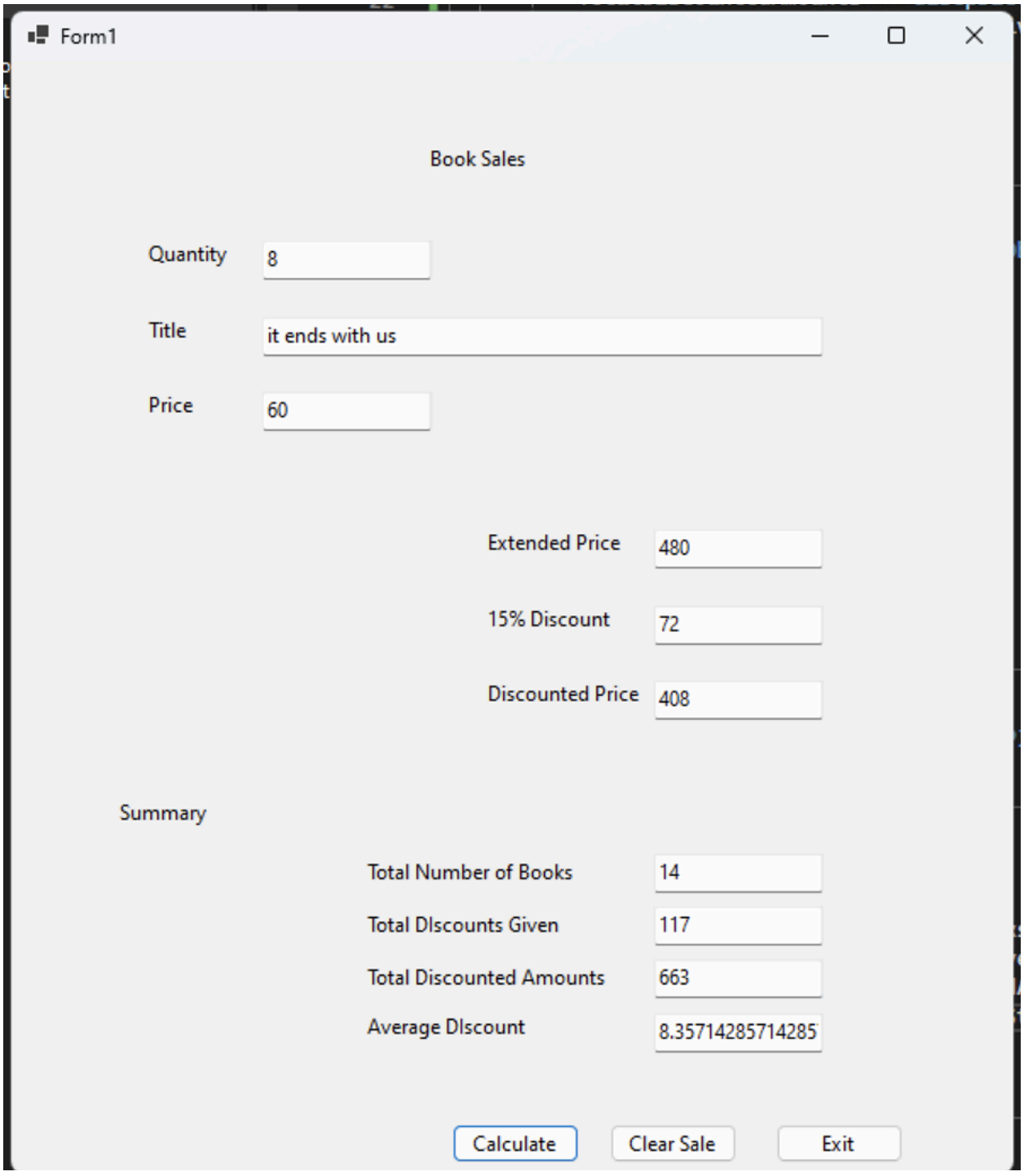
WithEvents Form1.calcbtn As Button

```
    2 references
    Private Sub UpdateSummary()

        totalbook.Text = TotalNumberOfBooks.ToString()
        totaldisc.Text = TotalDiscountsGiven.ToString()
        totaldiscam.Text = TotalDiscountedAmounts.ToString()
        avgdisc.Text = AverageDiscount.ToString()
    End Sub

End Class
```

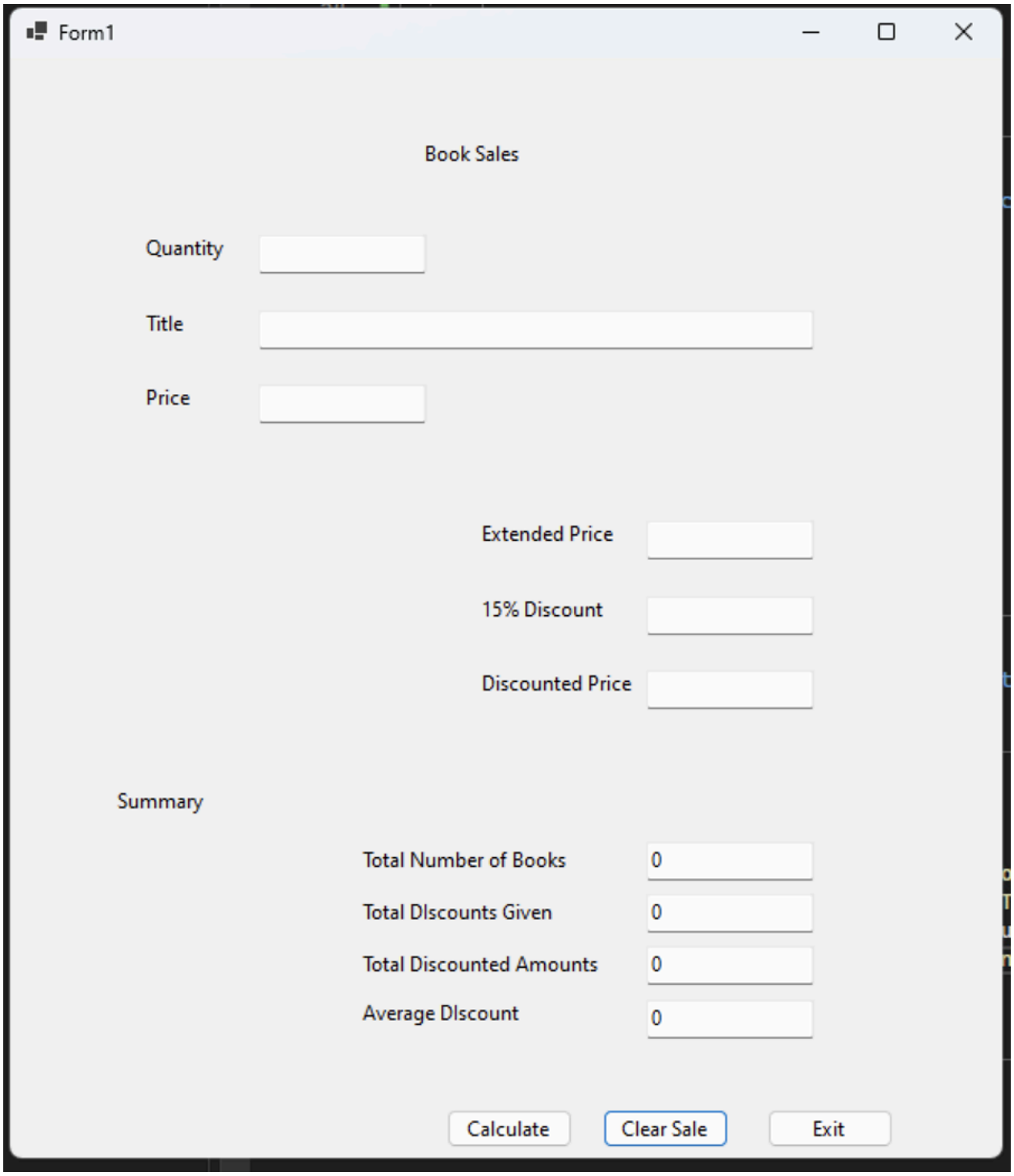
Output 1:


Form1
Book Sales
Quantity
6
Title
the fault in our stars
Price
50
Extended Price
300
15% Discount
45
Discounted Price
255
Summary
Total Number of Books
6
Total DIscounts Given
45
Total Discounted Amounts
255
Average DIscount
7.5
Calculate
Clear Sale
Exit

Output 2:


Form1
Book Sales
Quantity
8
Title
it ends with us
Price
60
Extended Price
480
15% Discount
72
Discounted Price
408
Summary
Total Number of Books
14
Total DIscounts Given
117
Total Discounted Amounts
663
Average DIscount
8.35714285714285
Calculate
Clear Sale
Exit

Output Clear:



6. Write a Vb.net based on the following program specification:-
User can enter width and height of box
Program will display a box according the width and height value entered by user.

```
lb2_q6                                  Form1                                  rectangle
                                        1 reference
Public Class Form1
    Private rectangle As Rectangle

                                        0 references
    Private Sub DrawButton_Click(sender As Object, e As EventArgs) Handles DrawButton.Click
        Dim width As Integer = Integer.Parse(WidthTextBox.Text)
        Dim height As Integer = Integer.Parse(HeightTextBox.Text)

        rectangle = New Rectangle(100, 250, width, height)
        Invalidate()

        DimensionsLabel.Text = "Width " & width.ToString() & " Height " & height.ToString()
    End Sub

                                        0 references
    Private Sub RectangleDrawerForm_Paint(sender As Object, e As PaintEventArgs) Handles MyBase.Paint
        e.Graphics.DrawRectangle(Pens.Black, rectangle)
    End Sub

End Class
```

Output: