



Programming in Blazor

Tecnologias de Informação - Desenvolvimento / Programação

- **Nível:**
 - **Duração:** 35h
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Sobre o curso

Este curso tem como objetivo dotar os participantes das competências, conhecimentos e técnicas necessárias à utilização do framework ASP .Net Core 5.0 Blazor.

Destinatários

Este curso destina-se a todos os Developers que desejam utilizar o BLAZOR para facilitar o seu processo de criação de Web Apps.

Objetivos

No final da ação de formação os participantes deverão estar aptos a:

- Desenvolver uma Web App em WebAssembly(Server and Cliente)
 - WebPage, Components, Local Storage, Offline, Events
 - Compreender os fundamentos e conceitos do Blazor, PWA, SPA
 - Aceder a recursos remotos por WebApi, gRPC, SignalR
 - Criar Layouts para as paginas e componestes
 - Efectuar o deployment de uma Blazor APP
 - Compreender e implementar segurança OAUTH
 - Health Checks and Swagger Open Api Documention
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Pré-requisitos

Conhecimentos de C#

Programa

- Introduction

- Creating a Blazor layout
- Components
- Render trees
- Templating components with RenderFragments
- Routing
- Forms
- Component libraries
- JavaScript interop
- Dependency injection
- Injecting dependencies into Blazor components
- Dependency lifetimes and scopes
- Globalization and Localization
- WebApi, SignalR and gRPC
- Deployment Blazor App – Server and Local

Introduction

- What is Blazor?
- What is WebAssembly?
- Blazor hosting models
- Installing Blazor
- Creating a new project
- Creating a page
- Layouts

Creating a Blazor layout

- Using a layout
- Nested layouts

Components

- Creating a component
- One-way binding
- Literals, expressions, and directives
- Directives
- Component events
- Browser DOM events
- Two-way binding
- Binding directives
- Cascading values
- Cascading values by name
- Cascading values by type
- Overriding cascaded values
- Code generated HTML attributes
- Capturing unexpected parameters

- Replacing attributes on child components
- Component lifecycles
- Multi-threaded rendering
- Thread safety using InvokeAsync

Render trees

- Incremental RenderTree proof
- Optimising using @key

Templating components with RenderFragments

- Creating a Control
- Passing data to a RenderFragment
- Using @typeparam to create generic components
- Passing placeholders to RenderFragments

Routing

- Defining routes
- Route parameters
- Constraining route parameters
- Optional route parameters
- 404 - Not found
- Navigating our app via HTML
- Navigating our app via code
- Detecting navigation events

Forms

- Editing form data
- Descending from InputBase
- Validation
- Handling form submission
- EditContext, FieldIdentifiers, and FieldState
- Accessing form state
- Writing custom validation

Component libraries

JavaScript interop

- JavaScript boot process
- Calling JavaScript from .NET
- Updating the document title
- Passing HTML element references
- Calling .NET From JavaScript
- Lifetimes and memory leaks

- Type safety
- Calling static .NET methods

Dependency injection

Injecting dependencies into Blazor components

Dependency lifetimes and scopes

- Transient dependencies
- Singleton dependencies
- Scoped dependencies
- Comparing dependency scopes
- Component scoped dependencies

Globalization and Localization

WebApi, SignalR and gRPC

Deployment Blazor App - Server and Local