Development Software 1B 2023

Learning Unit 5: GUI Applications

Lecture 9

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Content

- GUI Application

GUI Application

Things to know in GUI applications:

- Create a form in the VS IDE
- Use the **Toolbox** to add **Button** to a form
- Add **Labels** and **Textboxes** to the form
- Name forms and controls

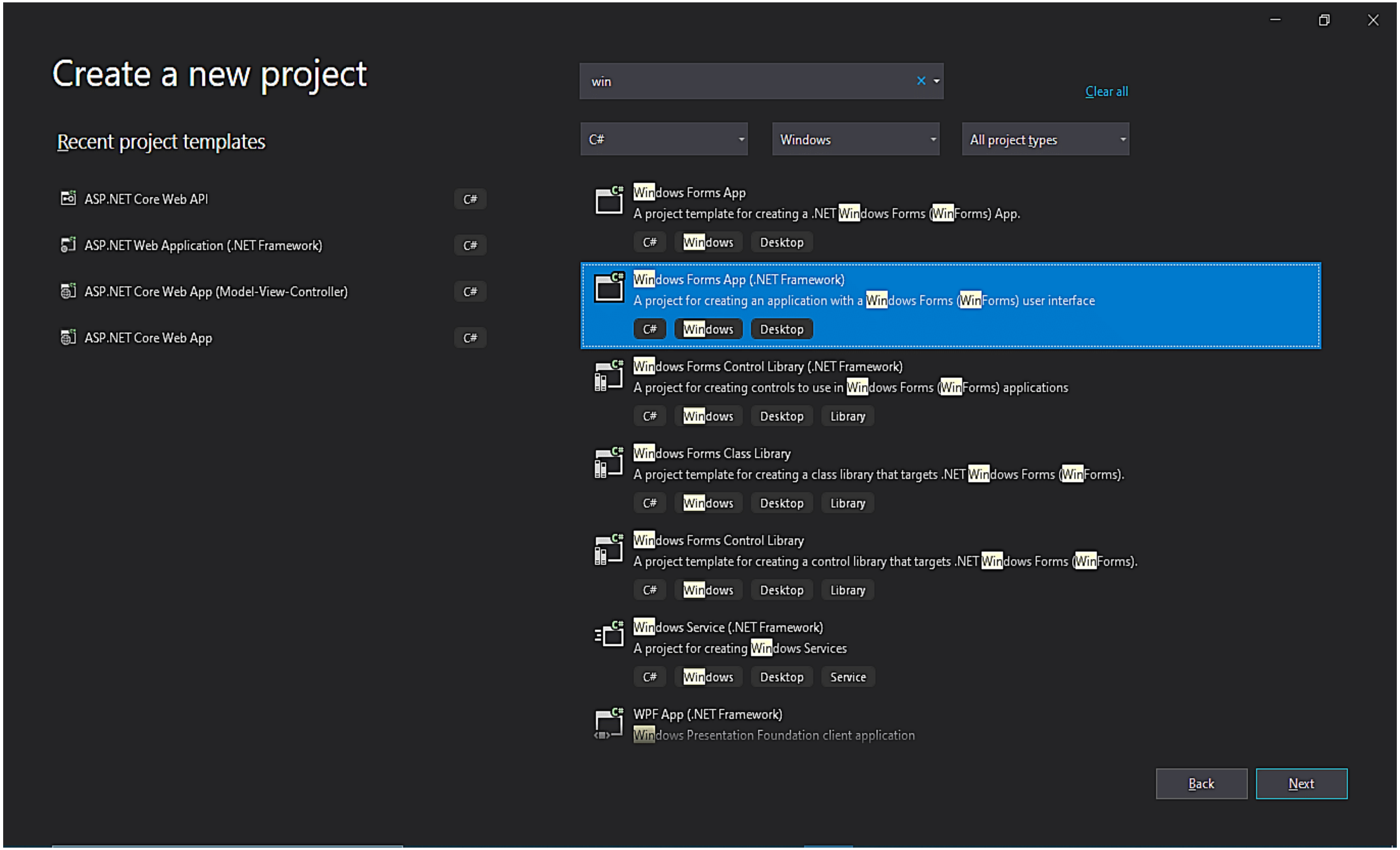
GUI Application

A graphical user interface (GUI) allows a user or customer to interact visually with a program.

Creating a form in the IDE

- The interface is the environment the user sees
- Forms are rectangular GUI objects that provide an interface for collecting, displaying, and delivering information
- Forms always include controls
  - Devices such as labels, text boxes, ListBox, ComboBox, CheckedListBox, CheckBox, RadioButton and buttons
- To create a Form:
  - Select New Project after starting Visual Studio
  - Then choose *Windows Forms App*
  - After you click OK in the New Project window, you see the Integrated Development Environment (IDE) main window

Creating a form in the IDE



Create a new project

Recent project templates

- ASP.NET Core Web API — C#
- ASP.NET Web Application (.NET Framework) — C#
- ASP.NET Core Web App (Model-View-Controller) — C#
- ASP.NET Core Web App — C#

win

Clear all

C# | Windows | All project types

Windows Forms App
A project template for creating a .NET Windows Forms (WinForms) App.
C# Windows Desktop

Windows Forms App (.NET Framework)
A project for creating an application with a Windows Forms (WinForms) user interface
C# Windows Desktop

Windows Forms Control Library (.NET Framework)
A project for creating controls to use in Windows Forms (WinForms) applications
C# Windows Desktop Library

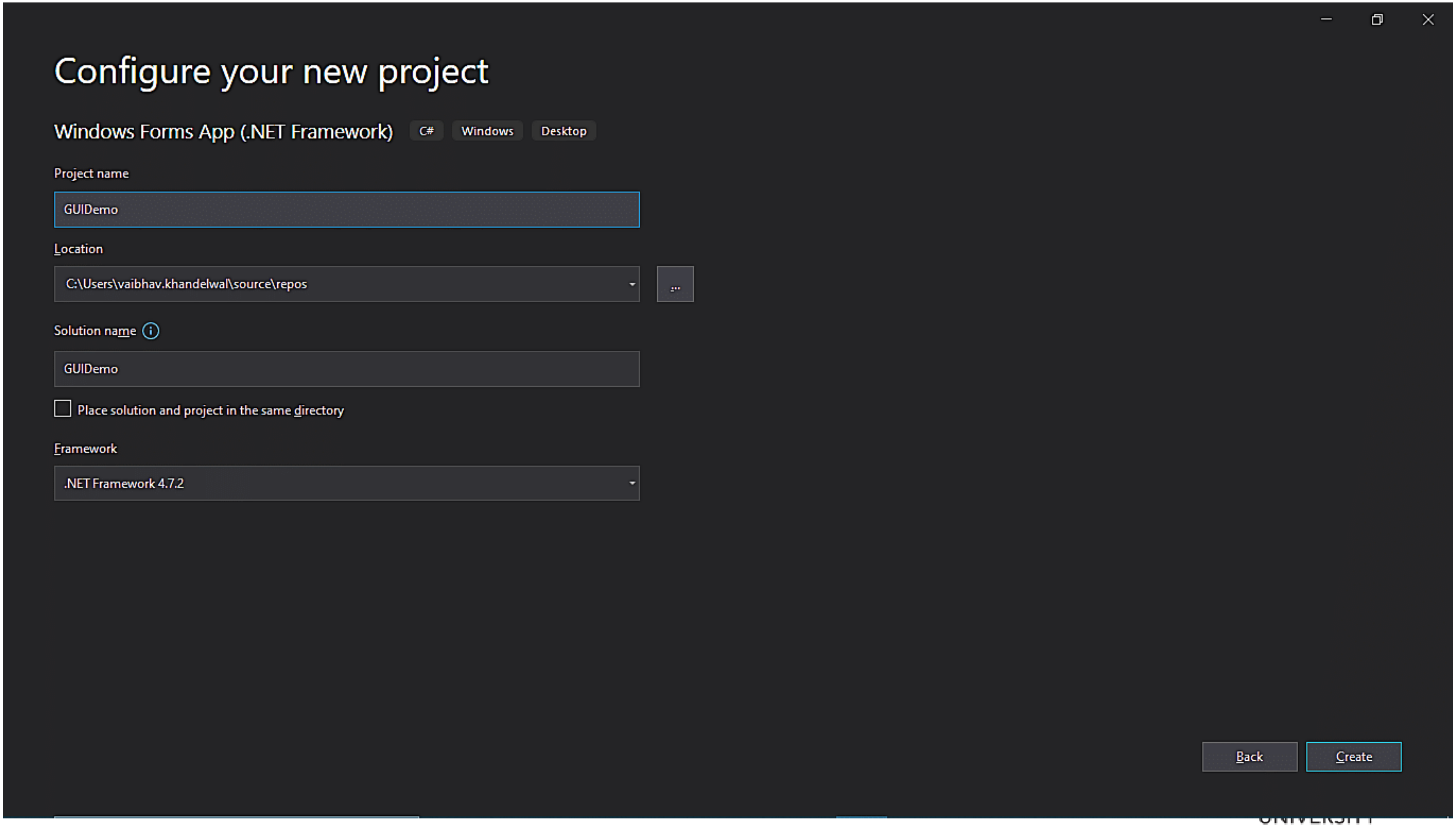
Windows Forms Class Library
A project template for creating a class library that targets .NET Windows Forms (WinForms).
C# Windows Desktop Library

Windows Forms Control Library
A project template for creating a control library that targets .NET Windows Forms (WinForms).
C# Windows Desktop Library

Windows Service (.NET Framework)
A project for creating Windows Services
C# Windows Desktop Service

WPF App (.NET Framework)
Windows Presentation Foundation client application

Creating a form in the IDE



Configure your new project

Windows Forms App (.NET Framework)

Project name: GUIDemo

Location: C:\Users\vaibhav.khandelwal\source\repos

Solution name: GUIDemo

□ Place solution and project in the same directory

Framework: .NET Framework 4.7.2

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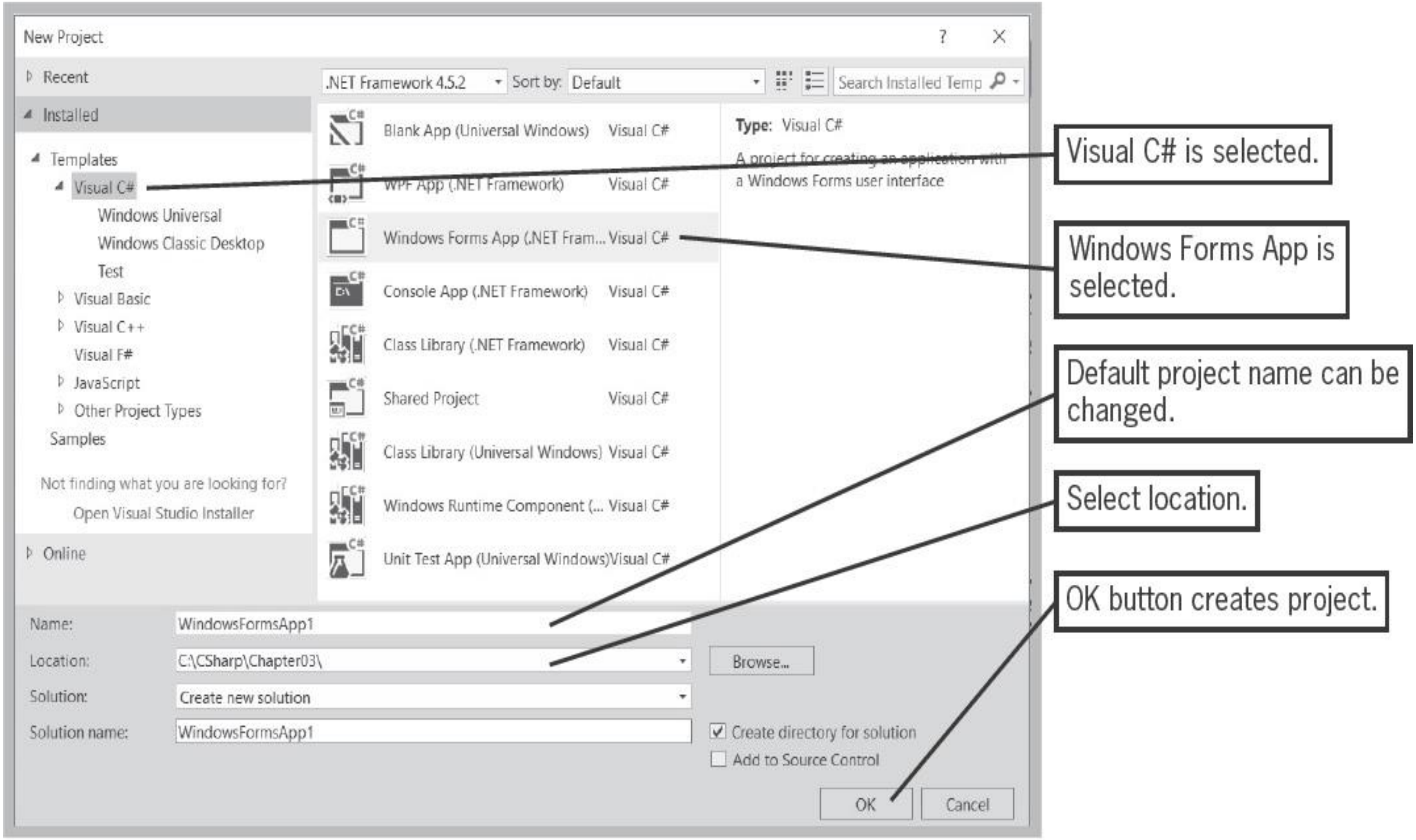
Creating a form in the IDE



New Project
?
X
Recent
Installed
Templates
Visual C#
Windows Universal
Windows Classic Desktop
Test
Visual Basic
Visual C++
Visual F#
JavaScript
Other Project Types
Samples
Not finding what you are looking for?
Open Visual Studio Installer
Online
.NET Framework 4.5.2
Sort by:
Default
Search Installed Temp
Blank App (Universal Windows) Visual C#
WPF App (.NET Framework) Visual C#
Windows Forms App (.NET Fram... Visual C#
Console App (.NET Framework) Visual C#
Class Library (.NET Framework) Visual C#
Shared Project Visual C#
Class Library (Universal Windows) Visual C#
Windows Runtime Component (... Visual C#
Unit Test App (Universal Windows) Visual C#
Browse...
OK
Cancel

Type: Visual C#

A project for creating an application with a Windows Forms user interface

Name: WindowsFormsApp1

Location: C:\CSharp\Chapter03\

Solution: Create new solution

Solution name: WindowsFormsApp1

☑ Create directory for solution

□ Add to Source Control

Visual C# is selected.

Windows Forms App is selected.

Default project name can be changed.

Select location.

OK button creates project.

Figure 3-1 Choosing Windows Forms App in the New Project window

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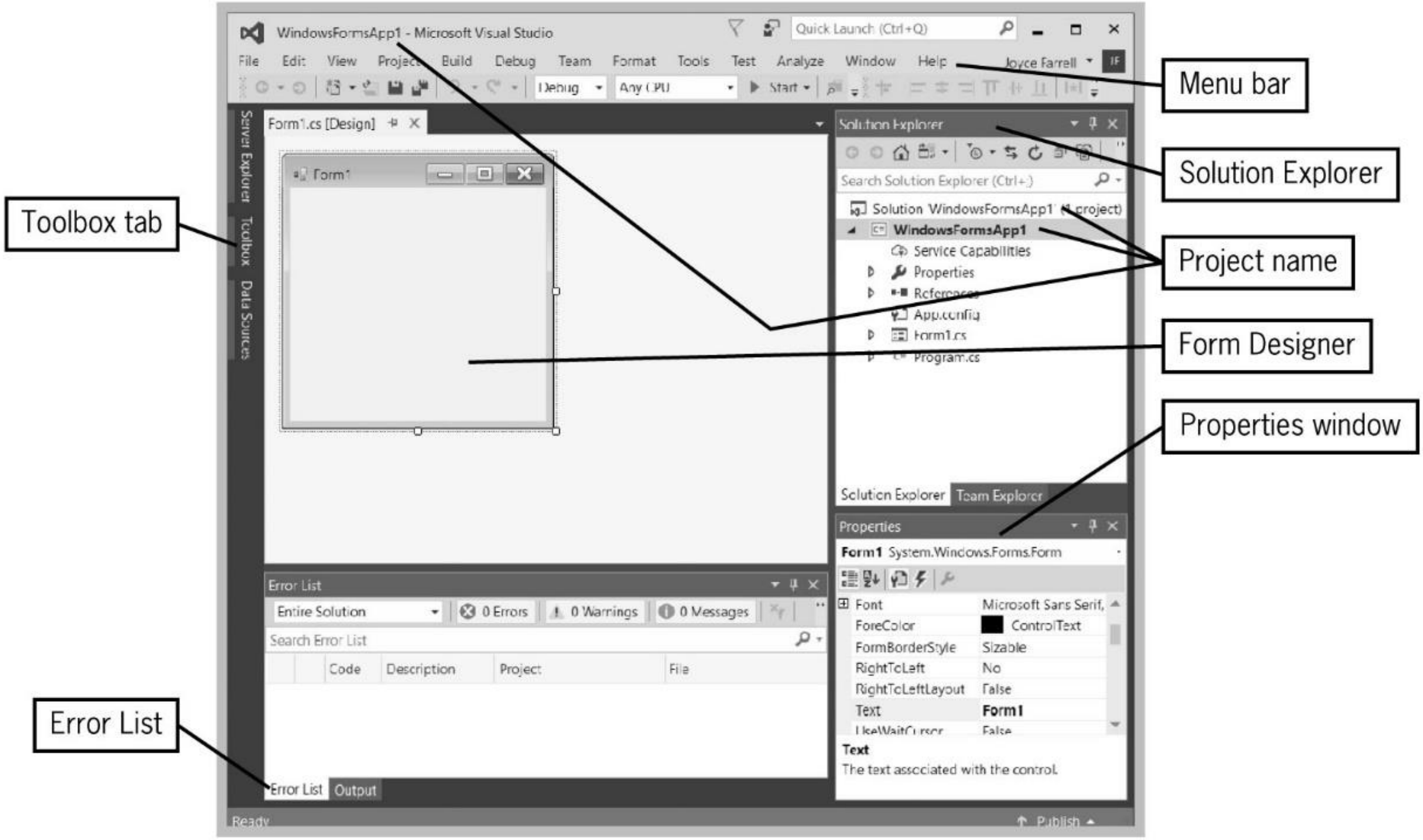
Creating a form in the IDE *cont…*



Font: Microsoft Sans Serif,
ForeColor: ControlText
FormBorderStyle: Sizable
RightToLeft: No
RightToLeftLayout: False
Text: Form1
UseWaitCursor: False

Text
The text associated with the control.

Figure 3-2 The IDE main window

Creating a form in the IDE *cont…*

- In the Properties window, you can change the appearance, size, and color of a window
- The **Form** class contains around 100 properties
- When you sort Properties in alphabetical order in the Properties window
  - The **Name** entry is not in alphabetical order
  - It appears near the top of the list in parentheses

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Creating a form in the IDE *cont…*

Class exercise:

Create a windows form application called **SumNo**. The form should add two numbers and display the results on a Label.

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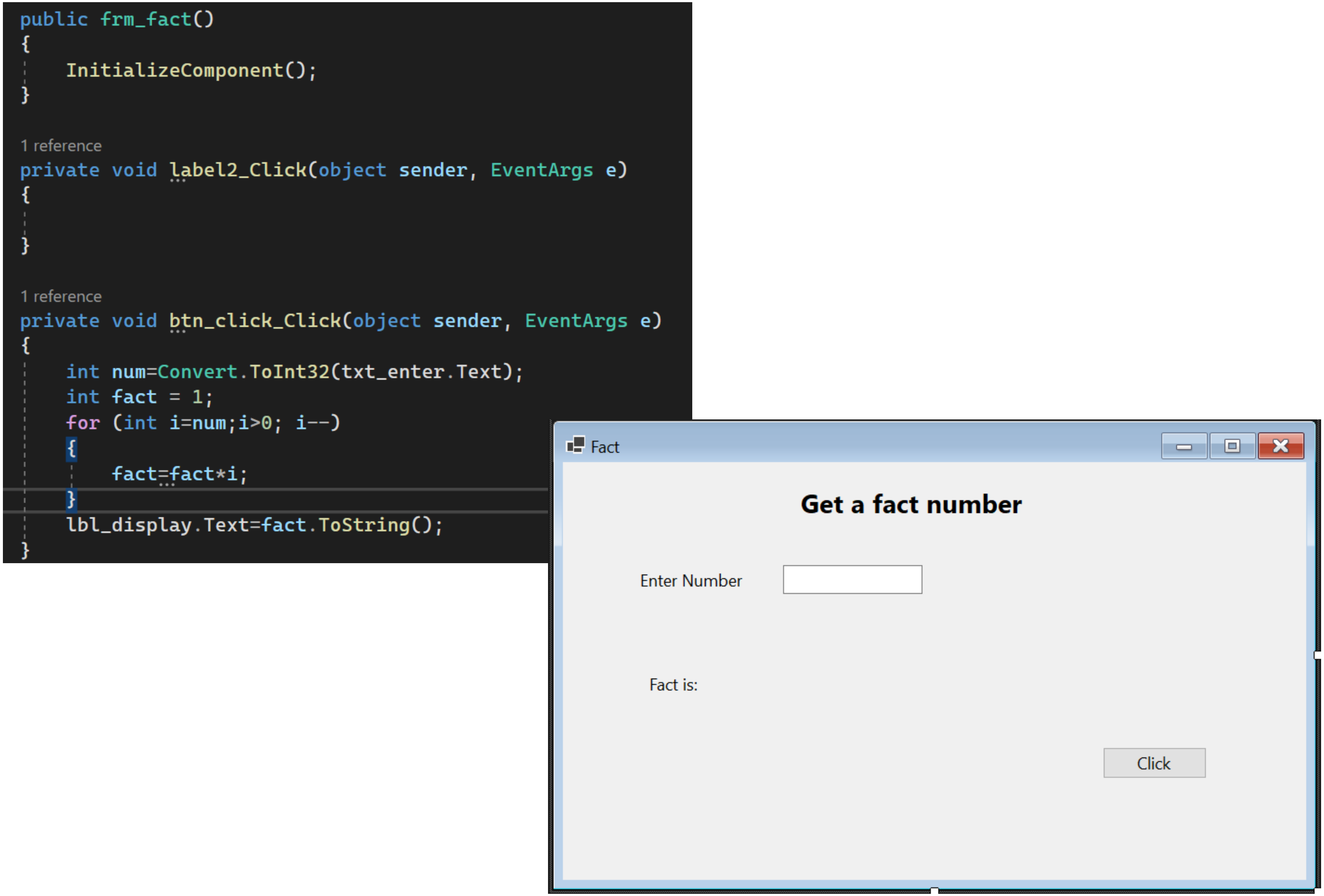
Example 1…



```
public frm_fact()
{
    InitializeComponent();
}

1 reference
private void label2_Click(object sender, EventArgs e)
{

}

1 reference
private void btn_click_Click(object sender, EventArgs e)
{
    int num=Convert.ToInt32(txt_enter.Text);
    int fact = 1;
    for (int i=num;i>0; i--)
    {
        fact=fact*i;
    }
    lbl_display.Text=fact.ToString();
}
```

THE END