

KOENIG SOLUTIONS · COURSE OUTLINE

Programming in Blazor 5 (ASP.NET Core 5)

Learn to build web applications with Blazor and ASP.NET Core 5, from Razor Components to REST, gRPC, Entity Framework and security.

12

MODULES

63

TOPICS

COURSE OVERVIEW

This course covers Blazor and ASP.NET Core 5, including Web Assembly versus server hosting, project configuration and building a first Blazor application. It examines Razor Components in depth, covering routing, rendering, binding, events and directives, then moves to calling REST and gRPC services from Blazor applications. Further modules address component parameters and templates, Entity Framework Core for data access, form validation, MVC security, Razor Class Libraries, JavaScript interop and using Bootstrap for responsive layouts.

WHO THIS COURSE IS FOR

Web Developers

ASP.NET Developers

Software Engineers

Full Stack Developers

Front-End Developers

LEARNING OBJECTIVES

- Explain Blazor concepts including Razor Components and Web Assembly
- Configure ASP.NET Core 5 projects and Blazor applications
- Build and route Razor Components with data binding and events
- Implement REST and gRPC services for Blazor applications
- Develop components with parameters, child components and templates
- Apply Entity Framework Core for data access and migrations
- Implement form validation using EditForm and validation components
- Configure authentication, authorization and security for Blazor pages

12 Modules, 63 Topics

01

Blazor (ASP.NET Core 5) Introduction

TOPICS

- What are Blazor; Razor Components and Web Assembly?
- Web Assembly vs Server
- Configuring Core 5
- Discuss the rapid development and evolution of ASP.NET
- Comparison of features for web technologies
- Creating Progress Web Application
- Support for Dependency Injection
- Creating your first Blazor Web Application
- Configuration Options
- New Core 5 Features

02

Introduction to Blazor Application

TOPICS

Overview of Blazor · Blazor and Razor Components · Installing Blazor Templates · Debugging Blazor Applications · Pages · Layout and menu · Dependency Injection

03

Razor Components

TOPICS

Pages vs Components · Routing · Rendering Components · Binding (one way and two way) · Events (and stopping propagation) · Code and Code behind files · Razor Syntax · Razor Directives

04

Calling REST Services

TOPICS

Creating Web API services · Web API Controller · Implementing Controller Actions · Using HttpClient · Configuring and Injecting HttpClient · Using Get request for Web API service · Using Post, Put and Delete

05

Alternatively Calling gRPC Services

TOPICS

What is gRPC? · Create a gRPC service (using Proto 3) · Define Messages and Remote Procedure Calls · Connecting to service · Create a client interface for service

06

Components - Continued

TOPICS

Parameters · Child Components · RenderFragments · Template Components

07

Using Entity Framework

TOPICS

Introduction to Entity Framework Core · Migrations and Database creation · DataAnnotations · Adding Migrations · Creating a Database · Creating Web API controller

08

Validation

TOPICS

Introduction to Validation · EditForm components · Input components · Validation components

09

MVC Security

TOPICS

- Dealing with common security threats in Web Applications
- Authentication and Authorization
- Configuring Authorization
- Securing Pages and Components

10

Razor Class Library

TOPICS

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

11

Interop with JavaScript

TOPICS

Calling JavaScript from Components · Referring to Elements within the JavaScript · Calling .NET methods from JavaScript

12

Bootstrap

TOPICS

- Using Bootstrap to provide a Responsive User Interface
- Layout using Bootstrap

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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