

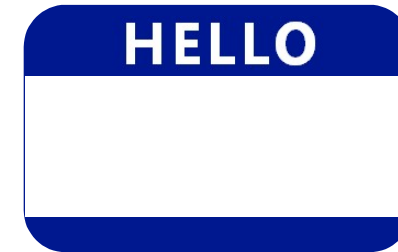
Developing ASP.NET Core Web Applications

Developing ASP.NET Core Web Applications Using Razor Pages, Blazor, Web Apis and SignalR



Hello! Instructor introduction

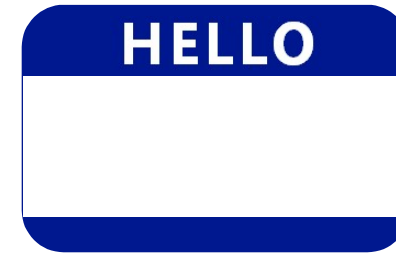
- Instructor: <Name>
- <Title or other credentials, e.g. Microsoft Certified Trainer>
- <Affiliation/Company>
- <A few words about my technical and professional experience>



Hello! Student introductions

Let's get acquainted:

- Your name
- Company affiliation
- Title/function
- Development experience in Microsoft .NET Framework, ASP.NET, and Microsoft Visual Studio
- Your expectations for the course



Facilities

- Class hours
- Building hours
- Parking
- Restrooms
- Meals
- Phones
- Messages
- Smoking
- Internet access
- Recycling
- Emergency procedures



About this course: Audience

- ▲ This course is intended for professional web developers who use Visual Studio in an individual-based or team-based scenario in small to large development environments. Candidates for this course are interested in developing advanced web applications and want to manage the rendered HTML comprehensively. They want to create websites that separate the user interface, data access, and application logic.



About this course: Prerequisites

Candidates who attend this course typically are IT professionals who have:

- Experience with Visual Studio 2019 or 2022.
- 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 Entity Framework.
- Knowledge of JSON data structures.

About this course: Objectives

After completing this course, students will be able to:

- Describe the Microsoft Web Technologies stack and select an appropriate technology to use to develop any given application.
- Design the architecture and implementation of a web application that will meet a set of functional requirements, user interface requirements, and address business models.
- Configure the pipeline of ASP.NET Core Web applications by using middleware and leverage dependency injection.
- Add Razor Pages to an ASP.NET Web application to manage user interaction and update models.
- Develop a web application that uses the ASP.NET Core routing engine to present friendly URLs and a logical navigation hierarchy to users.
- Create models and write code that implements business logic within model methods, properties, and events.

About this course: Objectives, continued

After completing this course, students will be able to:

- Connect an ASP.NET Core application to a database by using Entity Framework Core.
- Implement a consistent look and feel across an entire web application.
- Add Blazor Components that run on the client-side to optimize the responsiveness of a web application.
- Run unit tests and debugging tools against a web application in Visual Studio 2022.
- Write a Web application that authenticates and authorizes users to access content securely by using Identity.
- Build a Web application that resists malicious attacks.
- Use caching to accelerate responses to user requests.
- Use SignalR to enable two-way communication between client and server.

About this course: Objectives, continued

After completing this course, students will be able to:

- Describe what a Web API is and why developers might add a Web API to an application, including Minimal APIs.
- Describe how to package and deploy an ASP.NET Core web application from a development computer to a web server.

Course outline



Module 1

Exploring ASP.NET Core

Module 2

Designing ASP.NET Core Web Applications

Module 3

Configure Middleware and Services in ASP.NET Core

Module 4

Developing Razor Pages Handles

Module 5

Developing Razor Pages User Interface



Course outline, continued



Module 6

Developing Models

Module 7

Using Entity Framework Core in ASP.NET Core

Module 8

Using Layouts, and CSS in ASP.NET Core

Module 9

Client-Side Development using Blazor Components

Module 10

Implementing Web APIs



Course outline, continued



Module 11

Testing and Troubleshooting

Module 12

Managing Security

Module 13

Performance and Communication

Module 14

Hosting and Deployment



Related Courses

-  HTML5CSS3: Programming in HTML5 with JavaScript and CSS
- CNETIN: Programming in C#
- BLAZOR: Developing Microsoft Blazor Web Applications

