## *Visual Basic Programming – Demonstration Program 12*

```
' Product.vb - a class to hold name and cost of a product
Public Class Product
    Public name As String   ' name of product
    Public cost As Double   ' cost of product
    ' create a new Product
    Public Sub New(ByVal name As String, ByVal cost As Double)
        Me.name = name
        Me.cost = cost
    End Sub
End Class

‘ ClassDemo - demonstrate simple use of a list of objects defined by a class
Public Class Form1
    ' the list of products
    Dim goods As New List(Of Product)
    ' display all the items as strings in the list box
    Public Sub DisplayProducts()
        ' clear the listbox
        ListBox1.Items.Clear()
        ' traverse the list of goods
        For Each p In goods
            ListBox1.Items.Add(p.name & " (" & p.cost.ToString("F02") & ")")
        Next
    End Sub
    ' add a new product
    Private Sub ButtonAdd_Click(sender As System.Object, e As System.EventArgs)
Handles ButtonAdd.Click
        Dim name As String = TextBox1.Text
        Dim cost As Double
        If Not Double.TryParse(TextBox2.Text, cost) Then
            MsgBox("Invalid Cost")
            Return
        End If
        ' add thew new product
        goods.Add(New Product(name, cost))
        ' redisplay
        DisplayProducts()
        TextBox1.Clear()
        TextBox2.Clear()
    End Sub
    ' find a product by name in the list box
    Private Sub ButtonFind_Click(sender As System.Object, e As System.EventArgs)
Handles ButtonFind.Click
        ' find the item in the list of goods
        Dim idx = goods.FindIndex(Function(p) p.name = TextBox1.Text) ' i.e. find a
product whose name property matches text
        If (idx >= 0) Then
            ' now find the description in the listbox
            Dim p As Product = goods.Item(idx)
            Dim str As String = p.name & " (" & p.cost.ToString("F02") & ")"
            ' select the item and copy the cost
            ListBox1.SelectedIndex = ListBox1.FindString(str)
            TextBox2.Text = p.cost.ToString("F02")
        End If
    End Sub
```

```
    ' delete the currently selected item in list box
    Private Sub ButtonDelete_Click(sender As System.Object, e As System.EventArgs)
Handles ButtonDelete.Click
        ' get the selected string
        Dim entry As String = ListBox1.SelectedItem
        ' find the matching entry in goods
        Dim idx = goods.FindIndex(Function(p) entry.StartsWith(p.name)) ' i.e. find a
product whose name is found in string
        If (idx >= 0) Then
            ' delete from goods
            goods.RemoveAt(idx)
            ' redisplay
            DisplayProducts()
            TextBox1.Clear()
            TextBox2.Clear()
        End If
    End Sub
    ' load a few products for testing
    Private Sub Form1_Load(sender As System.Object, e As System.EventArgs) Handles
MyBase.Load
        goods.Add(New Product("Eggs", 1.2))
        goods.Add(New Product("Bacon", 1.99))
        goods.Add(New Product("Sausage", 0.5))
        goods.Add(New Product("Chips", 0.8))
        DisplayProducts()
    End Sub
End Class
```