Developing ASP.NET Core MVC Web Applications

Description

In this 5-day course, the professional web developers will learn to develop advanced ASP.NET Core MVC applications using .NET Core tools and technologies. The focus will be on coding activities that enhance the performance and scalability of the Web site application.

Course Content
Module 1: Exploring ASP.NET Core MVC

- Lesson 1: Overview of Microsoft Web Technologies
- Lesson 2: Overview of ASP.NET 4.x
- Lesson 3: Introduction to ASP.NET Core MVC

Module 2: Designing ASP.NET Core MVC Web Applications

- Lesson 1: Planning in the Project Design Phase
- Lesson 2: Designing Models, Controllers and Views

Module 3: Configure Middlewares and Services in ASP.NET Core

- Lesson 1: Configuring Middlewares
- Lesson 2: Configuring Services

Module 4: Developing Controllers

- Lesson 1: Writing Controllers and Actions
- Lesson 2: Configuring Routes
- Lesson 3: Writing Action Filters

Module 5: Developing Views

- Lesson 1: Creating Views with Razor Syntax
- Lesson 2: Using HTML Helpers and Tag Helpers
- Lesson 3: Reusing Code in Views

Module 6: Developing Models

- Lesson 1: Creating MVC Models
- Lesson 2: Working with Forms
- Lesson 3: Validate MVC Application

Module 7: Using Entity Framework Core in ASP.NET Core

- Lesson 1: Introduction to Entity Framework Core
- Lesson 2: Working with Entity Framework Core
- Lesson 3: Use Entity Framework Core to connect to Microsoft SQL Server

Module 8: Using Layouts, CSS and JavaScript in ASP.NET Core MVC

- Lesson 1: Using Layouts
- Lesson 2: Using CSS and JavaScript
- Lesson 3: Using jQuery

Module 9: Client-Side Development

- Lesson 1: Applying Styles
- Lesson 2: Using Task Runners
- Lesson 3: Responsive design

Module 10: Testing and Troubleshooting

- Lesson 1: Testing MVC Applications
- Lesson 2: Implementing an Exception Handling Strategy
- Lesson 3: Logging MVC Applications

Module 11: Managing Security

- Lesson 1: Authentication in ASP.NET Core
- Lesson 2: Authorization in ASP.NET Core
- Lesson 3: Defending from Attacks

Module 12: Performance and Communication

- Lesson 1: Implementing a Caching Strategy
- Lesson 2: Managing State
- Lesson 3: Two-way communication

Module 13: Implementing Web APIs

- Lesson 1: Introducing Web APIs
- Lesson 2: Developing a Web API
- Lesson 3: Calling a Web API

Module 14: Hosting and Deployment

- Lesson 1: On-premise hosting and deployment
- Lesson 2: Deployment to Microsoft Azure
- Lesson 3: Microsoft Azure Fundamentals

Lab / Exercises

- Lab 1: Exploring ASP.NET Core MVC
- Lab 2: Designing ASP.NET Core MVC Web Applications
- Lab 3: Configuring Middleware and Services in ASP.NET Core
- Lab 4: Developing Controllers
- Lab 5: Developing Views
- Lab 7: Developing Models
- Lab 8: Using Entity Framework Core in ASP.NET Core
- Lab 9: Using Layouts, CSS and JavaScript in ASP.NET Core
- Lab 10: Client-Side Development
- Lab 11: Testing and troubleshooting
- Lab 12: Managing Security

- Lab 13: Performance and Communication
- Lab 14: Implementing Web APIs
- Lab 15: Hosting and Deployment

Documentation

- Digital courseware included

Participant profiles

- Microsoft Visual Studio Web Developers
- Advanced web application developers

Prerequisites

- Experience with Visual Studio and the CLI
- Experience with C# programming, and concepts such as Lambda expressions, LINQ, and anonymous types
- Experience in using the .NET Framework
- Experience with HTML, CSS and JavaScript
- Experience with querying and manipulating data with ADO.NET
- Knowledge of XML and JSON data structures

Objectives

- Describe the Microsoft Web Technologies stack
- Design the architecture and implementation of a web application
- Configure the pipeline of ASP.NET Core web applications using middleware

Niveau
Intermédiaire
Classroom Registration Price (CHF)
3800
Virtual Classroom Registration Price (CHF)
3550
Duration (in Days)
5
Reference
ASP.NET