



VISUAL BASIC PROGRAMMING (330)

REGIONAL – 2014

TOTAL POINTS _____ (*350 points*)

**Judges/Graders: Please double check and verify
all scores and answer keys!**

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Application / GUI Design

The form looks identical to the *Figure 1* provided _____ / 100 points

Application / Runtime

Current date is populated at Form Load _____ / 20 points

User is notified upon not selecting a tour _____ / 10 points

User is notified upon not selecting the number of tickets _____ / 10 points

User is notified upon not entering a deposit of at least \$10 _____ / 10 points

User is notified of impending weather feature on click of link label _____ / 10 points

User is able to select multiple tours _____ / 10 points

User is able to check Ticket Refund Insurance _____ / 10 points

User is able to check No Expiration Date Voucher _____ / 10 points

Calculate button properly calculates Subtotal, Tax, and Balance Due _____ / 50 points

Close button properly closes the application _____ / 10 points

_____ / 150 points

Application / Code

Weather Link Label is properly coded _____ / 20 points

Current date/time is coded within Form1_Load() _____ / 20 points

CalculateBalance Function is utilized _____ / 40 points

Code is well-documented _____ / 10 points

Proper naming conventions are used _____ / 10 points

_____ / 100 points

Total Points _____ / 350 points



SAMPLE CODE – Contestant Code may vary.

```
'Author: Contestant # 00-0000-0000
Option Strict On
Public Class Form1

    Private dblInsurance_Rate As Double = 0.1 'Insurance Rate of 10%
    Private dblTaxRate As Double = 0.06 '6% Sales Tax

    'Handles LinkLabel for Weather
    Private Sub lnkForecast_LinkClicked() Handles lnkForecast.LinkClicked

        MessageBox.Show("Weather is currently unavailable, this will be in the
next version build.")

    End Sub

    'Form1 Load Procedure
    Private Sub Form1_Load() Handles MyBase.Load
        'Set the date in the form on load.
        lblDate.Text = Now.ToString
    End Sub

    'Close the Application
    Private Sub btnClose_Click() Handles btnClose.Click
        Me.Close()
    End Sub

    'Handles Calculate Button Click Procedure
    Private Sub btnCalculate_Click() Handles btnCalculate.Click

        'START VALIDATION SECTION
        'Check for tour selection, if no tours are selected prompt the user
        If lstTours.SelectedIndex = -1 Then
            MessageBox.Show("Please select at least one tour.")
            Return
        End If

        'Check for number of tickets selection, if no number is selected prompt
the user
        If cboTickets.SelectedIndex = -1 Then
            MessageBox.Show("Please select the proper number of tickets.")
            Return
        End If

        'Check for deposit, if not at least $10, prompt the user
        Dim dblDeposit As Double
        If Not Double.TryParse(txtDeposit.Text, dblDeposit) Then
            MessageBox.Show("A deposit of at least $10 must be entered.")
            txtDeposit.Focus()
            Return
        End If
        'END VALIDATION SECTION

        'Initialize the subtotal
        Dim dblSubTotal As Double = 0
    End Sub
End Class
```



```
'Obtain the number of tickets of each tour to be purchased
Dim intTickets As Integer = CInt(cboTickets.SelectedItem)

'Cycle through each selected index in the Tour List
For Each index As Integer In lstTours.SelectedIndices
    Select Case intTickets
        Case 1 To 5 'Number of tickets selected is 1-5
            If index = 0 Then
                dblSubTotal += (25 * intTickets) 'Cost for Zoo Tour
            End If

            If index = 1 Then
                dblSubTotal += (20 * intTickets) 'Cost for Stadium Tour
            End If

            If index = 2 Then
                dblSubTotal += (15 * intTickets) 'Cost for Speedway Tour
            End If

            If index = 3 Then
                dblSubTotal += (15 * intTickets) 'Cost for NCAA
            End If

        Case 6 To 10 'Number of tickets selected is 6-10
            If index = 0 Then
                dblSubTotal += 23 * intTickets 'Cost for Zoo Tour
            End If

            If index = 1 Then
                dblSubTotal += 18 * intTickets 'Cost for Stadium Tour
            End If

            If index = 2 Then
                dblSubTotal += 14 * intTickets 'Cost for Speedway Tour
            End If

            If index = 3 Then
                dblSubTotal += 14 * intTickets 'Cost for NCAA
            End If
        End Select
    Next

'Calculate insurance cost if option is selected
Dim dblInsurance As Double = 0
If chkInsurance.Checked Then
    dblInsurance = dblSubTotal * dblInsurance_Rate
End If

'Calculate the no expiration cost if the option is selected
Dim dblExpiration As Double = 0
If chkExpiration.Checked Then
    dblSubTotal += 50
End If

dblSubTotal += dblInsurance 'Add the insurance cost to the subtotal
```



```
Dim dblTax As Double = (dblSubTotal * dblTaxRate) 'Calculate the tax
Dim dblBalance As Double = CalculateBalance(dblSubTotal, dblTax,
dblDeposit)

'Display all calculations on screen
lblSubtotal.Text = dblSubTotal.ToString("c")
lblTax.Text = dblTax.ToString("c")
lblBalance.Text = dblBalance.ToString("c")

End Sub

'CalculateBalance Function - Return the balance due
Private Function CalculateBalance(ByVal dblSubTotal As Double, ByVal dblTax As
Double, ByVal dblDeposit As Double) As Double
Return (dblSubTotal + dblTax) - dblDeposit
End Function
End Class
```