.NET Core: Developing Cross-Platform Web Apps with ASP.NET Core

WorkshopPLUS

Duration: 4 days | **Focus Area:** Availability and Business Continuity | **Level**: 300

.NET Core: Developing Cross-Platform Web Apps with ASP.NET Core WorkshopPLUS establishes fundamentals of ASP.NET Core before diving into full-stack development techniques. Through a series of instructor-led lectures, demos, and hands-on labs, you will build & deploy a fully functional cross-platform ASP.NET Core application to Azure and on-premise.

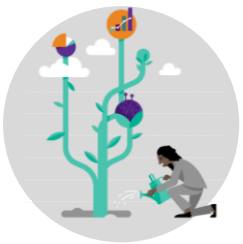
With ASP.NET Core, you can:

- Build web apps and services, IoT apps, and mobile backends.
- Use your favorite development tools on Windows, macOS, and Linux.
- Deploy to the cloud or on-premises.
- Run on .NET Core or .NET Framework.

OUTCOMES

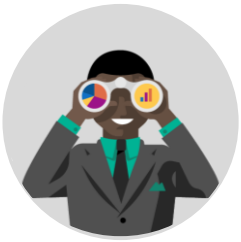
Skills

Gain a comprehensive understanding of the features and fundamentals of .NET Core, ASP.NET Core, and .NET Standard



Best Practices

Learn reliable methods of building web UI and web APIs



Way Forward

Take what you've learned in the classroom and modernize your business apps and make it cross-platform and cloud compatible

PREREQUISITES

Recommended Qualifications

- Previous experience with ASP.NET or open-source technologies such as Node.js
- Developers looking to build ASP.NET Core web apps or REST services

Hardware Requirements

- 8 GB RAM
- Windows 7 SP1 or later
- Microsoft Office
- Internet access with at least 5 Mbps bandwidth per student

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AGENDA

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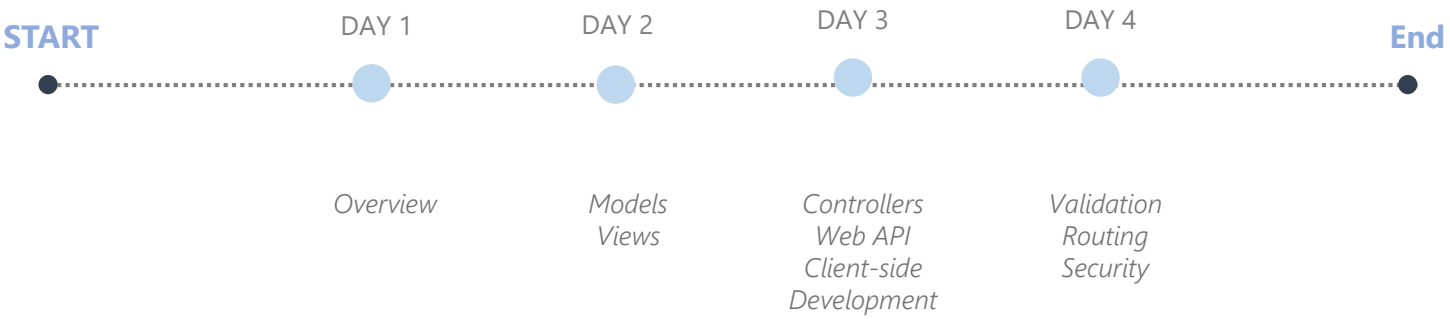

SYLLABUS

Module 1: Overview

Fundamentals of ASP.NET Core, .NET Core, and .NET Standard, .NET Framework vs. .NET Core, project layout and templates, Razor Pages, CLI, Middleware, and hosting options & configuration

Module 2: Models

Model development, Entity Framework Core, code-based modeling, model design, model binding, Fluent API, and scaffolding

Module 3: Controllers

Controller development, model binding and filters, advanced controller design and extensibility, dependency injection (DI), and controller best practices

Module 4: Views

View fundamentals, HTML 5 and Bootstrap, scaffolding, and Razor view engine

Module 5: Web API

REST, Web API fundamentals, Web API routing, HTTP messages and content negotiations, hosting and consuming Web API, and Web API usage patterns

Module 6: Client-Side Development

MVC and JavaScript, Bower and Grunt, jQuery and Asynchronous JavaScript and XML (AJAX), and Single Page Applications (SPA)

Module 7: Validation

Validation fundamentals, model and UI validation

Module 8: Routing

Routing and URL fundamentals, MVC routing techniques, conventional and attribute routing, and route debugging

Module 9: Security

Fundamental security principles, authentication and authorization scenarios & protocols, OpenID Connect and OAuth, ASP.NET Identity, and ASP.NET Core security threats and defenses

Optional Modules:

The amount of time spent on these module will be determined by the audience interest level and use case.

- Cloud Development
- Debugging and diagnostics
- Application Insights
- Hosted Web Apps in Win 10
- Migration to ASP.NET Core

NEXT STEPS: If you are interested in this title for your organization, contact your Microsoft Account Representative.

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