txtFare.Text = "Both From City and To City are invalid"

Private Sub frmAirfare_load(ByVal sender As System.Object, ByVal e As System.EventArgs)
    fromCity[0] = "Boston, MA"
    fromCity[1] = "New York, NY"
    fromCity[2] = "Austin, TX"
    fromCity[3] = "Washington, DC"
    toCity[0] = "Istanbul"
    toCity[1] = "Tokyo"
    toCity[2] = "London"
    priceArray(0, 0) = 800.97
    priceArray(0, 1) = 987.98
    priceArray(0, 2) = 239.99
    priceArray(1, 0) = 745.75
    priceArray(1, 1) = 923.45
    priceArray(1, 2) = 225.97
    priceArray(2, 0) = 967.67
    priceArray(2, 1) = 1120.98
    priceArray(2, 2) = 496.96
    priceArray(3, 0) = 750.75
    priceArray(3, 1) = 930.75
    priceArray(3, 2) = 220.96
End Sub

Private Sub btnGetPrice_Click(ByVal sender As System.Object, ByVal e As System.EventArgs)"
    txtFrm.Clear()
    txtTo.Clear()
    txtFare.Clear()
End Sub
Public Class frmAirFare
  Inherits System.Windows.Forms.Form
  Dim priceArray As Single = (800.97, 987.38, 239.09, _
                             (745.75, 923.45, 235.67, _
                             (767.87, 1120.98, 996.98, _
                             (750.75, 950.75, 250.08))
  Dim fromCity(3) As String
  Dim toCity(2) As String

  Windows Form Designer generated code

  Private Sub btnGetPrice_Click(ByVal sender As System.Object, ByVal e As System.EventArgs) Handle
    Dim fromPtr As Integer, toPtr As Integer, wPrice As Single
    Dim wMsg As String
    If IsNumeric(txtFrom.Text) AndAlso CInt(txtFrom.Text) < 4 Then
      fromPtr = CInt(txtFrom.Text)
    End If
    If IsNumeric(txtTo.Text) AndAlso CInt(txtTo.Text) < 3 Then
      toPtr = CInt(txtTo.Text)
    End If
    wPrice = priceArray(fromPtr, toPtr)
    wMsg = String.Format("The price to fly from " {0} fromCity[{fromPtr}] to " {1} toCity[{toPtr}] is " {2}.", _
                        FormatCurrency(wPrice))
    txtFare.Text = wMsg
  Else
    txtFare.Text = "From City is valid, To City is not valid"
  End If
  Else
    If IsNumeric(txtTo.Text) AndAlso CInt(txtTo.Text) < 3 Then
      txtFare.Text = "From City is not valid, To City is valid"
    Else
      txtFare.Text = "Both From City and To City are invalid"
    End If
  End If
End Sub

Private Sub btnGetPrice_Click(ByVal sender As System.Object, ByVal e As System.EventArgs) Handles btnGetPrice.Click
    Dim fromPct As Integer, toPct As Integer, totalPrice As Single
    Dim okMsg As String
    If IsNumeric(txtFrom.Text) And CInt(txtFrom.Text) < 4 Then
        fromPct = CInt(txtFrom.Text)
    End If
    If IsNumeric(txtTo.Text) And CInt(txtTo.Text) < 3 Then
        toPct = CInt(txtTo.Text)
    End If
    If totalPrice = priceArray(fromPct, toPct) Then
        okMsg = "The price to fly from " & " and to city" & " is " & 
    FormatCurrency(totalPrice)
        txtFare.Text = okMsg
    Else
        txtFare.Text = "From city is valid, To city is not valid"
    End If
    Else
        If IsNumeric(txtTo.Text) And CInt(txtTo.Text) < 3 Then
            txtFare.Text = "From city is not valid, To city is valid"
        Else
            txtFare.Text = "Both from city and To city are invalid"
        End If
    End If
End Sub
txtTo.Clear()

txFare.Clear()

End Sub

Private Sub btnExit_Click(ByVal sender As System.Object, ByVal e As System.EventArgs) Handles Me.Close()
    Me.Close()
End Sub

Private Sub btnWorthlessTotal_Click(ByVal sender As System.Object, ByVal e As System.EventArgs)
    Dim eachFare As Single, totFare As Single
    For Each eachFare In priceArray
        totFare = totFare + eachFare
    Next
    txtWorthlessTotal.Text = FormatCurrency(totFare)
End Sub

Private Sub btnAnother_Click(ByVal sender As System.Object, ByVal e As System.EventArgs)
    Dim arrayCol As Integer, arrayRow As Integer, wkTotal As Single
    For arrayCol = 0 To 2
        For arrayRow = 0 To 3
            wkTotal += priceArray(arrayRow, arrayCol)
        Next
    Next
    txtWorthlessTotal.Text = FormatCurrency(wkTotal)
End Sub

End Class

= wHTotal + priceArray[0, 0]
Private Sub btnClear_Click(ByVal sender As System.Object, ByVal e As System.EventArgs) Handles Me.Click
    txtFrom.Clear()
    txtTo.Clear()
End Sub

Private Sub btnExit_Click(ByVal sender As System.Object, ByVal e As System.EventArgs) Handles Me.Close()
End Sub

Private Sub btnWorthlessTotal_Click(ByVal sender As System.Object, ByVal e As System.EventArgs)
    Dim eachFace As Single, totFace As Single
    For Each eachFace In priceArray
        totFace = totFace + eachFace
    Next
    txtWorthlessTotal.Text = FormatCurrency(totFace)
End Sub

Private Sub btnAnother_Click(ByVal sender As System.Object, ByVal e As System.EventArgs)
    Dim arrayCol As Integer, arrayRow As Integer, wkTotal As Single
    For arrayCol = 0 To 2
        For arrayRow = 0 To 3
            wkTotal += priceArray(arrayRow, arrayCol)
        Next
    Next
    txtWorthlessTotal.Text = FormatCurrency(wkTotal)
End Sub
The program '121921 soupsearch.wshost.exe: Managed' has exited with code 0 (0x0).
```vbnet
Dim itemNameArray(8) as String

Private Sub frmSoupCreate_Load(ByVal sender As System.Object,
                               ByVal e As System.EventArgs)
  itemNoArray(0) = 1
  itemNoArray(1) = 12
  itemNoArray(2) = 15
  itemNoArray(3) = 17
  itemNoArray(4) = 14
  itemNoArray(5) = 15
  itemNoArray(6) = 17
  itemNoArray(7) = 20
  itemNoArray(8) = 45
  itemNameArray(0) = "SEAFOOD CHOWDER"
  itemNameArray(1) = "CORN CHOWDER"
  itemNameArray(2) = "CLAM CHOWDER"
  itemNameArray(3) = "TOMATO SOUP"
  itemNameArray(4) = "CHICKEN SOUP"
  itemNameArray(5) = "VEGETABLE SOUP"
  itemNameArray(6) = "ONION SOUP"
  itemNameArray(7) = "GREEN PEA SOUP"
  itemNameArray(8) = "WONTON SOUP"
  FileOpen(1, "Soup", OpenMode.Input)
End Sub

Private Sub btnClear_Click(ByVal sender As System.Object,
                           ByVal e As System.EventArgs)
  Handles btnClear.Click
  txtOrderNo.Clear()
  txtItemNo.Clear()
  txtNumOrd.Clear()
End Sub
```
Private Sub Form_Load()
    ' Initialize UI elements
    txtItemNo.Text = vbCrLf
    txtNameOrd.Text = vbCrLf
    txtItemName.Text = SearchArray(wkItemNo) & vbCrLf
    txtItemName.Text = SearchWhile(wkItemNo) & vbCrLf
End Sub

Function SearchArray(ByVal wkItemNo As Integer) As String
    Dim itemSub As Integer = 0
    Dim matchInd As String = "NO"
    Do Until itemSub > 9 Or matchInd = "YES"
        If wkItemNo = itemNoArray(itemSub) Then
            matchInd = "YES"
        Else
            itemSub = itemSub + 1
        End If
    Loop
    If matchInd = "YES" Then
        Return itemNameArray(itemSub)
    Else
        Return "Match Not Found"
    End If
End Function

Function SearchWhile(ByVal wkItemNo As Integer) As String
    Dim itemSub As Integer = 0
    Dim matchInd As String = "NO"
    Do While itemSub < 9 And matchInd = "NO"
        If wkItemNo = itemNoArray(itemSub) Then
            matchInd = "YES"
        Else
        End If
    Loop
    If matchInd = "YES" Then
        Return itemNameArray(itemSub)
    Else
        Return "Match Not Found"
    End If
End Function
Private Sub frmSoupCreate_Load(ByVal sender As System.Object, ByVal e As System.EventArgs) Handles 
    itemNoArray(0) = 3
    itemNoArray(1) = 12
    itemNoArray(2) = 15
    itemNoArray(3) = 47
    itemNoArray(4) = 24
    itemNoArray(5) = 25
    itemNoArray(6) = 47
    itemNoArray(7) = 20
    itemNoArray(8) = 45
    itemNameArray(0) = "SEAFOOD CHOWDER"
    itemNameArray(1) = "CORN CHOWDER"
    itemNameArray(2) = "CLAM CHOWDER"
    itemNameArray(3) = "TOMATO SOUP"
    itemNameArray(4) = "CHICKEN SOUP"
    itemNameArray(5) = "VEGETABLE SOUP"
    itemNameArray(6) = "ONION SOUP"
    itemNameArray(7) = "GREEN PEA SOUP"
    itemNameArray(8) = "ROXTON SOUP"
    FileOpen(1, "soup", OpenMode.Input)
End Sub

Private Sub btnClear_Click(ByVal sender As System.Object, ByVal e As System.EventArgs) Handles 
    txtOrderNo.Clear()
    txtItemNo.Clear()
'Function SearchArray(ByVal wkItemNo)
    Dim itemSub As Integer = 0
    Dim matchInd As String = "NO"
    Do Until itemSub > 0 Or matchInd = "YES"
        If wkItemNo = itemNoArray(itemSub) Then
            matchInd = "YES"
            Else
                itemSub = itemSub + 1
        End If
    Loop
    If matchInd = "YES" Then
        Return itemNameArray(itemSub)
    Else
        Return "Match Not Found"
    End If
End Function

'Function SearchWhile(ByVal wkItemNo)
    Dim itemSub As Integer = 0
    Dim matchInd As String = "NO"
    Do While itemSub < 0 And matchInd = "NO"
        If wkItemNo = itemNoArray(itemSub) Then
            matchInd = "YES"
        Else
            itemSub = itemSub - 1
        End If
    Loop
    If matchInd = "YES" Then
        Return itemNameArray(itemSub)
    Else
        Return "Match Not Found"
    End If
End Function

Dim txtItemNo, txtNumOrd As String
Dim txtItemName As String
Dim txtnumArray As String
Dim itemNoArray(10)
Dim itemSub As Integer = 0
Dim matchInd As String = "NO"
Dim wkItemNo As Integer = 34
Dim itemNameArray(10)
Dim itemSub As Integer
Dim matchInd As String
Dim wkItemNo As Integer = 34
Dim itemNameArray(10)
Dim itemSub As Integer
Dim matchInd As String
Dim wkItemNo As Integer = 34
Dim itemNameArray(10)
Dim itemSub As Integer
Dim matchInd As String
Dim wkItemNo As Integer = 34
Dim itemNameArray(10)
Dim itemSub As Integer
Dim matchInd As String
Dim wkItemNo As Integer = 34
Dim itemNameArray(10)
Dim itemSub As Integer
Dim matchInd As String
Dim wkItemNo As Integer = 34
Dim itemNameArray(10)
Dim itemSub As Integer
Dim matchInd As String
Dim wkItemNo As Integer = 34
Dim itemNameArray(10)
Dim itemSub As Integer
Dim matchInd As String
Dim wkItemNo As Integer = 34
Dim itemNameArray(10)
Dim itemSub As Integer
Dim matchInd As String
Dim wkItemNo As Integer = 34
Dim itemNameArray(10)
Dim itemSub As Integer
Dim matchInd As String
Dim wkItemNo As Integer = 34
Dim itemNameArray(10)
Dim itemSub As Integer
Dim matchInd As String
Dim wkItemNo As Integer = 34
Dim itemNameArray(10)
Dim itemSub As Integer
Dim matchInd As String
Dim wkItemNo As Integer = 34
Dim itemNameArray(10)
Dim itemSub As Integer
Dim matchInd As String
Dim wkItemNo As Integer = 34
Dim itemNameArray(10)
Dim itemSub As Integer
Dim matchInd As String
Dim wkItemNo As Integer = 34
Dim itemNameArray(10)
Dim itemSub As Integer
Dim matchInd As String
Dim wkItemNo As Integer = 34
Dim itemNameArray(10)
Dim itemSub As Integer
Dim matchInd As String
Dim wkItemNo As Integer = 34
Dim itemNameArray(10)
Dim itemSub As Integer
Dim matchInd As String
Dim wkItemNo As Integer = 34
Dim itemNameArray(10)
Dim itemSub As Integer
Dim matchInd As String
Dim wkItemNo As Integer = 34
Dim itemNameArray(10)
Dim itemSub As Integer
Dim matchInd As String
Dim wkItemNo As Integer = 34
Dim itemNameArray(10)
Dim itemSub As Integer
Dim matchInd As String
Dim wkItemNo As Integer = 34
Dim itemNameArray(10)
Dim itemSub As Integer
Dim matchInd As String
Dim wkItemNo As Integer = 34
Dim itemNameArray(10)
Dim itemSub As Integer
Dim matchInd As String
Dim wkItemNo As Integer = 34
Dim itemNameArray(10)
Dim itemSub As Integer
Dim matchInd As String
Dim wkItemNo As Integer = 34
Dim itemNameArray(10)
Dim itemSub As Integer
Dim matchInd As String
Dim wkItemNo As Integer = 34
Dim itemNameArray(10)
Dim itemSub As Integer
Dim matchInd As String
Dim wkItemNo As Integer = 34
Dim itemNameArray(10)
Dim itemSub As Integer
Dim matchInd As String
Dim wkItemNo As Integer = 34
Dim itemNameArray(10)
Dim itemSub As Integer
Dim matchInd As String
Dim wkItemNo As Integer = 34
Dim itemNameArray(10)
Dim itemSub As Integer
Dim matchInd As String
Dim wkItemNo As Integer = 34
Dim itemNameArray(10)
Dim itemSub As Integer
Dim matchInd As String
Dim wkItemNo As Integer = 34
Dim itemNameArray(10)
Dim itemSub As Integer
Dim matchInd As String
Dim wkItemNo As Integer = 34
Dim itemNameArray(10)
Dim itemSub As Integer
Dim matchInd As String
Dim wkItemNo As Integer = 34
Dim itemNameArray(10)
Dim itemSub As Integer
Dim matchInd As String
Dim wkItemNo As Integer = 34
Dim itemNameArray(10)
Dim itemSub As Integer
Dim matchInd As String
Dim wkItemNo As Integer = 34
Dim itemNameArray(10)
Dim itemSub As Integer
Dim matchInd As String
Dim wkItemNo As Integer = 34
Dim itemNameArray(10)
Dim itemSub As Integer
Dim matchInd As String
Dim wkItemNo As Integer = 34
Dim itemNameArray(10)
Dim itemSub As Integer
Dim matchInd As String
Dim wkItemNo As Integer = 34
Dim itemNameArray(10)
Dim itemSub As Integer
Dim matchInd As String
Dim wkItemNo As Integer = 34
Dim itemNameArray(10)
Dim itemSub As Integer
Dim matchInd As String
Dim wkItemNo As Integer = 34
Dim itemNameArray(10)
Function SearchArray(ByVal wkItemNo)
    Dim itemSub As Integer = 0
    Dim matchInd As String = "NO"
    Do Until itemSub > 0 Or matchInd = "YES"
        If wkItemNo = itemNameArray(itemSub) Then
            matchInd = "YES"
        Else
            itemSub = itemSub + 1
        End If
    Loop
    If matchInd = "YES" Then
        Return itemNameArray(itemSub)
    Else
        Return "Match Not Found"
    End If
End Function

Function SearchWhile(ByVal wkItemNo)
    Dim itemSub As Integer = 0
    Dim matchInd As String = "NO"
    Do While itemSub < 0 And matchInd = "NO"
        If wkItemNo = itemNameArray(itemSub) Then
            matchInd = "YES"
        Else
            itemSub = itemSub + 1
        End If
    Loop
    If matchInd = "YES" Then
        Return itemNameArray(itemSub)
    Else
        Return "Match Not Found"
    End If
Function SearchArray(ByVal wItemNo) As Integer
    Dim itemSub As Integer = 0
    Dim matchEnd As String = "NO"
    Do Until itemSub > 0 Or matchEnd = "YES"
        If wItemNo = itemNameArray(itemSub) Then
            matchEnd = "YES"
        Else
            itemSub = itemSub + 1
        End If
    Loop
    If matchEnd = "YES" Then
        Return itemNameArray(itemSub)
    Else
        Return "Match Not Found"
    End If
End Function

Function SearchWhile(ByVal wItemNo) As Integer
    Dim itemSub As Integer = 0
    Dim matchEnd As String = "NO"
    Do While itemSub < 9 And matchEnd = "NO"
        If wItemNo = itemNameArray(itemSub) Then
            matchEnd = "YES"
        Else
            itemSub = itemSub + 1
        End If
    Loop
    If matchEnd = "YES" Then
        Return itemNameArray(itemSub)
    Else
        Return "Match Not Found"
    End If
End Function

---

What gets me out
Either of 2 things gets me out
---

What keeps me in
both have to be true to stay in
Review of functions.
Private Sub fmDept_Load(ByVal sender As System.Object, ByVal e As System.EventArgs) Handles MyBase.Load
    deptNumArray(0) = 15
    deptNumArray(1) = 26
    deptNumArray(2) = 37
    deptNumArray(3) = 56
    deptArray(0) = "Books"
    deptArray(1) = "Toys"
    deptArray(2) = "Gifts"
    deptArray(3) = "Cookware"
End Sub

private Sub btnListDept_Click(ByVal sender As System.Object, ByVal e As System.EventArgs) Handles btnListDept.Click
    Dim i As Integer
    For i = 0 To 3
        listDept.Items.Add(deptNumArray(i) & " " & deptArray(i))
    Next
End Sub
End Class
Inherits System.Windows.Forms.Form
Dim deptNumArray(3) As Integer
Dim deptArray(3) As String

Private Sub Form_Load(ByVal sender As System.Object, ByVal e As System.EventArgs) Handles MyBase.Load
    deptNumArray(0) = 15
    deptNumArray(1) = 26
    deptNumArray(2) = 37
    deptNumArray(3) = 56
    deptArray(0) = "Books"
    deptArray(1) = "Toys"
    deptArray(2) = "Gifts"
    deptArray(3) = "Cookware"
End Sub

Private Sub btnSearch_Click(ByVal sender As System.Object, ByVal e As System.EventArgs) Handles btnSearch.Click
    Dim indFound As String = "N"
    Dim wkSub As Integer = 0
    Do While indFound = "N" And wkSub < deptArray.Length
        If Class(textDeptNum.Text) = deptNumArray(wkSub) Then
            indFound = "Y"
        Else
            wkSub = wkSub + 1
        End If
    Loop
    If indFound = "Y" Then
        lbShowDeptName.Text = deptArray(wkSub)
    Else
        lbShowDeptName.Text = "No match found"
    End If
End Sub
Public Class frmSoup
    Inherits System.Windows.Forms.Form

    Dim itemarray(7) As String

    Windows Form Designer generated code

    Private Sub frmSoupCreate_Load(ByVal sender As System.Object, ByVal e As System.EventArgs) Handles MyBase.Load
        itemarray(0) = "OYSTERS SOUP"
        itemarray(1) = "12OON CHOWDER"
        itemarray(2) = "15CLAY CHOWDER"
        itemarray(3) = "17TOMATO SOUP"
        itemarray(4) = "24CHICKEN SOUP"
        itemarray(5) = "25VEGETABLE SOUP"
        itemarray(6) = "28ONION SOUP"
        itemarray(7) = "28GREEN PEA SOUP"
        Dim FileOpen As New OpenFileDialog()
        FileOpen.Filter = "soup file(.soup)""
        FileOpen.ShowDialog()

    End Sub

    Private Sub btnClear_Click(ByVal sender As System.Object, ByVal e As System.EventArgs) Handles btnClear.Click
        txtOrderNo.Clear()
        txtItemNo.Clear()
        txtNumOrd.Clear()

    End Sub

    Private Sub btnExit_Click(ByVal sender As System.Object, ByVal e As System.EventArgs) Handles btnExit.Click
        File.Close()
        Me.Close()

    End Sub

    Private Sub btnRead_Click(ByVal sender As System.Object, ByVal e As System.EventArgs) Handles btnRead.Click
        Dim wOrderNo As Integer, wItemNo As Integer

    End Sub

Order No: 1225
Item #: 38
Number Ordered: 2
Item Name: GREEN PEA SOUP
txtItemNo.Text = wItemNo
txtNameOrd.Text = wNameOrd
txtItemName.Text = SearchArray(wItemNo)

If =
    MessageBox.Show("EOF reached")
    btnRead.Visible = False
End If
End Sub

Function SearchArray(ByVal wItemNo)
    Dim itemSub As Integer = 0
    Dim matchInd As String = "NO"
    Do Until itemSub > 8 Or matchInd = "YES"
        'If wItemNo = Microsoft.VisualBasic.Left(itemArray(itemSub), 2) Then
        If wItemNo = itemArray(itemSub).Substring(0, 2) Then
            matchInd = "YES"
        Else
            itemSub = itemSub + 1
        End If
    Loop
    If matchInd = "YES" Then
        Return Microsoft.VisualBasic.Mid(itemArray(itemSub), 3)
    Return itemArray(itemSub).Substring(2)
Else
    Return "Match Not Found"
End If
End Function
End Class
Function SearchArray(ByVal wkItemNo)

    Dim itemSub As Integer = 0
    Dim matchInd As String = "NO"
    Do Until itemSub > 0 Or matchInd = "YES"
        If wkItemNo = Microsoft.VisualBasic.Left(itemArray(itemSub), 2) Then
            If wkItemNo = itemArray(itemSub).Substring(0, 2) Then
                matchInd = "YES"
            Else
                itemSub = itemSub + 1
            End If
        Loop
        If matchInd = "YES" Then
            Return Microsoft.VisualBasic.Mid(itemArray(itemSub), 3)
        Return itemArray(itemSub).Substring(2)
    Else
        Return "Match Not Found"
    End If
End Function
Setting up the structure itemInfo
Defining array as itemInfo

Private Sub frmSoupCreate_Load(ByVal sender As System.Object, ByVal e As System.EventArgs) Handles frmSoupCreate_Load
    Dim itemArray(8) As String
    itemArray(0) = "SEAFOOD CHOWDER"
    itemArray(1) = "CLAM CHOWDER"
    itemArray(2) = "TOMATO SOUP"
    itemArray(3) = "CHICKEN SOUP"
    itemArray(4) = "VEGETABLE SOUP"
    itemArray(5) = "ONION SOUP"
    itemArray(6) = "GREEN PEA SOUP"
    itemArray(7) = "YUM YUM SOUP"
    FileOpen1, "soup", OpenMode.Input
End Sub

Private Sub btnClear_Click(ByVal sender As System.Object, ByVal e As System.EventArgs) Handles btnClear.Click
    txtORDERNo.Clear()
    txtItemNo.Clear()
    txtNumOrd.Clear()
