

Introduction to VB.NET Programming

VB.NET is a beginner-friendly language. Learn key concepts like input, output, and application development. It is a great starting point for programming.



Setting Up Your Environment

Install Visual Studio

Download the free Community Edition from Microsoft.

Create a new Windows Forms App project.

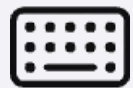
System requirements: Windows 10 or 11, 4GB RAM, 5GB disk space.

Explore the IDE

Get familiar with Solution Explorer and the Toolbox.

Use the Designer and Code Editor.

Input and Output in VB.NET



Input

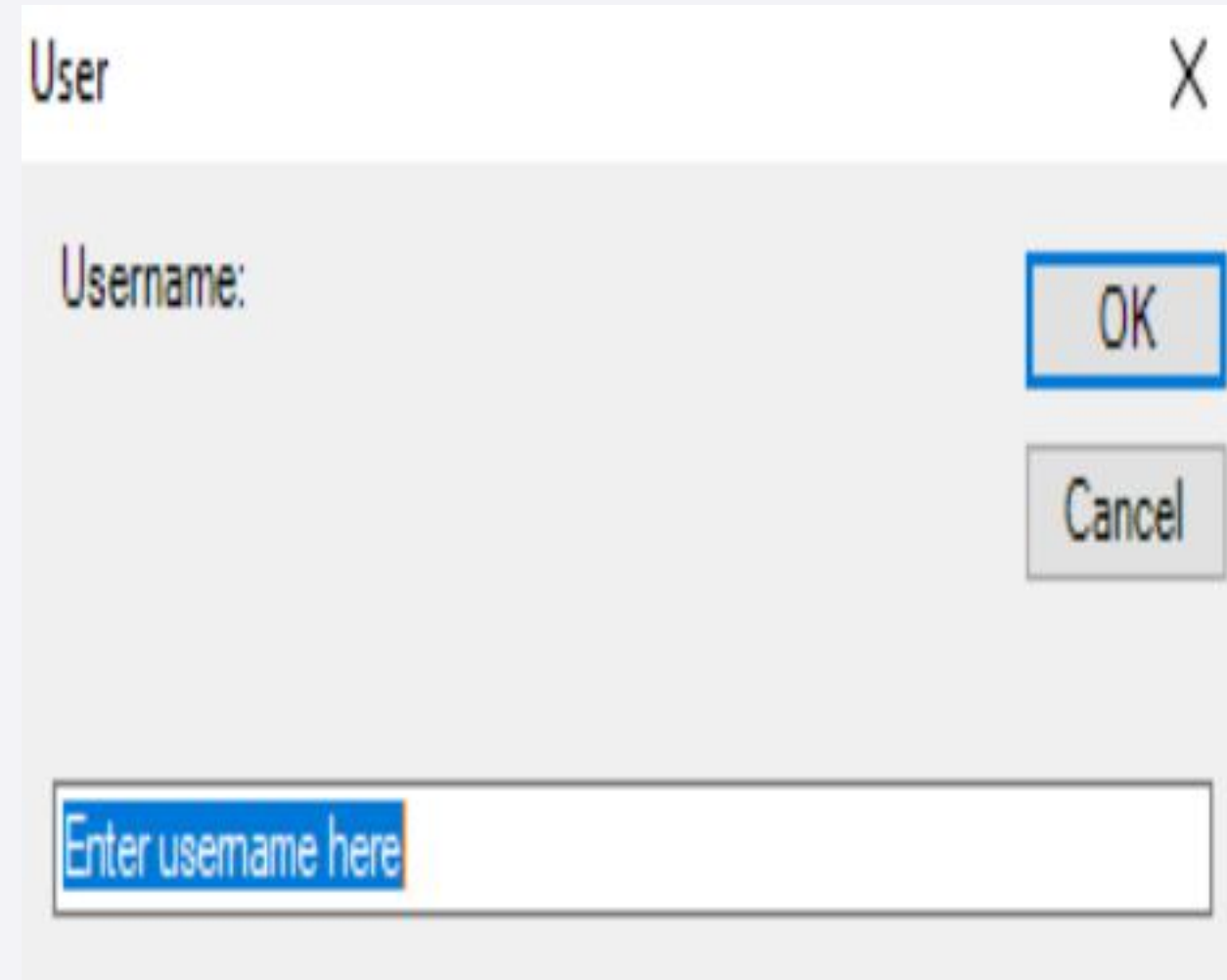
Gather data from the user with TextBox controls.



Output

Display information using Label controls and `MessageBox.Show()`.

Example: ``Dim userInput As String = TextBox1.Text`` and ``Label1.Text = "Hello, " & userInput``.



The screenshot shows a Windows application window titled "User" with a standard Windows title bar (minimize, maximize, close buttons). Inside the window, there is a label "Username:" followed by a text box. The text box contains the placeholder text "Enter username here" in blue. To the right of the text box are two buttons: "OK" and "Cancel". The "OK" button is highlighted with a blue border.

Building a Calculator (Part 1)

Add Input Controls

Use TextBox controls for Number1 and Number2.

Add Operation Buttons

Include buttons for +, -, *, and / operations.

Add Result Label

Use a Label control to display the result (ResultLabel).

Set the Name and Text properties for easy code access.

335:415 330

+

3

8

0

+

5

8

-

+

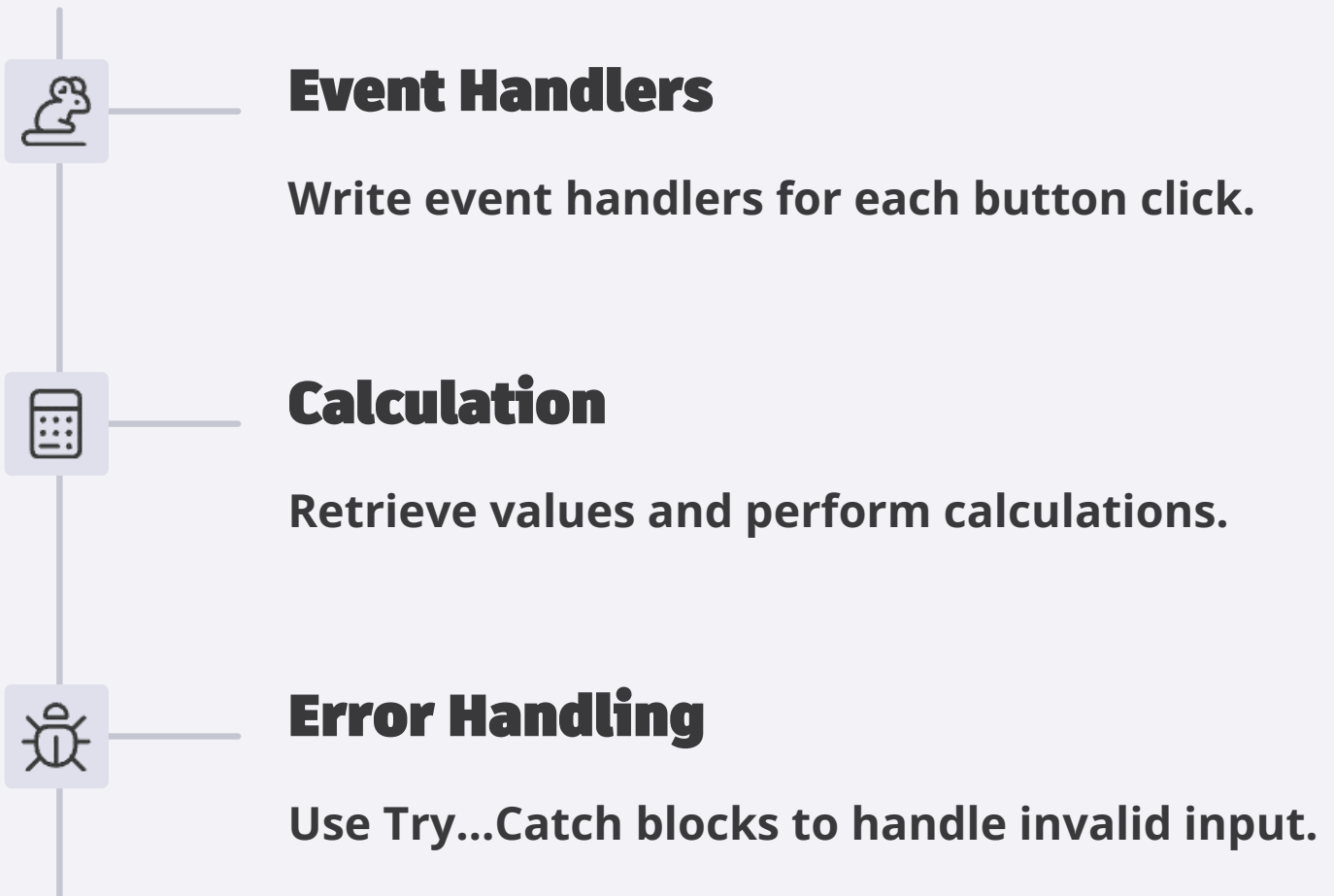
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Building a Calculator (Part 2)



Display results in ResultLabel. Use `MessageBox.Show()` for errors.

Application Form

Name *

Email address *

Phone number

Departments for consideration *

- ☐ Executive ☐ Sales
☐ Marketing ☐ Technology
☐ All

Attach any supporting documents
(resume, CV, cover letter, etc.)

Choose Files No file chosen

Submit

Creating a Basic Form Application

Labels

Display prompts.

TextBoxes

Get text input.

Selection

Use ComboBox or ListBox for options.

Boolean Choices

CheckBox or RadioButton.

Collect user information. Set properties to customize appearance.

Adding Form Functionality

Retrieve Data

Access Text, SelectedItem, Checked



Imports System

Module Calculator

Sub Main()

' Display menu

Console.WriteLine("Simple Calculator")

Console.WriteLine("Select operation:")

Console.WriteLine("1. Add")

Console.WriteLine("2. Subtract")

Console.WriteLine("3. Multiply")

Console.WriteLine("4. Divide")

' Get user choice

Console.Write("Enter choice (1/2/3/4): ")

Dim choice As Integer = Convert.ToInt32(Console.ReadLine())

' Get two numbers from the user

Console.Write("Enter first number: ")

Dim num1 As Double = Convert.ToDouble(Console.ReadLine())

Console.Write("Enter second number: ")

Dim num2 As Double = Convert.ToDouble(Console.ReadLine())

' Perform calculation based on user choice

Dim result As Double

Select Case choice

Case 1

result = num1 + num2

Console.WriteLine(\$"Result: {num1} + {num2} = {result}")

Case 3

result = num1 * num2

Console.WriteLine(\$"Result: {num1} * {num2} = {result}")

Case 4

If num2 <> 0 Then

result = num1 / num2

Console.WriteLine(\$"Result: {num1} / {num2} = {result}")

Else

Console.WriteLine("Error: Cannot divide by zero!")

End If

Case Else

Console.WriteLine("Invalid choice! Please enter 1, 2, 3, or 4.")

End Select

' Wait for user input before closing

Console.WriteLine("Press any key to exit...")

Console.ReadKey()

End Sub

End Module

VB.NET Code: Simple Calculator