

KOENIG SOLUTIONS · COURSE OUTLINE

Blazor Development with .NET 8

Learn to build, secure and deploy web applications with Blazor and .NET 8, from Razor components to REST, EF Core and gRPC services.

4 Days

DURATION

12

MODULES

54

TOPICS

COURSE OVERVIEW

This course covers .NET 8 and its new features before introducing Blazor, its architecture and the difference between Blazor Server and Blazor WebAssembly. It then covers building Blazor applications, working with Razor components, data binding, validation and Bootstrap-based layouts. Later modules cover consuming REST Web API services, using Entity Framework Core for data access, securing applications with authentication and authorization, implementing gRPC services, and organising code with Razor Class Libraries.

WHO THIS COURSE IS FOR

Blazor Developers

ASP.NET Core Developers

.NET Developers

Web API Developers

Full-Stack Developers

LEARNING OBJECTIVES

- Explain the evolution and new features of .NET 8
- Compare Blazor Server and Blazor WebAssembly hosting models
- Build Blazor web applications using Razor components
- Implement data binding, events and component communication in Blazor
- Apply validation using EditForm and input components
- Configure Bootstrap layouts for responsive user interfaces
- Implement REST Web API and gRPC services in Blazor
- Configure Entity Framework Core and secure Blazor applications

12 Modules, 54 Topics

01

Introduction to .NET 8 | .NET 6 | .NET 5 | ASP.NET Core 3.1

TOPICS

Understanding Core form of .NET · What's new with .NET 8 · Evolution from .NET 6 to .NET 8

02

.NET 8 Features

TOPICS

Performance Improvements · Native AOT (Ahead-of-Time Compilation) · Enhanced JSON Serialization · Improved Minimal APIs · Blazor Unified Rendering Model · Improved gRPC Performance · EF Core 8 Enhancements

03

Overview of Blazor

TOPICS

Blazor as a SPA (Single Page Application) · Blazor Architecture with ASP.NET Core | .NET · Introduction to Blazor Server · Introduction to Blazor WebAssembly · Lazy Loading in Blazor

04

Developing .NET Applications with Blazor

TOPICS

Blazor as RAD (Rapid Application Development) · Installing Blazor using Visual Studio 2022 · Creating Your First Blazor Web Application · Creating a Progressive Web Application (PWA)

05

Razor Components

TOPICS

- Razor Syntax & Directives
- Pages vs. Components
- Routing in Blazor
- Rendering Components
- Data Binding in Blazor
- Events and Event Callbacks
- Communication Between Components & Child Components
- Passing Parameters

06

Validation in Blazor Applications

TOPICS

Introduction to Validation · EditForm Components · Input Components · Validation Components

07

Bootstrap in Blazor Applications

TOPICS

- Using Bootstrap to Provide a Responsive User Interface
- Layout Implementation Using Bootstrap

08

Using REST Services (Web API) in Blazor WebAssembly

TOPICS

- Creating Web API Services
- Web API Controller Basics
- Implementing Controller Actions
- Configuring and Injecting HttpClient
- Implementing GET, PUT, POST, and DELETE Operations

09

Using Entity Framework Core (EF) in Blazor Server

TOPICS

- Introduction to Entity Framework Core
- Migrations and Database Creation
- Data Annotations in EF Core
- Adding Migrations
- Creating a Database
- Creating Web API Controller for Database Interaction

10

Securing MVC-based Applications Using Blazor

TOPICS

- Dealing with Common Security Threats in Web Applications
- Authentication and Authorization in Blazor
- Configuring Authorization
- Securing Pages and Components

11

gRPC Services in Blazor Applications

TOPICS

- Introduction to gRPC
- Comparing gRPC and Web API
- Implementing gRPC Service in a Blazor Application

12

Razor Class Library (RCL)

TOPICS

Creating a Razor Class Library · Using Components from a Library · Routing to Pages in a Library

WHAT IS INCLUDED

Everything You Need to Succeed

- Koenig course material for every module
- Delivery by certified instructors and subject matter experts
- Hands-on exercises throughout the course
- Course completion certificate from Koenig

ABOUT KOENIG

Who We Are

Established in 1993, Koenig Solutions is a globally recognised training provider with 35+ technology partnerships, 5,000+ training programmes and a network of certified instructors and subject matter experts, supporting individuals and enterprise teams worldwide.

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