

## Tutorial 2 MT264

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I have put this tutorial on the web. This tutorial can be viewed and downloaded from <http://www.rifathamoudi.co.uk> then selecting MT264 Tutorials then Tutorial 2.

1) Explain with examples what the followings are :

a) Container

b) Controls

2)

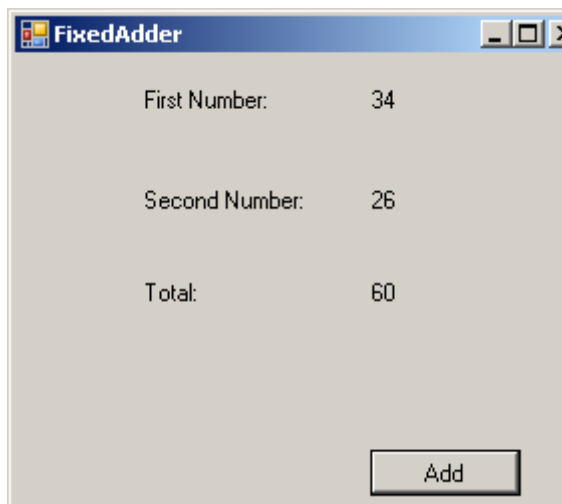
(a) You have been asked to design a form that can be used for online ordering of shoes from a catalogue. The form contains a picture to identify a style of shoe. Choose controls to enable the customer to select the colour and size of the shoes they require in that style, as well as the number of pairs required. The price of a pair of shoes is to be displayed, as well as the total cost of the order. Finally, there should be a means for the customer to submit the order (add to a shopping basket, perhaps) when it is complete. For each of these pieces of data, state what data types you feel are suitable, and explain what controls you think would be appropriate to use on the form.

(b) Discuss the layout of the ShoeOrderForm part (a), paying attention to the design principles from section 4 of unit 1.

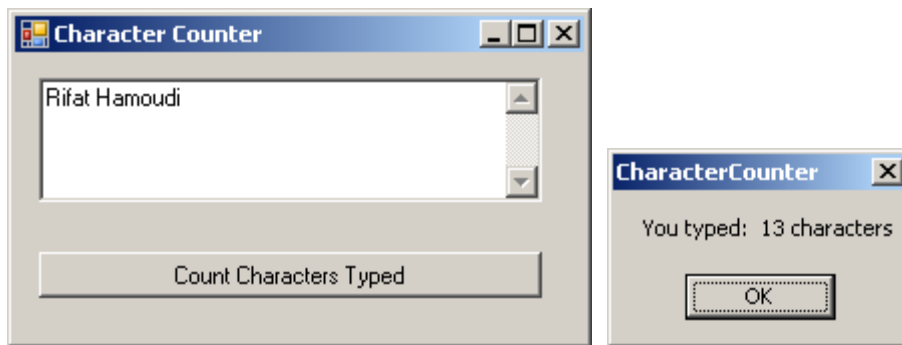
(c) Write out property tables for the ShoeOrderForm in question 2.

(d) Write out an event table for this application. Include comments to describe what each event handler does.

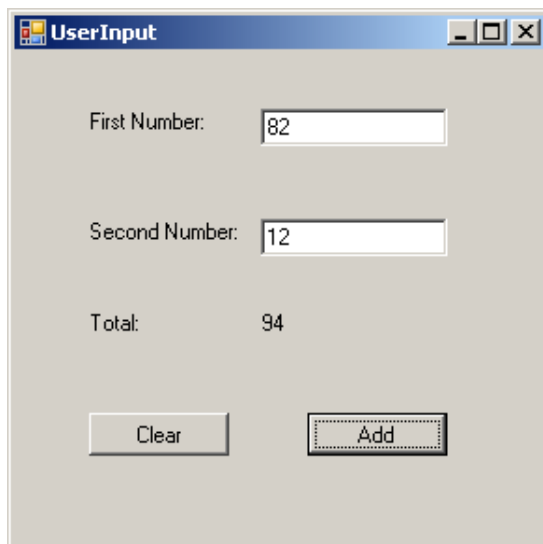
3) Design and implement a Visual Basic program that adds two numbers. An example output is as shown below :



4) Design and implement a Visual Basic program that counts the number of letters in a string. An example output is as shown below :



5) Design and implement a Visual Basic program that adds two numbers entered by the user. An example output is as shown below :



6) Design and implement functional code for a project entitled “Traffic Survey” with the following specification:

An application is required for collecting information about traffic from a particular location. More precisely, we wish to record the number of cars, bicycles and lorries passing (in either direction) a particular point at the roadside. The idea is that the user will record each car, bicycle and lorry as they pass. The application will maintain and display the total numbers of each type of vehicle.

7) Design a GUI for a simple database that can be used to keep track of items by letting the user enter the item ID and the details. Make the design simple but effective.

Design and code a fully functional simple database software according to the following specification.

Project Specification : Simple Database

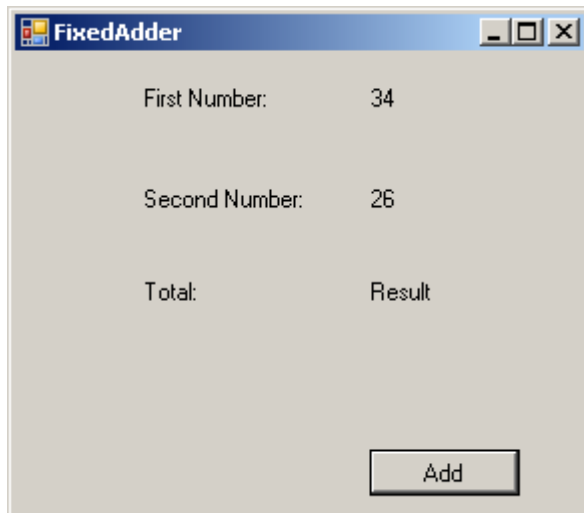
The simple database should have :

- a) way to enter new item identifiers and item descriptions in the software
- b) way to display the entered items
- c) way to save the items entered
- d) way to retrieve the items entered without having to re-enter them
- e) add instructions/help to the software
- f) add the About part for this software

Show the software design, the GUI design and the implementation

Assume that this software is designed for a small sized startup company. Test the software by entering the name of the employee as item identifier and the address as the description. This way we should have a simple database model to keep track of all the employees' details in the company.

## Answer to Question 1



The Form “FixedAdder” is a **Container**

There are 7 **Controls** contained within it.

First Number, Second Number and Total are called **Label** controls

First Number **Label** control has Text property initialised to 34

Second Number **Label** control has Text property initialised to 26

Total **Label** control has Text property initialised to “Result”

**Button** control is initialised to “Add”

## Answer to Question 2

(a)

Control	Control Type	Underlying Data type
colour	ComboBox	String
size	ComboBox	Integer*
number of pairs	NumericUpDown	Integer
price	TextBox	Double
total cost	TextBox	Double
submit order	Button	-

(b)

(c)

	Name	Property	Initial Value
<b>Container</b>			
Form	MainForm	Text	Shoe Order
<b>Controls</b>			
Label	colourLabel	Text	Colour
ComboBox	colourComboBox	Items	Black, Brown, Black Patent
Label	sizeLabel	Text	Size
ComboBox	sizeComboBox	Items	7, 8, 9, 10, 11, 12, 13, 14
NumericUpDown	quantityNumericUpDown	Value	0
		Minimum	0
		Maximum	10
Label	priceLabel	Text	Price £s
TextBox	priceTextBox	Text	
Label	totalLabel	Text	Total Cost £s
TextBox	totalTextBox	Text	
Button	submitButton	Text	Submit Order

**(d) Event Table: Shoe Order**

---

colorComboBox selected index changed

OnSelectedIndexChanged

'Display colour by updating the view

---

sizeComboBox selectedIndex changed

OnSelectedIndexChanged

'Display size and price by updating the view

---

quantityNumericUpDown value changed

OnValueChanged

'Display quantity and total cost by updating the view

---

submitButton clicked

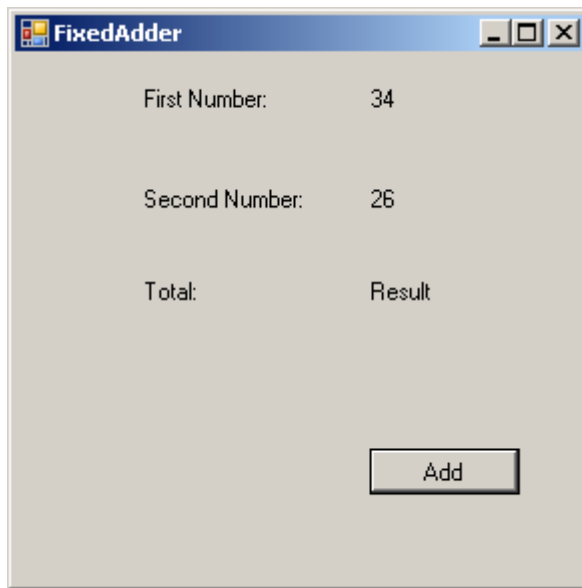
OnClick

'submit order

'update view to show all fields reset

---

### Answer to Question 3



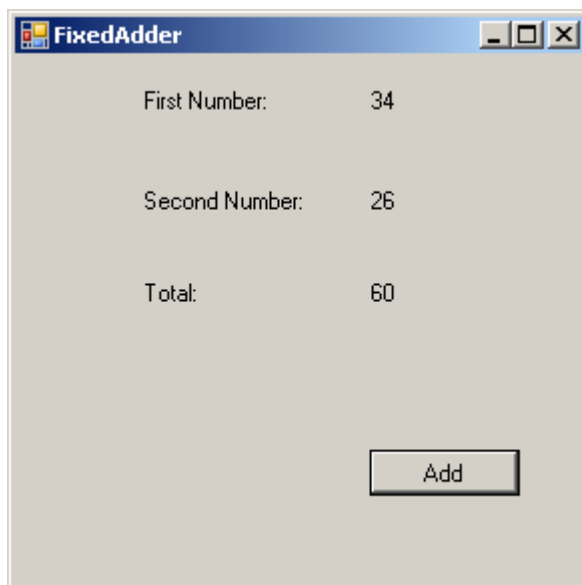
FixedAdder

First Number: 34

Second Number: 26

Total: Result

Add



FixedAdder

First Number: 34

Second Number: 26

Total: 60

Add

```
Public Class AddForm
```

```
    Private Sub AddButton_Click(ByVal sender As System.Object, ByVal  
e As System.EventArgs) Handles AddButton.Click
```

```
        Dim FirstNum As Integer  
        Dim SecondNum As Integer
```

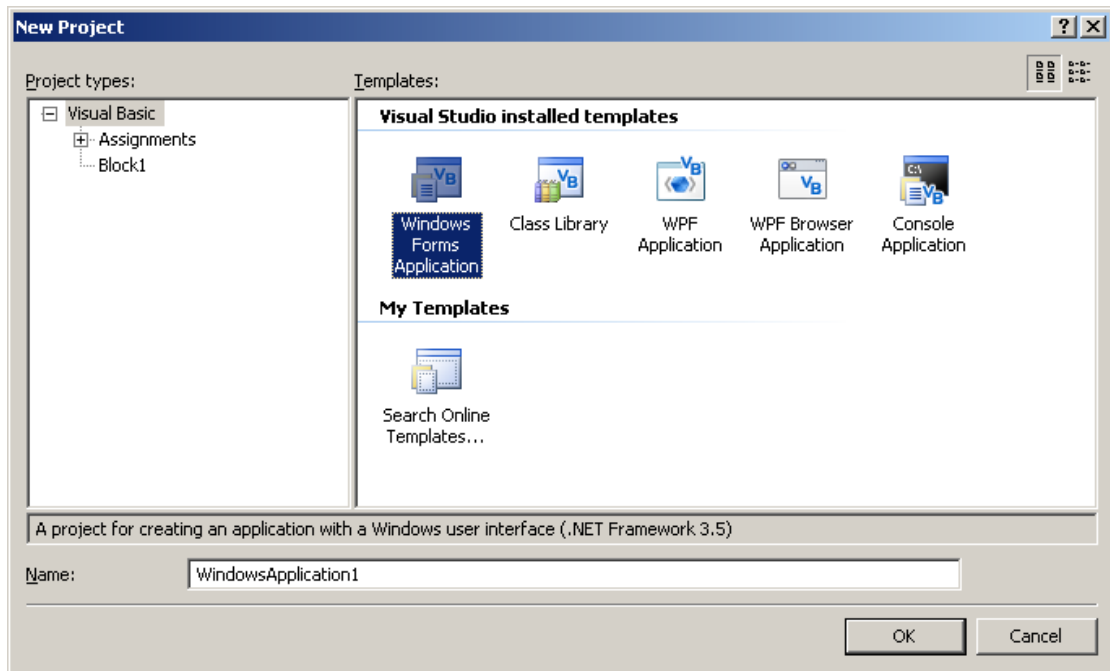
```
        FirstNum = Num1.Text  
        SecondNum = Num2.Text
```

```
        ' A statement to add user input values and assign the total.  
        Sum.Text = FirstNum + SecondNum
```

```
    End Sub  
End Class
```

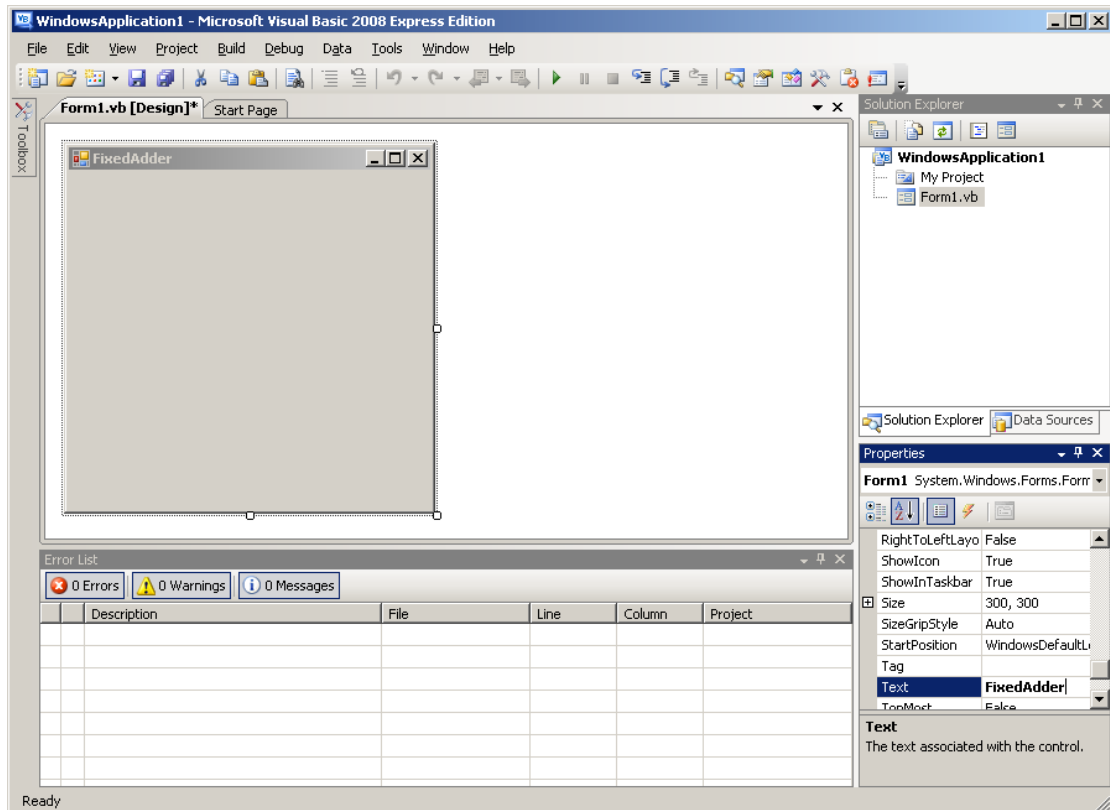
### Implementation of the answer to question 3

1) File then New Project



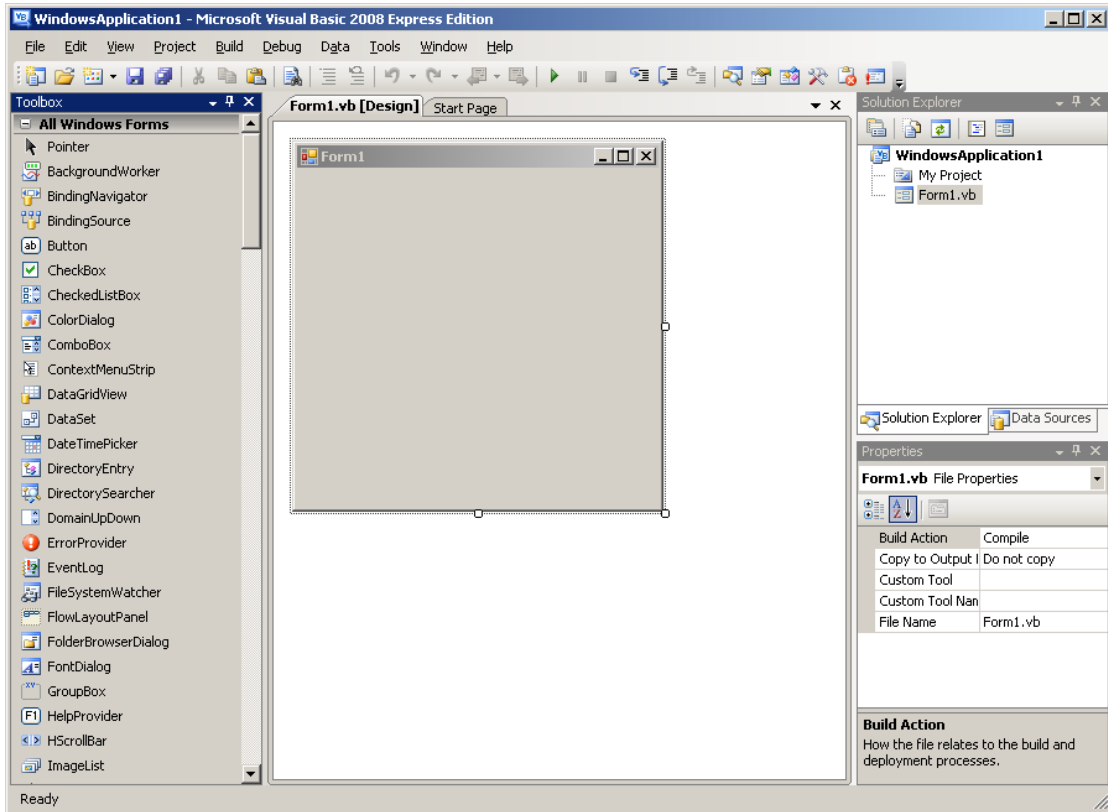
Choose “Windows Forms Application”

2)

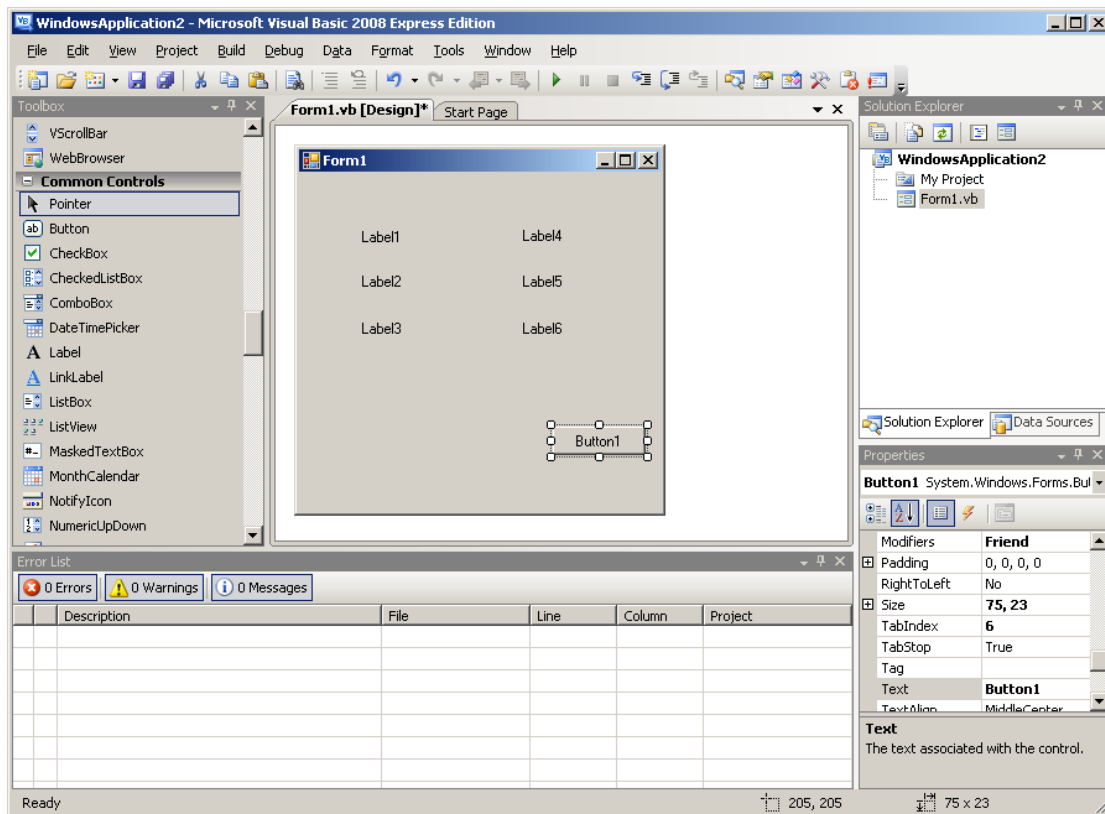




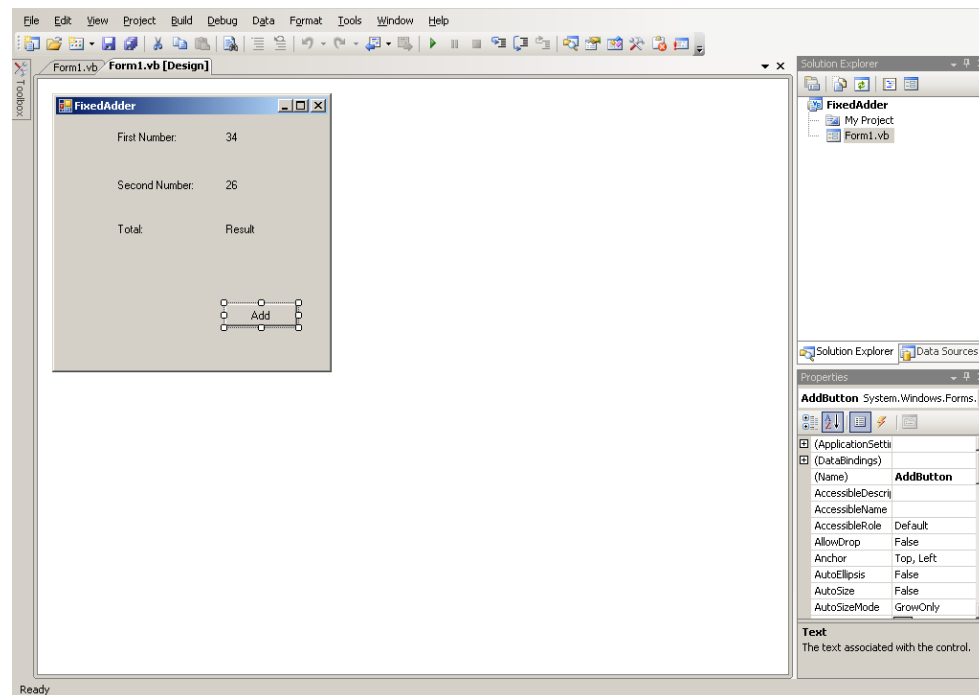
Click on Toolbar and fix it



3) In this example choose 6 Label controls and 1 Button control and drag that onto the Form1 as follows :



4) For the first 3 controls put the names by changing them from the Text property in the Label object. In Label4 change Text to a number for example 34. In the Button1 object change the Text to “Add” and the Name to “AddButton”.



5) Double click on the Add button and you get the event handler and add the following statement :

```
Dim FirstNum As Integer
Dim SecondNum As Integer

FirstNum = Num1.Text
SecondNum = Num2.Text

' A statement to add user input values and assign the total.
Sum.Text = FirstNum + SecondNum
```

So the final code should look like this :

```
Public Class AddForm

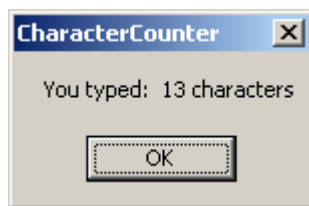
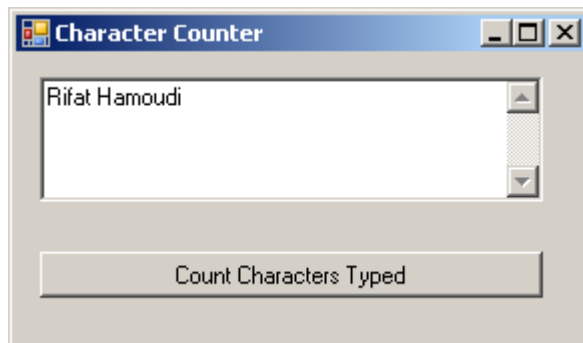
    Private Sub AddButton_Click(ByVal sender As System.Object, ByVal e As System.EventArgs) Handles AddButton.Click

        Dim FirstNum As Integer
        Dim SecondNum As Integer

        FirstNum = Num1.Text
        SecondNum = Num2.Text
        Sum.Text = FirstNum + SecondNum
    End Sub
End Class
```

6) Press F5 or the green button to load the software. Click on the “Add” button and you should see the addition of the 2 numbers

## Answer to Question 4



```
Public Class Form1

    Private Sub Button1_Click(ByVal sender As System.Object, ByVal e As System.EventArgs) Handles Button1.Click

        ' Display the character count of the textbox.
        MsgBox("You typed: " & Str(Len(TextBox1.Text)) & " characters")

    End Sub
End Class
```

The above code is the efficient type hence it is shorter but less readable. A less efficient (but more readable) code is as follows :

```
Dim Lengthofstring As Integer
Dim StringLength As String
Lengthofstring = TextBox1.Text.Length
StringLength = Str(Lengthofstring)
MsgBox("You typed: " & StringLength & " characters")
```

But the most efficient code is as follows:

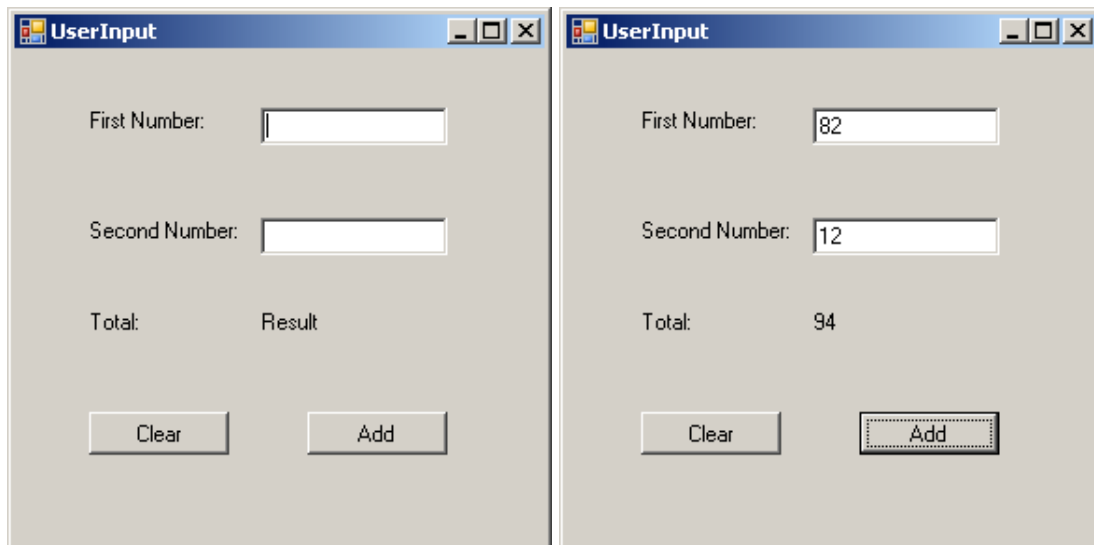
```
Public Class Form1

    Private Sub Button1_Click(ByVal sender As System.Object, ByVal e As System.EventArgs) Handles Button1.Click

        ' Display the character count of the textbox.
        MsgBox("You typed: " & TextBox1.Text.Length.ToString & " characters")

    End Sub
End Class
```

## Answer to Question 5



```
Public Class Form1
```

```
    Private Sub AddBtn_Click(ByVal sender As System.Object, ByVal e  
As System.EventArgs) Handles AddBtn.Click
```

```
        Dim FirstNum As Integer  
        Dim SecondNum As Integer
```

```
        FirstNum = Num1.Text  
        SecondNum = Num2.Text
```

```
        ' A statement to add user input values and assign the total.  
        Sum.Text = FirstNum + SecondNum
```

```
    End Sub
```

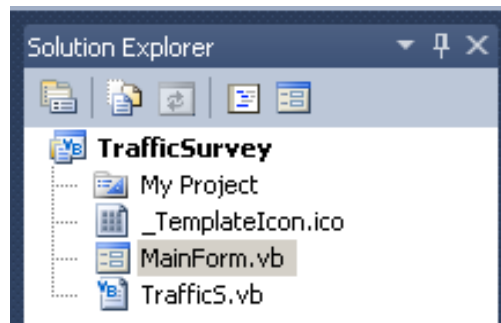
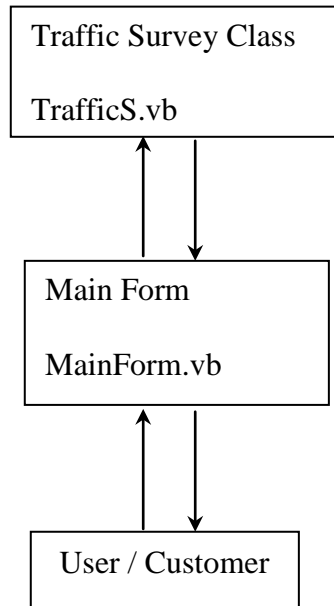
```
    Private Sub ClearBtn_Click(ByVal sender As System.Object, ByVal e  
As System.EventArgs) Handles ClearBtn.Click
```

```
        ' Statements to resume the initial state.  
        Sum.Text = "Result" : Num1.Text = "" : Num2.Text = ""
```

```
    End Sub  
End Class
```

## Answer to Question 6

Software design



Initial state

A screenshot of the "TrafficSurveyForm" application window. The window has a menu bar with "File". Below the menu bar, there are three rows of input fields and buttons. The first row has "Number of Cars" with a text box containing "0" and a "Cars" button. The second row has "Number of bicycles" with a text box containing "0" and a "Bicycles" button. The third row has "Number of lorries" with a text box containing "0" and a "Lorries" button. At the bottom, there is a "Total number of vehicles" label with an empty text box and an "Add Vehicles" button.

User input state

A screenshot of the "TrafficSurveyForm" application window after user input. The window has a menu bar with "File". Below the menu bar, there are three rows of input fields and buttons. The first row has "Number of Cars" with a text box containing "1" and a "Cars" button. The second row has "Number of bicycles" with a text box containing "2" and a "Bicycles" button. The third row has "Number of lorries" with a text box containing "3" and a "Lorries" button. At the bottom, there is a "Total number of vehicles" label with a text box containing "6" and an "Add Vehicles" button.

```

Public Class TrafficS
    ' Declare the fields here.

    Private fCars As Integer
    Private fBicycles As Integer
    Private fLorries As Integer

    Public Sub New()
        ' An instance of Traffic is created with all vehicle counts set to zero.

        fCars = 0
        fBicycles = 0
        fLorries = 0

    End Sub

    ' Setters

    Public Sub addCar()
        fCars = fCars + 1
    End Sub

    Public Sub addBicycle()
        fBicycles = fBicycles + 1
    End Sub

    Public Sub addLorry()
        fLorries = fLorries + 1
    End Sub

    'Getters

    Public ReadOnly Property getCar() As Integer
        Get
            Return fCars
        End Get
    End Property

    Public ReadOnly Property getBicycle() As Integer
        Get
            Return fBicycles
        End Get
    End Property

    Public ReadOnly Property getLorry() As Integer
        Get
            Return fLorries
        End Get
    End Property

End Class

```

```

Public Class MainForm
    Private fTrafficSurvey As TrafficS

    Public Sub New()

        fTrafficSurvey = New TrafficS

        ' This call is required by the designer.
        InitializeComponent()

        ' Add any initialization after the InitializeComponent() call.
        updateView()

    End Sub

    Private Sub CarsCount_Click(sender As System.Object, e As
System.EventArgs) Handles CarsCount.Click

        fTrafficSurvey.addCar()
        Car.Text = fTrafficSurvey.getCar()
    End Sub

    Private Sub BicyclesCount_Click(sender As System.Object, e As
System.EventArgs) Handles BicyclesCount.Click

        fTrafficSurvey.addBicycle()
        Bicycle.Text = fTrafficSurvey.getBicycle()
    End Sub

    Private Sub LorriesCount_Click(sender As System.Object, e As
System.EventArgs) Handles LorriesCount.Click

        fTrafficSurvey.addLorry()
        Lorry.Text = fTrafficSurvey.getLorry()
    End Sub

    Private Sub updateView()

        Car.Text = fTrafficSurvey.getCar()
        Bicycle.Text = fTrafficSurvey.getBicycle()
        Lorry.Text = fTrafficSurvey.getLorry()
    End Sub

    Private Sub AddVehicles_Click(ByVal sender As System.Object, ByVal e As
System.EventArgs) Handles AddVehicles.Click

        Total.Text = fTrafficSurvey.getCar() + fTrafficSurvey.getBicycle()
+ fTrafficSurvey.getLorry()

    End Sub

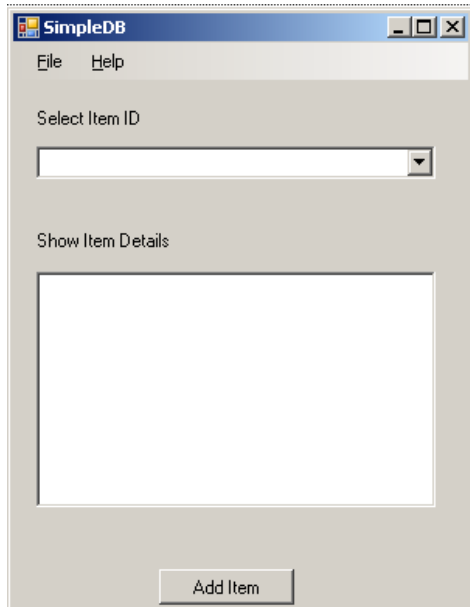
    Private Sub ExitToolStripMenuItem_Click(ByVal sender As System.Object,
ByVal e As System.EventArgs) Handles ExitToolStripMenuItem.Click
        'The application is closed.
        Me.Close()
    End Sub
End Class

```



## Answer to Question 7

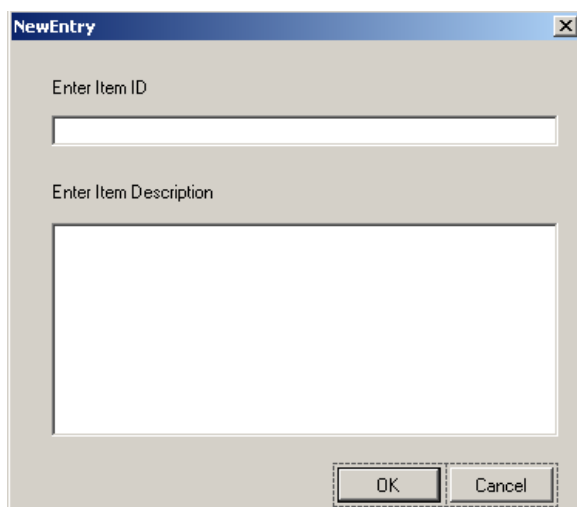
For the main form we can design something like the following :



Here we have :

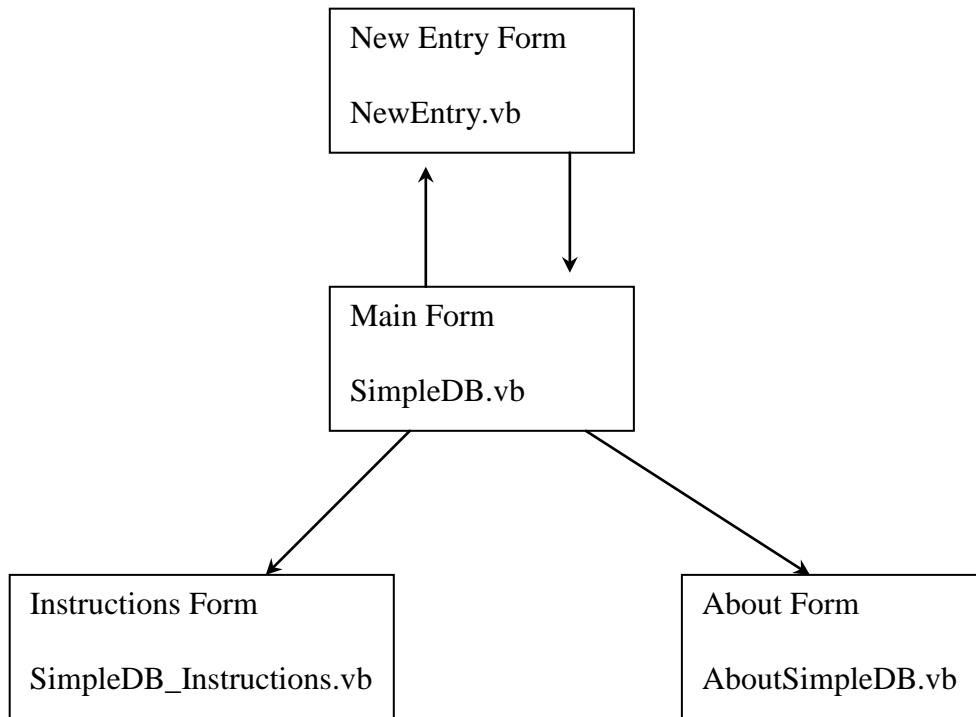
- 1) MenuStrip
- 2) ComboBox
- 3) TextBox
- 4) Button

It is better to split the design so that when the user click on the Add Item button they will get another form as follows :



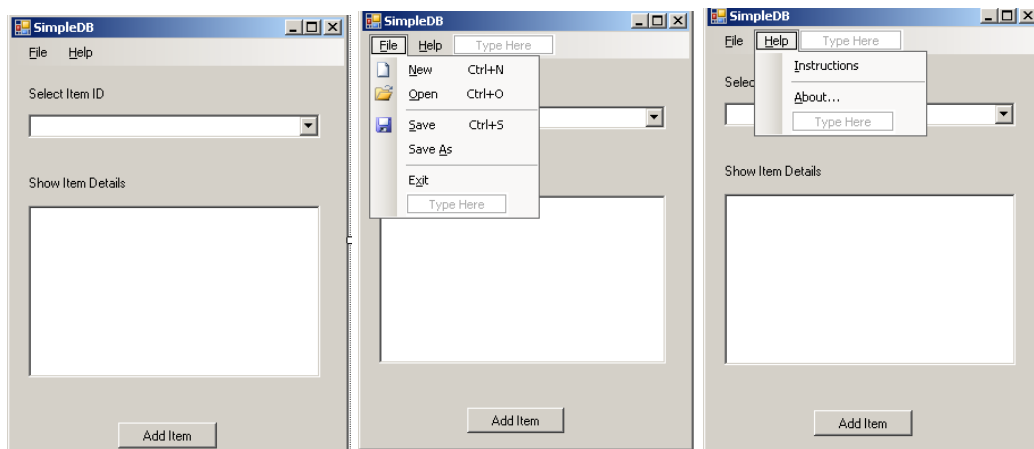
Here we have 2 textboxes, the bottom one is multiline

**Software design**



## GUI Design

Main Form : SimpleDB.vb



Property Table : Display the entered items

	Name	Property	Initial Value
<b>Container</b>			
Form	SimpleDB	Text	Display the entered items
<b>Controls</b>			
ComboBox	itemComboBox		Scroll through the items entered
TextBox	definitionTextBox	Text	Show the properties of the items entered
MenuStrip	MenuStrip1	File	This is to show the File properties that includes : New, Open, Save, Save As and Exit
MenuStrip	MenuStrip1	Help	This is to show the Help properties that includes : Instructions and About information
Button	AddItemBut	Text	Loading the New Entry Form

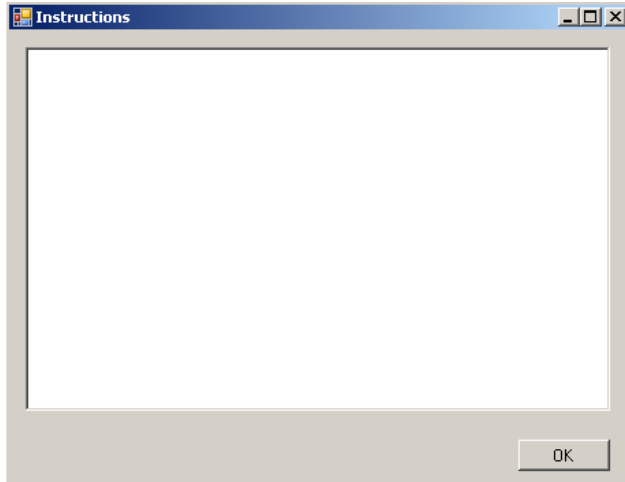
Entry Form : NewEntry.vb

The image shows a Windows application window titled "NewEntry". The window has a standard title bar with a close button (X) in the top right corner. The main area of the window is light gray and contains two text input fields. The first field is labeled "Enter Item ID" and is a single-line text box. The second field is labeled "Enter Item Description" and is a multi-line text box. At the bottom right of the window, there are two buttons: "OK" and "Cancel".

Property Table : Enter new items

	Name	Property	Initial Value
<b>Container</b>			
Form	NewEntry	Text	Enter new items
<b>Controls</b>			
TextBox	itemTextBox	Text	Enter the Item's identifier
TextBox	descriptionTextBox	Text	Enter the Item's description
Button	OK_Button	Text	OK to enter the item's details
Button	Cancel_Button	Text	Cancel

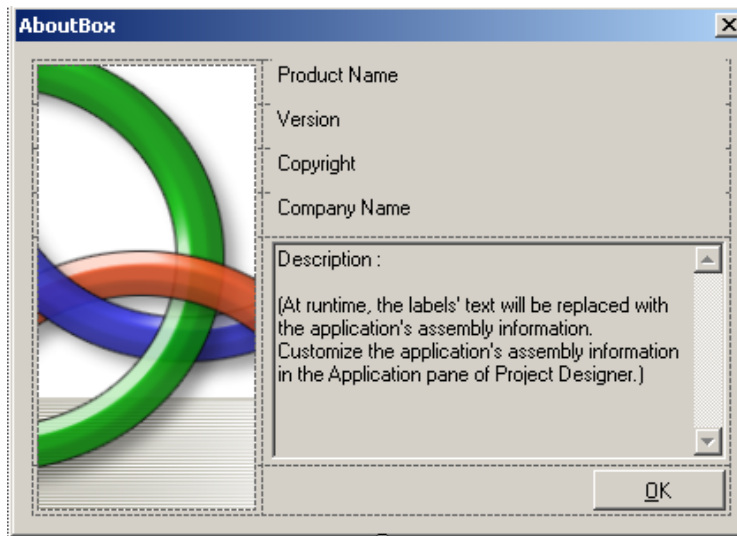
Instructions Form : SimpleDB\_Instructions



Property Table : Enter new items

	Name	Property	Initial Value
<b>Container</b>			
Form	SimpleDB_Instructions	Text	Display the instructions
<b>Controls</b>			
TextBox	instructTextBox	Text	Display the instructions
Button	OK_Button	Text	OK to close the form

## About DialogBox : AboutSimpleDB



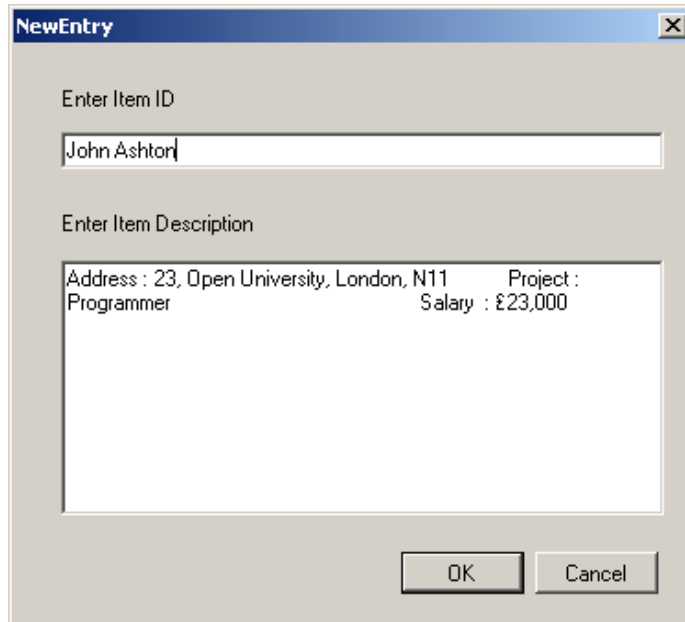
## Property Table : About the software information

	Name	Property	Initial Value
<b>Container</b>			
DialogBox	AboutSimpleDB	Text	Show the software's information
<b>Controls</b>			
LogoPictureBox	LogoPictureBox	Image	Display the logo picture
Button	OK_Button	Text	OK to close the form
TextBox	LabelProductName	Text	Display the software name
TextBox	LabelVersion	Text	Display the label version
TextBox	LabelCopyright	Text	Display the copyright
TextBox	LabelCompanyName	Text	Display the company name

## SimpleDatabase software testing

### 1) Entering new data

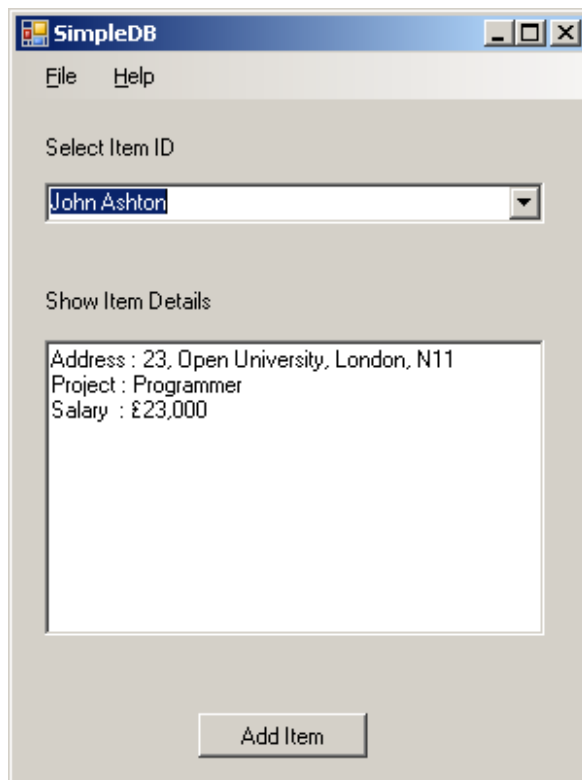
Load the software and click on “Add Item” then type the item’s details



The screenshot shows a dialog box titled "NewEntry" with a close button (X) in the top right corner. It contains two input fields. The first is labeled "Enter Item ID" and contains the text "John Ashton". The second is labeled "Enter Item Description" and contains the text "Address : 23, Open University, London, N11 Project : Programmer Salary : £23,000". At the bottom of the dialog are two buttons: "OK" and "Cancel".

### 2) Displaying new data

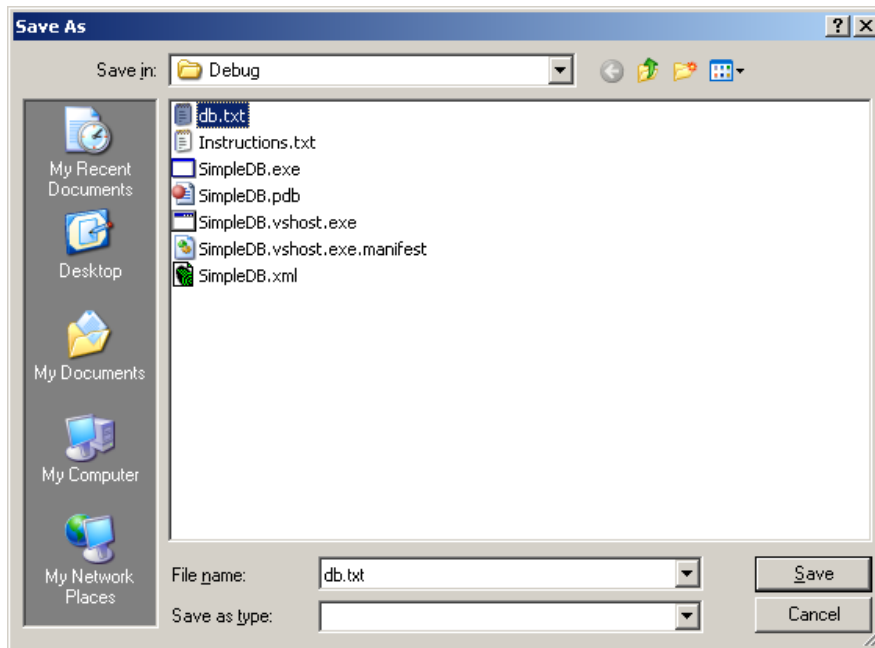
Load the software and click on the combo box to display the item’s details



The screenshot shows the main window of the SimpleDB software. The title bar reads "SimpleDB" and includes standard window controls. Below the title bar is a menu bar with "File" and "Help". The main area contains a "Select Item ID" label above a dropdown menu showing "John Ashton". Below this is a "Show Item Details" label above a text area displaying "Address : 23, Open University, London, N11 Project : Programmer Salary : £23,000". At the bottom center is an "Add Item" button.

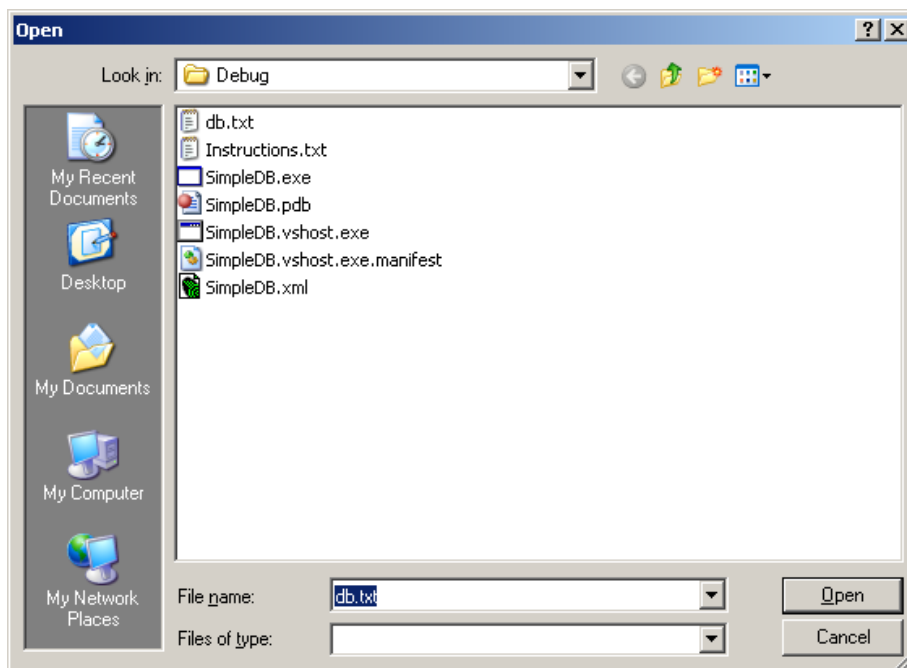
### 3) Saving new data

Click on File then Save and give a filename to save the data in. In this case the file is called db.txt



### 4) Retrieving data

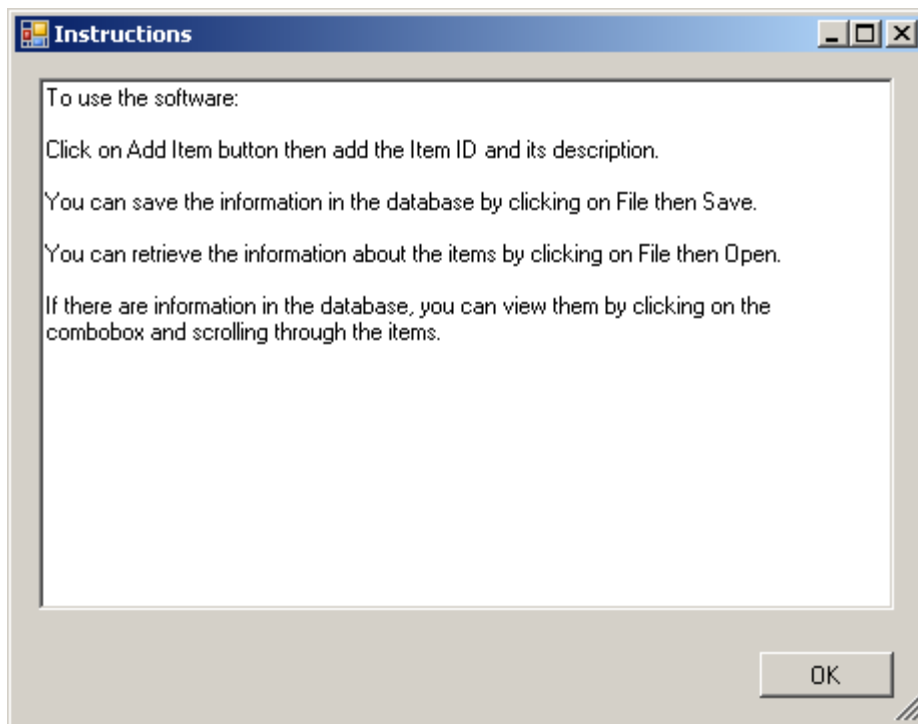
Click on File then Open and give a filename to retrieve the data in. In this case the file is called db.txt





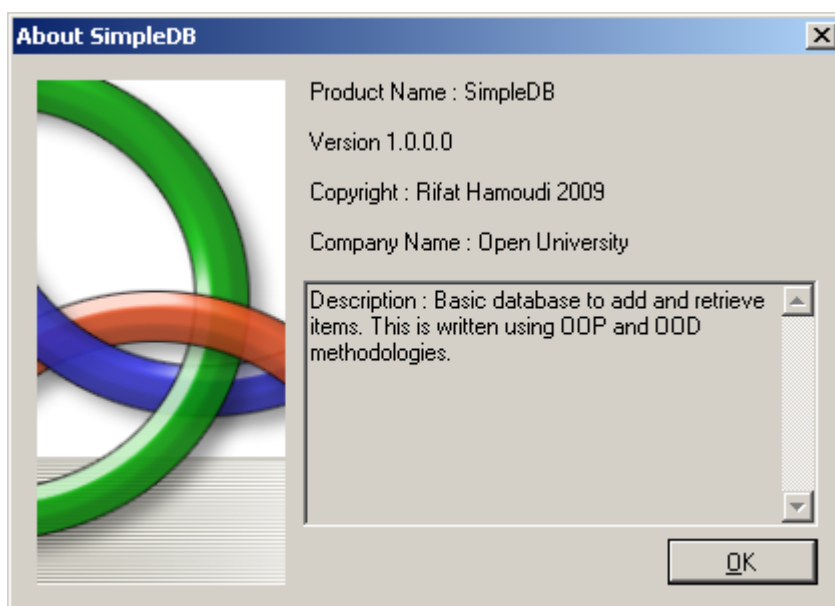
5) Show instructions on how to use the software

Click on Help then Instructions



6) Show About dialog for the SimpleDB software

Click on Help then Instructions



## Software implementation

### SimpleDatabase class definition and implementation

```
Imports System.IO

Public Class SimpleDatabase
    Private fItem As Dictionary(Of String, String)
    Private fModified As Boolean
    Private fFileName As String

    Public Sub New()
        'Preconditions: none
        'Postconditions: a SimpleDatabase object has been created
with the
        'glossary initially empty, FileName set to "" and Modified
set to False.
        FileName = ""
        fItem = New Dictionary(Of String, String)
        fModified = False
    End Sub

    Public Property FileName() As String
        Get
            Return fFileName
        End Get
        Set(ByVal value As String)
            fFileName = value
        End Set
    End Property

    Public ReadOnly Property Modified() As Boolean
        Get
            Return fModified
        End Get
    End Property

    Public ReadOnly Property WordList() As Dictionary(Of String,
String).KeyCollection
        'Preconditions: none
        'Postconditions: The database item entries are returned as a
collection of keys.
        Get
            Return fItem.Keys
        End Get
    End Property

    Public ReadOnly Property Description(ByVal word As String) As
String
        'Preconditions: item is an entry in the database
        'Postconditions: The description associated with the item
entry
        'for the item is returned.
        Get
            Return fItem.Item(word)
        End Get
    End Property
End Class
```

```

Public Sub add(ByVal word As String, ByVal description As String)
    'Preconditions: item and description are not empty strings
and item is not
    'already an entry in the database.
    'Postconditions: A new entry for item with associated
description is added.
    'Modified is set to True.
    fItem.Add(word, description)
    fModified = True
End Sub

```

```

Public Sub load()
    'Preconditions: none
    'Postconditions: If FileName is a valid path for a text file
and this file is of
    'appropriate format, then the glossary is loaded from this
file. Otherwise the
    'glossary is cleared and an exception is thrown. It is the
responsibility of
    'client code to handle the exception. Modified is set to
False in either case.
    Dim aReader As StreamReader
    fItem.Clear()
    Try
        aReader = New StreamReader(FileName)
        While Not (aReader.EndOfStream)
            fItem.Add(aReader.ReadLine(), aReader.ReadLine())
        End While
    Catch ex As ArgumentException
        fItem.Clear()
        Throw New ArgumentException("There was a problem opening
the file " + FileName)
    Catch ex As IOException
        fItem.Clear()
        Throw New IOException("There was an input-output error
for " + FileName)
    Catch ex As UnauthorizedAccessException
        fItem.Clear()
        Throw New UnauthorizedAccessException("There was an
unauthorised access error for " + FileName)
    Finally
        fModified = False
        If aReader IsNot Nothing Then
            aReader.Close()
        End If
    End Try
End Sub

```

```

Public Sub save()
    'Preconditions: none
    'Postconditions: If FileName is a valid path for a text file,
then the items of the
    'glossary are stored in the file and Modified is set to
False. Otherwise an exception
    'is thrown. It is the responsibility of client code to handle
the exception.
    Dim aWriter As StreamWriter
    Try
        aWriter = New StreamWriter(FileName)
        For Each key As String In WordList
            aWriter.WriteLine(key)
            aWriter.WriteLine(Description(key))
        Next
        fModified = False
    Catch ex As ArgumentException
        fItem.Clear()
        Throw New ArgumentException("There was a problem opening
the file " + FileName)
    Catch ex As IOException
        fItem.Clear()
        Throw New IOException("There was an input-output error
for " + FileName)
    Catch ex As UnauthorizedAccessException
        fItem.Clear()
        Throw New UnauthorizedAccessException("There was an
unauthorised access error for " + FileName)
    Finally
        If aWriter IsNot Nothing Then
            aWriter.Close()
        End If
    End Try
End Sub
End Class

```

## Main Form : SimpleDB.vb

```
Imports System.IO

Public Class SimpleDB

    Private fSimpleDatabase As SimpleDatabase
    Public Sub New()
        fSimpleDatabase = New SimpleDatabase
        ' This call is required by the Windows Form Designer.
        InitializeComponent()

        ' Add any initialization after the InitializeComponent()
call.
        updateView()
    End Sub

    Public Sub updateView()
        itemComboBox.Items.Clear()
        definitionTextBox.Clear()
        For Each key As String In fSimpleDatabase.WordList
            itemComboBox.Items.Add(key)
        Next
    End Sub

    Private Sub AboutToolStripMenuItem_Click(ByVal sender As
System.Object, ByVal e As System.EventArgs) Handles
AboutToolStripMenuItem.Click
        AboutSimpleDB.ShowDialog()
    End Sub

    Private Sub itemComboBox_SelectedIndexChanged(ByVal sender As
System.Object, ByVal e As System.EventArgs) Handles
itemComboBox.SelectedIndexChanged
        'The description of the selected word is displayed.
        definitionTextBox.Text = _
fSimpleDatabase.Description(itemComboBox.SelectedItem.ToString())
    End Sub

    Private Sub ContentsToolStripMenuItem_Click(ByVal sender As
System.Object, ByVal e As System.EventArgs) Handles
ContentsToolStripMenuItem.Click
        ' This event handler displays a dialog box with the
instructions
        ' for playing the game.
        Dim anInstructDialog As SimpleDB_Instructions
        anInstructDialog = New SimpleDB_Instructions
        anInstructDialog.ShowDialog()
        anInstructDialog.Dispose()
    End Sub
```

```

Private Sub saveMenuItem_Click(ByVal sender As System.Object,
ByVal e As System.EventArgs) Handles saveMenuItem.Click
    'If the file name is empty, the event handler for
saveAsMenuItem is used.
    'Otherwise the glossary is saved and the view is updated. If
an exception is
    'caught, the file name is set to "" and an error message is
displayed.
    'Add your code here
If fSimpleDatabase.FileName = "" Then
    saveAsMenuItem_Click(sender, e)
Else
    Try
        fSimpleDatabase.save()
        updateView()
    Catch ex As ArgumentException
        fSimpleDatabase.FileName = ""
        MessageBox.Show(ex.Message)
    Catch ex As IOException
        fSimpleDatabase.FileName = ""
        MessageBox.Show(ex.Message)
    Catch ex As UnauthorizedAccessException
        fSimpleDatabase.FileName = ""
        MessageBox.Show(ex.Message)
    Catch ex As Exception
        fSimpleDatabase.FileName = ""
        MessageBox.Show(ex.Message)
    End Try
End If
End Sub

Private Sub saveAsMenuItem_Click(ByVal sender As System.Object,
ByVal e As System.EventArgs) Handles saveAsMenuItem.Click
    If (aSaveFileDialog.ShowDialog() = DialogResult.OK) Then
        fSimpleDatabase.FileName = aSaveFileDialog.FileName
        saveMenuItem_Click(sender, e) 'Reuse code to save the
file
    End If
End Sub

Private Sub ExitToolStripMenuItem_Click(ByVal sender As
System.Object, ByVal e As System.EventArgs) Handles
ExitToolStripMenuItem.Click
    Close()
End Sub

```

```

    Private Sub openMenuItem_Click(ByVal sender As System.Object,
ByVal e As System.EventArgs) Handles openMenuItem.Click
        If fSimpleDatabase.Modified Then
            If MessageBox.Show("Database has been modified, save?",
"SimpleDatabase", _
                MessageBoxButtons.YesNo) = DialogResult.Yes Then
                saveMenuItem_Click(sender, e) 'Reuse code to save
the file
            End If
        End If

        If (anOpenFileDialog.ShowDialog() = DialogResult.OK) Then
            Try
                fSimpleDatabase.FileName = anOpenFileDialog.FileName
                fSimpleDatabase.load()
            Catch ex As ArgumentException
                fSimpleDatabase.FileName = ""
                MessageBox.Show(ex.Message)
            Catch ex As IOException
                fSimpleDatabase.FileName = ""
                MessageBox.Show(ex.Message)
            Catch ex As UnauthorizedAccessException
                fSimpleDatabase.FileName = ""
                MessageBox.Show(ex.Message)
            Catch ex As Exception
                fSimpleDatabase.FileName = ""
                MessageBox.Show(ex.Message)
            End Try
        End If
        updateView()
    End Sub

    Private Sub AddItemBut_Click(ByVal sender As System.Object, ByVal
e As System.EventArgs) Handles AddItemBut.Click
        'A dialogue box for a new entry is displayed. If an
appropriate entry is
        'made and OK is clicked, the entry is added to the glossary.
If the entry
        'already exists, a warning is displayed instead. The GUI is
updated.
        Dim aNewEntryDialog As NewEntry
        Dim word As String
        Dim description As String
        aNewEntryDialog = New NewEntry
        If (aNewEntryDialog.ShowDialog() = DialogResult.OK) Then
            word = aNewEntryDialog.itemTextBox.Text
            description = aNewEntryDialog.descriptionTextBox.Text
            If fSimpleDatabase.WordList.Contains(word) Then
                MessageBox.Show("Cannot add new entry - item already
contained in database")
            Else
                fSimpleDatabase.add(word, description)
            End If
        End If
        aNewEntryDialog.Dispose()
        updateView()
    End Sub

End Class

```

## Entry Form : NewEntry.vb

```
Imports System.Windows.Forms
```

```
Public Class NewEntry
```

```
    Private Sub OK_Button_Click(ByVal sender As System.Object, ByVal e As System.EventArgs) Handles OK_Button.Click
```

```
        Dim aItem As String
```

```
        Dim description As String
```

```
        aItem = Me.itemTextBox.Text
```

```
        description = Me.descriptionTextBox.Text
```

```
        If aItem = "" Or description = "" Then
```

```
            Me.DialogResult = Windows.Forms.DialogResult.None
```

```
        Else
```

```
            Me.DialogResult = System.Windows.Forms.DialogResult.OK
```

```
            Me.Close()
```

```
        End If
```

```
    End Sub
```

```
    Private Sub Cancel_Button_Click(ByVal sender As System.Object, ByVal e As System.EventArgs) Handles Cancel_Button.Click
```

```
        Me.DialogResult = System.Windows.Forms.DialogResult.Cancel
```

```
        Me.Close()
```

```
    End Sub
```

```
End Class
```



## Instructions Form : SimpleDB\_Instructions

```
Public Class SimpleDB_Instructions

    Private Sub SimpleDB_Instructions_Load(ByVal sender As
System.Object, ByVal e As System.EventArgs) Handles MyBase.Load
        ' The file to be loaded is plain text, so we have to specify
the type.
        instructTextBox.LoadFile("Instructions.txt",
RichTextBoxStreamType.PlainText)
    End Sub

    Private Sub OK_Button_Click(ByVal sender As System.Object, ByVal
e As System.EventArgs) Handles OK_Button.Click
        Me.DialogResult = System.Windows.Forms.DialogResult.OK
        Me.Close()
    End Sub
End Class
```

## About DialogBox : AboutSimpleDB

```
Public NotInheritable Class AboutSimpleDB

    Private Sub AboutBox_Load(ByVal sender As System.Object, ByVal e
As System.EventArgs) Handles MyBase.Load
        ' Set the title of the form.
        Dim ApplicationTitle As String
        If My.Application.Info.Title <> "" Then
            ApplicationTitle = My.Application.Info.Title
        Else
            ApplicationTitle =
System.IO.Path.GetFileNameWithoutExtension(My.Application.Info.Assemb
lyName)
        End If
        Me.Text = String.Format("About {0}", ApplicationTitle)
        ' Initialize all of the text displayed on the About Box.
        ' TODO: Customize the application's assembly information in
the "Application" pane of the project
        ' properties dialog (under the "Project" menu).
        Me.LabelProductName.Text = "Product Name : SimpleDB"
        Me.LabelVersion.Text = String.Format("Version {0}",
My.Application.Info.Version.ToString)
        Me.LabelCopyright.Text = "Copyright : Rifat Hamoudi 2009"
        Me.LabelCompanyName.Text = "Company Name : Open University"
        Me.TextBoxDescription.Text = "Description : Basic database to
add and retrieve items. This is written using OOP and OOD
methodologies."
    End Sub

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

End Class
```