**CS/IS 3023 Assignment 6 14 points**

**Due: 3/9**

Email your finished answers and to me at [harringp@nsuok.edu](mailto:harringp@nsuok.edu)

You are welcome to copy and paste your .vb source code below or attach your .vb source code to the email.

**Chapter 6:**

1. Do tutorial 6-2, p.383, on creating and calling procedures.

Public Class Form1

Sub TurnLightOn()

picLightOn.Visible = True

' Hide the "Light Off" image.

picLightOff.Visible = False

' Change the label text.

lblLightState.Text = "ON"

End Sub

Sub TurnLightOff()

' Display the "Light Off" image.

picLightOff.Visible = True

' Hide the "Light On" image.

picLightOn.Visible = False

' Change the label text.

lblLightState.Text = "OFF"

End Sub ' Display the "Light On" image.

Private Sub btnSwitchLight\_Click(sender As Object, e As EventArgs) Handles btnSwitchLight.Click

' Reverse the state of the light.

If picLightOn.Visible = True Then

TurnLightOff()

Else

TurnLightOn()

End If

End Sub

Private Sub btnExit\_Click(sender As Object, e As EventArgs) Handles btnExit.Click

Me.Close()

End Sub

End Class

1. What are values passed to procedures?

Arguments passed by value is the temporary copy of the original document

1. What is the keyword to pass a value by reference?

ByRef

1. Write a few lines of visual basic code to pass a string by reference to a function.

Function CalculateAmount(ByRef decNumberOne As Decimal,

ByRef decPercentage As Decimal) As Decimal

Dim decTotal As Decimal

decTotal = decNumberOne - (decNumberOne \* decPercentage)

Return decTotal

End Function

1. Do tutorial 6-5, p.396, on creating forms and using if-statements.

Public Class Form1

Private decRetail As Decimal ' To hold the retail price

Private decPercentage As Decimal ' To hold the discount percentage

Private Function ValidateInputFields() As Boolean

'Try to convert each of the input fields. Return False if

'any field is invalid, and display a suitable error message.

If Not Decimal.TryParse(txtRetailPrice.Text, decRetail) Then

lblMessage.Text = "Retail price must be numeric"

Return False

End If

If Not Decimal.TryParse(txtDiscountPercent.Text, decPercentage) Then

lblMessage.Text = "Discount percentage must be numeric"

Return False

End If

Return True

End Function

Function CalculateSalePrice(ByVal decRetail As Decimal,

ByVal decPercentage As Decimal) As Decimal

' Calculate and return the sale price.

Dim decSalePrice As Decimal

decSalePrice = decRetail - (decRetail \* decPercentage)

Return decSalePrice

End Function

Private Sub btnCalculate\_Click(sender As Object, e As EventArgs) Handles btnCalculate.Click

Dim decSalePrice As Decimal

' Clear any previous message.

lblMessage.Text = String.Empty

' If the input is valid, display the sale price.

If ValidateInputFields() Then

decSalePrice = CalculateSalePrice(decRetail, decPercentage)

txtSalePrice.Text = decSalePrice.ToString("c")

End If

End Sub

Private Sub btnExit\_Click(sender As Object, e As EventArgs) Handles btnExit.Click

Me.Close()

End Sub

End Class