

M07 Interfaces:

UF1: Practica 13

Ejercicio 1:

Parte A:

1. Cada vez que insertas un número o palabra y pulsamos enter, el foco, cambia al de text_nombre a text_data y al final add_button.
2. En text_nombre cada vez que introduces un (.) cambia a una coma y en el caso de text data cambia (' , ' , ' . ' , ' - ') por (/).
3. Al presionar enter en add_button el contenido de los 2 textos se concatenan con una (,) en medio de los 2.
4. Cuando seleccionas un elemento de la lista y les das a suprimir, se borra automáticamente de la fila.

Parte B:

1. Al eliminar el procedimiento no te hace el foco encima del texto de dentro del textbox.

Parte C:

- C1. Los eventos que hace referencia a los dos textboxes.
- C2. Cambia el objeto a de tipo en este caso de tipo TextBox.
- C3. Yo cambiaria el nombre por uno mas entendible com changeType_Enter().
- C4. En el handles que es donde se declaran los objetos, para poderles cambiar el tipo.

Parte E:

Que cuando selecciones cualquiera de los textboxes ya sea por mouse o tab, se quede seleccionado y se haga foco sobre ese texto.

E:

ej1:

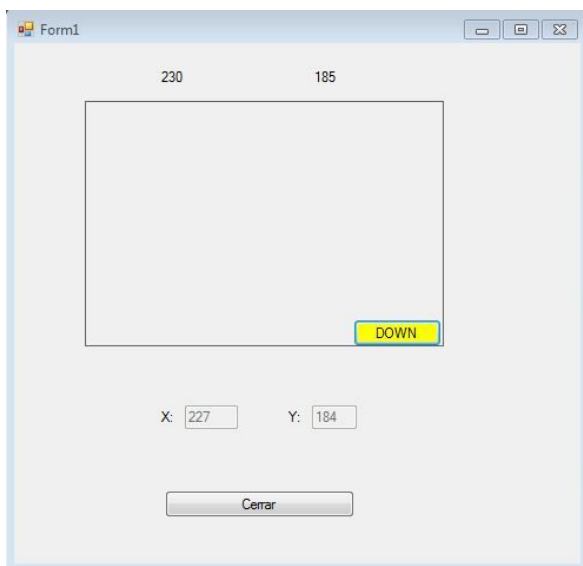
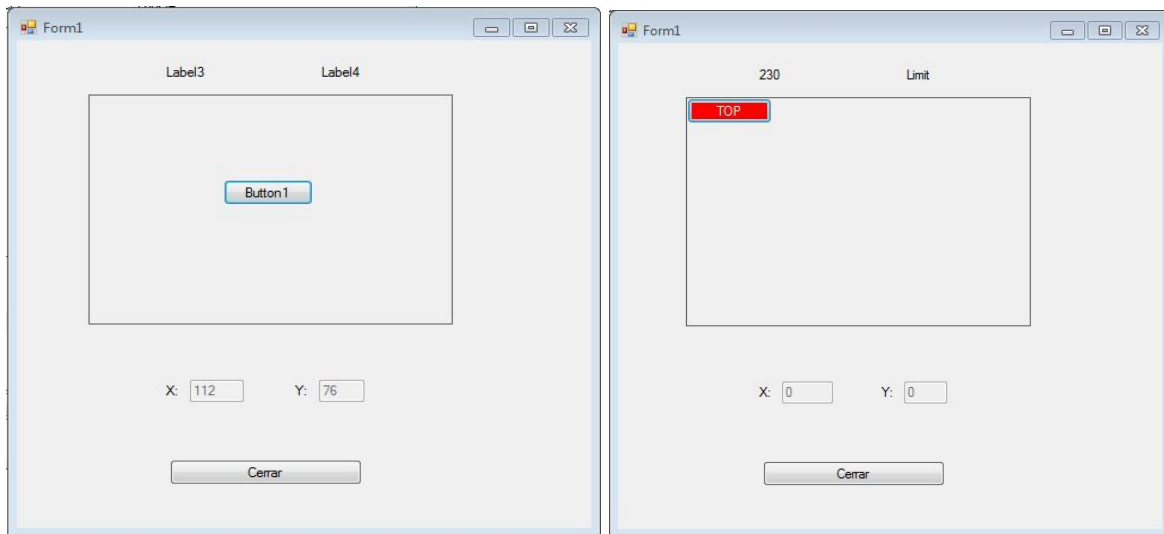
1. txtNumero_KeyPress()
2. txtFecha_KeyPress()
3. txtNumero_Enter()
4. btnAdd_Click()
5. ListBox1_KeyDown()
6. btnCerrar_Click()

ej2:

1. Los 2 primero son para que haga foco sobre ellos, se introduzcan los datos y cuando se mete un carácter no apropiado se cambie por otro.
2. Cambiar los tipos de objetos a tipo textbox.
3. Cuando se le presiona a suprimir, la fila seleccionada de la lista sea borrada.
4. Añadir el contenido de los 2 textboxes, añadirlo a la lista y hacer foco sobre text_nombre.
5. Cuando presiones al btn_cerrar se cierra el programa.

Ejercicio 2:

El botón se desplaza arriba, izquierda, derecha y abajo según la tecla que presiones, hasta llegar al borde del panel lo cual hará que el boton se detenga.



También al presionar w, d, s y a el fondo de color cambiara el texto, el color de fondo y en el caso del amarillo el color de la fuente.

W

The screenshot shows a Windows-style window titled 'Form1'. At the top, the numbers '230' and '185' are displayed. Below them is a large rectangular area containing a red button with the text 'TOP'. At the bottom of the window, there are two input fields labeled 'X:' and 'Y:' with the values '116' and '89' respectively. Below these fields is a button labeled 'Cerrar'.

A

The screenshot shows a Windows-style window titled 'Form1'. At the top, the numbers '230' and '185' are displayed. Below them is a large rectangular area containing a green button with the text 'LEFT'. At the bottom of the window, there are two input fields labeled 'X:' and 'Y:' with the values '116' and '89' respectively. Below these fields is a button labeled 'Cerrar'.

S

The screenshot shows a Windows-style window titled 'Form1'. At the top, the numbers '230' and '185' are displayed. Below them is a large rectangular area containing a yellow button with the text 'DOWN'. At the bottom of the window, there are two input fields labeled 'X:' and 'Y:' with the values '115' and '91' respectively. Below these fields is a button labeled 'Cerrar'.

D

The screenshot shows a Windows-style window titled 'Form1'. At the top, the numbers '230' and '185' are displayed. Below them is a large rectangular area containing a blue button with the text 'RIGHT'. At the bottom of the window, there are two input fields labeled 'X:' and 'Y:' with the values '114' and '91' respectively. Below these fields is a button labeled 'Cerrar'.

Codigo:

En esta parte del codigo es para las direcciones de arriba y izquierda(pone derecha por un error de cálculo pero funciona), tambien controla cuando tocas tanto por arriba y por la izquierda el borde del panel. Además es donde se le da valor a los textboxes eso en cada funcion y tambien los cambios de color de fondo, letra y cambio de texto del botón.

```
Private Sub Form1_Load(ByVal sender As System.Object, ByVal e As System.EventArgs) Handles MyBase.Load
    Me.TextBox1.Text = Me.Button1.Left
    Me.TextBox2.Text = Me.Button1.Top
End Sub

Private Sub top_KeyDown(ByVal sender As Object, ByVal e As System.Windows.Forms.KeyEventArgs) Handles Button1.KeyDown
    Dim limite1 As Integer = Panel1.Size.Width - Me.Button1.Size.Width
    Dim limite2 As Integer = Panel1.Size.Height - Me.Button1.Size.Height
    Me.Label3.Text = limite1
    Me.Label4.Text = limite2

    If e.KeyCode = Keys.W Then
        If Me.Button1.Top >= 0 Then
            Me.Button1.Location = New Point(Me.Button1.Location.X, Me.Button1.Location.Y - 1)
            Me.Button1.Text = "TOP"
            Me.Button1.BackColor = Color.Red
            Me.Button1.ForeColor = Color.White
            Me.TextBox2.Text = Me.Button1.Top
        Else
            Me.Label3.Text = "Limit"
            Me.Button1.Location = New Point(Me.Button1.Location.X, Me.Button1.Location.Y + 1)
            Me.Button1.Text = "TOP"
            Me.Button1.BackColor = Color.Red
            Me.Button1.ForeColor = Color.White
            Me.TextBox2.Text = Me.Button1.Top
        End If
    End If
End Sub

Private Sub right_KeyDown(ByVal sender As Object, ByVal e As System.Windows.Forms.KeyEventArgs) Handles Button1.KeyDown
    Dim limite1 As Integer = Panel1.Size.Width - Panel1.Size.Width
    Dim limite2 As Integer = Panel1.Size.Height - Panel1.Size.Height

    If e.KeyCode = Keys.A Then
        If Me.Button1.Left >= 0 Then
            Me.Button1.Location = New Point(Me.Button1.Location.X - 1, Me.Button1.Location.Y)
            Me.Button1.Text = "RIGHT"
            Me.Button1.BackColor = Color.Blue
            Me.Button1.ForeColor = Color.White
            Me.TextBox1.Text = Me.Button1.Left
        Else
            Me.Label4.Text = "Limit"
            Me.Button1.Location = New Point(Me.Button1.Location.X + 1, Me.Button1.Location.Y)
            Me.Button1.Text = "RIGHT"
            Me.Button1.BackColor = Color.Blue
            Me.Button1.ForeColor = Color.White
            Me.TextBox1.Text = Me.Button1.Left
        End If
    End If
End Sub
```

En esta parte están las funciones que controlan las direcciones abajo y derecha, también controla el límite del panel y los cambios estéticos como los colores y textos.

```
Private Sub down_KeyDown(ByVal sender As Object, ByVal e As System.Windows.Forms.KeyEventArgs) Handles Button1.KeyDown
    Dim limite1 As Integer = Panel1.Size.Width - Me.Button1.Size.Width
    Dim limite2 As Integer = Panel1.Size.Height - Me.Button1.Size.Height

    If e.KeyCode = Keys.S Then
        If Me.Button1.Top < limite2 - 1 Then
            Me.Button1.Location = New Point(Me.Button1.Location.X, Me.Button1.Location.Y + 1)
            Me.Button1.Text = "DOWN"
            Me.Button1.BackColor = Color.Yellow
            Me.Button1.ForeColor = Color.Black
            Me.TextBox2.Text = Me.Button1.Top
        Else
            Me.Label3.Text = "Limit"
            Me.Button1.Location = New Point(Me.Button1.Location.X, Me.Button1.Location.Y - 1)
            Me.Button1.Text = "DOWN"
            Me.Button1.BackColor = Color.Yellow
            Me.Button1.ForeColor = Color.Black
            Me.TextBox2.Text = Me.Button1.Top
        End If
    End If
End Sub

Private Sub left_KeyDown(ByVal sender As Object, ByVal e As System.Windows.Forms.KeyEventArgs) Handles Button1.KeyDown
    Dim limite1 As Integer = Panel1.Size.Width - Me.Button1.Size.Width
    Dim limite2 As Integer = Panel1.Size.Height - Me.Button1.Size.Height

    If e.KeyCode = Keys.D Then
        If Me.Button1.Left < limite1 - 1 Then
            Me.Button1.Location = New Point(Me.Button1.Location.X + 1, Me.Button1.Location.Y)
            Me.Button1.Text = "LEFT"
            Me.Button1.BackColor = Color.DarkGreen
            Me.Button1.ForeColor = Color.White
            Me.TextBox1.Text = Me.Button1.Left
        Else
            Me.Label4.Text = "Limit"
            Me.Button1.Location = New Point(Me.Button1.Location.X - 1, Me.Button1.Location.Y)
            Me.Button1.Text = "LEFT"
            Me.Button1.BackColor = Color.DarkGreen
            Me.Button1.ForeColor = Color.White
            Me.TextBox1.Text = Me.Button1.Left
        End If
    End If
End Sub

Private Sub cerrar_MouseClick(ByVal sender As Object, ByVal e As System.Windows.Forms.MouseEventArgs) Handles cerrar.MouseClick
    Close()
End Sub
```

Ejercicio 3:

En este programa he seguido con algunas partes del primero y ajustándose al segundo boton, los textbox de cada botón cambia los numeros segun la posicion del boton segun las coordenadas X y Y(Las cuales se llaman para A X1 y Y1 y para B X2 y Y2).

El botón A se mueve con los botones W, D, S, A y el botón B con las teclas U, K, J, H.

The screenshot shows a Windows form titled 'Form1' with a purple background. In the center is a green rectangular area. Inside this green area are two buttons: a blue button labeled 'A' on the left and a red button labeled 'B' on the right. To the left of the green area are two text boxes: the top one is labeled 'X1' in orange and the bottom one 'Y1' in blue. To the right are two text boxes: the top one is labeled 'X2' in red and the bottom one 'Y2' in green. All four text boxes are currently empty. Below the green area is a black button labeled 'Cerrar'.

This screenshot shows the same 'Form1' application after some movement. The blue button 'A' has moved to the left and slightly up, and the red button 'B' has moved to the right and slightly down. The text boxes now contain numerical values: 'X1' is 136, 'Y1' is 70, 'X2' is 212, and 'Y2' is 88. The 'Cerrar' button remains at the bottom.

Codigo:

En esta parte del código se parece al del Ejercicio anterior, salvo que ya no cambia colores ni texto, pero las funciones principales si, como por ejemplo el limitador del padding y el cambiar los números de los textboxes.

Por último se le incluye el que los botones que colisionan o que no puedan solaparse.

```
Public Class Form1

    Private Sub Form1_Load(ByVal sender As System.Object, ByVal e As System.EventArgs)
        Me.x1.Text = Me.A.Left
        Me.y1.Text = Me.A.Top
        Me.x2.Text = Me.B.Left
        Me.y2.Text = Me.B.Top
    End Sub

    Private Sub top_KeyDown(ByVal sender As Object, ByVal e As System.Windows.Forms.KeyEventArgs) Handles A.KeyDown, B.KeyDown
        Dim limite1 As Integer = Panel1.Size.Width - Me.A.Size.Width
        Dim limite2 As Integer = Panel1.Size.Height - Me.A.Size.Height
        Dim limite11 As Integer = Panel1.Size.Width - Me.B.Size.Width
        Dim limite22 As Integer = Panel1.Size.Height - Me.B.Size.Height

        If e.KeyCode = Keys.W Then
            If Me.A.Top >= 0 And Not Me.A.Bounds.Intersects(Me.B.Bounds) Then
                Me.A.Location = New Point(Me.A.Location.X, Me.A.Location.Y - 1)
                Me.y1.Text = Me.A.Top
            Else
                Me.A.Location = New Point(Me.A.Location.X, Me.A.Location.Y + 1)
                Me.y1.Text = Me.A.Top
            End If
        End If

        If e.KeyCode = Keys.U Then
            If Me.B.Top >= 0 And Not Me.B.Bounds.Intersects(Me.A.Bounds) Then
                Me.B.Location = New Point(Me.B.Location.X, Me.B.Location.Y - 1)
                Me.y2.Text = Me.B.Top
            Else
                Me.B.Location = New Point(Me.B.Location.X, Me.B.Location.Y + 1)
                Me.y2.Text = Me.B.Top
            End If
        End If
    End Sub

    Private Sub right_KeyDown(ByVal sender As Object, ByVal e As System.Windows.Forms.KeyEventArgs) Handles A.KeyDown, B.KeyDown
        Dim limite1 As Integer = Panel1.Size.Width - Me.A.Size.Width
        Dim limite2 As Integer = Panel1.Size.Height - Me.A.Size.Height
        Dim limite11 As Integer = Panel1.Size.Width - Me.B.Size.Width
        Dim limite22 As Integer = Panel1.Size.Height - Me.B.Size.Height

        If e.KeyCode = Keys.A Then
            If Me.A.Left >= 0 And Not Me.A.Bounds.Intersects(Me.B.Bounds) Then
                Me.A.Location = New Point(Me.A.Location.X - 1, Me.A.Location.Y)
                Me.x1.Text = Me.A.Left
            Else
                Me.A.Location = New Point(Me.A.Location.X + 1, Me.A.Location.Y)
                Me.x1.Text = Me.A.Left
            End If
        End If

        If e.KeyCode = Keys.H Then
            If Me.B.Left >= 0 And Not Me.B.Bounds.Intersects(Me.A.Bounds) Then
                Me.B.Location = New Point(Me.B.Location.X - 1, Me.B.Location.Y)
                Me.x2.Text = Me.B.Left
            Else
                Me.B.Location = New Point(Me.B.Location.X + 1, Me.B.Location.Y)
                Me.x2.Text = Me.B.Left
            End If
        End If
    End Sub
```



```

Private Sub down_KeyDown(ByVal sender As Object, ByVal e As System.Windows.Forms.KeyEventArgs) Handles A.KeyDown, B.KeyDown
    Dim limite1 As Integer = Panel1.Size.Width - Me.A.Size.Width
    Dim limite2 As Integer = Panel1.Size.Height - Me.A.Size.Height
    Dim limite11 As Integer = Panel1.Size.Width - Me.B.Size.Width
    Dim limite22 As Integer = Panel1.Size.Height - Me.B.Size.Height

    If e.KeyCode = Keys.S Then
        If Me.A.Top < limite2 - 1 And Not Me.A.Bounds.Intersects(Me.B.Bounds) Then
            Me.A.Location = New Point(Me.A.Location.X, Me.A.Location.Y + 1)
            Me.y1.Text = Me.A.Top
        Else
            Me.A.Location = New Point(Me.A.Location.X, Me.A.Location.Y - 1)
            Me.y1.Text = Me.A.Top
        End If
    End If

    If e.KeyCode = Keys.J Then
        If Me.B.Top < limite22 - 1 And Not Me.B.Bounds.Intersects(Me.A.Bounds) Then
            Me.B.Location = New Point(Me.B.Location.X, Me.B.Location.Y + 1)
            Me.y2.Text = Me.B.Top
        Else
            Me.B.Location = New Point(Me.B.Location.X, Me.B.Location.Y - 1)
            Me.y2.Text = Me.B.Top
        End If
    End If
End Sub

```

En esta parte de código se incluyen el movimiento de derecha y abajo, además de la función cerrar el cual al clicar en el botón “cerrar” se terminará el programa.

```

Private Sub left_KeyDown(ByVal sender As Object, ByVal e As System.Windows.Forms.KeyEventArgs) Handles A.KeyDown, B.KeyDown
    Dim limite1 As Integer = Panel1.Size.Width - Me.A.Size.Width
    Dim limite2 As Integer = Panel1.Size.Height - Me.A.Size.Height
    Dim limite11 As Integer = Panel1.Size.Width - Me.B.Size.Width
    Dim limite22 As Integer = Panel1.Size.Height - Me.B.Size.Height

    If e.KeyCode = Keys.D Then
        If Me.A.Left < limite1 - 1 And Not Me.A.Bounds.Intersects(Me.B.Bounds) Then
            Me.A.Location = New Point(Me.A.Location.X + 1, Me.A.Location.Y)
            Me.x1.Text = Me.A.Left
        Else
            Me.A.Location = New Point(Me.A.Location.X - 1, Me.A.Location.Y)
            Me.x1.Text = Me.A.Left
        End If
    End If

    If e.KeyCode = Keys.K Then
        If Me.B.Left < limite11 - 1 And Not Me.B.Bounds.Intersects(Me.A.Bounds) Then
            Me.B.Location = New Point(Me.B.Location.X + 1, Me.B.Location.Y)
            Me.x2.Text = Me.B.Left
        Else
            Me.B.Location = New Point(Me.B.Location.X - 1, Me.B.Location.Y)
            Me.x2.Text = Me.B.Left
        End If
    End If
End Sub

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

```