Tecnologico nacional de Mexico

Ingenieria Mecatronica

Temas: Practica 1

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Materia: Programacion Basica

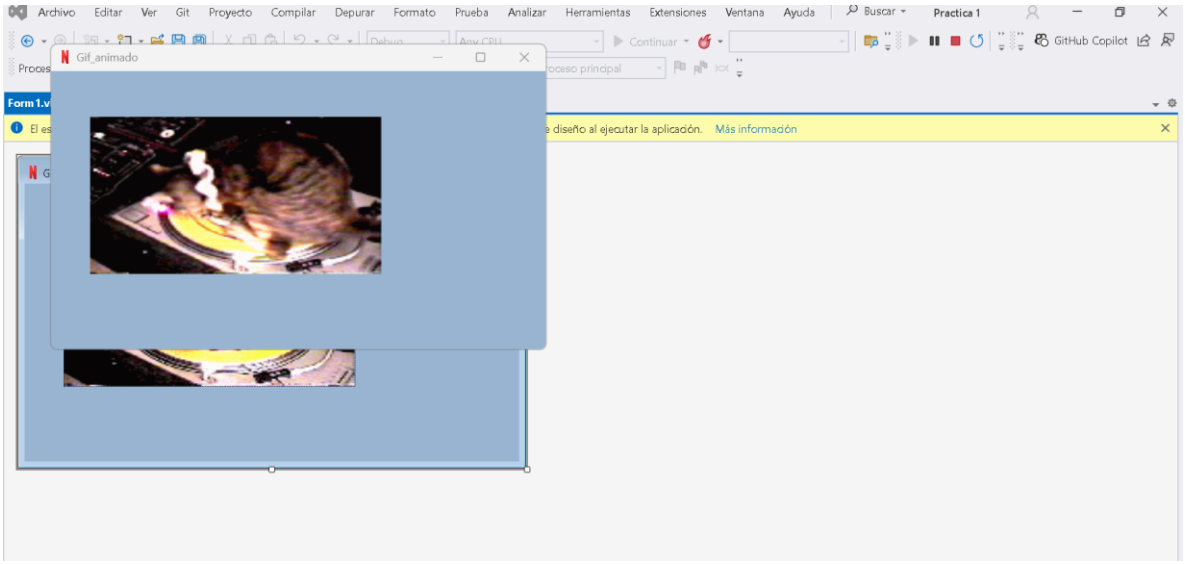
Matricula: 24580155

Alumno: Pedro Guerrero Sandoval

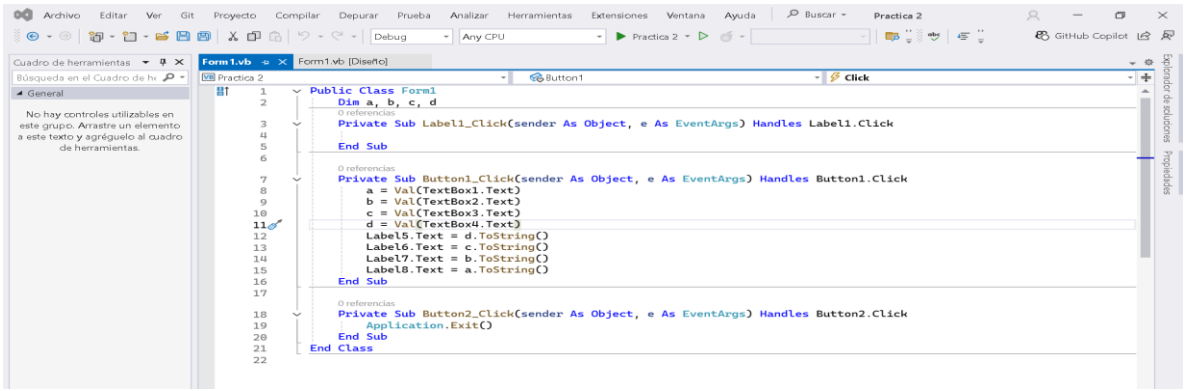
Fecha de entrega 04/04/25

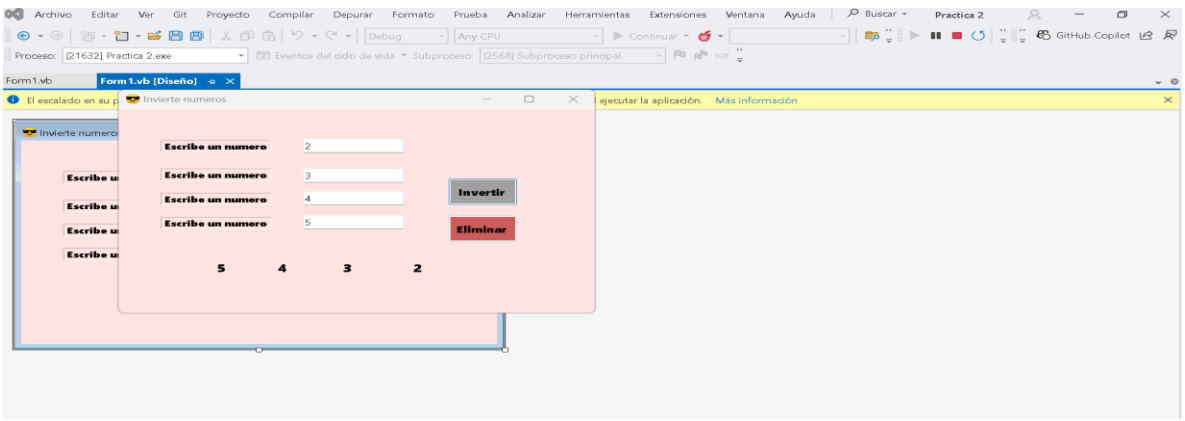
Prácticas de visual studio

Practicas 1

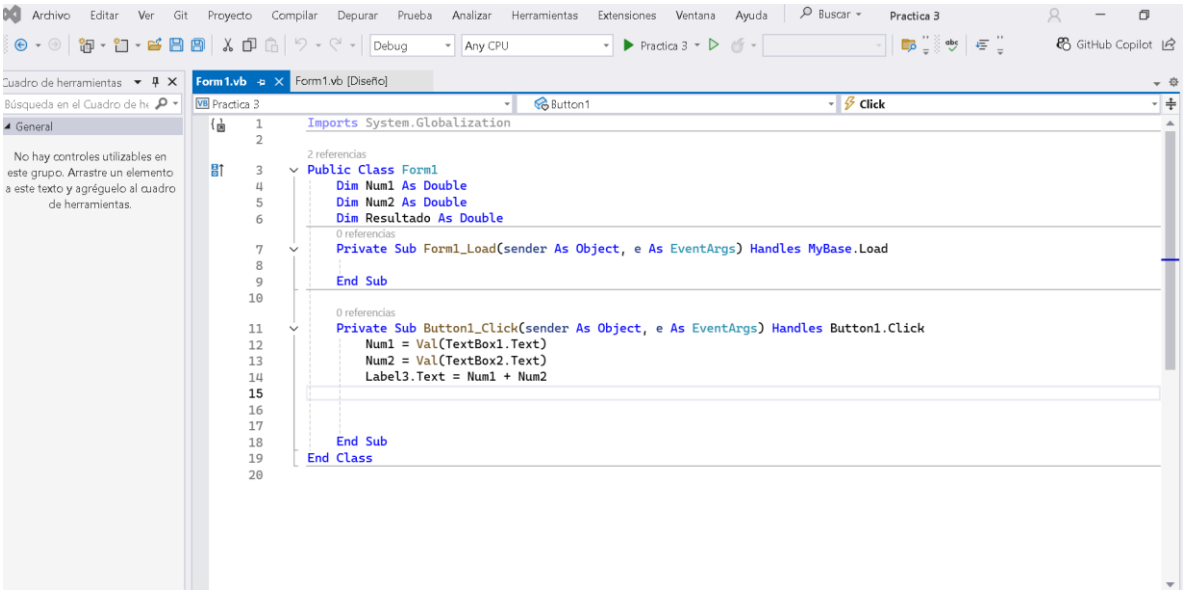


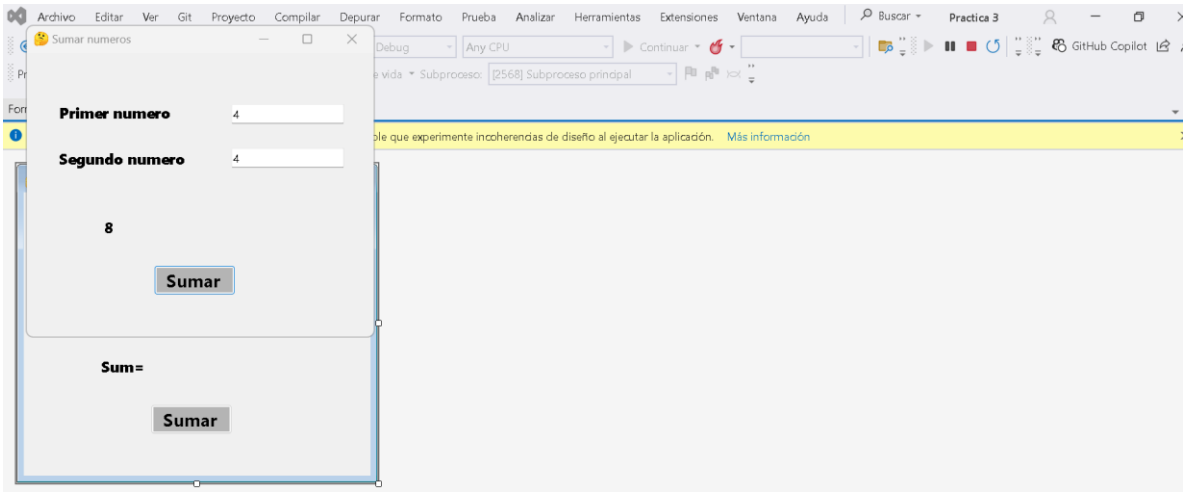
Practica 2



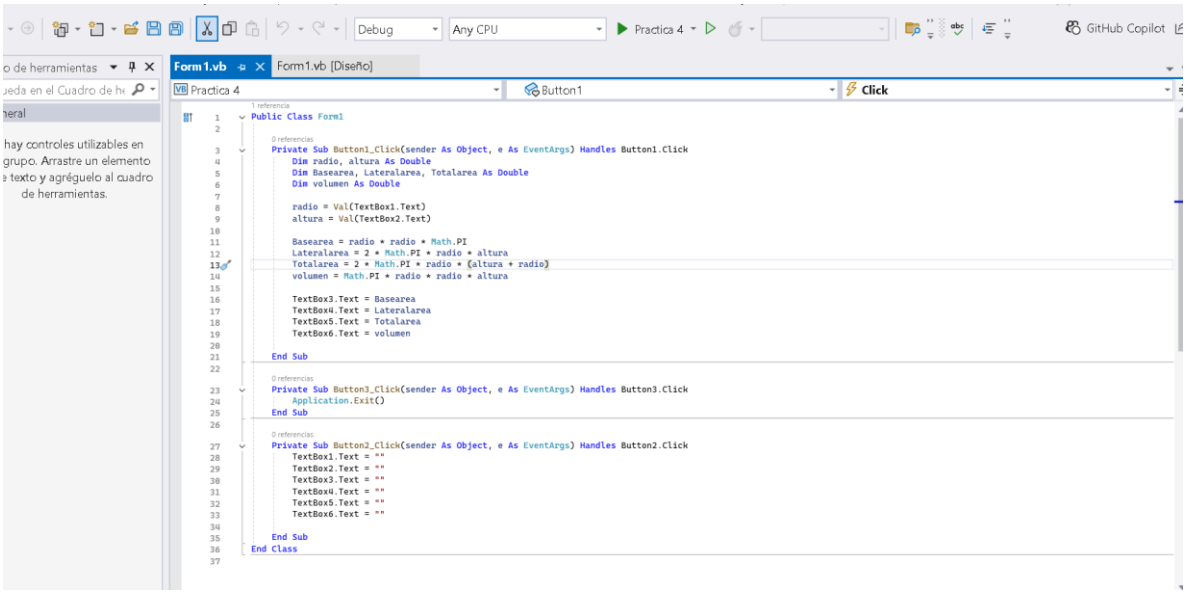


Practica 3

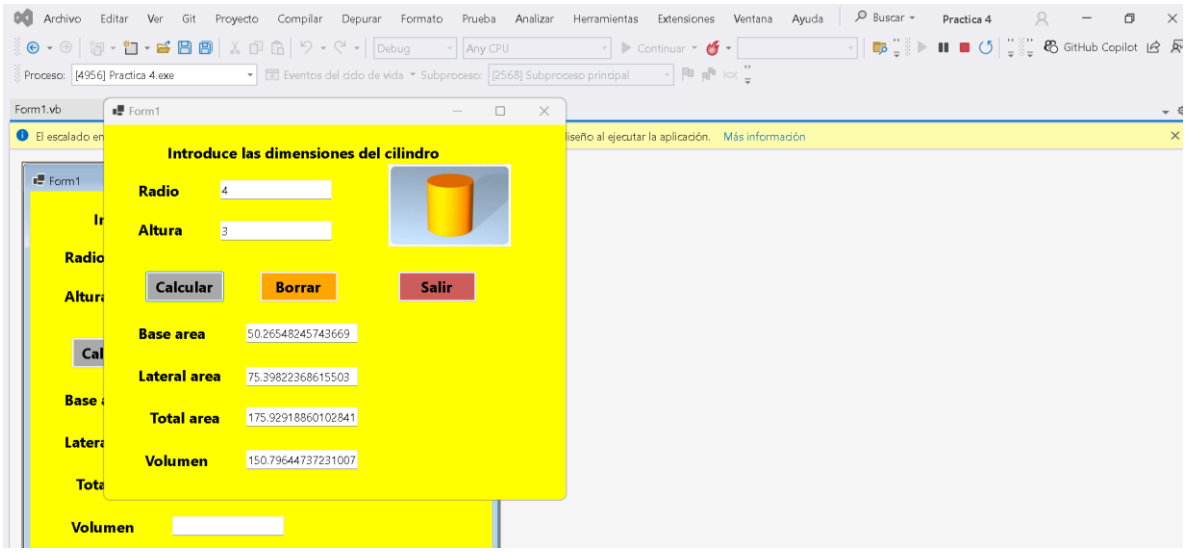

Archivo Editar Ver Git Proyecto Compilar Depurar Prueba Analizar Herramientas Extensiones Ventana Ayuda
Buscar
Practica 3
Debug
Any CPU
Practica 3
GitHub Copilot
Cuadro de herramientas
Búsqueda en el Cuadro de he
General
No hay controles utilizables en este grupo. Arrastre un elemento a este texto y agréguelo al cuadro de herramientas.
Form1.vb
Form1.vb [Diseño]
Practica 3
Button1
Click
Imports System.Globalization
2 referencias
Public Class Form1
Dim Num1 As Double
Dim Num2 As Double
Dim Resultado As Double
0 referencias
Private Sub Form1_Load(sender As Object, e As EventArgs) Handles MyBase.Load
End Sub
0 referencias
Private Sub Button1_Click(sender As Object, e As EventArgs) Handles Button1.Click
Num1 = Val(TextBox1.Text)
Num2 = Val(TextBox2.Text)
Label3.Text = Num1 + Num2
End Sub
End Class

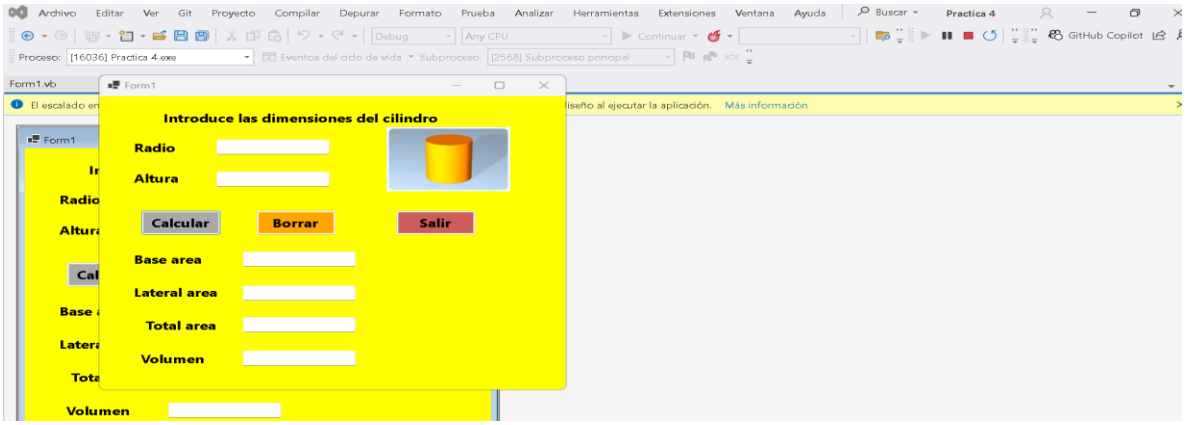

Archivo Editar Ver Git Proyecto Compilar Depurar Formato Prueba Analizar Herramientas Extensiones Ventana Ayuda
Buscar
Practica 3
GitHub Copilot
Sumar numeros
Primer numero
4
Segundo numero
4
8
Sumar
Sum=
Sumar
Debug
Any CPU
Continuar
Subproceso:
[2568] Subproceso principal
Más información

Practica 4

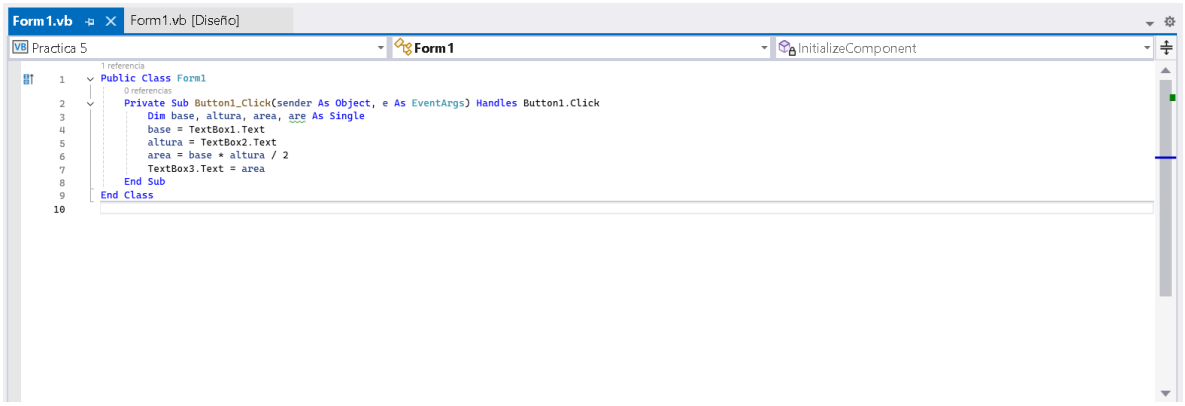


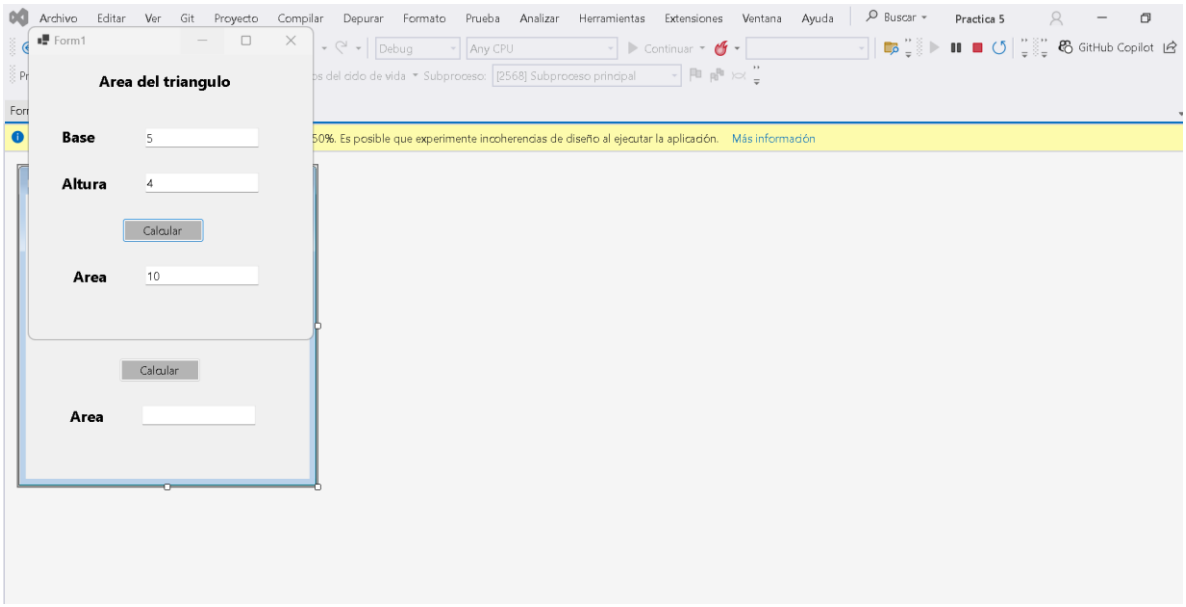
```
Public Class Form1

    Private Sub Button1_Click(sender As Object, e As EventArgs) Handles Button1.Click
        Dim radio, altura As Double
        Dim Basearea, Lateralarea, Totalarea As Double
        Dim volumen As Double

        radio = Val(TextBox1.Text)
        altura = Val(TextBox2.Text)

        Basearea = radio * radio * Math.PI
        Lateralarea = 2 * Math.PI * radio * altura
        Totalarea = 2 * Math.PI * radio * (altura + radio)
        volumen = Math.PI * radio * radio * altura

        TextBox3.Text = Basearea
        TextBox4.Text = Lateralarea
        TextBox5.Text = Totalarea
        TextBox6.Text = volumen

    End Sub

    Private Sub Button3_Click(sender As Object, e As EventArgs) Handles Button3.Click
        Application.Exit()
    End Sub

    Private Sub Button2_Click(sender As Object, e As EventArgs) Handles Button2.Click
        TextBox1.Text = ""
        TextBox2.Text = ""
        TextBox3.Text = ""
        TextBox4.Text = ""
        TextBox5.Text = ""
        TextBox6.Text = ""

    End Sub
End Class
```



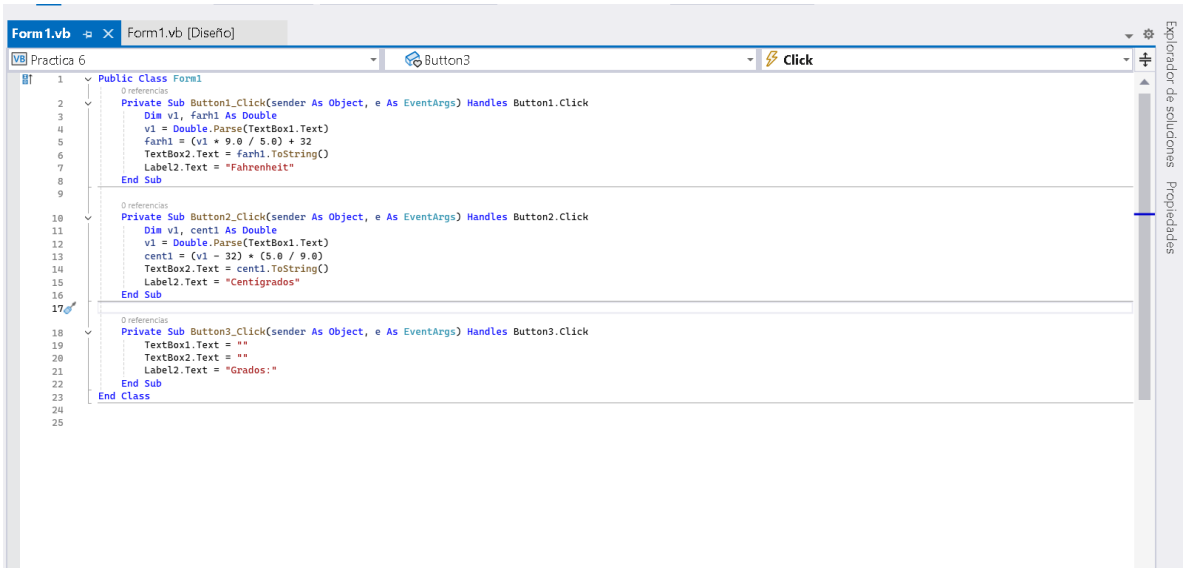


Practica 5

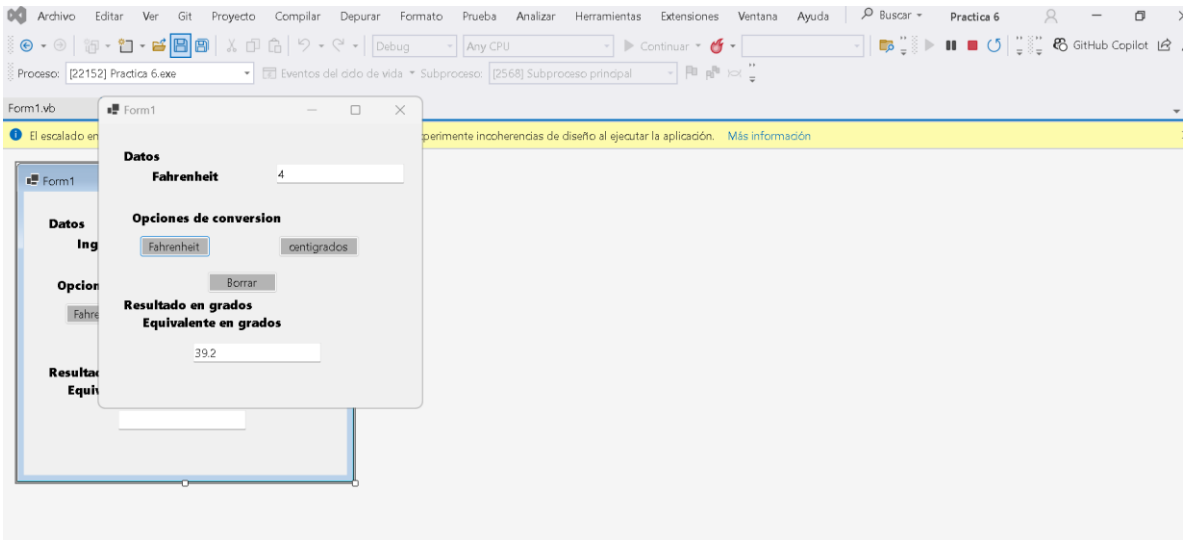

Form1.vb
Form1.vb [Diseño]
Practica 5
Form1
InitializeComponent
1 referencia
Public Class Form1
0 referencias
Private Sub Button1_Click(sender As Object, e As EventArgs) Handles Button1.Click
Dim base, altura, area, are As Single
base = TextBox1.Text
altura = TextBox2.Text
area = base * altura / 2
TextBox3.Text = area
End Sub
End Class

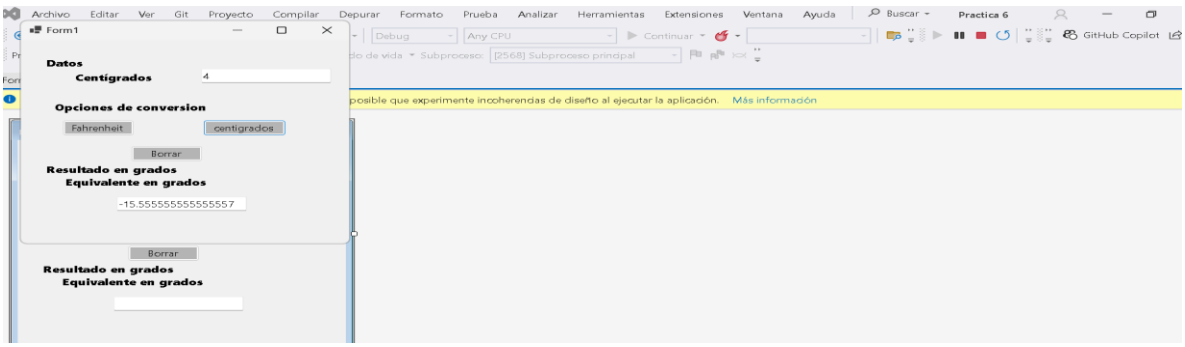

Archivo
Editar
Ver
Git
Proyecto
Compilar
Depurar
Formato
Prueba
Analizar
Herramientas
Extensiones
Ventana
Ayuda
Buscar
Practica 5
GitHub Copilot
Debug
Any CPU
Continuar
Subproceso:
[2568] Subproceso principal
50%. Es posible que experimente incoherencias de diseño al ejecutar la aplicación.
Más información
Form1
Area del triangulo
Base
5
Altura
4
Calcular
Area
10
Calcular
Area

Practica 6



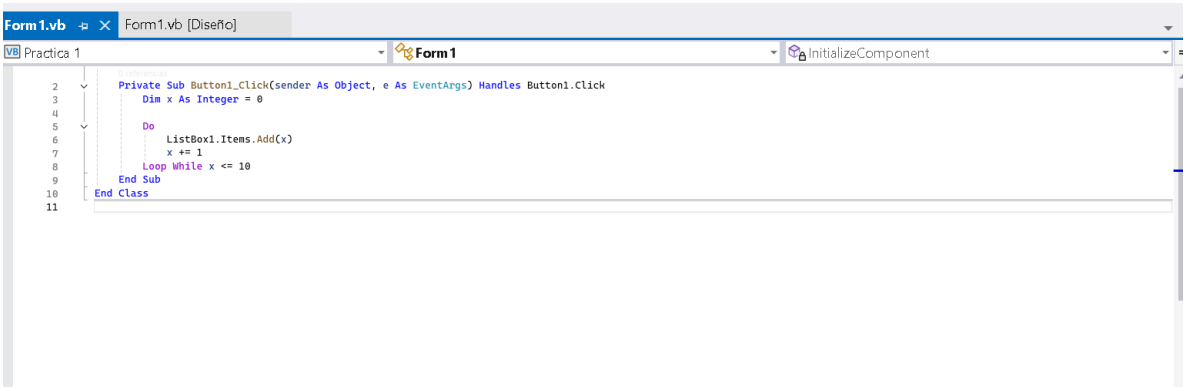

```
Public Class Form1
    0 referencias
    Private Sub Button1_Click(sender As Object, e As EventArgs) Handles Button1.Click
        Dim v1, farh1 As Double
        v1 = Double.Parse(TextBox1.Text)
        farh1 = (v1 * 9.0 / 5.0) + 32
        TextBox2.Text = farh1.ToString()
        Label2.Text = "Fahrenheit"
    End Sub

    0 referencias
    Private Sub Button2_Click(sender As Object, e As EventArgs) Handles Button2.Click
        Dim v1, cent1 As Double
        v1 = Double.Parse(TextBox1.Text)
        cent1 = (v1 - 32) * (5.0 / 9.0)
        TextBox2.Text = cent1.ToString()
        Label2.Text = "Centigrados"
    End Sub

    0 referencias
    Private Sub Button3_Click(sender As Object, e As EventArgs) Handles Button3.Click
        TextBox1.Text = ""
        TextBox2.Text = ""
        Label2.Text = "Grados:"
    End Sub
End Class
```

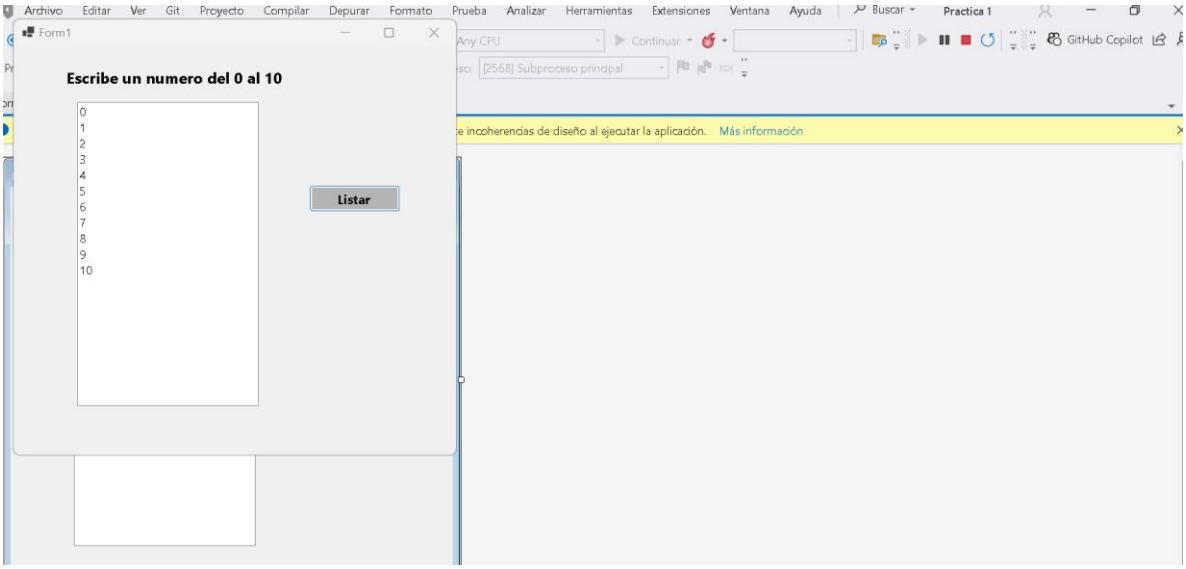




For while Do

Practica 1



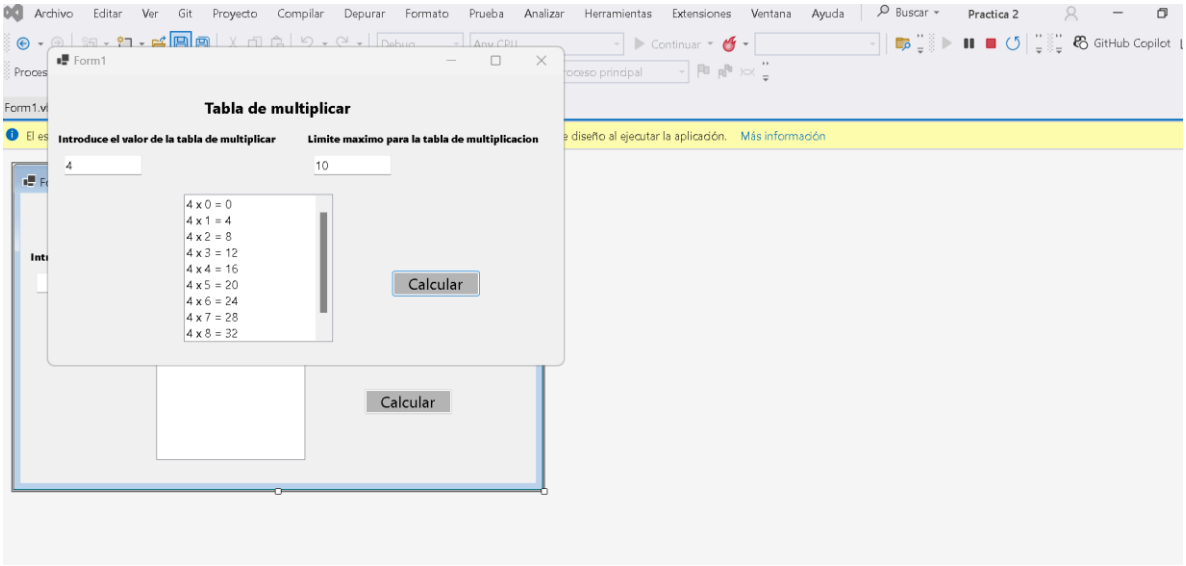


Practica 2

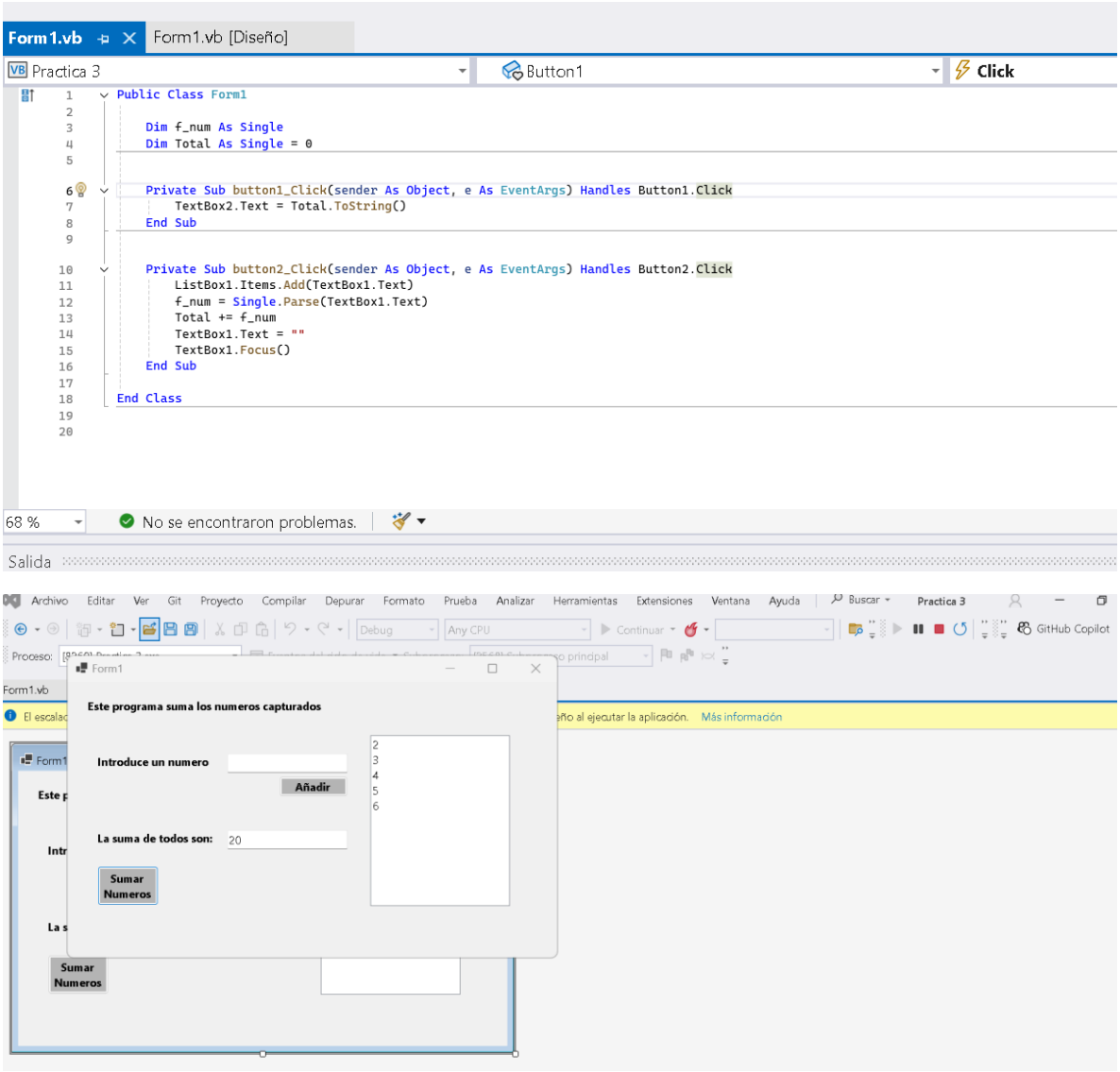
Form1.vb | Form1.vb [Diseño]

Practica 2 | Form1 | InitializeComponent

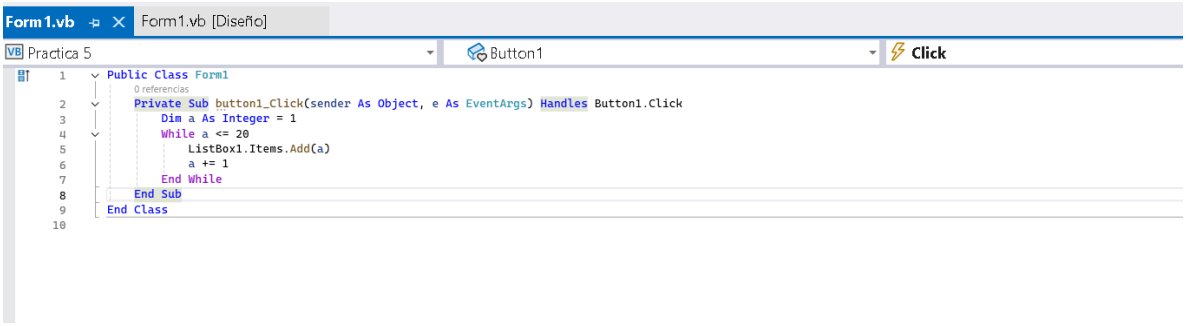
```
0 referencias
Private Sub button1_Click(sender As Object, e As EventArgs) Handles Button1.Click
    Dim n As Integer
    Dim count As Integer = 0
    Dim limite As Integer
    If Integer.TryParse(TextBox1.Text, n) AndAlso Integer.TryParse(TextBox2.Text, limite) Then
        Do While count < limite
            ListBox1.Items.Add(n & " x " & count & " = " & (n * count))
            count += 1
        Loop
    Else
    End If
End Sub
End Class
```

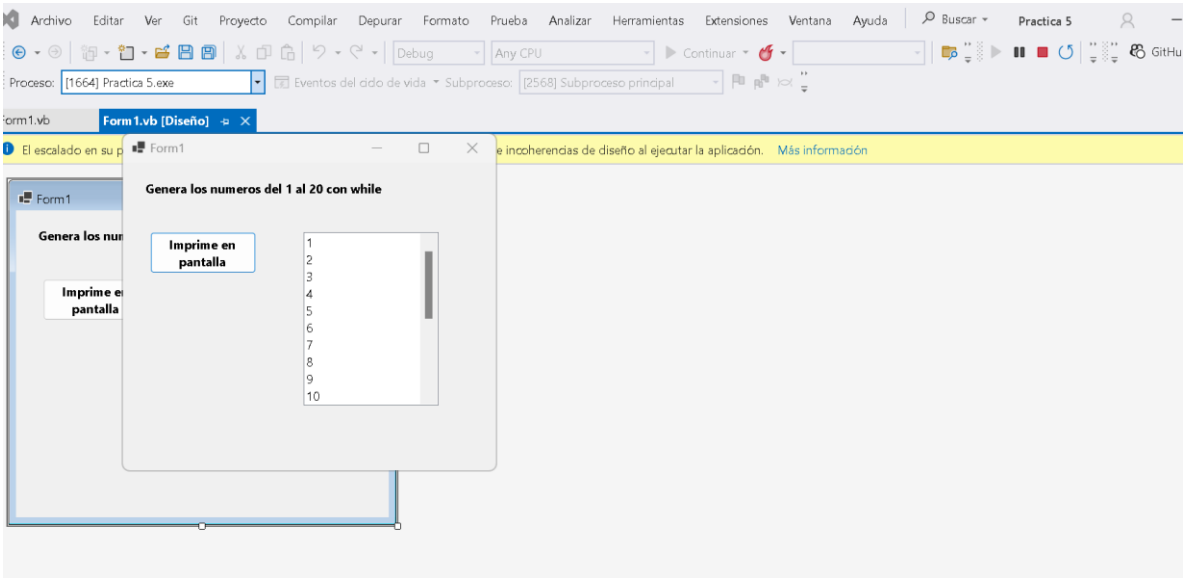


Practica 3


Form1.vb
Form1.vb [Diseño]
Practica 3
Button1
Click
Public Class Form1
Dim f_num As Single
Dim Total As Single = 0
Private Sub button1_Click(sender As Object, e As EventArgs) Handles Button1.Click
TextBox2.Text = Total.ToString()
End Sub
Private Sub button2_Click(sender As Object, e As EventArgs) Handles Button2.Click
ListBox1.Items.Add(TextBox1.Text)
f_num = Single.Parse(TextBox1.Text)
Total += f_num
TextBox1.Text = ""
TextBox1.Focus()
End Sub
End Class
68 %
No se encontraron problemas.
Salida
Archivo Editar Ver Git Proyecto Compilar Depurar Formato Prueba Analizar Herramientas Extensiones Ventana Ayuda
Buscar
Practica 3
GitHub Copilot
Debug
Any CPU
Continuar
Form1.vb
Más información
Form1
Este programa suma los numeros capturados
Introduce un numero
Añadir
La suma de todos son:
20
Sumar Numeros
2
3
4
5
6

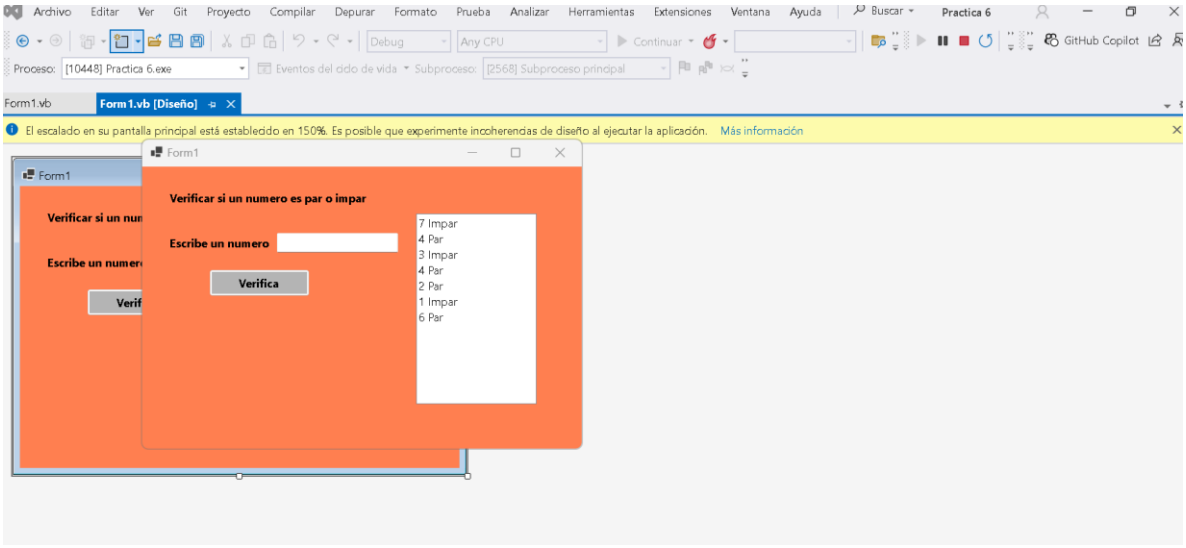
Practica 5


Form1.vb
Form1.vb [Diseño]
Practica 5
Button1
Click
0 referencias
Public Class Form1
Private Sub button1_Click(sender As Object, e As EventArgs) Handles Button1.Click
Dim a As Integer = 1
While a <= 20
ListBox1.Items.Add(a)
a += 1
End While
End Sub
End Class


Archivo
Editar
Ver
Git
Proyecto
Compilar
Depurar
Formato
Prueba
Analizar
Herramientas
Extensiones
Ventana
Ayuda
Buscar
Practica 5
Debug
Any CPU
Continuar
Proceso:
[1664] Practica 5.exe
Form1.vb [Diseño]
Form1
Genera los numeros del 1 al 20 con while
Imprime en pantalla
1
2
3
4
5
6
7
8
9
10
Más información

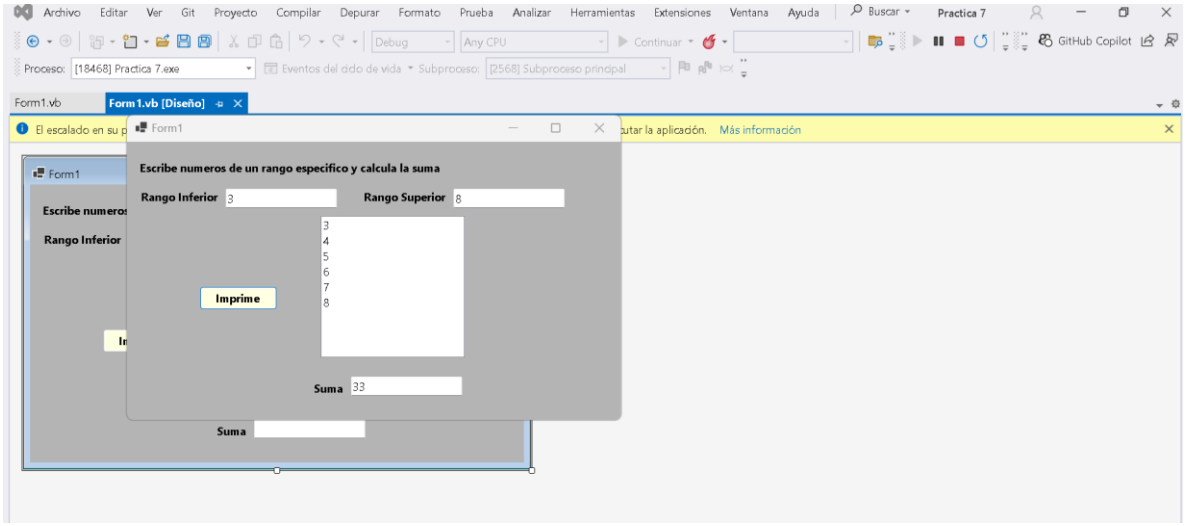
Practica 6

```vb
Private Sub BtnVerifica_Click(sender As Object, e As EventArgs) Handles Button1.Click
    Dim numero As Integer = Integer.Parse(TextBox1.Text)

    If numero Mod 2 = 0 Then
        ListBox1.Items.Add(numero & " Par")
    Else
        ListBox1.Items.Add(numero & " Impar")
    End If

    TextBox1.Text = ""
    TextBox1.Focus()
End Sub

End Class
```

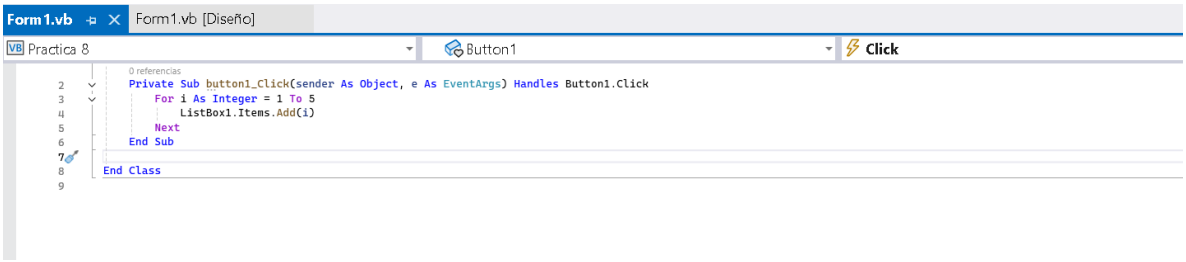


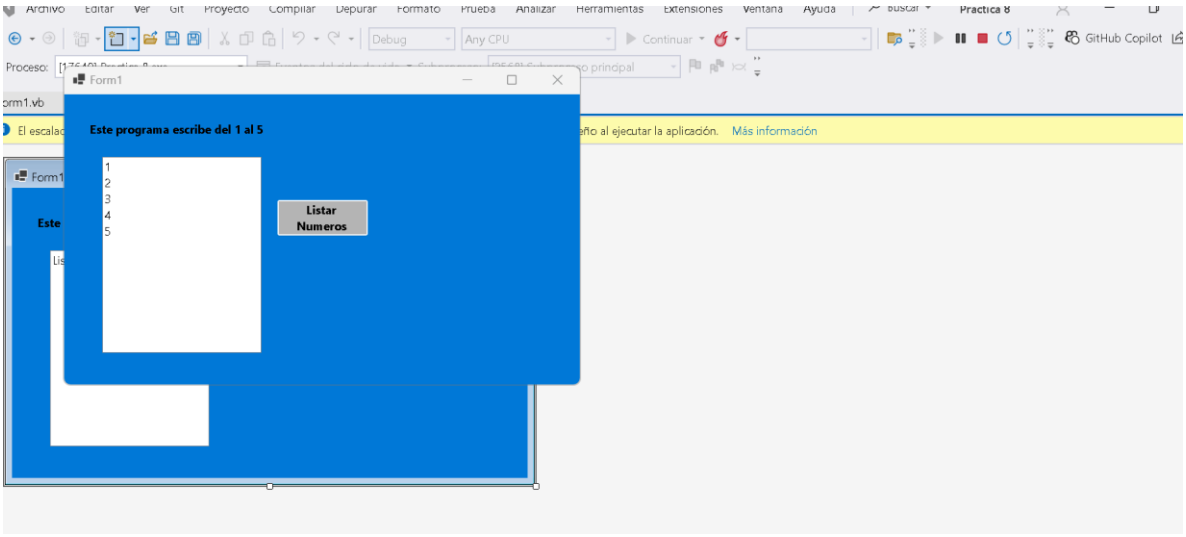
Practica 7

```vb
Private Sub BotonImprime_Click(sender As Object, e As EventArgs) Handles Button1.Click
    Dim rangoInferior As Integer
    Dim rangoSuperior As Integer
    Dim suma As Integer = 0

    rangoInferior = Integer.Parse(TextBox1.Text)
    rangoSuperior = Integer.Parse(TextBox2.Text)

    For i As Integer = rangoInferior To rangoSuperior
        ListBox1.Items.Add(i)
        suma += i
    Next

    TextBox3.Text = suma.ToString()
End Sub

End Class
```

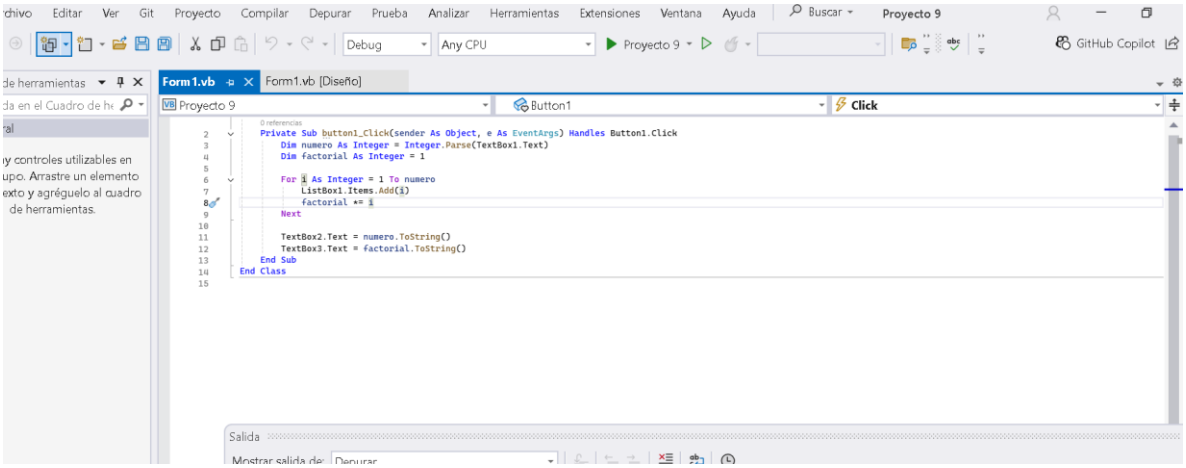


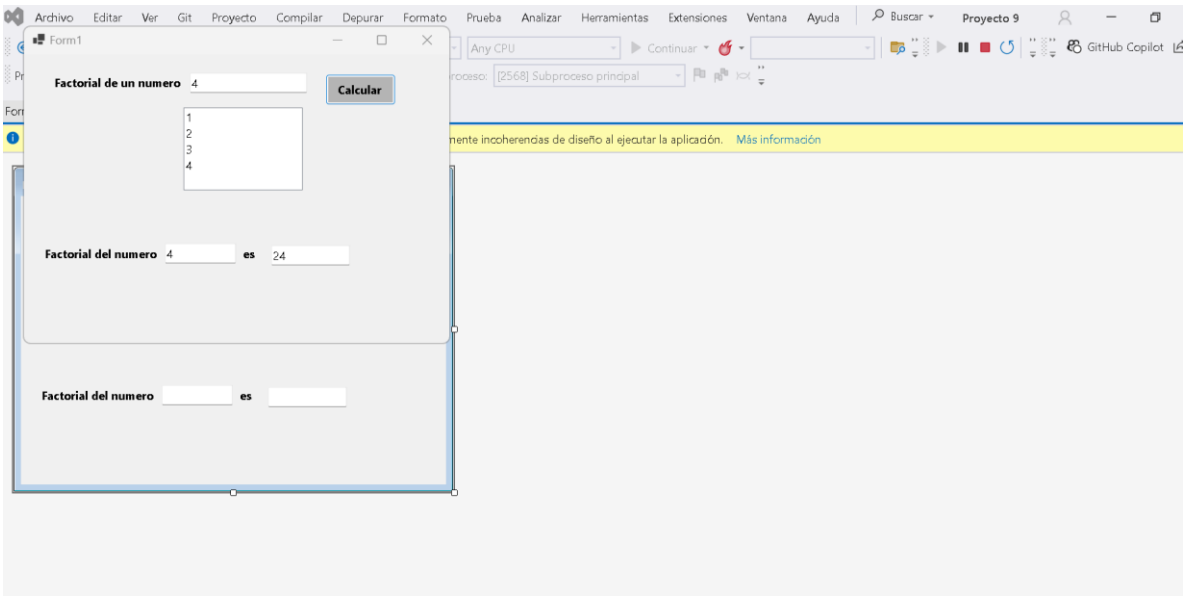
Practica 8


Form1.vb
Form1.vb [Diseño]
Practica 8
Button1
Click
0 referencias
Private Sub button1_Click(sender As Object, e As EventArgs) Handles Button1.Click
For i As Integer = 1 To 5
ListBox1.Items.Add(i)
Next
End Sub
End Class


Form1
Este programa escribe del 1 al 5
1
2
3
4
5
Listar Numeros

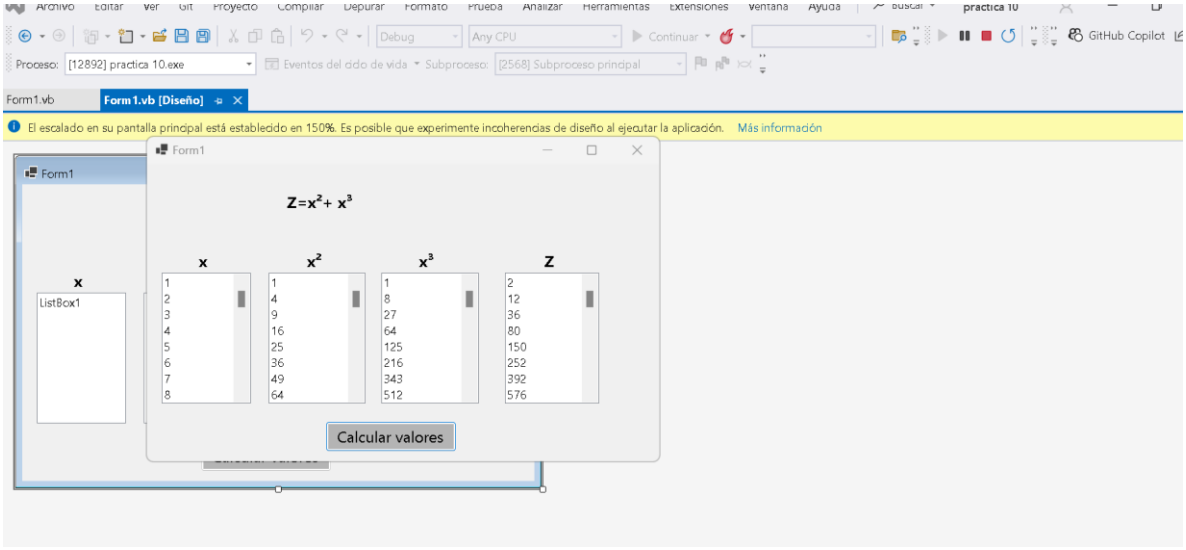
Practica 9


Archivo Editar Ver Git Proyecto Compilar Depurar Prueba Analizar Herramientas Extensiones Ventana Ayuda
Buscar
Proyecto 9
Debug
Any CPU
Proyecto 9
GitHub Copilot
Form1.vb
Form1.vb [Diseño]
Proyecto 9
Button1
Click
Private Sub button1_Click(sender As Object, e As EventArgs) Handles Button1.Click
Dim numero As Integer = Integer.Parse(TextBox1.Text)
Dim factorial As Integer = 1
For i As Integer = 1 To numero
ListBox1.Items.Add(i)
factorial *= i
Next
TextBox2.Text = numero.ToString()
TextBox3.Text = factorial.ToString()
End Sub
End Class
Salida

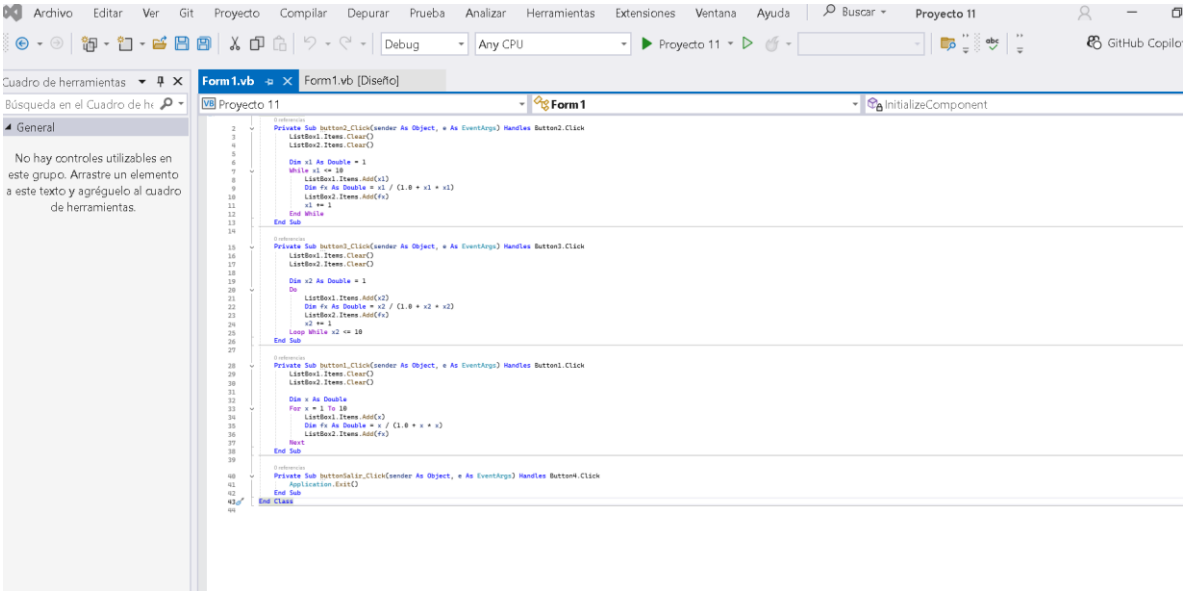

Archivo Editar Ver Git Proyecto Compilar Depurar Formato Prueba Analizar Herramientas Extensiones Ventana Ayuda
Buscar
Proyecto 9
Form1
Factorial de un numero 4
Calcular
1
2
3
4
Factorial del numero 4 es 24
Factorial del numero es
Any CPU
Continuar
GitHub Copilot
[2568] Subproceso principal
Más información

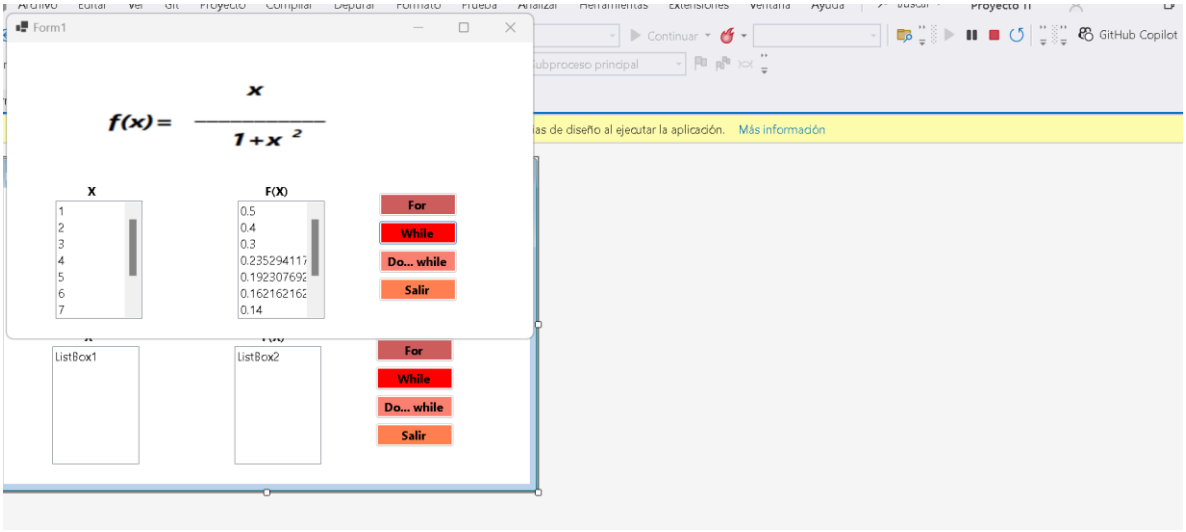
Practica 10

```vb
Private Sub button1_Click(sender As Object, e As EventArgs) Handles Button1.Click
    Dim i As Integer
    Dim cua As Integer
    Dim cub As Integer
    Dim zeta As Integer

    For i = 1 To 50
        cua = i * i
        cub = i * i * i
        zeta = cua + cub

        ListBox1.Items.Add(i)
        ListBox2.Items.Add(cua)
        ListBox3.Items.Add(cub)
        ListBox4.Items.Add(zeta)
    Next
End Sub

End Class
```



Practica 11


Archivo Editar Ver Git Proyecto Compilar Depurar Prueba Analizar Herramientas Extensiones Ventana Ayuda
Buscar
Proyecto 11
Debug
Any CPU
Proyecto 11
GitHub Copilot
Cuadro de herramientas
Búsqueda en el Cuadro de he
General
No hay controles utilizables en este grupo. Arrastre un elemento a este texto y agréguelo al cuadro de herramientas.
Form1.vb
Form1.vb [Diseño]
Proyecto 11
Form1
InitializeComponent
Private Sub button2_Click(sender As Object, e As EventArgs) Handles Button2.Click
ListBox1.Items.Clear()
ListBox2.Items.Clear()
Dim x1 As Double = 1
While x1 <= 10
ListBox1.Items.Add(x1)
Dim fx As Double = x1 / (1.0 + x1 * x1)
ListBox2.Items.Add(fx)
x1 += 1
End While
End Sub
Private Sub button3_Click(sender As Object, e As EventArgs) Handles Button3.Click
ListBox1.Items.Clear()
ListBox2.Items.Clear()
Dim x2 As Double = 1
Do
ListBox1.Items.Add(x2)
Dim fx As Double = x2 / (1.0 + x2 * x2)
ListBox2.Items.Add(fx)
x2 += 1
Loop While x2 <= 10
End Sub
Private Sub button1_Click(sender As Object, e As EventArgs) Handles Button1.Click
ListBox1.Items.Clear()
ListBox2.Items.Clear()
Dim x As Double
For x = 1 To 10
ListBox1.Items.Add(x)
Dim fx As Double = x / (1.0 + x * x)
ListBox2.Items.Add(fx)
Next
End Sub
Private Sub buttonSalir_Click(sender As Object, e As EventArgs) Handles Button4.Click
Application.Exit()
End Sub
End Class


Form1
f(x) = x / 1 + x ²
X
F(X)
1
2
3
4
5
6
7
0.5
0.4
0.3
0.235294117
0.192307692
0.162162162
0.14
For
While
Do... while
Salir
ListBox1
ListBox2
For
While
Do... while
Salir
Continuar
GitHub Copilot
as de diseño al ejecutar la aplicación.
Más información

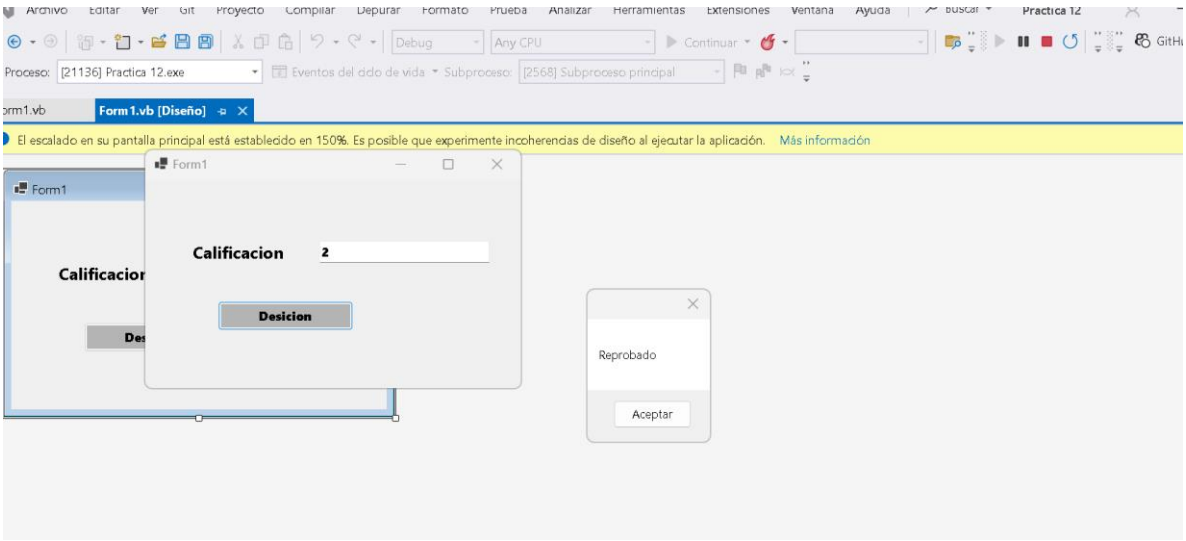
Practicas selectivas

Practica 12

Form1.vb | Form1.vb [Diseño]

Practica 12 — Form1

```
Public Class Form1
    0 referencias
    Private Sub Label1_Click(sender As Object, e As EventArgs) Handles Label1.Click

    End Sub

    0 referencias
    Private Sub Button1_Click(sender As Object, e As EventArgs) Handles Button1.Click
        Dim cal
        cal = Double.Parse(TextBox1.Text)
        If (Cal < 3.0) Then MessageBox.Show("Reprobado")
    End Sub
End Class
```

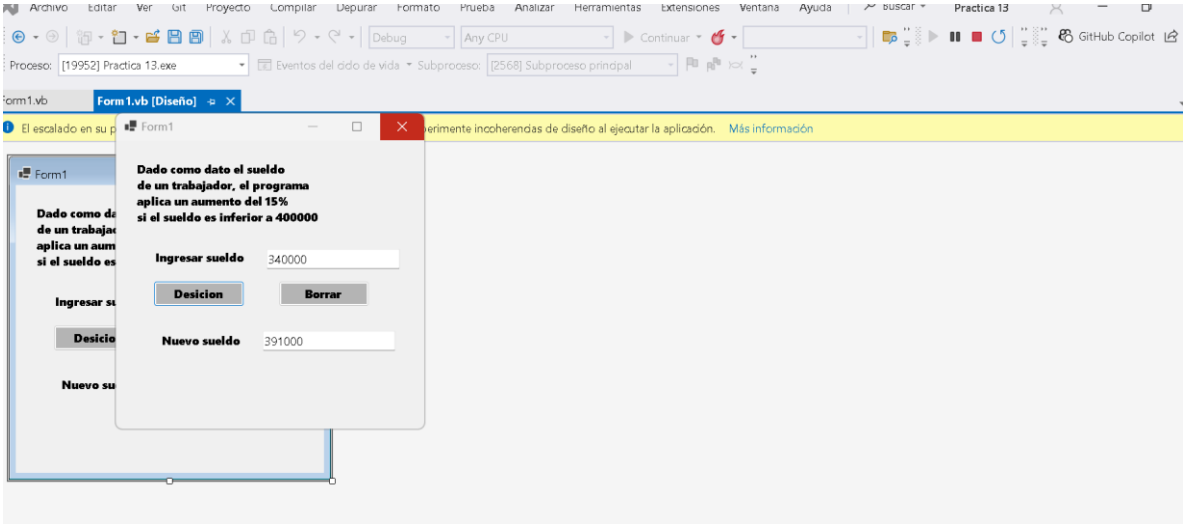


Practica 13

orm1.vb | Form1.vb [Diseño]

Practica 13 | Form1

```vb
Public Class Form1
    Private Sub Button1_Click(sender As Object, e As EventArgs) Handles Button1.Click
        Dim sueldo, aum, nsue
        sueldo = Double.Parse(TextBox1.Text)
        If (sueldo < 400000.0) Then
        End If
        aum = sueldo * 0.15
        nsue = sueldo + aum
        TextBox2.Text = nsue.ToString()
    End Sub

    Private Sub Button2_Click(sender As Object, e As EventArgs) Handles Button2.Click
        TextBox1.Text = ""
        TextBox2.Text = ""
    End Sub
End Class
```



Practica 14

Form1.vb | Form1.vb [Diseño]

Practica 14 — Form1

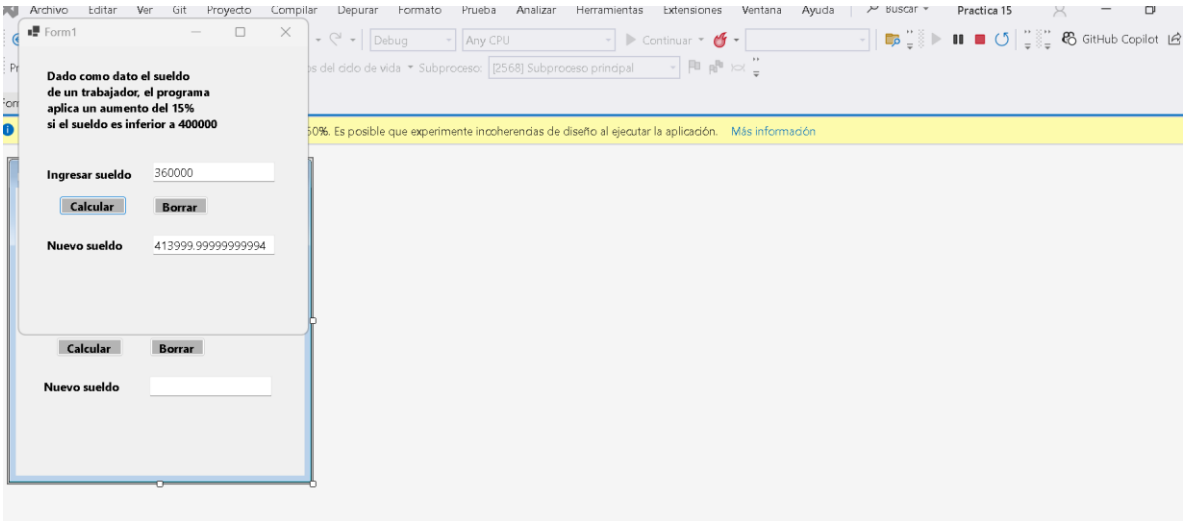
```
1   Public Class Form1
        0 referencias
2       Private Sub Button1_Click(sender As Object, e As EventArgs) Handles Button1.Click
3           Dim cal
4           cal = Double.Parse(TextBox1.Text)
5           If (cal < 3.0) Then MessageBox.Show("REPROBADO") Else MessageBox.Show("APROBADO")
6       End Sub
7   End Class
8
```

Practica 15

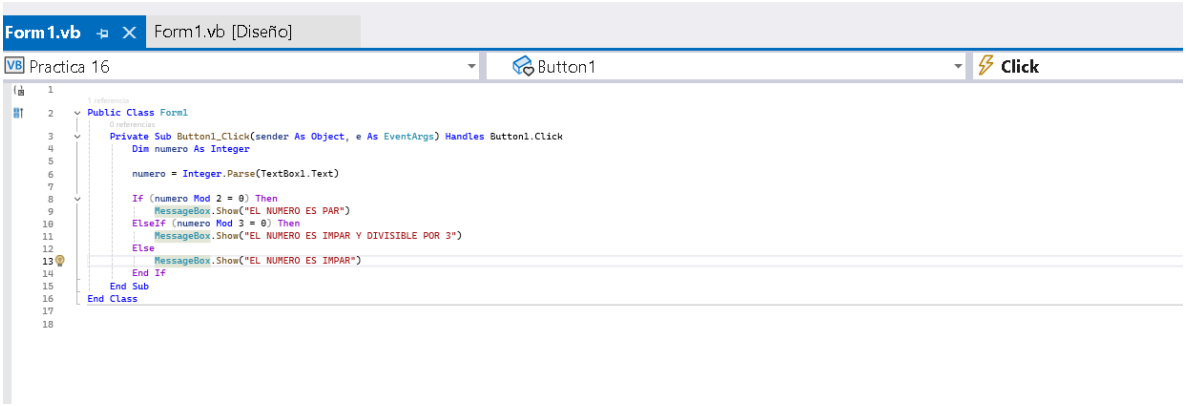
Form1.vb | Form1.vb [Diseño]

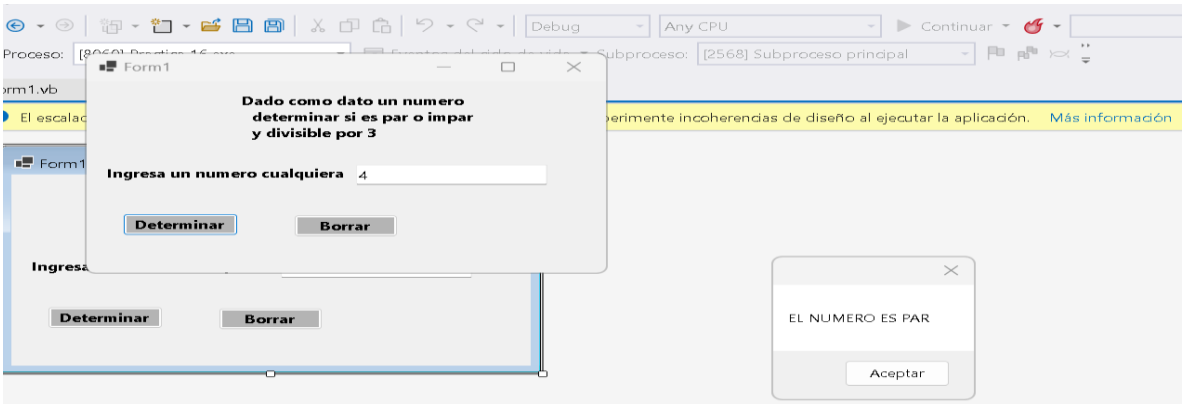
Practica 15 | Button2

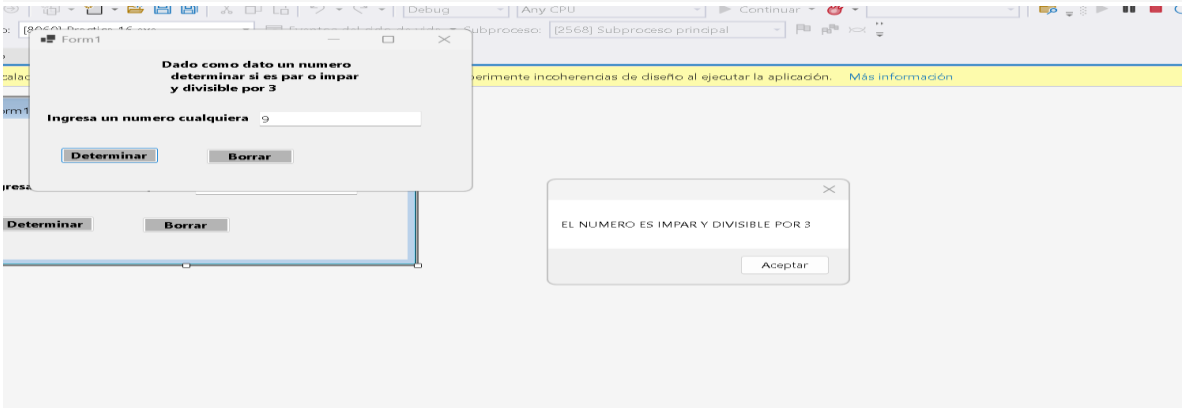
```vb
Public Class Form1
    0 referencias
    Private Sub Button1_Click(sender As Object, e As EventArgs) Handles Button1.Click
        Dim sueldo, nsue
        sueldo = Double.Parse(TextBox1.Text)
        If (sueldo < 400000.0) Then nsue = sueldo * 1.15 Else nsue = sueldo * 1.08
        TextBox2.Text = nsue.ToString

    End Sub

    0 referencias
    Private Sub Button2_Click(sender As Object, e As EventArgs) Handles Button2.Click
        TextBox1.Text = ""
        TextBox2.Text = ""
    End Sub
End Class
```

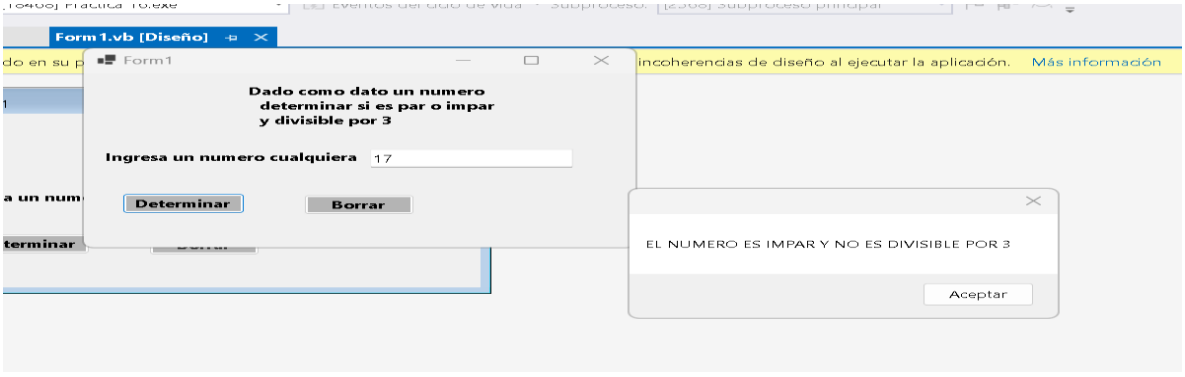


Practica 16

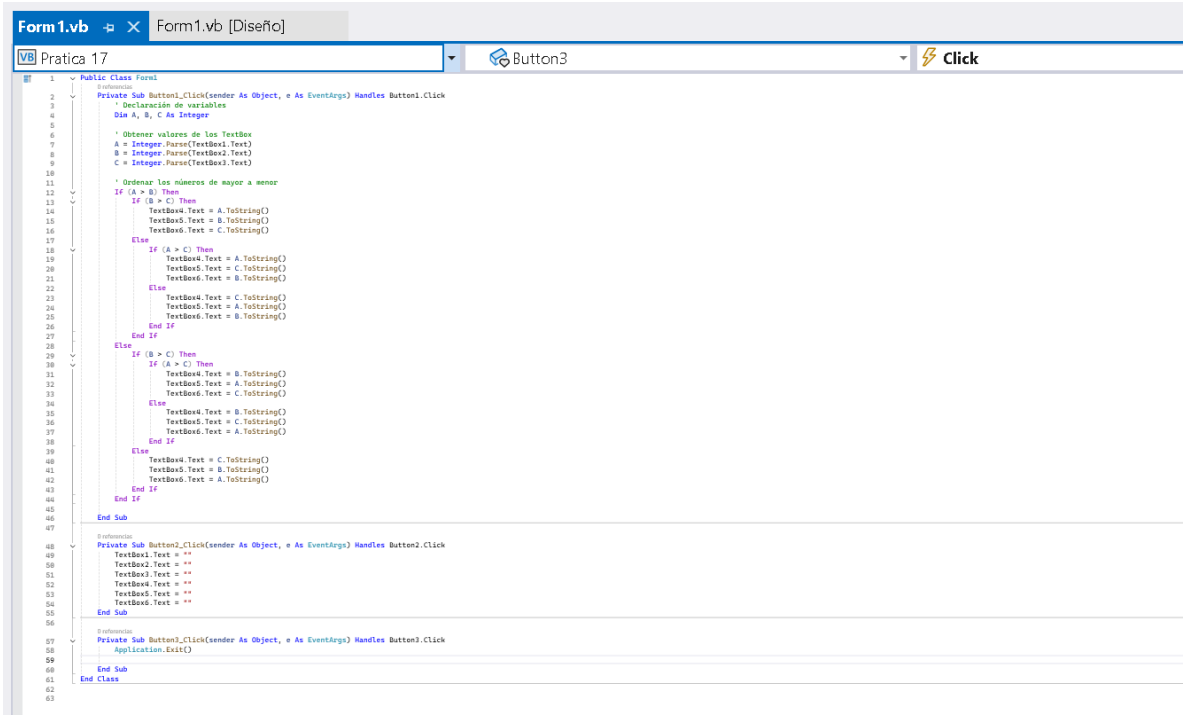

Form1.vb
Form1.vb [Diseño]
Practica 16
Button1
Click
Public Class Form1
Private Sub Button1_Click(sender As Object, e As EventArgs) Handles Button1.Click
Dim numero As Integer
numero = Integer.Parse(TextBox1.Text)
If (numero Mod 2 = 0) Then
MessageBox.Show("EL NUMERO ES PAR")
ElseIf (numero Mod 3 = 0) Then
MessageBox.Show("EL NUMERO ES IMPAR Y DIVISIBLE POR 3")
Else
MessageBox.Show("EL NUMERO ES IMPAR")
End If
End Sub
End Class

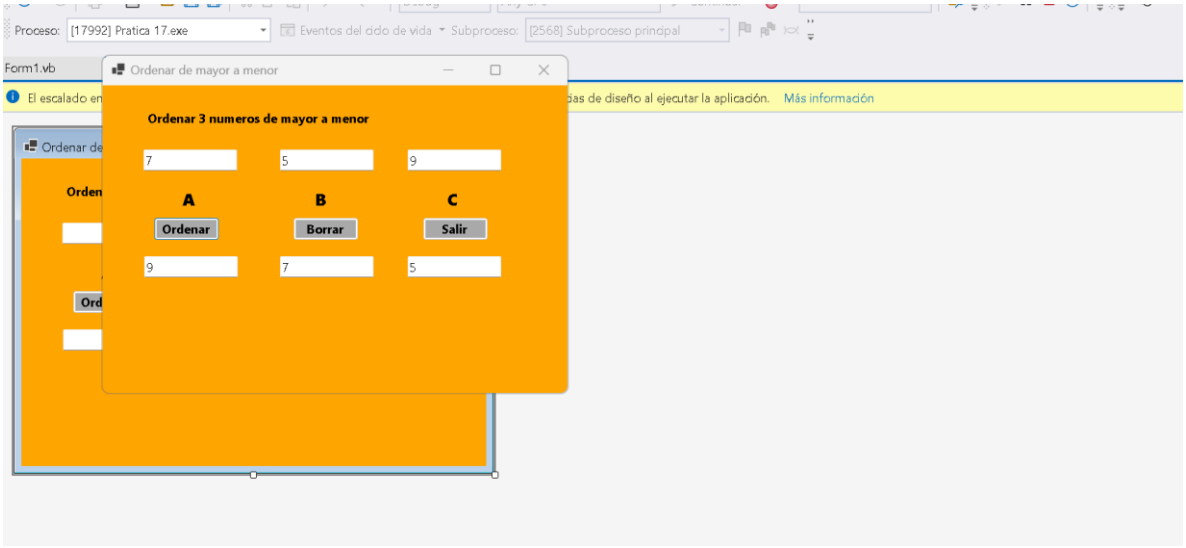

Form1
Dado como dato un numero
determinar si es par o impar
y divisible por 3
Ingresa un numero cualquiera
4
Determinar
Borrar
EL NUMERO ES PAR
Aceptar


Form1
Dado como dato un numero
determinar si es par o impar
y divisible por 3
Ingresa un numero cualquiera
9
Determinar
Borrar
EL NUMERO ES IMPAR Y DIVISIBLE POR 3
Aceptar


Form1.vb [Diseño]
Form1
Dado como dato un numero
determinar si es par o impar
y divisible por 3
Ingresa un numero cualquiera
17
Determinar
Borrar
EL NUMERO ES IMPAR Y NO ES DIVISIBLE POR 3
Aceptar

Practica 17


Form1.vb
Form1.vb [Diseño]
Pratica 17
Button3
Click
Public Class Form1
Private Sub Button1_Click(sender As Object, e As EventArgs) Handles Button1.Click
' Declaración de variables
Dim A, B, C As Integer
' Obtener valores de los TextBox
A = Integer.Parse(TextBox1.Text)
B = Integer.Parse(TextBox2.Text)
C = Integer.Parse(TextBox3.Text)
' Ordenar los números de mayor a menor
If (A > B) Then
If (B > C) Then
TextBox4.Text = A.ToString()
TextBox5.Text = B.ToString()
TextBox6.Text = C.ToString()
Else
If (A > C) Then
TextBox4.Text = A.ToString()
TextBox5.Text = C.ToString()
TextBox6.Text = B.ToString()
Else
TextBox4.Text = C.ToString()
TextBox5.Text = A.ToString()
TextBox6.Text = B.ToString()
End If
End If
Else
If (B > C) Then
If (A > C) Then
TextBox4.Text = B.ToString()
TextBox5.Text = A.ToString()
TextBox6.Text = C.ToString()
Else
TextBox4.Text = B.ToString()
TextBox5.Text = C.ToString()
TextBox6.Text = A.ToString()
End If
Else
TextBox4.Text = C.ToString()
TextBox5.Text = B.ToString()
TextBox6.Text = A.ToString()
End If
End If
End Sub
Private Sub Button2_Click(sender As Object, e As EventArgs) Handles Button2.Click
TextBox1.Text = ""
TextBox2.Text = ""
TextBox3.Text = ""
TextBox4.Text = ""
TextBox5.Text = ""
TextBox6.Text = ""
End Sub
Private Sub Button3_Click(sender As Object, e As EventArgs) Handles Button3.Click
Application.Exit()
End Sub
End Class

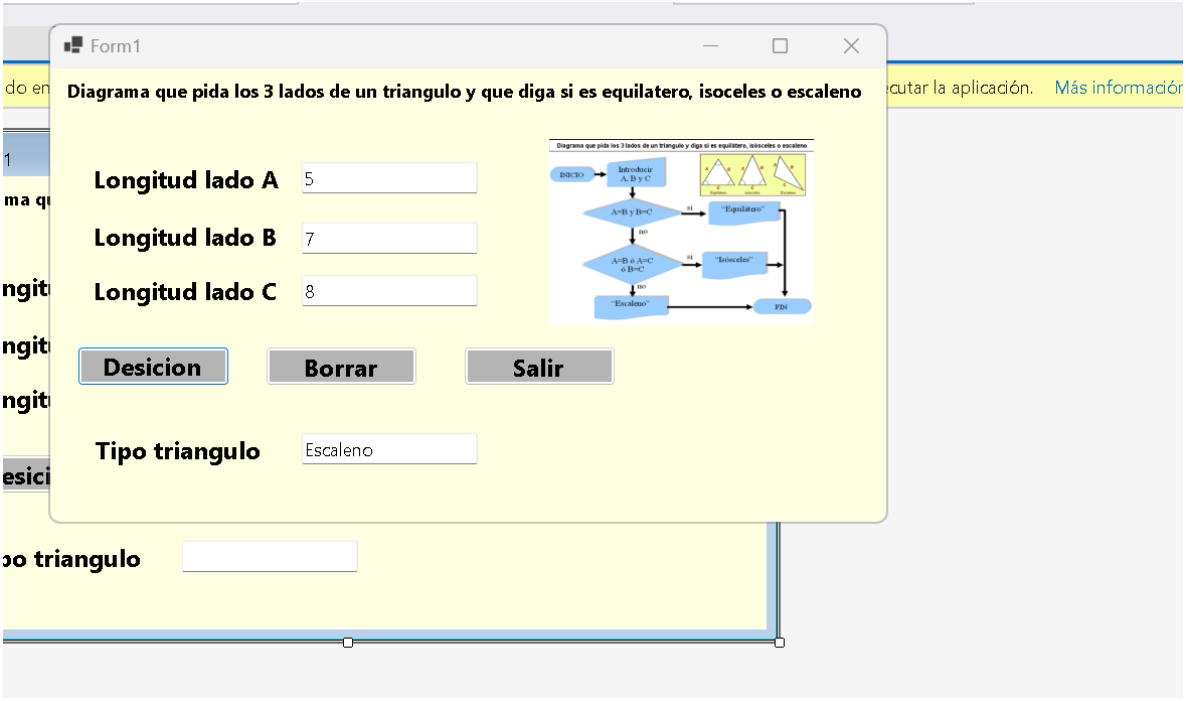

Proceso: [17992] Pratica 17.exe
Eventos del ciclo de vida
Subproceso: [2568] Subproceso principal
Form1.vb
Más información
Ordenar de mayor a menor
Ordenar 3 numeros de mayor a menor
7
5
9
A
B
C
Ordenar
Borrar
Salir
9
7
5

Practica 18

Form1.vb Form1.vb [Diseño]

Practica 18

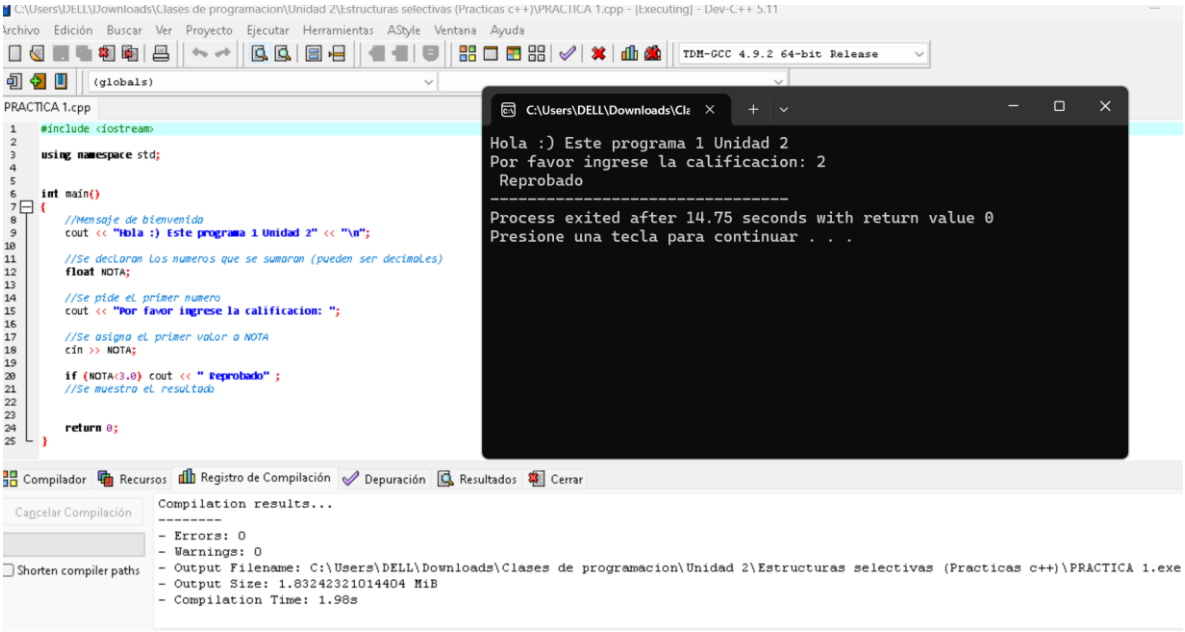
```vb
Public Class Form1
    0 referencias
    Private Sub Decision_Click(sender As Object, e As EventArgs) Handles Button1.Click
        Dim lado1, lado2, lado3 As Double

        lado1 = Double.Parse(TextBox1.Text)
        lado2 = Double.Parse(TextBox2.Text)
        lado3 = Double.Parse(TextBox3.Text)

        If (lado1 = lado2) And (lado2 = lado3) Then
            TextBox4.Text = "Equilátero"
        ElseIf (lado1 = lado2) Or (lado1 = lado3) Or (lado2 = lado3) Then
            TextBox4.Text = "Isósceles"
        Else
            TextBox4.Text = "Escaleno"
        End If
    End Sub

    0 referencias
    Private Sub Button2_Click(sender As Object, e As EventArgs) Handles Button2.Click
        TextBox1.Text = ""
        TextBox2.Text = ""
        TextBox3.Text = ""
        TextBox4.Text = ""
    End Sub

    0 referencias
    Private Sub Button3_Click(sender As Object, e As EventArgs) Handles Button3.Click
        Application.Exit()
    End Sub
End Class
```



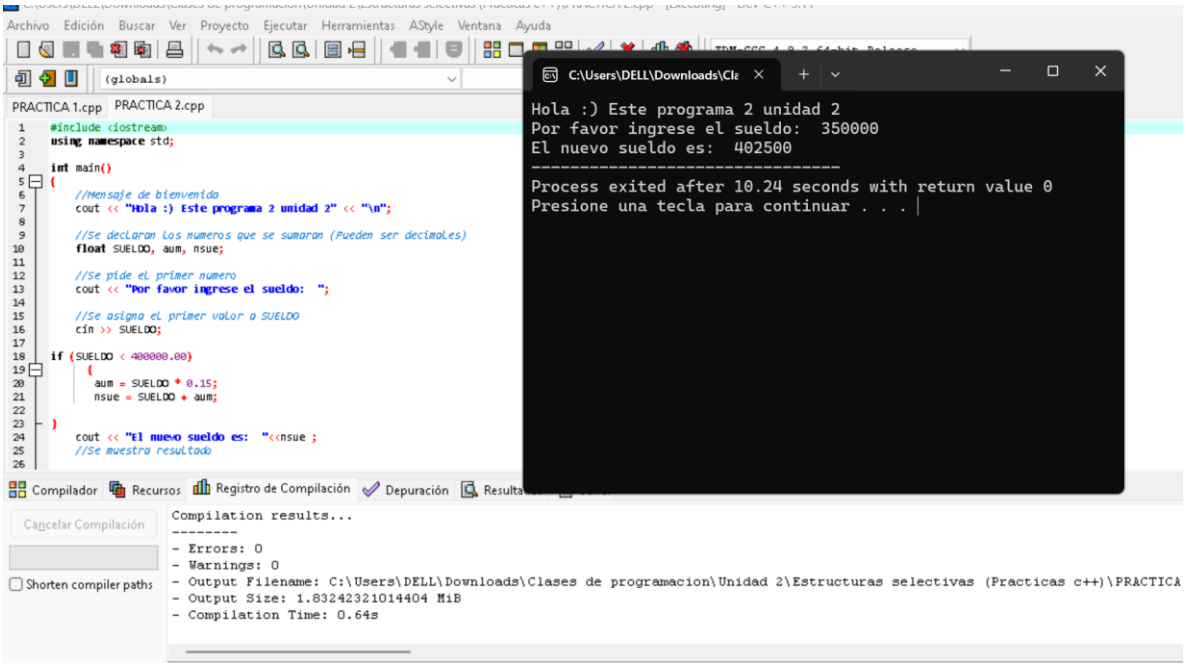
Prácticas de c ++

Practicas selectivas

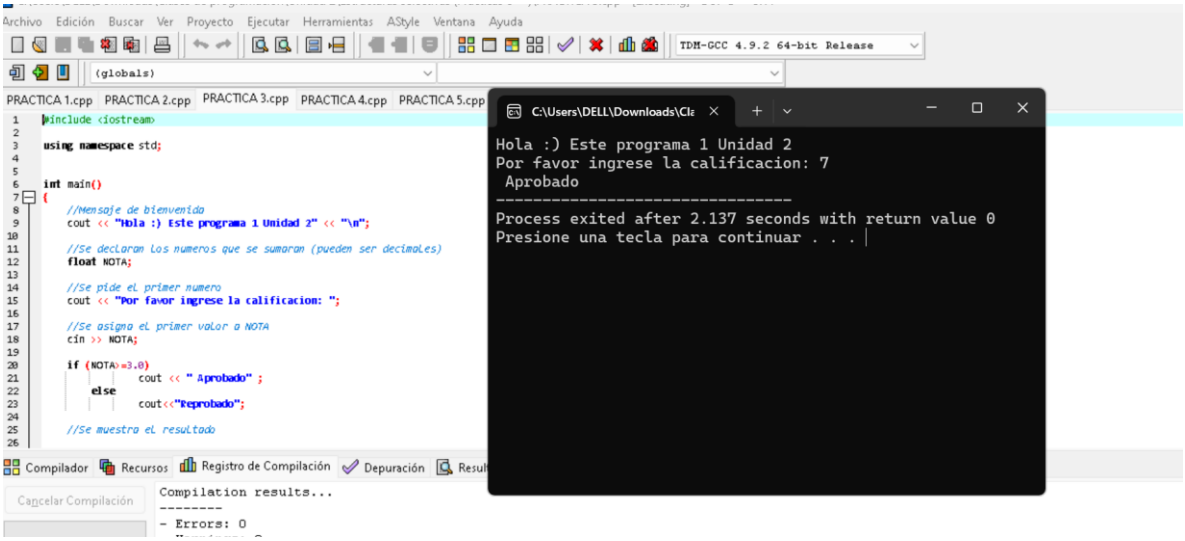
Practica 1



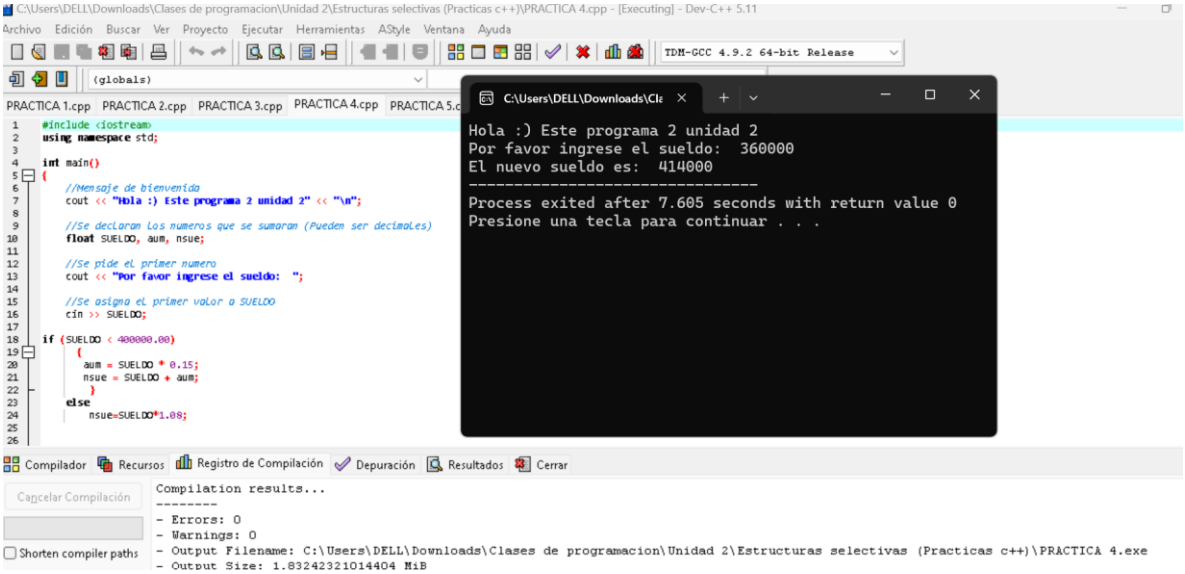
Practica 2



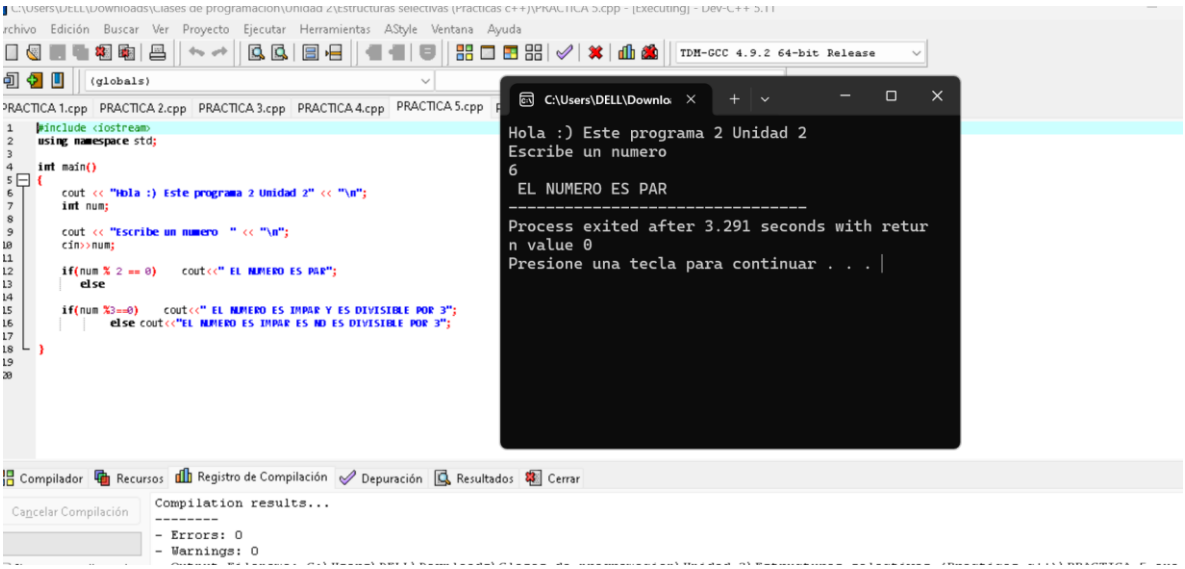
Practica 3



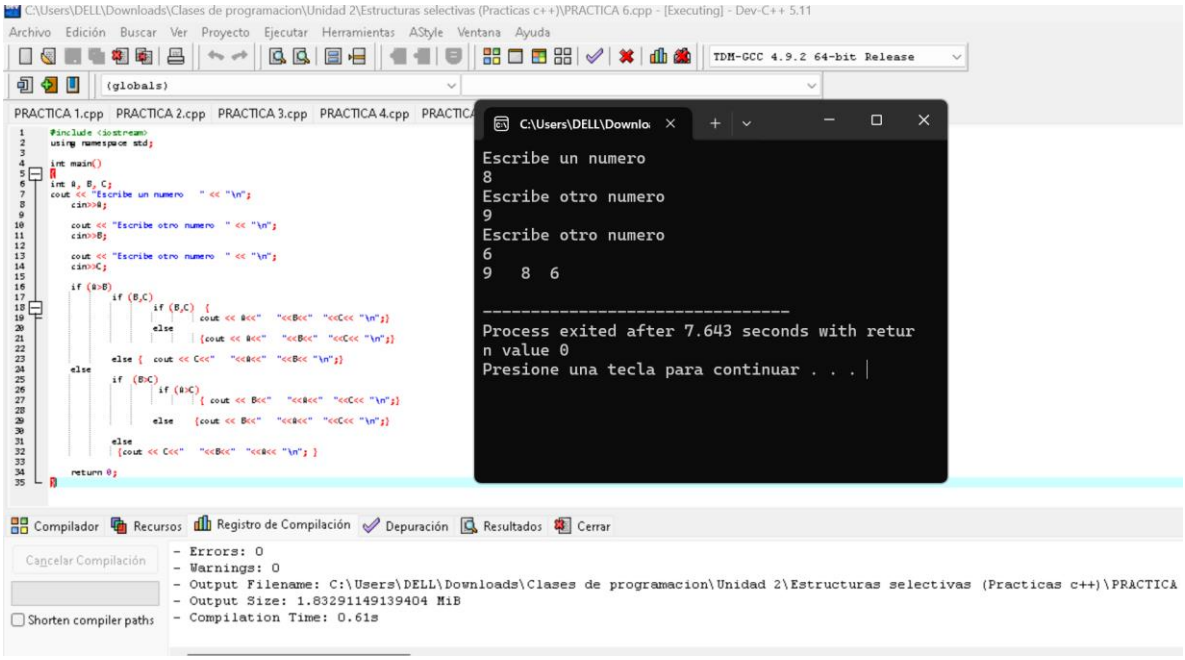
Practica 4



Practica 5

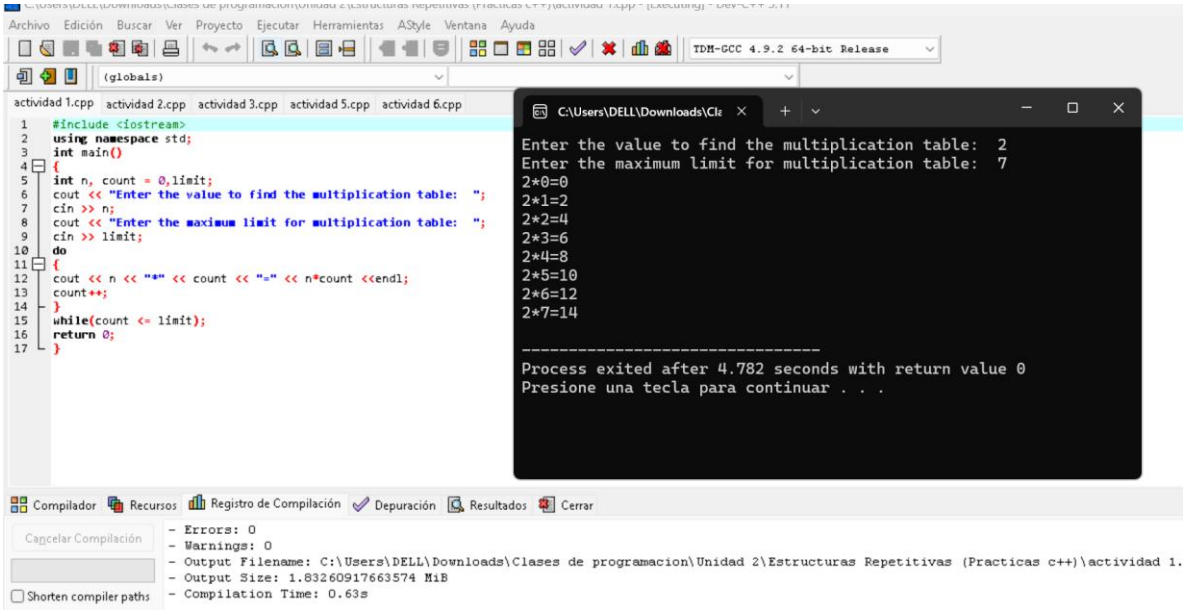


Practica 6

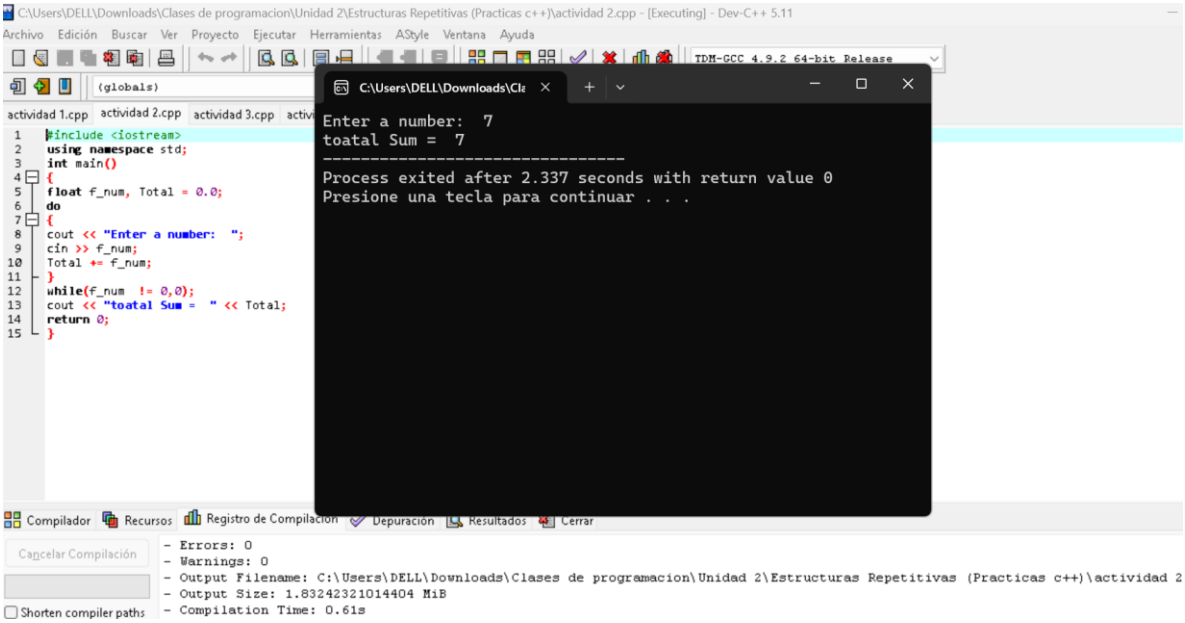


Practicas repetitivas

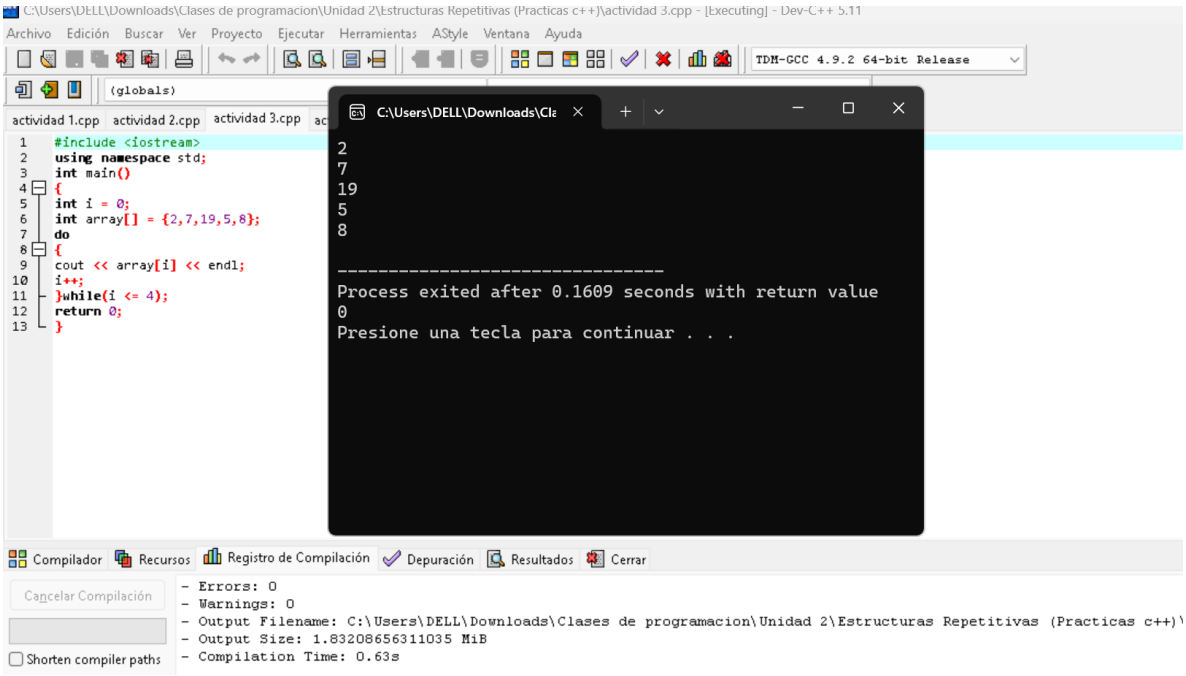
Practica 1



Practica 2



Practica 3



Practica 5