



Visual Studio

Herramientas de desarrollo

Descargas

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Descargas



Visual Studio 2022 |

El IDE más completo para desarrolladores de .NET y C++ en Windows para crear aplicaciones web, en la nube, de escritorio, móviles, servicios y juegos.

Versión preliminar

Obtenga acceso anticipado a las características más recientes que aún no están en la versión principal

[Obtener más información →](#)

Community

IDE eficaz, gratuito para estudiantes, colaboradores de código abierto e individuos

[Descarga gratuita](#)

Professional

IDE profesional más adecuado para equipos

[Prueba gratuita](#)

Enterprise

Escalable, solución integral para equipos de cualquier tamaño

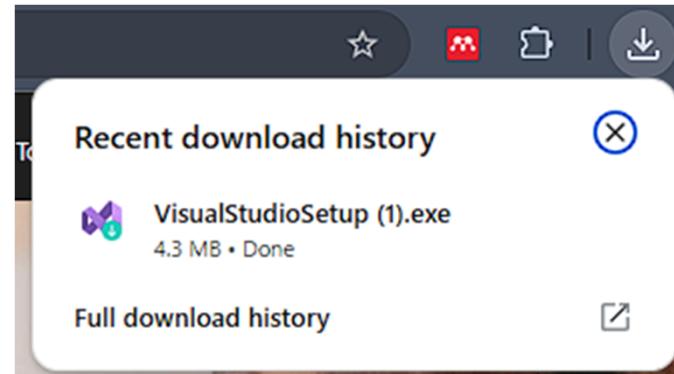
[Prueba gratuita](#)

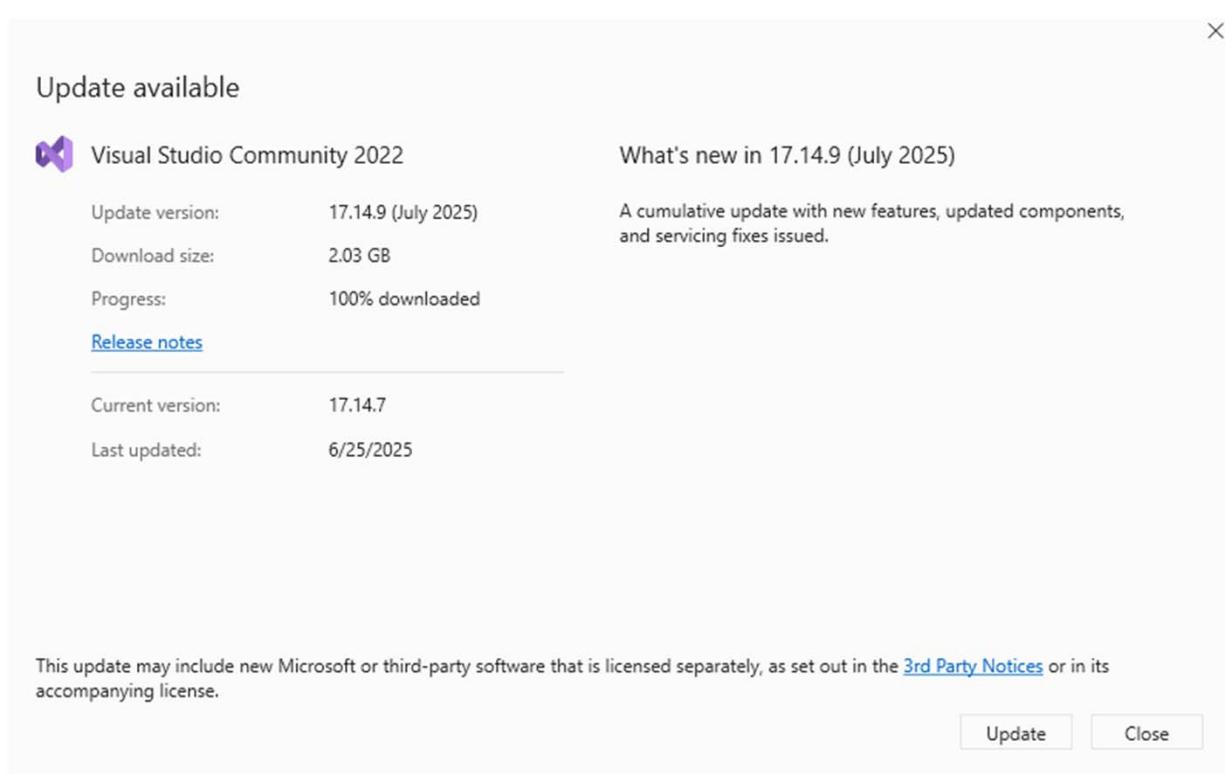
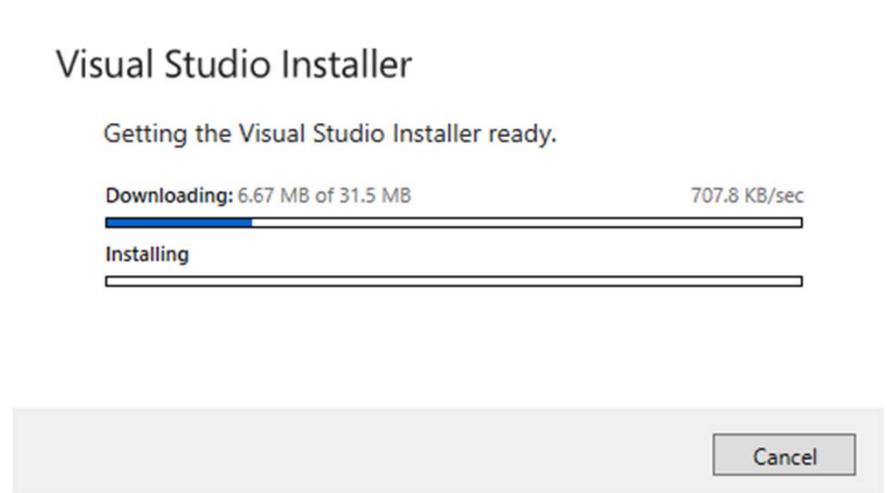
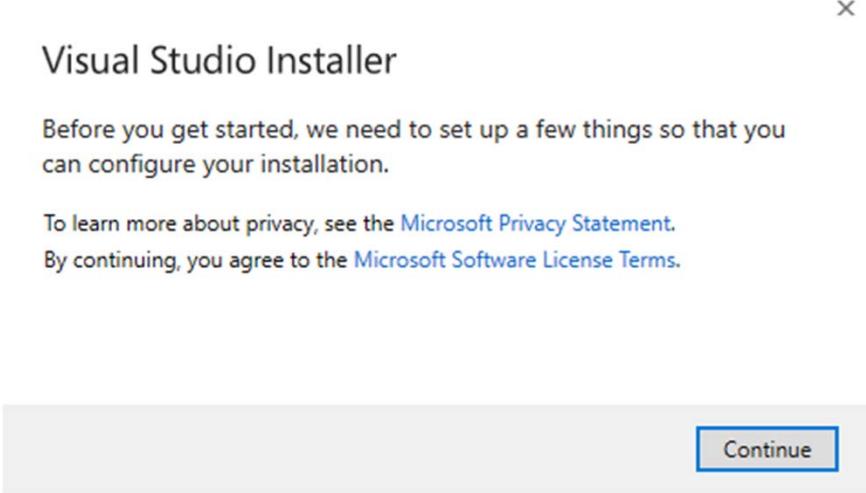
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Web & Cloud (4)



ASP.NET and web development

Build web applications using ASP.NET Core, ASP.NET, HTML/JavaScript, and Containers including Docker supp...



Azure development

Azure SDKs, tools, and projects for developing cloud apps and creating resources using .NET and .NET Framework....



Python development

Editing, debugging, interactive development and source control for Python.



Node.js development

Build scalable network applications using Node.js, an asynchronous event-driven JavaScript runtime.

Desktop & Mobile (5)



.NET Multi-platform App UI development

Build Android, iOS, Windows, and Mac apps from a single codebase using C# with .NET MAUI.



.NET desktop development

Build WPF, Windows Forms, and console applications using C#, Visual Basic, and F# with .NET and .NET Frame...

Location

C:\Program Files\Microsoft Visual Studio\2022\Community [Change...](#)

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Installation details

.NET desktop development

Included

- ✓ .NET desktop development tools
- ✓ .NET Framework 4.7.2 development tools
- ✓ C# and Visual Basic

Optional

- ✓ Development tools for .NET
- ✓ .NET Framework 4.8 development tools
- ✓ Entity Framework 6 tools
- ✓ .NET profiling tools
- ✓ IntelliCode
- ✓ Just-In-Time debugger
- ✓ Live Share
- ✓ ML.NET Model Builder
- ✓ Blend for Visual Studio
- F# desktop language support
- PreEmptive Protection - Dotfuscator
- .NET Framework 4.6.2-4.7.1 development t...
- .NET Portable Library targeting pack

[Remove out-of-support components](#)

Total space required 8.97 GB

Install while downloading

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Visual Studio 2022

Open recent

As you use Visual Studio, any projects, folders, or files that you open will show up here for quick access.

You can pin anything that you open frequently so that it's always at the top of the list.

Get started



Clone a repository

Get code from an online repository like GitHub or Azure DevOps



Open a project or solution

Open a local Visual Studio project or .sln file



Open a local folder

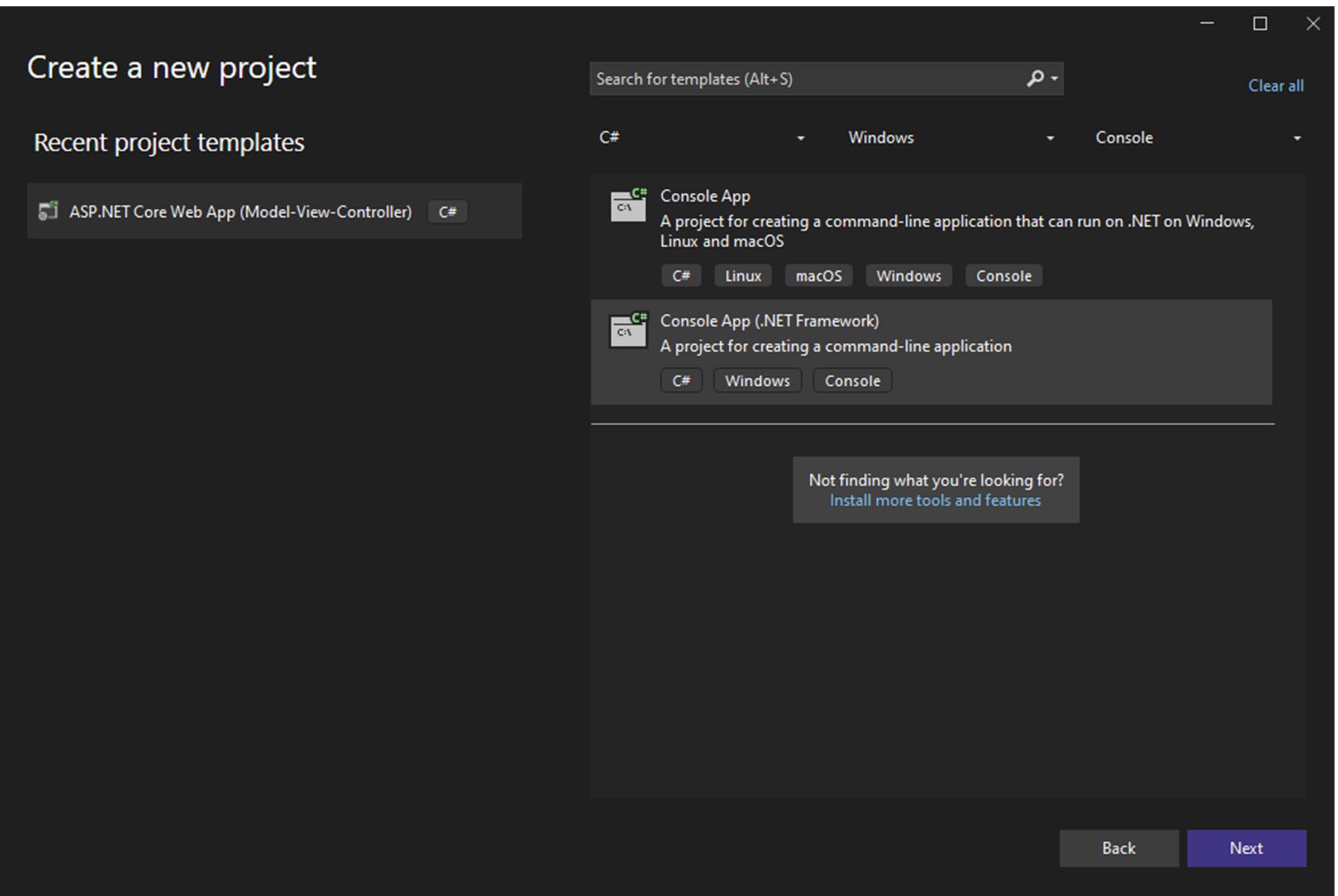
Navigate and edit code within any folder

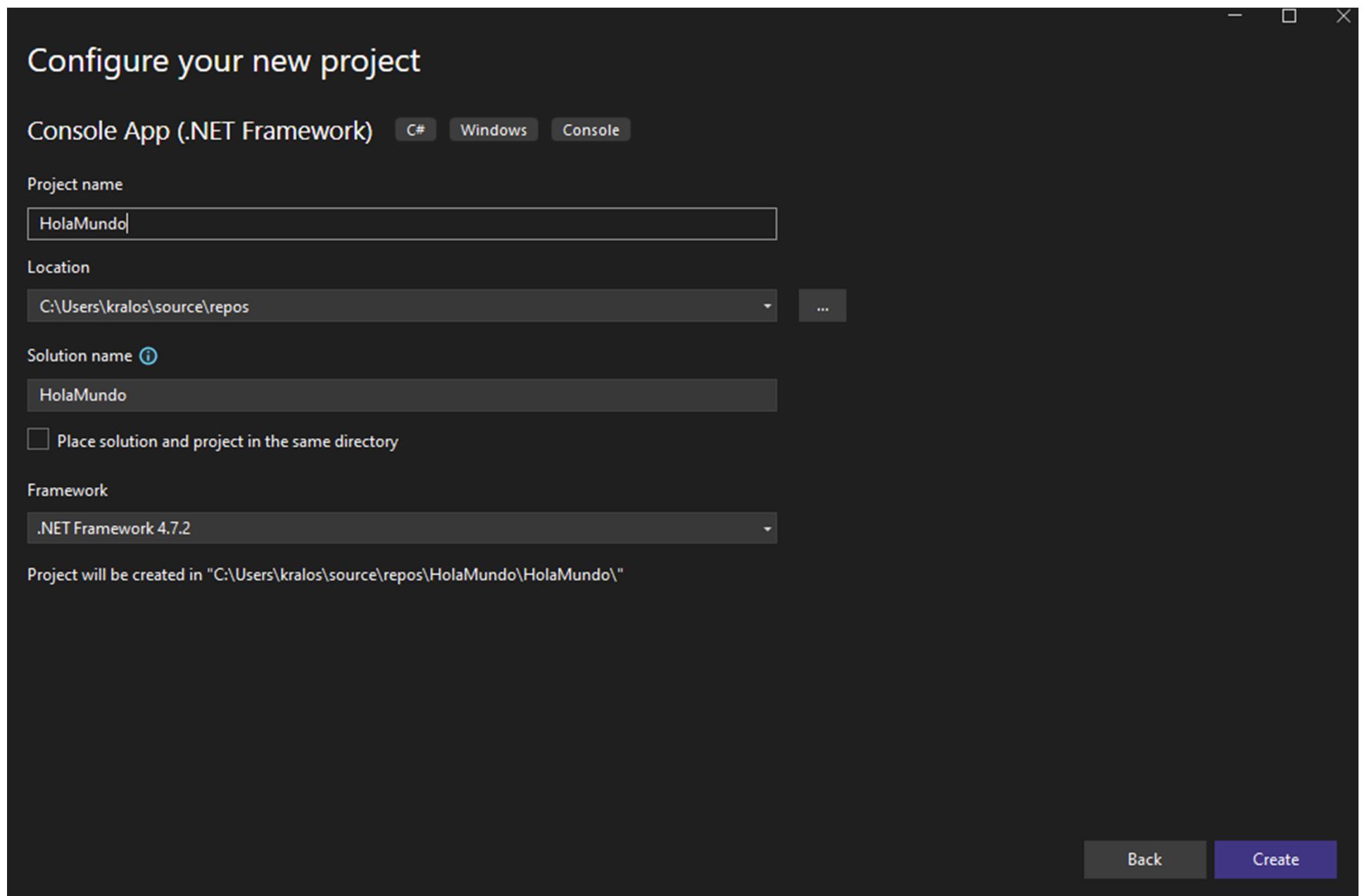


Create a new project

Choose a project template with code scaffolding to get started

[Continue without code →](#)





Configure your new project

Console App (.NET Framework)

C#

Windows

Console

Project name

HolaMundo

Location

C:\Users\kralos\source\repos

...

Solution name ⓘ

HolaMundo

Place solution and project in the same directory

Framework

.NET Framework 4.7.2

Project will be created in "C:\Users\kralos\source\repos\HolaMundo\HolaMundo\"

Back

Create

Sobre el código

```
using System;           // Importa funcionalidades básicas como Console
using System.Collections.Generic; // Colecciones genéricas como List<>
using System.Linq;        // Funciones LINQ para colecciones
using System.Text;        // Funciones para trabajar con texto
using System.Threading.Tasks; // Para tareas asincrónicas y concurrencia

namespace HolaMundo    // Define un espacio de nombres llamado HolaMundo
{
    internal class Program // Clase principal llamada Program
    {
        static void Main(string[] args) // Punto de entrada de la aplicación
        {
        }
    }
}
```

The screenshot shows the Microsoft Visual Studio interface with a dark theme. The top menu bar includes File, Edit, View, Git, Project, Build, Debug, Test, Analyze, Tools, Extensions, Window, Help, and a GitHub Copilot icon. The toolbar below has icons for Undo, Redo, Save, Print, and others.

The main window displays the code editor for `Program.cs` in the `HolaMundo` project. The code is as follows:

```
1  using System;
2  using System.Collections.Generic;
3  using System.Linq;
4  using System.Text;
5  using System.Threading.Tasks;
6
7  namespace HolaMundo
8  {
9      internal class Program
10     {
11         static void Main(string[] args)
12         {
13             Console.WriteLine("Hola Mundo");
14         }
15     }
16 }
17
```

To the right of the code editor is the Solution Explorer, which shows the project structure:

- Solution 'HolaMundo' (1 of 1 project)
 - HolaMundo
 - Properties
 - References
 - App.config
 - Program.cs

A Microsoft Visual Studio Debug Console window is open, showing the output of the application:

```
Microsoft Visual Studio Debug Console
Hola Mundo
C:\Users\kralos\source\repos\HolaMundo\HolaMundo\bin\Debug\HolaMundo.exe (process 116) exited with code 0 (0x0).
To automatically close the console when debugging stops, enable Tools->Options->Debugging->Automatically close the console when debugging stops.
Press any key to close this window . . .
```

The bottom left shows the Output window with the message "No issues found". The bottom right shows the Solution Explorer and Git Changes tabs.

The screenshot shows a Windows File Explorer interface with two main panes and a PowerShell window at the bottom.

Top Left Pane: Shows the directory structure: `kralos > source > repos > HolaMundo >`. The `HolaMundo` folder is selected, highlighted with a blue border. Below it is the `HolaMundo.sln` file.

Top Right Pane: A detailed view of the `HolaMundo` folder contents. The table lists the following items:

Name	Date modified	Type	Size
bin	7/28/2025 6:12 PM	File folder	
obj	7/28/2025 6:12 PM	File folder	
Properties	7/28/2025 6:12 PM	File folder	
App	7/28/2025 6:12 PM	Configuration Sou...	1 KB
HolaMundo	7/28/2025 6:12 PM	C# Project file	3 KB
Program	7/28/2025 6:14 PM	C# Source File	1 KB

Bottom Left Pane: Shows the directory structure: `kralos > source > repos > HolaMundo > HolaMundo > bin > Debug`.

Bottom Right PowerShell Window:

```
PowerShell 7.5.2
Loading personal and system profiles took 3101ms.
[kralos]
[~\source\repos\HolaMundo\HolaMundo\bin\Debug]
> ls

Directory: C:\Users\kralos\source\repos\HolaMundo\HolaMundo\bin\Debug

Mode                LastWriteTime       Length Name
----                -----          ---- 
-a---        7/28/2025  6:14 PM      4608  HolaMundo.exe
-a---        7/28/2025  6:12 PM       189   HolaMundo.exe.config
-a---        7/28/2025  6:14 PM     19968  HolaMundo.pdb

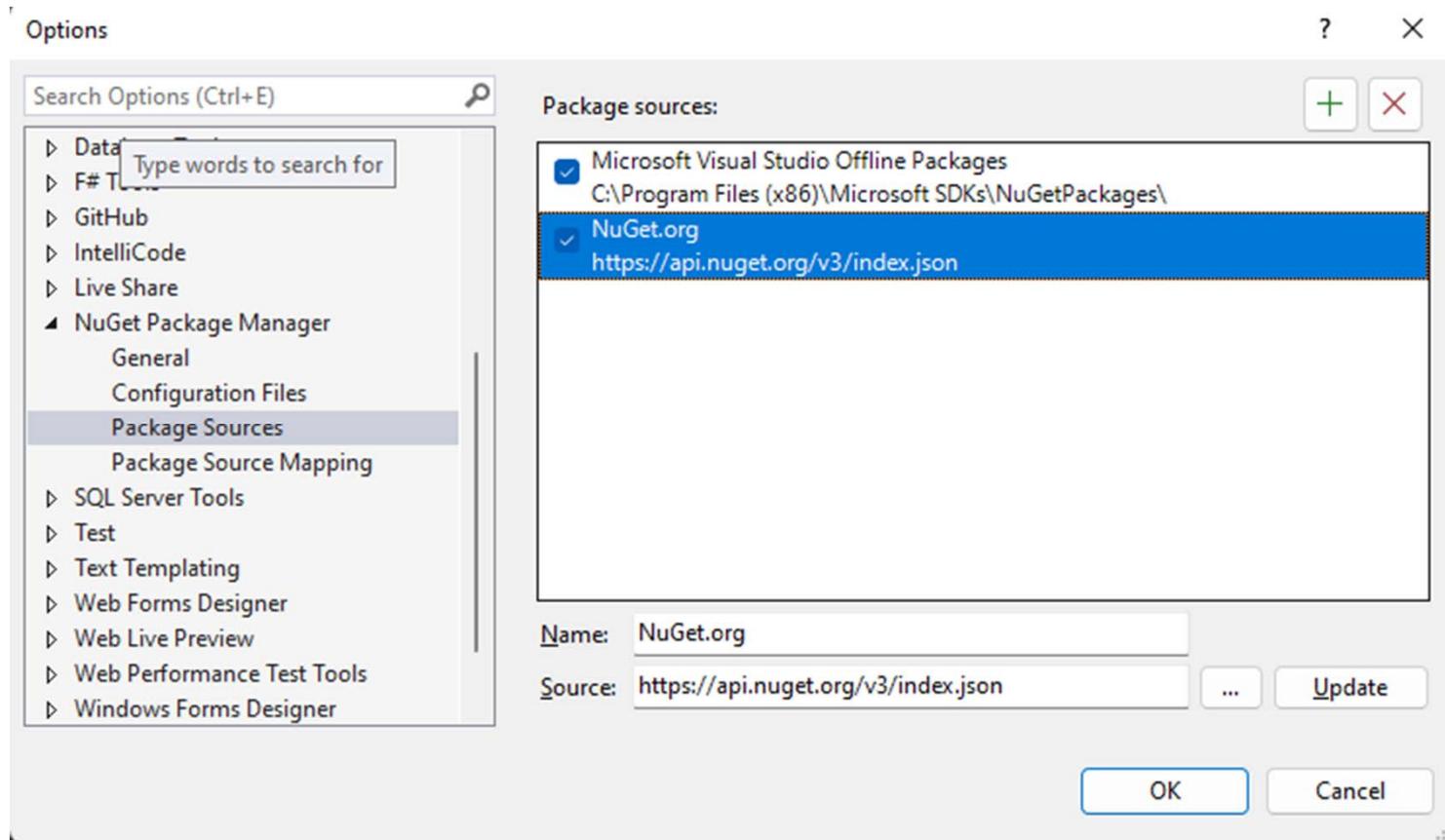
[kralos]
[~\source\repos\HolaMundo\HolaMundo\bin\Debug]
> .\HolaMundo.exe
Hola Mundo
```

C# namespace vs Java package

Característica	namespace en C#	package en Java
Propósito	Organizar clases, evitar conflictos	Igual: organizar y evitar conflictos
Sintaxis	<code>namespace MiAplicacion.Utilidades { ... }</code>	<code>package miaplicacion.utilidades;</code>
Relación con estructura de carpetas	No obligatoria, pero recomendable	Obligatoria: debe coincidir con estructura
Importación	<code>using MiAplicacion.Utilidades;</code>	<code>import miaplicacion.utilidades.*;</code>
Accesibilidad predeterminada	<code>internal</code> para clases sin modificador	<code>package-private</code> (sin modificador)
Nombre de archivo	Puede diferir del nombre de la clase	El archivo debe llamarse como la clase pública
Alias de importación	Sí, con <code>using alias = namespace;</code>	No directamente, se usa <code>static import</code> en algunos casos
Compilación	No requiere estructura de carpetas específica	Requiere que la carpeta refleje el <code>package</code>

Aspecto	C#	Java
Sintaxis principal	<code>Console.WriteLine(...)</code>	<code>System.out.println(...)</code>
Estructura del programa	Usa <code>namespace</code>	Usa <code>class</code> , opcionalmente <code>package</code>
Método principal	<code>static void Main(string[] args)</code>	<code>public static void main(String[] args)</code>
Nombre del archivo	No necesita coincidir con la clase	Debe coincidir con el nombre de la clase
Compilación	<code>csc archivo.cs</code> o <code>dotnet run</code>	<code>javac archivo.java</code> y luego <code>java</code>
Requiere entorno	.NET SDK o Visual Studio	JDK (Java Development Kit)

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