

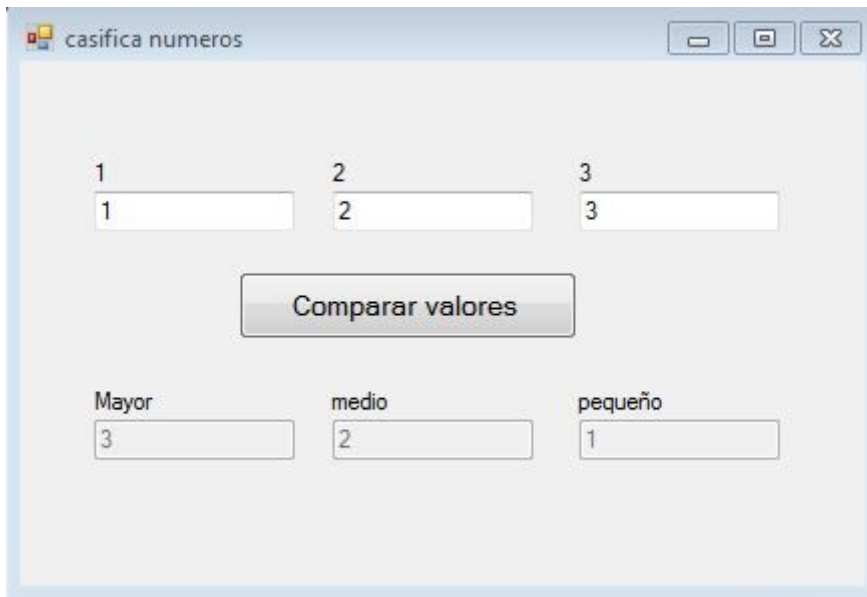
M07 Interfaces:

Uf1: Practica 3

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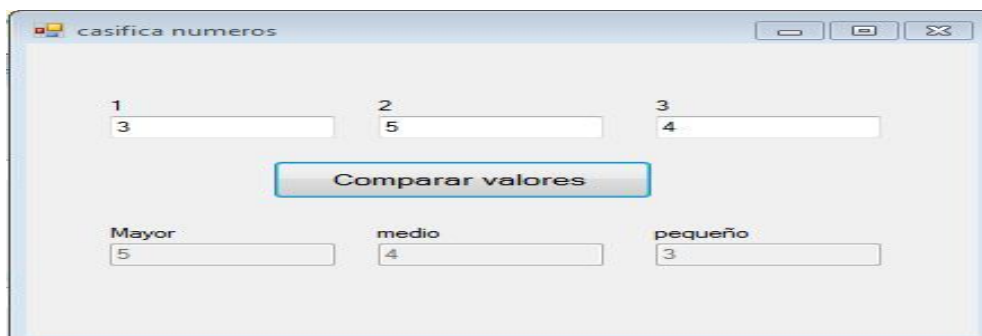
Ejercicio 1:

Se Introducen 3 números en las celdas 1, 2 y 3, al seleccionar el boton central ordenan los numeros en las celdas de Mayor, Medio y pequeño

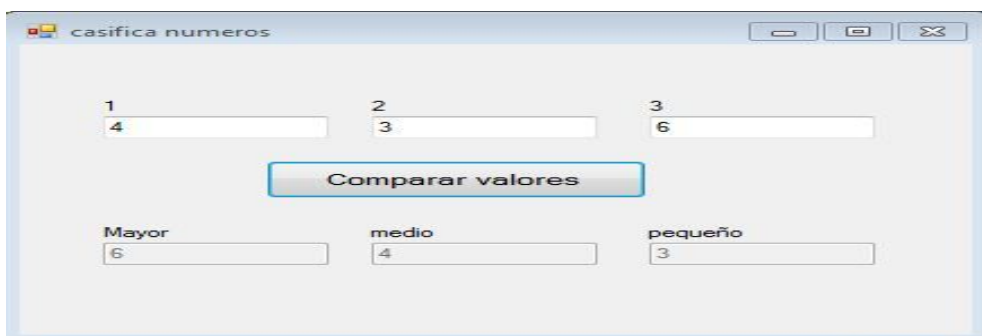


The screenshot shows a window titled "casifica numeros". It contains three input fields labeled 1, 2, and 3 at the top, each containing the number 1, 2, and 3 respectively. Below these is a button labeled "Comparar valores". At the bottom, there are three more input fields labeled "Mayor", "medio", and "pequeño", each containing the number 3, 2, and 1 respectively.

Los puedes introducir en el orden que tu quieras de las celdas igualmente los ordenará en las celdas de abajo.



The screenshot shows the same window with the input fields 1, 2, and 3 containing the numbers 3, 5, and 4 respectively. The "Comparar valores" button is highlighted with a blue border. The output fields "Mayor", "medio", and "pequeño" now contain the numbers 5, 4, and 3 respectively, representing the sorted order.



The screenshot shows the same window with the input fields 1, 2, and 3 containing the numbers 4, 3, and 6 respectively. The "Comparar valores" button is highlighted with a blue border. The output fields "Mayor", "medio", and "pequeño" now contain the numbers 6, 4, and 3 respectively, representing the sorted order.

Ha las variables se les da el valor de las celdas 1, 2 y 3, luego he dividido los condicionales en 3 grupos.

- 1r he comprobado si el valor de cualquiera de las variables era mayor a las otras.
- 2n si era mayor de una de ellas, pero menor que la otra.
- 3r si era menor a las otras variables

```
Public Class Form1

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

        Dim num, num2, num3 As Integer

        num = Me.TextBox1.Text
        num2 = Me.TextBox2.Text
        num3 = Me.TextBox3.Text

        If num > num2 And num > num3 Then
            Me.TextBox4.Text = num
        ElseIf num2 > num And num2 > num3 Then
            Me.TextBox4.Text = num2
        ElseIf num3 > num And num3 > num2 Then
            Me.TextBox4.Text = num3
        End If

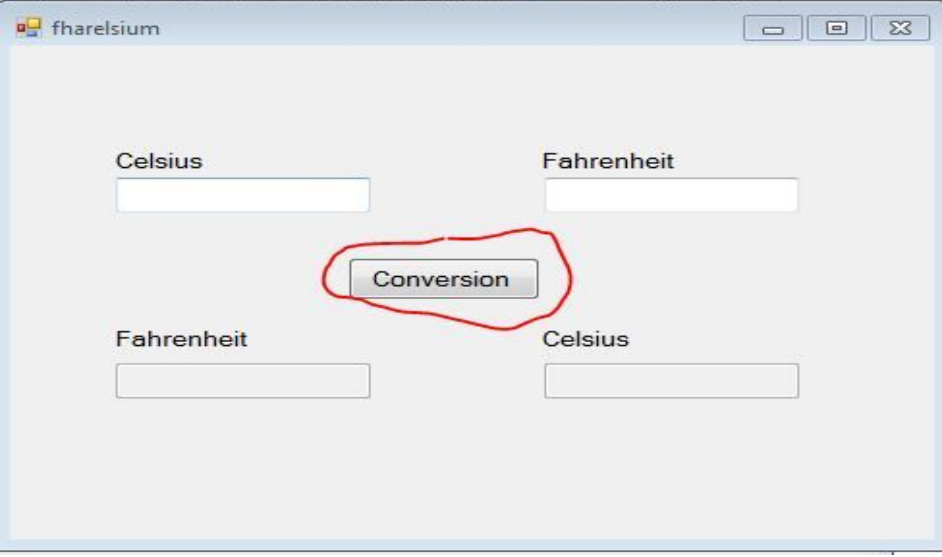
        If num > num2 And num < num3 Or num < num2 And num > num3 Then
            Me.TextBox5.Text = num
        ElseIf num2 > num And num2 < num3 Or num2 < num And num2 > num3 Then
            Me.TextBox5.Text = num2
        ElseIf num3 > num And num3 < num2 Or num3 < num And num3 > num2 Then
            Me.TextBox5.Text = num3
        End If

        If num < num2 And num < num3 Then
            Me.TextBox6.Text = num
        ElseIf num2 < num And num2 < num3 Then
            Me.TextBox6.Text = num2
        ElseIf num3 < num And num3 < num2 Then
            Me.TextBox6.Text = num3
        End If

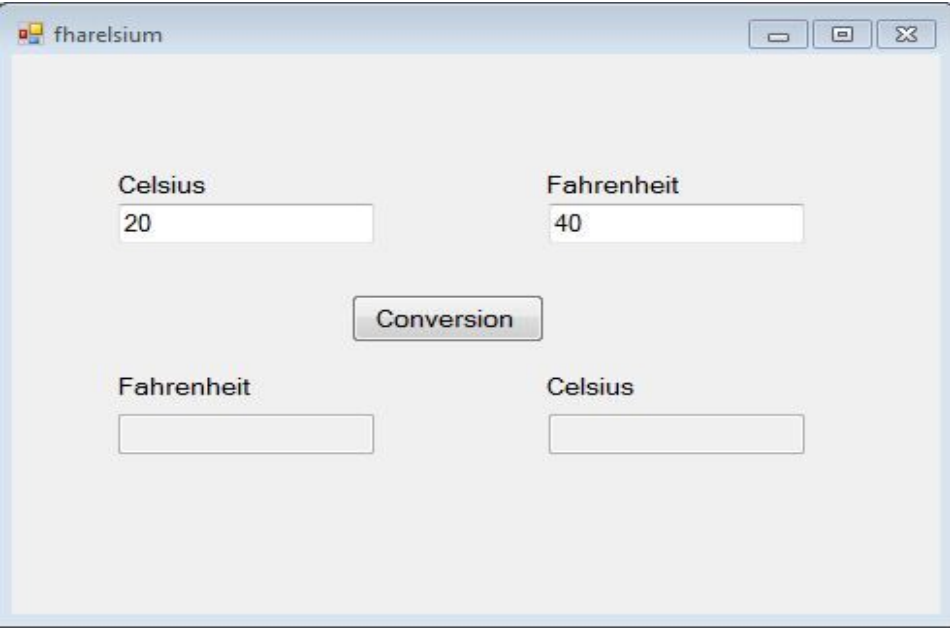
    End Sub
End Class
```

Ejercicio 2:

Se insertan los valores deseados en las 2 celdas y se pulsa a conversión.

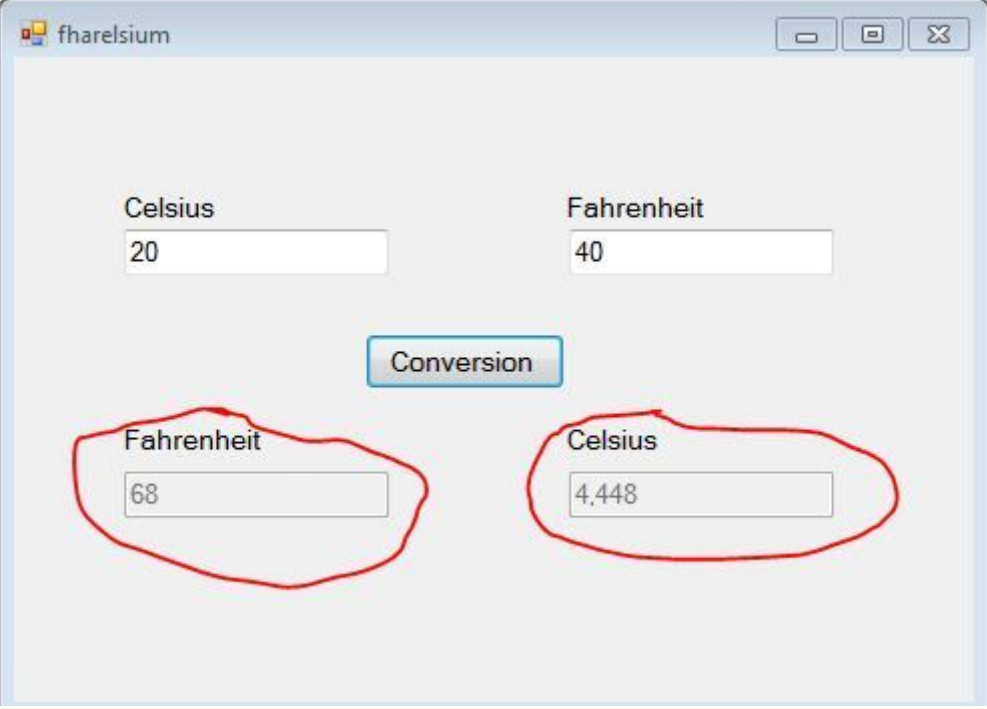


The screenshot shows a window titled "fharelsium" with a light gray background. It contains four text input fields arranged in a 2x2 grid. The top-left field is labeled "Celsius", the top-right is labeled "Fahrenheit", the bottom-left is labeled "Fahrenheit", and the bottom-right is labeled "Celsius". All fields are empty. In the center of the window, there is a button labeled "Conversion" which is highlighted with a red hand-drawn oval. The window has standard Windows-style window controls (minimize, maximize, close) in the top right corner.



The screenshot shows the same "fharelsium" window. The top-left "Celsius" field now contains the value "20", and the top-right "Fahrenheit" field now contains the value "40". The "Conversion" button is still present in the center. The bottom two fields remain empty. The window controls are still visible in the top right corner.

En las celdas de abajo se muestran los valores equivalentes.



The screenshot shows a Windows application window titled "fharelsium". Inside the window, there are two input fields at the top: "Celsius" containing the value "20" and "Fahrenheit" containing the value "40". Below these fields is a button labeled "Conversion". At the bottom of the window, there are two more input fields: "Fahrenheit" containing the value "68" and "Celsius" containing the value "4,448". The bottom two fields are circled in red.

Se inserta en las variable el valor introducido en las celdas,junto con la operación de cada conversión y el resultado lo introduces en las dos celdas de abajo .

```
Public Class Form1

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

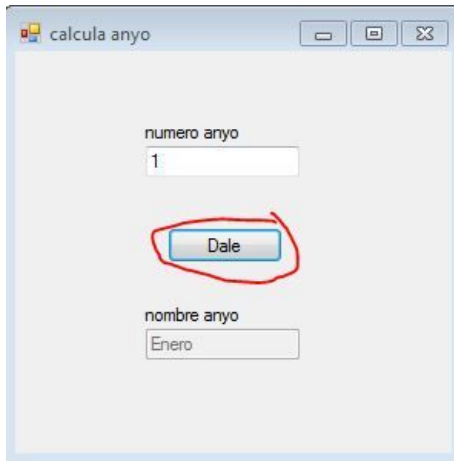
        Dim Celsius, fahrenheit As Double
        fahrenheit = (1.8 * Me.TextBox1.Text) + 32
        Celsius = (Me.TextBox2.Text - 32) * 0.556

        Me.TextBox3.Text = fahrenheit
        Me.TextBox4.Text = Celsius

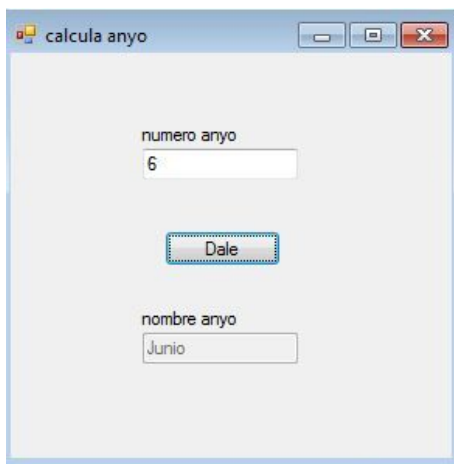
    End Sub
End Class
```

Ejercicio 3:

Introducimos un número dentro de la caja de texto y se clica al botón. Después se mostrará el mes que se relacione a ese número.

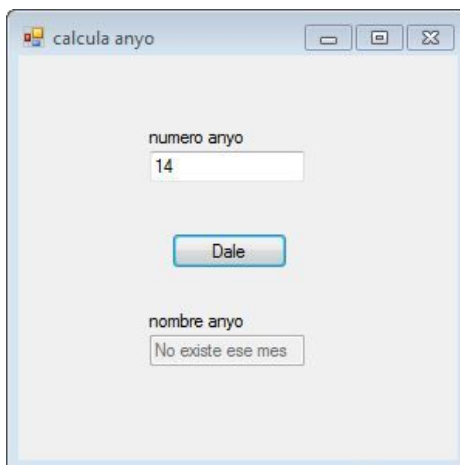


A screenshot of a Java Swing window titled "calcula anyo". It contains three components: a text field labeled "numero anyo" with the value "1", a button labeled "Dale" which is circled in red, and another text field labeled "nombre anyo" containing the text "Enero".



A screenshot of the same "calcula anyo" window. The "numero anyo" text field now contains "6", and the "nombre anyo" text field contains "Junio". The "Dale" button is still present.

Si se introduce un número erróneo te sale el mensaje “No existe es mes”.



A screenshot of the "calcula anyo" window. The "numero anyo" text field contains "14", and the "nombre anyo" text field displays the error message "No existe ese mes".

Iniciamos la variable insertando el número introducido en la caja de texto, luego he utilizado un select con 12 casos posibles y uno erróneo, que es cualquier número que no sea del 1 al 12.

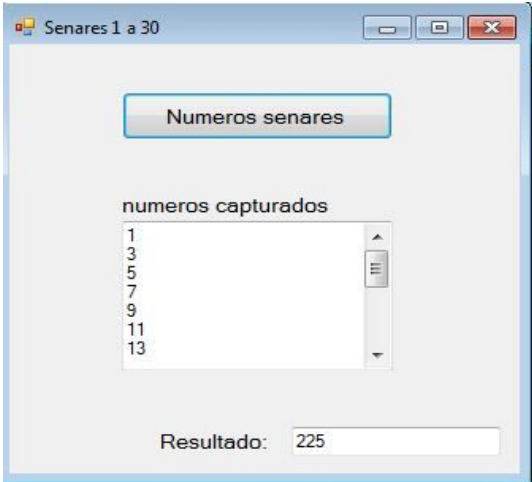
```
Public Class Form1

    Private Sub Button1_Click(ByVal sender As System.Object, ByVal e As System.EventArgs) Handles Button1.Click
        Dim opcion As Integer = Me.TextBox1.Text
        Select (opcion)
            Case 1
                Me.TextBox2.Text = "Enero"
            Case 2
                Me.TextBox2.Text = "Febrero"
            Case 3
                Me.TextBox2.Text = "Marzo"
            Case 4
                Me.TextBox2.Text = "Abril"
            Case 5
                Me.TextBox2.Text = "Mayo"
            Case 6
                Me.TextBox2.Text = "Junio"
            Case 7
                Me.TextBox2.Text = "Julio"
            Case 8
                Me.TextBox2.Text = "Agosto"
            Case 9
                Me.TextBox2.Text = "Septiembre"
            Case 10
                Me.TextBox2.Text = "Octubre"
            Case 11
                Me.TextBox2.Text = "Noviembre"
            Case 12
                Me.TextBox2.Text = "Diciembre"
            Case Else
                Me.TextBox2.Text = "No existe ese mes"
        End Select
    End Sub

End Class
```

Ejercicio 4:

Al clicar el botón se muestra una lista de todos los números impares y en el resultado muestra la suma de todos los numeros.



Senares 1 a 30

Numeros senares

numeros capturados

- 1
- 3
- 5
- 7
- 9
- 11
- 13

Resultado: 225

Declaramos 3 variables enteras una 2 contador y la otra es para el resultado de la suma de todos los numero.

Después hacemos un bucle **for next** que recorreremos la i hasta llegara a 30, luego hay un condicional el cual comprueba si el número es impar. En el caso de que sea **impar o senar** se introduce en la lista de números se suma el valor de los números y introducirlos en la variable res. Por último se muestra por pantalla.

```
Public Class Form1

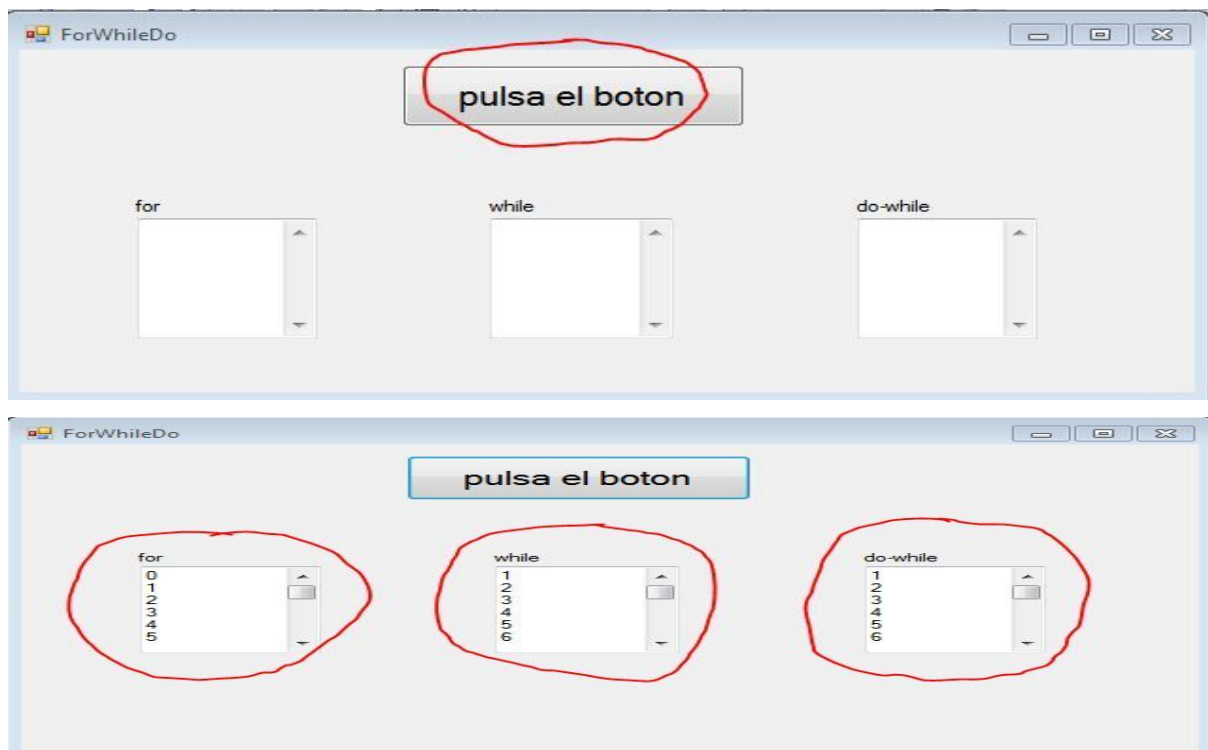
    Private Sub Button1_Click(ByVal sender As System.Object, ByVal e As System.EventArgs) Handles Button1.Click
        Dim i As Integer
        Dim valor, res As Integer

        For i = 1 To 30
            If valor Mod 2 = 1 Then
                Me.TextBox1.Text = Me.TextBox1.Text & valor & vbCrLf
                res = res + valor
            End If
            valor = valor + 1
        Next
        Me.TextBox2.Text = res
    End Sub

End Class
```

Ejercicio 5:

Al pulsar el botón se llenan las 3 listas de números la de **for**, **while** y **do-while**.



Se declaran 2 variables una de ellas contador y se usan los 3 bucles, además de inicializar a 0 la variable i.

- En el for la i incrementa del 0 al 100 y se inserta a la num.
- en el while se hace lo mismo pero el autoincrementado se usa dentro del bucle y cada vuelta se introduce en num.
- Do-while da vueltas mientras que i sea diferente a 100.

```
Public Class Form1
    Private Sub Button1_Click(ByVal sender As System.Object, ByVal e As System.EventArgs) Handles Button1.Click
        Dim i As Integer
        Dim num As Integer

        For num = i To 100
            Me.TextBox1.Text = Me.TextBox1.Text & num & vbCrLf
        Next

        i = 0
        While (i < 100)
            i = i + 1
            num = i
            Me.TextBox2.Text = Me.TextBox2.Text & num & vbCrLf
        End While

        i = 0
        Do
            i = i + 1
            num = i
            Me.TextBox3.Text = Me.TextBox3.Text & num & vbCrLf
        Loop While (i <> 100)

    End Sub
End Class
```

Ejercicio 6:

The screenshot shows a Windows application window titled "Senar y Par". The window contains the following elements:

- A button labeled "Capturar numero" (highlighted with a red circle) located at the top center.
- Two input text boxes, one on the left and one on the right, positioned below the "Capturar numero" button.
- Two buttons labeled "Mostrar senar y par", one on the left and one on the right, positioned below the input boxes.
- Below each "Mostrar senar y par" button are two text areas (Label1 and Label2 on the left, Label3 and Label4 on the right) for displaying the results.

Senary Par

Capturar numero

2

Mostrar senar y par

Label1

Label2

42

Mostrar senar y par

Label3

Label4

Senary Par

Capturar numero

2

Mostrar senar y par

2
4
6
8
10

2
5
8
11
14

50

33

42

Mostrar senar y par

42
44
46
48
50

42
45
48
51
54

30

20

```
Public Class Form1
    Private Sub Button1_Click(ByVal sender As System.Object, ByVal e As System.EventArgs) Handles Button1.Click
        Randomize()

        Dim num, num2 As Integer
        num = CInt(Int((80 - 1) * Rnd()) + 1)
        num2 = CInt(Int((80 - 1) * Rnd()) + 1)

        Me.TextBox1.Text = num
        Me.TextBox2.Text = num2

    End Sub
End Class
```

```
Private Sub Button2_Click(ByVal sender As System.Object, ByVal e As System.EventArgs) Handles Button2.Click
    Dim num, i, j As Integer
    num = Me.TextBox1.Text

    For num = num To 100 Step 2
        Me.lista1.Text = Me.lista1.Text & num & " [" & i + 1 & vbCrLf
        i = i + 1
    Next

    Me.Label11.Text = i

    num = Me.TextBox1.Text
    For num = num To 100 Step 3
        Me.lista2.Text = Me.lista2.Text & num & " [" & j + 1 & vbCrLf
        j = j + 1
    Next
    Me.Label12.Text = j
End Sub
```

```
Private Sub Button3_Click(ByVal sender As System.Object, ByVal e As System.EventArgs) Handles Button3.Click
    Dim num2, i, j As Integer
    num2 = Me.TextBox2.Text

    For num2 = num2 To 100 Step 2
        Me.lista3.Text = Me.lista3.Text & num2 & " [" & i + 1 & vbCrLf
        i = i + 1
    Next
    Me.Label13.Text = i

    num2 = Me.TextBox2.Text
    For num2 = num2 To 100 Step 3
        Me.lista4.Text = Me.lista4.Text & num2 & " [" & j + 1 & vbCrLf
        j = j + 1
    Next
    Me.Label14.Text = j

End Sub

End Class
```