



.NET
20
YEARS

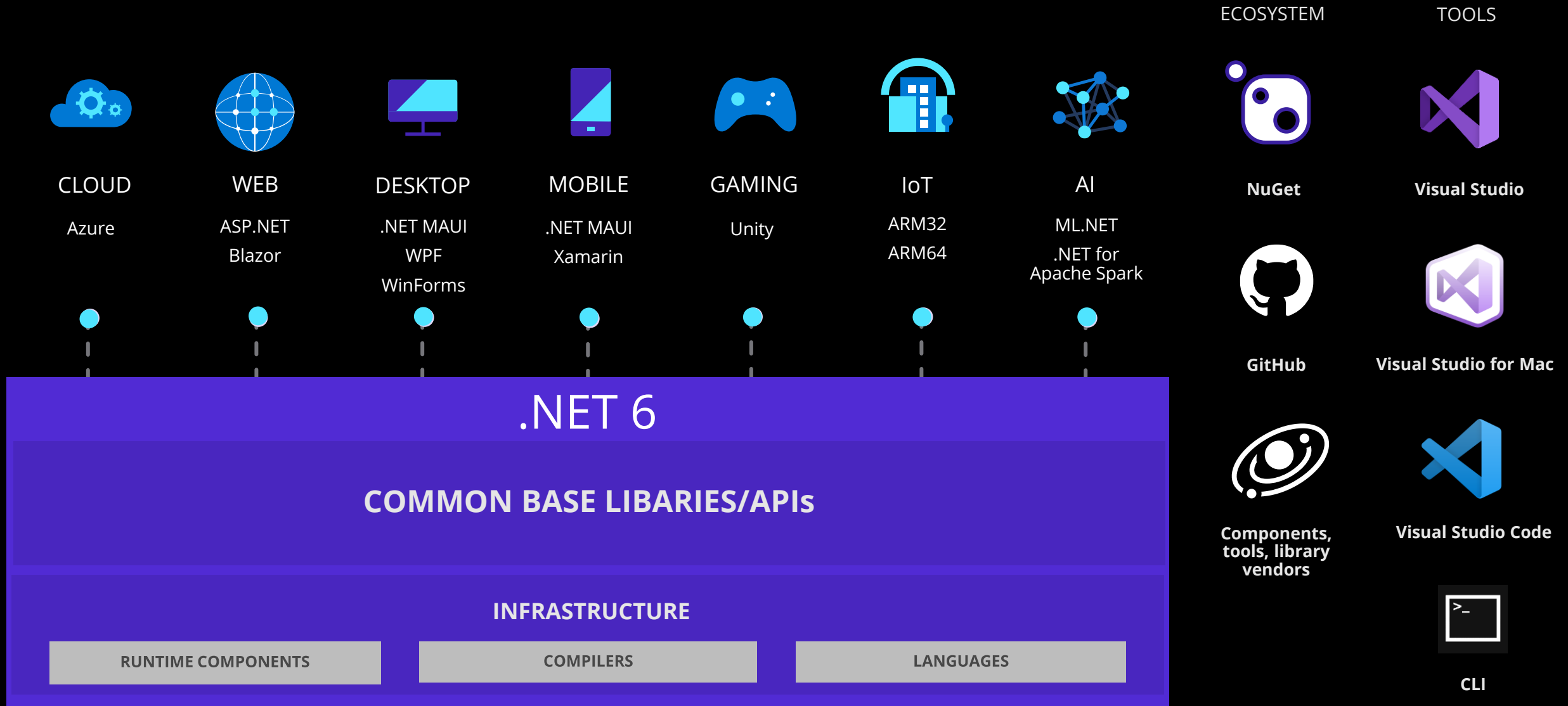
**Free. Cross-platform. Open source.
A developer platform for building all
your apps.**

<https://dotnet.microsoft.com/>

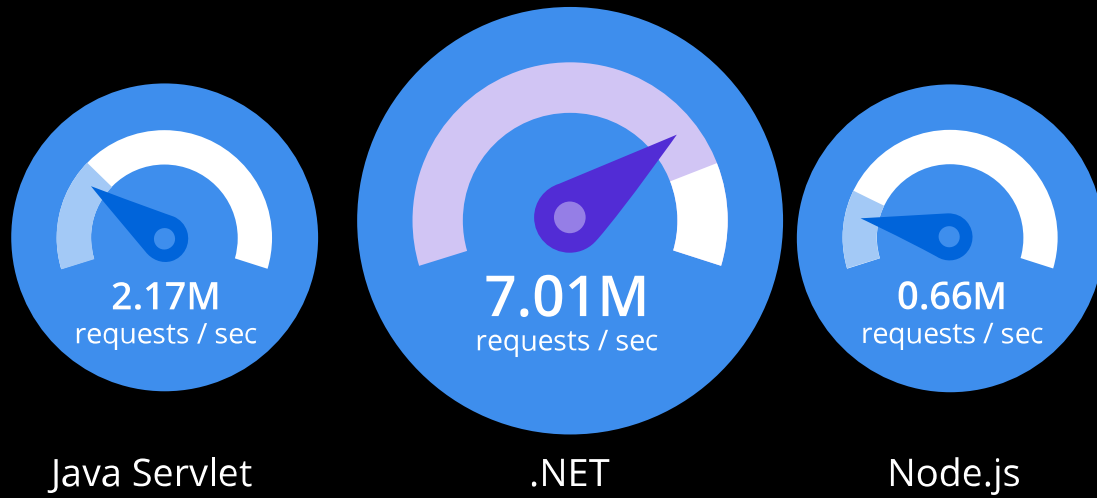
.NET 6.0



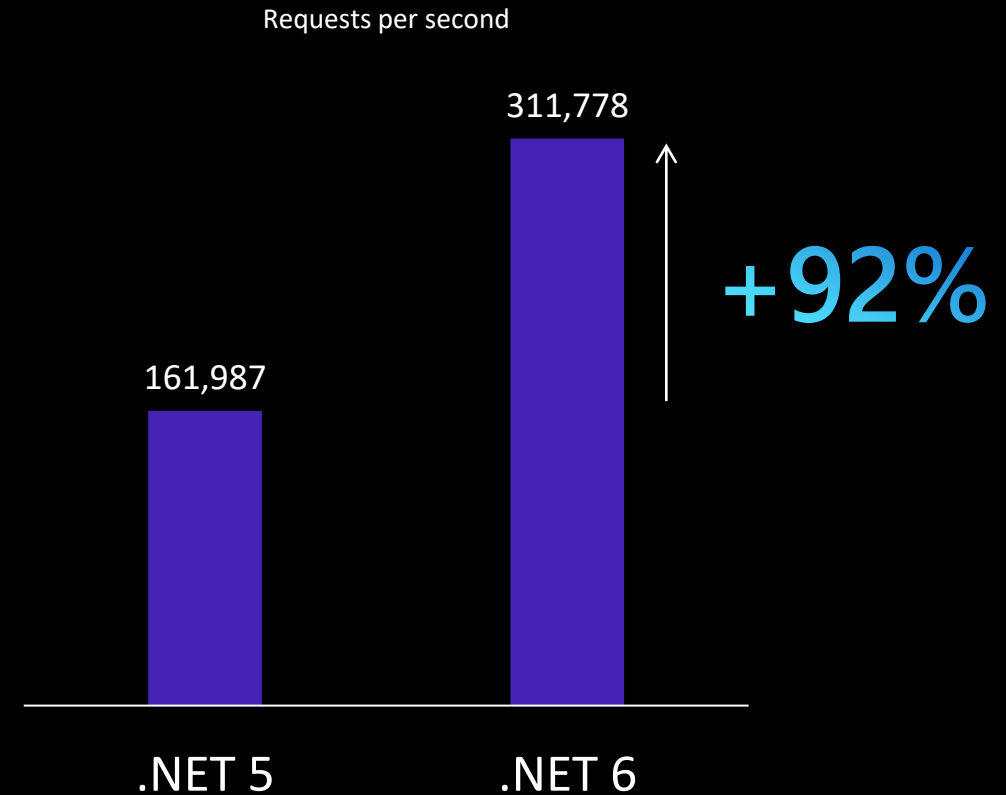
.NET – A unified development platform



.NET 6 Performance



> 10X faster than Node.js
ASP.NET Core web framework



Sources:

<https://www.techempower.com/benchmarks/#section=data-r20&hw=ph&test=plaintext>

<https://www.techempower.com/benchmarks/#section=test&runid=3fc99e53-f60d-428e-9937-e809880d3da2&hw=ph&test=fortune&a=2&o=e>

RELEASED

.NET 6

- Unified common base libraries & SDK
- Industry leading performance
- Simplified development, easier to get started
- New C# 10, F# 6 releases
- Apple Silicon (Arm64) support
- Long-Term Support Release

get.dot.net/6



RELEASED

Visual Studio 2022



Modern development

Build innovative, modern apps using .NET 6, GitHub and Azure with integrated tooling



Personal and team productivity

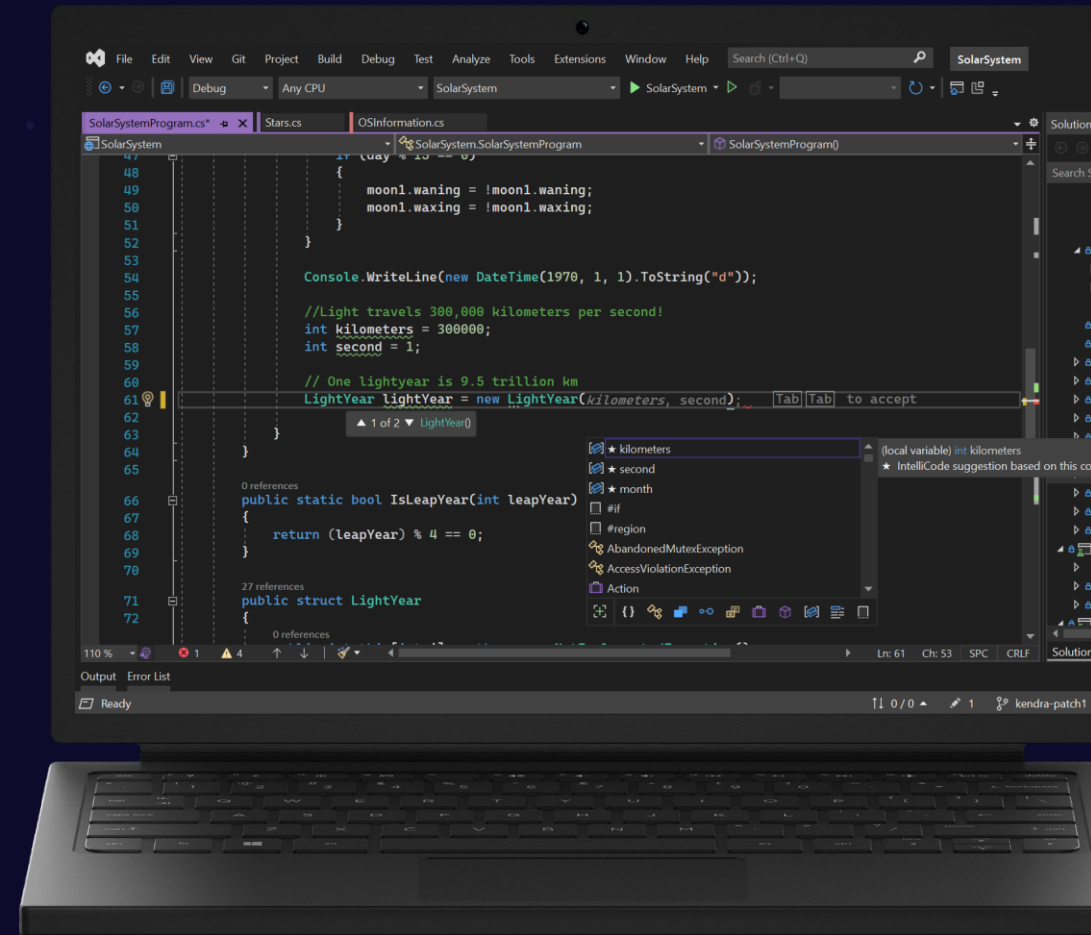
Live Share, Hot reload everywhere, Web live preview, IntelliCode, enhanced debugging and testing tools



Scale to projects of any size

An optimized, modern UI built on 64-bit architecture to support the largest, most complex codebases and workflows

[VisualStudio.com/download](https://visualstudio.com/download)



RELEASED

.NET Upgrade Assistant

- Reduce time and difficulty modernizing older .NET codebases
- Guided, step-by-step experience
- Multiple project types supported
- C# & VB.NET languages
- Supports .NET 6

+40K

preview downloads



aka.ms/dotnet-upgrade-assistant

Using .NET

Set up your development environment

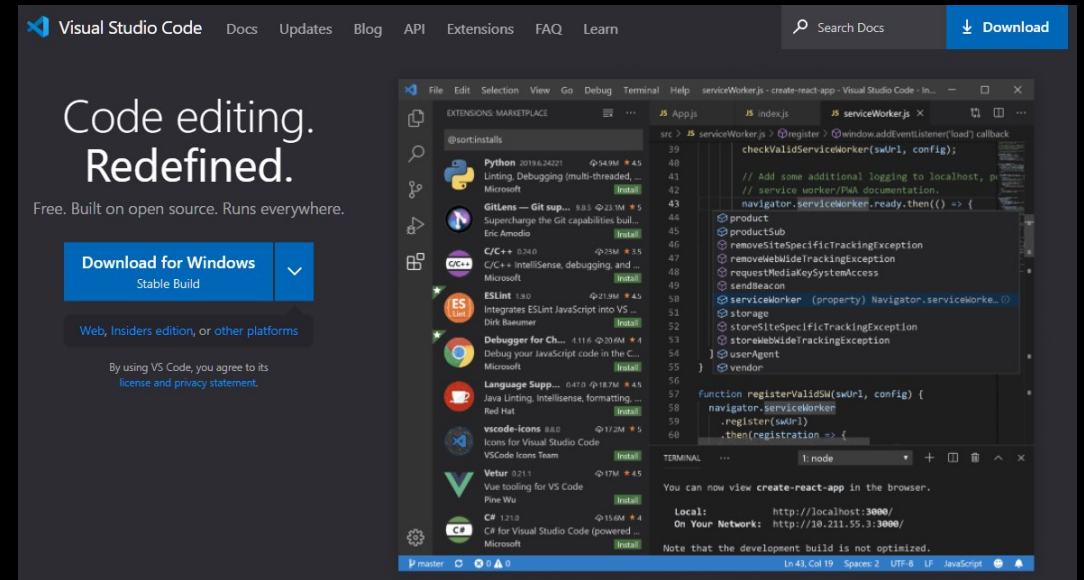
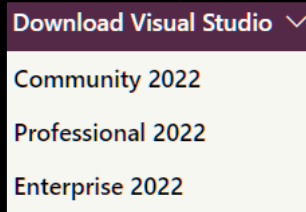
Two Step

visual workflow that features

command-line interface CLI



<https://visualstudio.microsoft.com/vs/>



<https://code.visualstudio.com/>

Get Started

Create a .NET project from CLI

`md <directory>`

`dotnet new`

`dotnet new console`

`dotnet new webapp`

Create a work directory

Create a .NET project based on a template.

Create a Console App project on .NET

Create a web app project on .NET

The 'dotnet new' command creates a .NET project based on a template.

Common templates are:

Template Name	Short Name	Language	Tags
ASP.NET Core Web App	razor,webapp	[C#]	Web/MVC/Razor Pages
Blazor Server App	blazorserver	[C#]	Web/Blazor
Class Library	classlib	[C#],F#,VB	Common/Library
Console App	console	[C#],F#,VB	Common/Console
Windows Forms App	winforms	[C#],VB	Common/WinForms
WPF Application	wpf	[C#],VB	Common/WPF

Build functionality

`dotnet add package <package name>`

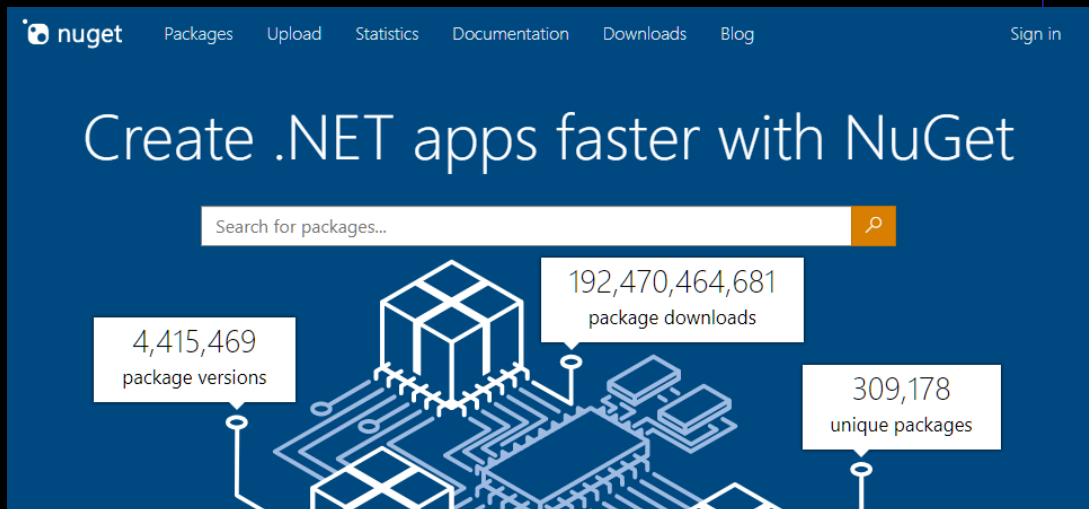
`dotnet list package`

`dotnet remove package <package name>`

Adds or updates a package reference in a project file

Lists the package references for a project or solution

Removes package reference from a project file



<https://www.nuget.org/>

Compile and run your application

`dotnet build`

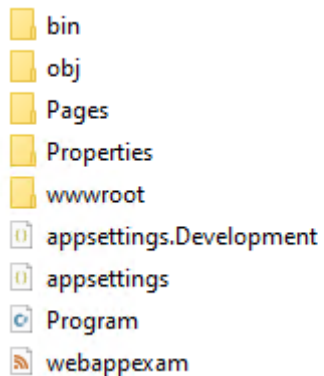
`dotnet clean`

`dotnet run`

Builds a project and all of its dependencies.

Clean the outputs of a project

Runs source code without any explicit compile or launch commands.



A screenshot of a file explorer window showing the project structure of a .NET application. The file explorer is open to a directory containing several folders and files. The folders are: bin, obj, Pages, Properties, and wwwroot. The files are: appsettings.Development, appsettings, Program, and webappexam. The file icons are small yellow squares with a white 'i' inside, indicating they are information files or settings files.

- bin
- obj
- Pages
- Properties
- wwwroot
- appsettings.Development
- appsettings
- Program
- webappexam

Distribute the application

`dotnet publish`

`dotnet assembly (.dll or exe)`

Publishes the application and its dependencies to a folder for deployment to a hosting system

Run the assembly

Working with previews versions of .NET

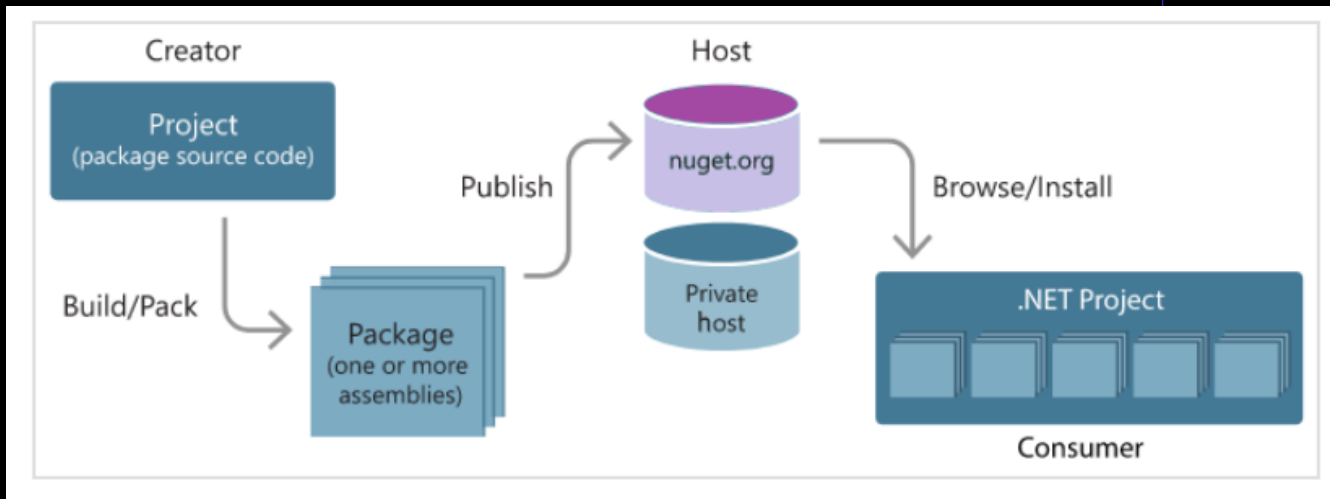
```
dotnet new console --framework  
netcoreapp3.1
```

Create a console project in net3.1 app

Working with package (Nuget.org)

`dotnet add package <package name>`

Adds or updates a package reference in a project file



Working with package (Nuget.org)

```
dotnet list package -outdated
```

Lists outdated packages

```
dotnet list package -outdated -include-prerelease
```

To check for pre-release packages

```
dotnet add package Humanizer
```

Adds a Humanizer package

Thanks.