

Blazor WebAssembly

Allen Bose

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Abstract

In the era where Single Page Applications (SPAs for short) reign supreme it is important to understand the framework that builds them. When you look into them all you see are JavaScript frameworks. This is due to the fact that SPAs work client side by design. And only JavaScript can be run in the client side browser environment. No matter what programming language you use on the server side you always have to rely on JavaScript when it comes to client side rendering. This is the harrowing reality that today's web development has brought us. Fortunately our investigation has led us to Microsoft.

In 2018, Microsoft introduced Blazor Webassembly. It revolutionized the SPA landscape with its new ability. The ability to write frontend code in C# just like the backend code. In essence going around using JavaScript for client side rendering. Blazor Webassembly accomplishes this feat by using Webassemblies. The C# code for the client side gets compiled into Webassembly which can run on any browser with Webassembly support. This makes web development easy and provides all the features of a robust, performant type-safe and well made language like C# available to even the client side. We have found that this enables sharing of DTOs and models between backend and frontend since it's C# all the way. Thereby reducing redundant code.