**CS/IS 3023 Assignment 9 14 points**

**Due: 4/15**

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 9:**

1. What is the StreamWriter object used for in visual basic?

StreamWriter is used to write outputs into a text file (like fstream in cpp)

1. What imports statements needs to be included in your program to use the StreamWriter object?

File.AppendText

1. Write visual basic code to create a text file named “output.txt” and write a line of text to it:

Dim OutputStreamFile As StreamWriter

OutputStreamFile = File.CreateText(“output.txt”)

1. Write visual basic code to write a blank line to the above file.

outputFile.WriteLine(“”)

1. Write visual basic code to close the above file.

OutputStreamFile.Close()

1. Do tutorial 9-1, p. 578, which covers how to create an application to write data to a file. Please note the use of try-catch statements.

Imports System.IO

Public Class Form1

Private Sub btnCreateFile\_Click(ByVal sender As System.Object, ByVal e As System.EventArgs) Handles btnCreateFile.Click

' Constant for the number of friends

Const intNUM\_FRIENDS As Integer = 3

' Local variables

Dim strFilename As String ' File name

Dim strFriend As String ' Name of a friend

Dim strPhone As String ' To hold a phone number

Dim intCount As Integer ' Loop counter

Dim friendFile As StreamWriter ' Object variable

' Get the file name from the user.

strFilename = InputBox("Enter the filename.")

Try

' Open the file.

friendFile = File.CreateText(strFilename)

' Get the data and write it to the file.

For intCount = 1 To intNUM\_FRIENDS

' Get a friend's name.

strFriend = InputBox("Enter the name of friend " &

"number " & intCount.ToString())

' Get a friend's phone number.

strPhone = InputBox("Enter the that friend's " &

"phone number.")

' Write the data to the file.

friendFile.WriteLine(strFriend)

friendFile.WriteLine(strPhone)

Next

' Close the file.

friendFile.Close()

Catch

' Error message

MessageBox.Show("That file cannot be created.")

End Try

End Sub

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

' Close the form.

Me.Close()

End Sub

End Class

1. Write visual basic code to open a file named “input.txt” for reading, read a line from the file, and assign it to a string variable.

Dim InputStreamFile As StreamReader

InputStreamFile = File.OpenText(“input.txt”)

Dim StringOne As String

StringOne = InputStreamFile.ReadLine()

1. Do tutorial 9-2, p. 583, which covers reading file input, and using try-catch

Imports System.IO

Public Class Form1

Private Sub btnRead\_Click(ByVal sender As System.Object, ByVal e As System.EventArgs) Handles btnRead.Click

' Constant for the number of friends

Const intNUM\_FRIENDS As Integer = 3

' Local variables

Dim friendFile As StreamReader ' Object variable

Dim strFilename As String ' File name

Dim strFriend As String ' Name of a friend

Dim strPhone As String ' To hold a phone number

Dim intCount As Integer ' Loop counter

' Get the file name from the user.

strFilename = InputBox("Enter the filename.")

Try

' Open the file.

friendFile = File.OpenText(strFilename)

' Read the data.

For intCount = 1 To intNUM\_FRIENDS

' Read a name and phone number from the file.

strFriend = friendFile.ReadLine()

strPhone = friendFile.ReadLine()

' Display the data in the list box.

lstFriends.Items.Add("Friend Number " & intCount.ToString())

lstFriends.Items.Add("Name: " & strFriend)

lstFriends.Items.Add("Phone: " & strPhone)

lstFriends.Items.Add("") ' Add a blank line

' Alternate display, using Tabs

'lstFriends.Items.Add("Friend Number " & vbTab & intCount.ToString())

'lstFriends.Items.Add("Name: " & vbTab & vbTab & strFriend)

'lstFriends.Items.Add("Phone: " & vbTab & vbTab & strPhone)

'lstFriends.Items.Add("") ' Add a blank line

Next intCount

' Close the file.

friendFile.Close()

Catch

MessageBox.Show("That file cannot be opened.")

End Try

End Sub

Private Sub btnlear\_Click(ByVal sender As System.Object, ByVal e As System.EventArgs) Handles btnClear.Click

' Clear the list box.

lstFriends.Items.Clear()

End Sub

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

' Close the form.

Me.Close()

End Sub

End Class

1. Write visual basic code to save the contents of an array of integer to a file.

Dim OutputStreamFile As StreamWriter

OutputStreamFile = File.CreateText(“output.txt”)

Dim IntegerArray() As Integer = {1, 2, 3, 5}

For intCount = 0 To 4

OutputStreamFile.WriteLine(IntegerArray(intCount))

Next

OutputStreamFile.Close()

1. Write visual basic code to read the contents of a file into an array.

Dim InputStreamFile As StreamReader

InputStreamFile = File.OpenText(“input.txt”)

Dim StringArray(5) As String

For intCount 0 To 4

StringArray(intCount) = InputStreamFile.ReadLine()

Next

OnputStringFile.Close()

1. Write visual basic code to create a structure containing an integer, a double, and a string.

Structure StructureOne

Dim IntegerOne As Integer

Dim StringOne As String

Dim DoubleOne As Double

End Structure