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# Blazor training with ASP.Net Core

3 days (21 hours)

## Presentation

Our Blazor training course will teach you the full potential of Blazor, Microsoft's modern web framework, which lets you design high-performance, interactive applications entirely in C#. A powerful alternative to traditional JavaScript solutions, Blazor draws on the robustness of the .NET ecosystem to offer a new approach to front-end development.

Training focuses on Blazor's two main modes:

- Blazor WebAssembly (client-side execution in the browser)
- Blazor Server (server-side execution with exchanges via SignalR)

Using a reusable component approach, you'll learn how to build elegant, efficient modular interfaces. During the course, an integration scenario with Blazor Hybrid is also explored, illustrating its possible use in desktop applications (WPF, Windows Forms).

At the end of this course, you'll be ready to design high-performance, modular and maintainable web applications using the latest Blazor innovations.

Our Blazor training will be taught with the latest version of .NET, .NET Core 8.

## Objectives

- Master the fundamentals of Blazor and choose the right model (WebAssembly, Server, Hybrid) for your project needs.
- Develop modern, dynamic web interfaces using Razor components reusable.
- Manage navigation, component lifecycles and interoperability with JavaScript.
- Design a complete application in Blazor, integrating advanced functionalities (data management, internationalization, graphical components, PDF generation, etc.).

## Target audience

- C# developers,
- Software architects

## Prerequisites

- Knowledge of C# programming
- Have taken our ASP.Net training course

## Software requirements

- Visual Studio 2022 (minimum Community version) with Workload ASP.NET and web development and .NET desktop development installed. VS Code
- Ideally, you should have a dual screen for a virtual classroom.

## Blazor training program: Asp.Net Core

### Day 1

#### good development practices

- Conventions for C# developers
- Clean Architecture

#### INTRODUCTION

- Demonstration of concrete applications (Wasm / Server)
- Blazor WebAssembly vs Blazor Server
- From HTML to Razor
- Razor and his guidelines
- Blazor and C# code
- Pages and navigation
- Pages and settings
- Application navigation
- Handling navigation errors
- Routing constraints
- Parameter switching and

playback Components

- Parameters
- Data Binding
- Communication via EventCallback
- CSS insulation
- Component life cycle
- Advanced scenarios with RenderTreeBuilder
- Generic and dynamic components
- Virtualization component

### DAY 2

#### Components (continued)

- Sharing between components
- Using the Razor class library
- Subcomponent : Cascading components
- Subcomponents : RenderFragment
- Layout: Layout logging

#### and error handling

- Using ILogger
- Error management

#### Form management

Interoperability with JavaScript

- Using a JavaScript function
- Data exchange between JS and C#
- Calling a C# method via a JavaScript function
- Javascript collocation
- JS optimization in Blazor Wasm

#### Session variables

### DAY 3

#### Good coding practices

Code conventions for Blazor Unit

testing

• Creating INTEROP JS interface unit

#### tests

- Native PDF document creation
- Creating an Excel document
- Editing metadata by page
- Create an international application
- Blazor and Markdown
- Overview of the different graphic components available
- Cache-Busting

#### Blazor Hybrid and Blazor Native

- Customs Elements
- Using Blazor in a WinForms/WPF application
- Understanding Blazor Render Modes (SSR)
  - Streaming SSR
  - Improved navigation
  - Interactive components
  - Auto-mode

## Companies concerned

This course is aimed at both individuals and companies, large or small, wishing to train their teams in a new advanced computer technology, or to acquire specific business knowledge or modern methods.

## Positioning on entry to training

Positioning at the start of training complies with Qualiopi quality criteria. As soon as registration is finalized, the learner receives a self-assessment questionnaire which enables us to assess his or her estimated level of proficiency in different types of technology, as well as his or her expectations and personal objectives for the training to come, within the limits imposed by the selected format. This questionnaire also enables us to anticipate any connection or security difficulties within the company (intra-company or virtual classroom) which could be problematic for the follow-up and smooth running of the training session.

## **Teaching methods**

Practical course: 60% Practical, 40% Theory. Training material distributed in digital format to all participants.

## Organization

The course alternates theoretical input from the trainer, supported by examples, with brainstorming sessions and group work.

# Validation

At the end of the session, a multiple-choice questionnaire verifies the correct acquisition of skills.

## Sanction

A certificate will be issued to each trainee who completes the course.