Blazor WebAssembly Class

By Chris MacFarlane

Contents

[What is Blazor WASM: 3](#_Toc65571019)

[WebAssembly or WASM: 3](#_Toc65571020)

[When Blazor WebAssembly app is built for browser: 3](#_Toc65571021)

[Components 3](#_Toc65571022)

[Razor 3](#_Toc65571023)

**Introduction**

## **What is Blazor WASM:**

* Blazor is a framework for building interactive client side web ui with .NET
* All code can be written in C# instead of Java script
* Share app logic across the server and client
* Blazor uses components similar to other JS frameworks
* Blazor Web Assembly is for building single page applications
* Blazor works in all modern browsers and mobile browsers
* Blazor uses open web standards without plugins or recompiling code into other languages.
* Running C# inside the browser is made possible by WebAssembly.

**WebAssembly or WASM:**

* WebAssembly is a compact bytecode format optimized for fast download and maximum execution speed.
* WebAssembly is an open web standard and supported in web browsers without plugins.

**When a Blazor WebAssembly app is built for browser:**

* C# code and Razor files are compiled into .NET assemblies
* All assemblies and .NET runtimes are downloaded to the browser.
* The Blazor WebAssembly runtimes use Javascript interop to handle DOM manipulation and browser API Calls.

**Components**

* Blazor apps are based on components. The components class is written in the form of a Razor markup page with a .razor file extension. Components in Blazor are typically referred to as Razor Components.

**Razor**

* Razor allows you to switch between HTML and C#.

Getting Started

# .Net 5.0

Community-maintained tools are available to help detect which .NET Framework versions are installed:

* <https://github.com/jmalarcon/DotNetVersions>

A .NET Framework 2.0 command-line tool.

* <https://github.com/EliteLoser/DotNetVersionLister>

A PowerShell 2.0 module.

The ASP.NET Core Runtime enables you to run existing web/server applications. **On Windows, we recommend installing the Hosting Bundle, which includes the .NET Runtime and IIS support.**

<https://dotnet.microsoft.com/download/dotnet/5.0>

or

<https://dotnet.microsoft.com/download/dotnet/thank-you/runtime-aspnetcore-5.0.3-windows-hosting-bundle-installer>

# Create Blazor WASM Project

We will create a basic single page application which means you will be using Blazor WASM.

* **Command to create project: dotnet new blazorwasm -o blazor-web**
  + “Dotnet new blazorwasm” is to create a new Blazor WebAssembly Project
  + “-o” is for output
* “Blazor-web” is project name
* **Command to build project and fetch nugget packages and compile it: dotnet build**
* **Command to run app and watch for changes: dotnet watch run**

Files, Project Structure

**App and Routing**

* The root component is called App.
* The router component is used in the app component of Blazor apps.