



SUMMER AND CONVERTER SYSTEM.

VISUAL BASIC

1. علاء عبدالحكيم ياسين الحمادي

SEC: 3 BN: 1

2. محمد حسن الشحات الخصوصي

SEC: 3 BN: 43

SUPERVISOR:

Dr. Mohamed Shawky Saad

Welcome Form

✓ Code:

```
Public Class Form1
```

```
    Private Sub Butto2_Click(ByVal sender As System.Object, ByVal e As  
System.EventArgs) Handles Button2.Click, Button2.Click
```

```
        If Val(TextBox1.Text) = 1 AndAlso Val(TextBox2.Text) = 43 Then  
            Me.Hide()  
            Form2.Show()  
        Else
```

```
            MsgBox("Enter The correct BN Number Please!!")  
            TextBox1.Clear()
```

```
        End If
```

```
    End Sub
```

```
    Private Sub botto1_Click(ByVal sender As System.Object, ByVal e As  
System.EventArgs) Handles Button1.Click
```

```
        End
```

```
    End Sub
```

```
    Private Sub TextBox1_TextChanged(ByVal sender As System.Object, ByVal e As  
System.EventArgs) Handles TextBox1.TextChanged, TextBox2.TextChanged
```

```
        Dim a As String
```

```
        Dim c As Double
```

```
        a = TextBox1.Text
```

```
        c = Len(a)
```

```
        If Not IsNumeric(a) Then
```

```
            If c = 1 Then
```

```
                If Not (IsNumeric(a) Or a = "") Then
```

```
                    MessageBox.Show("Enter a number")
```

```
                    TextBox1.Clear()
```

```
                    Exit Sub
```

```
                End If
```

```
                TextBox1.Text = ""
```

```
            ElseIf c = 0 Then
```

```
                Exit Sub
```

```
            Else
```

```
                a = LSet(a, c - 1)
```

```
                TextBox1.Text = a
```

```
                TextBox1.SelectionStart = c - 1
```

```
                TextBox1.SelectionLength = c
```

```
                TextBox1.DeselectAll()
```

```
            End If
```

```
        End If
```

```
    End Sub
```

```
    Private Sub TextBox2_TextChanged(ByVal sender As System.Object, ByVal e As  
System.EventArgs) Handles TextBox2.TextChanged, TextBox2.TextChanged
```

```
        Dim a As String
```

```
        Dim c As Double
```

```
        a = TextBox2.Text
```

```
        c = Len(a)
```

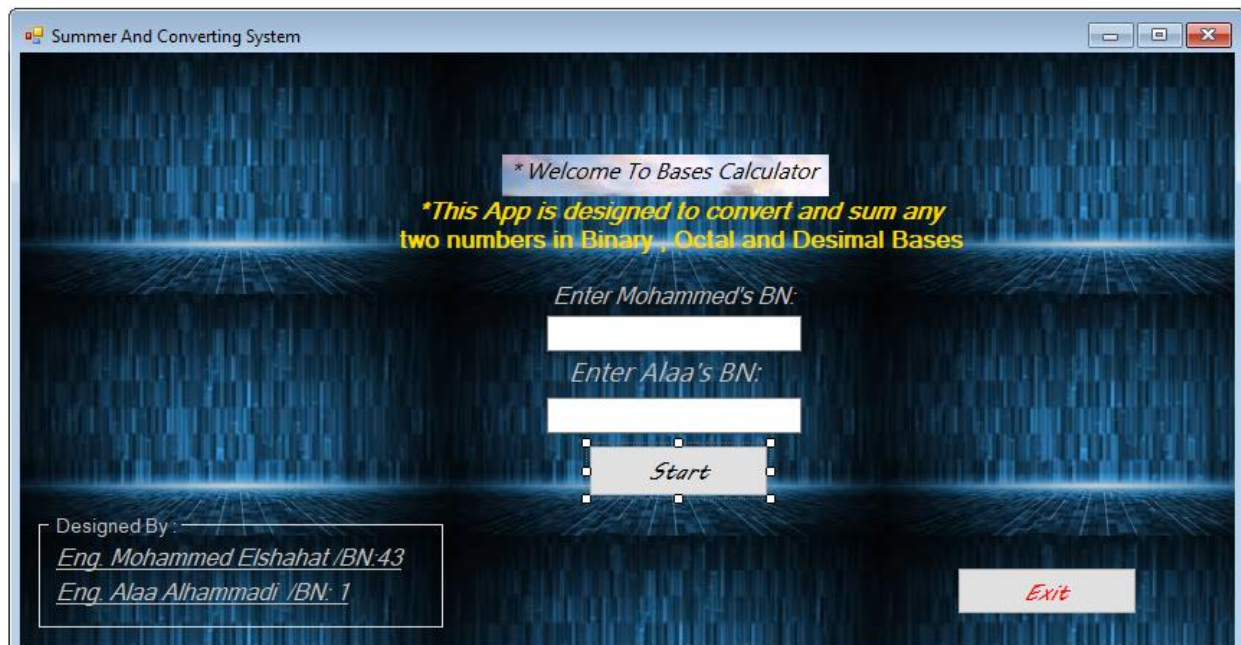
```

If Not IsNumeric(a) Then
    If c = 1 Then
        If Not (IsNumeric(a) Or a = "") Then
            MessageBox.Show("Enter a number")
            TextBox2.Clear()
            Exit Sub
        End If
        TextBox2.Text = ""
    ElseIf c = 0 Then
        Exit Sub
    Else
        a = LSet(a, c - 1)
        TextBox2.Text = a
        TextBox2.SelectionStart = c - 1
        TextBox2.SelectionLength = c
        TextBox2.DeselectAll()
    End If
End If
End Sub

End Class

```

✓ Design:



Main Form

✓ Code:

```
Public Class Form2

    Private Sub Button2_Click(ByVal sender As System.Object, ByVal e As System.EventArgs)
Handles Button2.Click
        Me.Close()
        Form1.Show()
    End Sub

    Private Sub ComboBox2_SelectedIndexChanged(ByVal sender As System.Object, ByVal e As
System.EventArgs) Handles ComboBox2.SelectedIndexChanged
        Button1.Enabled = True
    End Sub

    Private Sub ComboBox5_SelectedIndexChanged(ByVal sender As System.Object, ByVal e As
System.EventArgs) Handles ComboBox5.SelectedIndexChanged
        Button4.Enabled = True
    End Sub
    Private Sub Button6_Click(ByVal sender As System.Object, ByVal e As System.EventArgs)
Handles Button6.Click
        TextBox2.Text = ""
        Label12.Text = ""

    End Sub

    Private Sub Button7_Click(ByVal sender As System.Object, ByVal e As System.EventArgs)
Handles Button7.Click
        TextBox3.Text = ""
        TextBox4.Text = ""
        Label11.Text = ""
    End Sub

    Private Sub ComboBox6_SelectedIndexChanged(ByVal sender As System.Object, ByVal e As
System.EventArgs) Handles ComboBox6.SelectedIndexChanged
        TextBox2.Enabled = True
    End Sub

    Private Sub ComboBox3_SelectedIndexChanged(ByVal sender As System.Object, ByVal e As
System.EventArgs) Handles ComboBox3.SelectedIndexChanged
        TextBox3.Enabled = True
    End Sub

    Private Sub ComboBox4_SelectedIndexChanged(ByVal sender As System.Object, ByVal e As
System.EventArgs) Handles ComboBox4.SelectedIndexChanged
        TextBox4.Enabled = True
    End Sub
    Private Sub TextBox2_GotFocus(ByVal sender As Object, ByVal e As System.EventArgs)
Handles TextBox2.GotFocus
        TextBox2.Text = ""
    End Sub

End Class
```

```
Private Sub Button3_Click(ByVal sender As System.Object, ByVal e As System.EventArgs)
Handles Button3.Click
End
End Sub
```

```
Private Sub TextBox4_GotFocus(ByVal sender As Object, ByVal e As System.EventArgs)
Handles TextBox4.GotFocus
    TextBox4.Text = ""
End Sub
```

```
Private Sub TextBox3_GotFocus(ByVal sender As Object, ByVal e As System.EventArgs)
Handles TextBox3.GotFocus
    TextBox3.Text = ""
End Sub
```

```
Private Sub Form2_Load(ByVal sender As System.Object, ByVal e As System.EventArgs)
Handles MyBase.Load
    Label11.Text = ""
    Label12.Text = ""
End Sub
```

```
Private Sub TextBox2_TextChanged(ByVal sender As System.Object, ByVal e As
System.EventArgs) Handles TextBox2.TextChanged
```

```
Dim a As String
```

```
Dim c As Double
```

```
a = TextBox2.Text
```

```
c = Len(a)
```

```
Select Case ComboBox6.SelectedIndex
```

```
Case 0
```

```
    If Not IsNumeric(a) Then
```

```
        If c = 1 Then
```

```
            If Not (IsNumeric(a) Or a = "") Then
```

```
                MessageBox.Show("Enter a number")
```

```
                a = ""
```

```
            Exit Sub
```

```
        End If
```

```
        TextBox2.Text = ""
```

```
    ElseIf c = 0 Then
```

```
        Exit Sub
```

```
    Else
```

```
        a = LSet(a, c - 1)
```

```
        TextBox2.Text = a
```

```
        TextBox2.SelectionStart = c - 1
```

```
        TextBox2.SelectionLength = c
```

```
        TextBox2.DeselectAll()
```

```
    End If
```

```
End If
```

```
Case 1
```

```
    If Not (IsNumeric(a) Or a = "") Then
```

```
        MessageBox.Show("Enter a number")
```

```
        a = ""
```

```
    If c = 1 Then
```

```
        If IsNumeric(a) Then
```

```
            Exit Sub
```

```
        End If
```

```
        TextBox2.Text = ""
```

```
    ElseIf c = 0 Then
```

```

        Exit Sub
    Else
        a = LSet(a, c - 1)
        TextBox2.Text = a
        TextBox2.SelectionStart = c - 1
        TextBox2.SelectionLength = c
        TextBox2.DeselectAll()
    End If
End If
Case 2
    If Not (IsNumeric(a) Or a = "") Then
        MessageBox.Show("Enter a number")
        a = ""
        If c = 1 Then
            If IsNumeric(a) Then
                Exit Sub
            End If
            TextBox2.Text = ""
        ElseIf c = 0 Then
            Exit Sub
        Else
            a = LSet(a, c - 1)
            TextBox2.Text = a
            TextBox2.SelectionStart = c - 1
            TextBox2.SelectionLength = c
            TextBox2.DeselectAll()
        End If
    End If
End If

End Select
End Sub

Private Sub TextBox3_TextChanged(ByVal sender As System.Object, ByVal e As
System.EventArgs) Handles TextBox3.TextChanged
    Dim a As String
    Dim b As Single
    a = TextBox3.Text
    b = Len(a)
    Select Case ComboBox3.SelectedIndex
        Case 0
            If Not (IsNumeric(a) Or a = "") Then
                MessageBox.Show("Enter a number")
                a = ""
                If b = 1 Then
                    If IsNumeric(a) Then
                        Exit Sub
                    End If
                    TextBox3.Text = ""
                ElseIf b = 0 Then
                    Exit Sub
                Else
                    a = LSet(a, b - 1)
                    TextBox3.Text = a
                    TextBox3.SelectionStart = b - 1
                    TextBox3.SelectionLength = b
                    TextBox3.DeselectAll()
                End If
            End If
        End If
    End If
End Sub

```

```

Case 1
    If Not (IsNumeric(a) Or a = "") Then
        MessageBox.Show("Enter a number")
        a = ""
        If b = 1 Then
            If IsNumeric(a) Then
                Exit Sub
            End If
            TextBox3.Text = ""
        ElseIf b = 0 Then
            Exit Sub
        Else
            a = LSet(a, b - 1)
            TextBox3.Text = a
            TextBox3.SelectionStart = b - 1
            TextBox3.SelectionLength = b
            TextBox3.DeselectAll()
        End If
    End If
End If
Case 2
    If Not (IsNumeric(a) Or a = "") Then
        MessageBox.Show("Enter a number")
        a = ""
        If b = 1 Then
            If IsNumeric(a) Then
                Exit Sub
            End If
            TextBox2.Text = ""
        ElseIf b = 0 Then
            Exit Sub
        Else
            a = LSet(a, b - 1)
            TextBox3.Text = a
            TextBox3.SelectionStart = b - 1
            TextBox3.SelectionLength = b
            TextBox3.DeselectAll()
        End If
    End If

End Select
End Sub

Private Sub TextBox4_TextChanged(ByVal sender As System.Object, ByVal e As
System.EventArgs) Handles TextBox4.TextChanged
    Dim a As String
    Dim b As Single
    a = TextBox4.Text
    b = Len(a)
    Select Case ComboBox4.SelectedIndex
    Case 0
        If Not (IsNumeric(a) Or a = "") Then
            MessageBox.Show("Enter a number")
            a = ""
            If b = 1 Then
                If IsNumeric(a) Then
                    Exit Sub
                End If
            End If
            TextBox4.Text = ""
        End If
    End Select
End Sub

```

```

        ElseIf b = 0 Then
            Exit Sub
        Else
            a = LSet(a, b - 1)
            TextBox4.Text = a
            TextBox4.SelectionStart = b - 1
            TextBox4.SelectionLength = b
            TextBox4.DeselectAll()
        End If
    End If
Case 1
    If Not (IsNumeric(a) Or a = "") Then
        MessageBox.Show("Enter a number")
        a = ""
        If b = 1 Then
            If IsNumeric(a) Then
                Exit Sub
            End If
            TextBox4.Text = ""
        ElseIf b = 0 Then
            Exit Sub
        Else
            a = LSet(a, b - 1)
            TextBox4.Text = a
            TextBox4.SelectionStart = b - 1
            TextBox4.SelectionLength = b
            TextBox4.DeselectAll()
        End If
    End If
Case 2
    If Not (IsNumeric(a) Or a = "") Then
        MessageBox.Show("Enter a number")
        a = ""
        If b = 1 Then
            If IsNumeric(a) Then
                Exit Sub
            End If
            TextBox4.Text = ""
        ElseIf b = 0 Then
            Exit Sub
        Else
            a = LSet(a, b - 1)
            TextBox4.Text = a
            TextBox4.SelectionStart = b - 1
            TextBox4.SelectionLength = b
            TextBox4.DeselectAll()
        End If
    End If
End Select
End Sub

Private Sub Button1_Click(ByVal sender As System.Object, ByVal e As System.EventArgs)
Handles Button1.Click
    Dim x As Long = Long.Parse(TextBox2.Text)
    If ComboBox6.SelectedIndex = 0 AndAlso ComboBox2.SelectedIndex = 1 Then
        Label2.Text = Convert.ToString(x, 2)
    ElseIf ComboBox6.SelectedIndex = 0 AndAlso ComboBox2.SelectedIndex = 2 Then

```



```

        Label2.Text = Convert.ToString(x, 8)
    ElseIf ComboBox6.SelectedIndex = 0 AndAlso ComboBox2.SelectedIndex = 0 Then
        Label2.Text = x.ToString()
    ElseIf ComboBox6.SelectedIndex = 1 AndAlso ComboBox2.SelectedIndex = 0 Then
        Label2.Text = Convert.ToUInt64(x, 2)
    ElseIf ComboBox6.SelectedIndex = 1 AndAlso ComboBox2.SelectedIndex = 2 Then
        x = Convert.ToUInt64(x, 2)
        Label2.Text = Convert.ToString(x, 8)
    ElseIf ComboBox6.SelectedIndex = 1 AndAlso ComboBox2.SelectedIndex = 1 Then
        Label2.Text = x.ToString()
    ElseIf ComboBox6.SelectedIndex = 2 AndAlso ComboBox2.SelectedIndex = 0 Then
        Label2.Text = Convert.ToUInt64(x, 8)
    ElseIf ComboBox6.SelectedIndex = 2 AndAlso ComboBox2.SelectedIndex = 1 Then
        x = Convert.ToUInt64(x, 8)
        Label2.Text = Convert.ToString(x, 2)
    ElseIf ComboBox6.SelectedIndex = 2 AndAlso ComboBox2.SelectedIndex = 2 Then
        Label2.Text = x.ToString()
    End If
End Sub

Private Sub Button4_Click(ByVal sender As System.Object, ByVal e As System.EventArgs)
Handles Button4.Click
    Dim x As Long = Long.Parse(TextBox3.Text)
    Dim y As Long = Long.Parse(TextBox4.Text)
    Dim d As Long
    If ComboBox3.SelectedIndex = 0 AndAlso ComboBox4.SelectedIndex = 0 AndAlso
ComboBox5.SelectedIndex = 0 Then
        x = x.ToString()
        y = y.ToString()
        d = x + y
        Label1.Text = d.ToString()
    ElseIf ComboBox3.SelectedIndex = 0 AndAlso ComboBox4.SelectedIndex = 0 AndAlso
ComboBox5.SelectedIndex = 1 Then
        x = x.ToString()
        y = y.ToString()
        d = x + y
        Label1.Text = Convert.ToString(d, 2)
    ElseIf ComboBox3.SelectedIndex = 0 AndAlso ComboBox4.SelectedIndex = 0 AndAlso
ComboBox5.SelectedIndex = 2 Then
        x = x.ToString()
        y = y.ToString()
        d = x + y
        Label1.Text = Convert.ToString(d, 8)
    ElseIf ComboBox3.SelectedIndex = 0 AndAlso ComboBox4.SelectedIndex = 1 AndAlso
ComboBox5.SelectedIndex = 0 Then
        x = x.ToString()
        y = Convert.ToUInt64(y, 2)
        d = x + y
        Label1.Text = d.ToString()
    ElseIf ComboBox3.SelectedIndex = 0 AndAlso ComboBox4.SelectedIndex = 1 AndAlso
ComboBox5.SelectedIndex = 1 Then
        x = x.ToString()
        y = Convert.ToUInt64(y, 2)
        d = x + y
        Label1.Text = Convert.ToString(d, 2)
    ElseIf ComboBox3.SelectedIndex = 0 AndAlso ComboBox4.SelectedIndex = 1 AndAlso
ComboBox5.SelectedIndex = 2 Then
        x = x.ToString()

```

```

        y = Convert.ToUInt64(y, 2)
        d = x + y
        Label1.Text = Convert.ToString(d, 8)
    ElseIf ComboBox3.SelectedIndex = 1 AndAlso ComboBox4.SelectedIndex = 0 AndAlso
ComboBox5.SelectedIndex = 0 Then
        x = Convert.ToUInt64(x, 2)
        y = y.ToString()
        d = x + y
        Label1.Text = d.ToString()
    ElseIf ComboBox3.SelectedIndex = 1 AndAlso ComboBox4.SelectedIndex = 0 AndAlso
ComboBox5.SelectedIndex = 1 Then
        x = Convert.ToUInt64(x, 2)
        y = y.ToString()
        d = x + y
        Label1.Text = Convert.ToString(d, 2)
    ElseIf ComboBox3.SelectedIndex = 1 AndAlso ComboBox4.SelectedIndex = 0 AndAlso
ComboBox5.SelectedIndex = 2 Then
        x = Convert.ToUInt64(x, 2)
        y = y.ToString()
        d = x + y
        Label1.Text = Convert.ToString(d, 8)
    ElseIf ComboBox3.SelectedIndex = 0 AndAlso ComboBox4.SelectedIndex = 2 AndAlso
ComboBox5.SelectedIndex = 0 Then
        x = x.ToString()
        y = Convert.ToUInt64(y, 8)
        d = x + y
        Label1.Text = d.ToString()
    ElseIf ComboBox3.SelectedIndex = 0 AndAlso ComboBox4.SelectedIndex = 2 AndAlso
ComboBox5.SelectedIndex = 1 Then
        x = x.ToString()
        y = Convert.ToUInt64(y, 8)
        d = x + y
        Label1.Text = Convert.ToString(d, 2)
    ElseIf ComboBox3.SelectedIndex = 0 AndAlso ComboBox4.SelectedIndex = 2 AndAlso
ComboBox5.SelectedIndex = 2 Then
        x = x.ToString()
        y = Convert.ToUInt64(y, 8)
        d = x + y
        Label1.Text = Convert.ToString(d, 8)
    ElseIf ComboBox3.SelectedIndex = 2 AndAlso ComboBox4.SelectedIndex = 0 AndAlso
ComboBox5.SelectedIndex = 0 Then
        x = Convert.ToUInt64(x, 8)
        y = y.ToString()
        d = x + y
        Label1.Text = d.ToString()
    ElseIf ComboBox3.SelectedIndex = 2 AndAlso ComboBox4.SelectedIndex = 0 AndAlso
ComboBox5.SelectedIndex = 1 Then
        x = Convert.ToUInt64(x, 8)
        y = y.ToString()
        d = x + y
        Label1.Text = Convert.ToString(d, 2)
    ElseIf ComboBox3.SelectedIndex = 2 AndAlso ComboBox4.SelectedIndex = 0 AndAlso
ComboBox5.SelectedIndex = 2 Then
        x = Convert.ToUInt64(x, 8)
        y = y.ToString()
        d = x + y
        Label1.Text = Convert.ToString(d, 8)

```

```

        ElseIf ComboBox3.SelectedIndex = 1 AndAlso ComboBox4.SelectedIndex = 1 AndAlso
ComboBox5.SelectedIndex = 0 Then
            x = Convert.ToUInt64(x, 2)
            y = Convert.ToUInt64(y, 2)
            d = x + y
            Label1.Text = d.ToString()
        ElseIf ComboBox3.SelectedIndex = 1 AndAlso ComboBox4.SelectedIndex = 1 AndAlso
ComboBox5.SelectedIndex = 1 Then
            x = Convert.ToUInt64(x, 2)
            y = Convert.ToUInt64(y, 2)
            d = x + y
            Label1.Text = Convert.ToString(d, 2)
        ElseIf ComboBox3.SelectedIndex = 1 AndAlso ComboBox4.SelectedIndex = 1 AndAlso
ComboBox5.SelectedIndex = 2 Then
            x = Convert.ToUInt64(x, 2)
            y = Convert.ToUInt64(y, 2)
            d = x + y
            Label1.Text = Convert.ToString(d, 8)
        ElseIf ComboBox3.SelectedIndex = 1 AndAlso ComboBox4.SelectedIndex = 2 AndAlso
ComboBox5.SelectedIndex = 0 Then
            x = Convert.ToUInt64(x, 2)
            y = Convert.ToUInt64(y, 8)
            d = x + y
            Label1.Text = d.ToString()
        ElseIf ComboBox3.SelectedIndex = 1 AndAlso ComboBox4.SelectedIndex = 2 AndAlso
ComboBox5.SelectedIndex = 1 Then
            x = Convert.ToUInt64(x, 2)
            y = Convert.ToUInt64(y, 8)
            d = x + y
            Label1.Text = Convert.ToString(d, 2)
        ElseIf ComboBox3.SelectedIndex = 1 AndAlso ComboBox4.SelectedIndex = 2 AndAlso
ComboBox5.SelectedIndex = 2 Then
            x = Convert.ToUInt64(x, 2)
            y = Convert.ToUInt64(y, 8)
            d = x + y
            Label1.Text = Convert.ToString(d, 8)
        ElseIf ComboBox3.SelectedIndex = 2 AndAlso ComboBox4.SelectedIndex = 1 AndAlso
ComboBox5.SelectedIndex = 0 Then
            x = Convert.ToUInt64(x, 8)
            y = Convert.ToUInt64(y, 2)
            d = x + y
            Label1.Text = d.ToString()
        ElseIf ComboBox3.SelectedIndex = 2 AndAlso ComboBox4.SelectedIndex = 1 AndAlso
ComboBox5.SelectedIndex = 1 Then
            x = Convert.ToUInt64(x, 8)
            y = Convert.ToUInt64(y, 2)
            d = x + y
            Label1.Text = Convert.ToString(d, 2)
        ElseIf ComboBox3.SelectedIndex = 2 AndAlso ComboBox4.SelectedIndex = 1 AndAlso
ComboBox5.SelectedIndex = 2 Then
            x = Convert.ToUInt64(x, 8)
            y = Convert.ToUInt64(y, 2)
            d = x + y
            Label1.Text = Convert.ToString(d, 8)
        ElseIf ComboBox3.SelectedIndex = 2 AndAlso ComboBox4.SelectedIndex = 2 AndAlso
ComboBox5.SelectedIndex = 0 Then
            x = Convert.ToUInt64(x, 8)
            y = Convert.ToUInt64(y, 8)

```

```

        d = x + y
        Label1.Text = d.ToString()
        ElseIf ComboBox3.SelectedIndex = 2 AndAlso ComboBox4.SelectedIndex = 2 AndAlso
ComboBox5.SelectedIndex = 1 Then
            x = Convert.ToUInt64(x, 8)
            y = Convert.ToUInt64(y, 8)
            d = x + y
            Label1.Text = Convert.ToString(d, 2)
        ElseIf ComboBox3.SelectedIndex = 2 AndAlso ComboBox4.SelectedIndex = 2 AndAlso
ComboBox5.SelectedIndex = 2 Then
            x = Convert.ToUInt64(x, 8)
            y = Convert.ToUInt64(y, 8)
            d = x + y
            Label1.Text = Convert.ToString(d, 8)
        End If
    End Sub

```

End Class

✓ Design:

The screenshot shows a Windows application window titled "Form2" with a dark blue background and a landscape image on the left. The window is divided into two main sections: "Converting Numbers Process" and "Addition Process".

Converting Numbers Process: This section contains two panels. The left panel has a "from:" label, a dropdown menu "Select The Base", a text box "Select the base first", and a "Clear" button. The right panel has a "To:" label, a dropdown menu "Select Your Base", a green label "Label2", and a green "Convert" button.

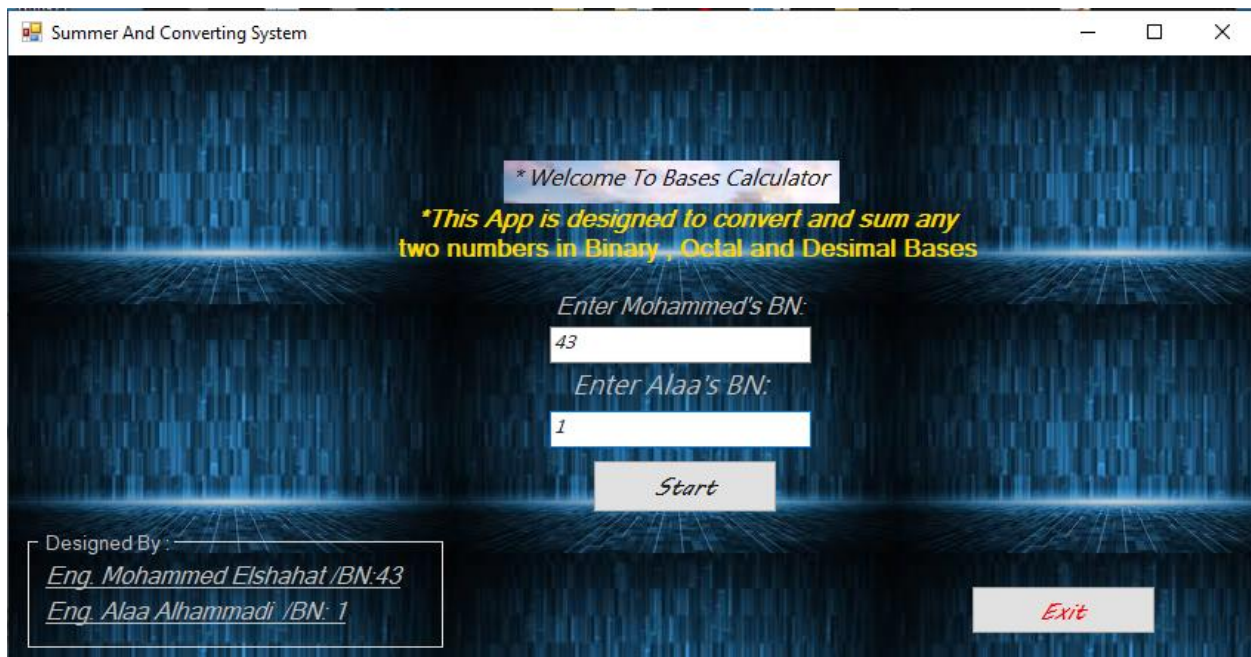
Addition Process: This section contains two panels. The left panel has a "format:" label, two dropdown menus "Select Your Base", a text box "Select the base first", a green "+" sign, another text box "Select the base first", and a "Clear" button. The right panel has an "Answer:" label, a dropdown menu "Select Your Base", a green label "Label1", and a green "Calc." button.

At the bottom of the window, there are two buttons: "Back" and "End".

System in run time



Before entering any data



Entering the BN Numbers

Form2

Converting Numbers Process

from: Select The Base

To: Select Your Base

Select the base first

Clear

Convert

Addition Process

format: Select Your Base

Select the base first

+

Select Your Base

Select the base first

Clear

Answer: Select Your Base

Calc.

Back

End

Before entering any data

Form2

Converting Numbers Process

from: Decimal

To: Binary

10

Clear

Convert

Addition Process

format: Select Your Base

Select the base first

+

Select Your Base

Select the base first

Clear

Answer: Select Your Base

Calc.

Back

End

In converting region

Form2

Converting Numbers Process

from: Decimal

To: Binary

Addition Process

format: Decimal 15 + Octal 45

Answer: Binary 110100

Example (1) in adding two numbers

Form2

Converting Numbers Process

from: Decimal

To: Binary

Addition Process

format: Binary 10111011001 + Decimal 1512

Answer: Octal 5701

Example (2) in adding two numbers