

Introduction to ASP.NET Core

- ASP.NET Core is a cross-platform, high-performance, [open-source](#) framework for building modern, cloud-enabled, Internet-connected apps. With ASP.NET Core, you can:
- Build web apps and services, [Internet of Things \(IoT\)](#) apps, and mobile backends.
- Use your favorite development tools on Windows, macOS, and Linux.
- Deploy to the cloud or on-premises.
- Run on [.NET Core](#).

Why choose ASP.NET Core?

- Millions of developers use or have used [ASP.NET 4.x](#) to create web apps. ASP.NET Core is a redesign of ASP.NET 4.x, including architectural changes that result in a leaner, more modular framework.

ASP.NET Core provides the following benefits:

- A unified story for building web UI and web APIs.
 - Architected for testability.
 - Ability to develop and run on Windows, macOS, and Linux.
 - Open-source and [community-focused](#).
 - A cloud-ready, environment-based [configuration system](#).
 - Built-in [dependency injection](#).
 - A lightweight, [high-performance](#), and modular HTTP request pipeline.
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- Ability to host on the following:
 - [Kestrel](#)
 - [IIS](#)
 - [HTTP.sys](#)
 - [Nginx](#)
 - [Apache](#)
 - [Docker](#)
- [Side-by-side versioning.](#)
- Tooling that simplifies modern web development.

Build web APIs and web UI using ASP.NET Core MVC

ASP.NET Core MVC provides features to build [web APIs](#) and [web apps](#):

- The [Model-View-Controller \(MVC\) pattern](#) helps make your web APIs and web apps testable.
 - [Razor Pages](#) is a page-based programming model that makes building web UI easier and more productive.
 - [Razor markup](#) provides a productive syntax for [Razor Pages](#) and [MVC views](#).
 - [Tag Helpers](#) enable server-side code to participate in creating and rendering HTML elements in Razor files.
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- Built-in support for [multiple data formats and content negotiation](#) lets your web APIs reach a broad range of clients, including browsers and mobile devices.
- [Model binding](#) automatically maps data from HTTP requests to action method parameters.
- [Model validation](#) automatically performs client-side and server-side validation.

ASP.NET Core target frameworks

- ASP.NET Core 3.x and later can only target .NET Core. Generally, ASP.NET Core is composed of [.NET Standard](#) libraries. Libraries written with .NET Standard 2.0 run on any [.NET platform that implements .NET Standard 2.0.](#)

There are several advantages to targeting .NET Core, and these advantages increase with each release. Some advantages of .NET Core over .NET Framework include:

- Cross-platform. Runs on Windows, macOS, and Linux.
 - Improved performance
 - [Side-by-side versioning](#)
 - New APIs
 - Open source
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Thanks