**CS/IS 3023 Assignment 8 14 points**

**Due: 4/8**

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 8:**

1. Write visual basic code to declare an array of size 5 of integer.

Dim intNumbers(5) As Integer

1. Write visual basic code to declare an array of size 3 of integer, using implicit array sizing and initialization, with initial values 1,2,3

Dim intNumbers() As Integer = {1, 2, 3}

1. Do tutorial 8-2, p. 507, on using an array to hold a list of names entered by the user.

Public Class Form1

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

Const intMAX\_SUBSCRIPT As Integer = 4 ' The max subscript

Dim strNames(intMAX\_SUBSCRIPT) As String ' Array to hold names

Dim intCount As Integer ' Loop counter

' Tell the user what we are about to do.

MessageBox.Show("I'm going to ask you to enter the " & "names of five friends.")

' Get the names and store them in the array.

For intCount = 0 To intMAX\_SUBSCRIPT

strNames(intCount) = InputBox("Enter a friend's name.")

Next

' Clear the list box of its current contents.

lstFriends.Items.Clear()

' Display the contents of the array in the list box.

For intCount = 0 To intMAX\_SUBSCRIPT

lstFriends.Items.Add(strNames(intCount))

Next

End Sub

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

Me.Close()

End Sub

End Class

1. Write visual basic code to create an array containing three strings, and use a for-loop to print the contents. Use the length property of the array.

Dim strNames() As String = {"Joe", "Geri", "Rose"}

For intCount = 0 To strNames.Length − 1

MessageBox.Show(strNames(intCount))

Next

1. Do tutorial 8-3 p.510, on creating constants, using for loops, and try-catch.

Public Class Form1

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

' Constants

Const decHOURLY\_PAY\_RATE As Decimal = 15D

Const intMAX\_SUBSCRIPT As Integer = 5

' Array and other variables

Dim dblHoursArray(intMAX\_SUBSCRIPT) As Double

Dim intCount As Integer = 0 ' Loop counter

Dim decEmpPay As Decimal ' To hold gross pay

MessageBox.Show("I'm going to ask you for each " & "employee's hours worked.")

Do While intCount < dblHoursArray.Length

Try

dblHoursArray(intCount) =

CDbl(InputBox("Employee number " &

(intCount + 1).ToString()))

intCount += 1

Catch

MessageBox.Show("Enter a valid number of " & "hours for that employee.")

End Try

Loop

lstOutput.Items.Clear()

' Calculate and display each employee's gross pay.

For intCount = 0 To dblHoursArray.Length - 1

decEmpPay = CDec(dblHoursArray(intCount) \*

decHOURLY\_PAY\_RATE)

lstOutput.Items.Add("Employee " &

(intCount + 1).ToString() & " earned " &

decEmpPay.ToString("c"))

Next

End Sub

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

Me.Close()

End Sub

End Class

1. Do tutorial 8-4 p. 518 on using parallel arrays.

Public Class Form1

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

Dim strMonths() As String = {"January", "February", "March", "April", "May", "June", "July", "August", "September", "October", "November", "December"}

Dim intDays() As Integer = {31, 28, 31, 30, 31, 30, 31, 31, 30, 31, 30, 31}

For intCount As Integer = 0 To strMonths.Length - 1

lstOutput.Items.Add(strMonths(intCount) & " has " & intDays(intCount).ToString() & " days.")

Next

End Sub

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

Me.Close()

End Sub

End Class

1. Write visual basic code to pass an array by value to a subroutine.

Sub SetToZero(ByVal intArray() As Integer)

Dim intCount As Integer ' Loop counter

For intCount = 0 To intArray.Length − 1

intArray(intCount) = 0

Next

End Sub

1. Write visual basic code to return an array from a function.

Function GetNames() As String()

Const intMAX\_SUBSCRIPT As Integer = 2

Dim strNames(intMAX\_SUBSCRIPT) As String

Dim intCount As Integer

For intCount = 0 To 3

strNames(intCount) = InputBox("Enter name " &

(intCount + 1).ToString())

Next

Return strNames

End Function

1. Write visual basic code to create a two-dimensional array of integer

Dim intNumbers(2, 3) As Integer