

Document Generated: 09/12/2025

Learning Style: Virtual Classroom

Technology:

Difficulty: Intermediate

Course Duration: 5 Days

Next Course Date: **October 20, 2025**

Developing ASP.NET Core 9.x MVC Web Applications (TTCN20486)



About This Course:

C# Web Developer / Developing ASP.Net Core MVC Web Applications is a five-day intensive program is crafted to facilitate the mastery of ASP.Net Core and C#,

essential components in the modern developer's toolkit. These technologies serve as the backbone for a diverse array of web applications, enabling participants to craft sophisticated, scalable solutions that can significantly enhance organizational operations and drive innovation.

The focus will be on coding activities that enhance the performance and scalability of the Web site application. Throughout the course you'll explore core topics including the foundations of Microsoft Web Technologies, the implementation of MVC architecture, and the deployment of robust web applications using Entity Framework Core. You'll gain hands-on experience and practice solving practical industry challenges, applying new skills in real-time by constructing models, configuring middleware, and integrating front-end technologies to deliver seamless user experiences. You'll also explore and apply the newest features of C# and tackle advanced subjects such as state management, security enhancements, and two-way communication using SignalR. You'll also dive into the pragmatic aspects of web development, exploring testing and troubleshooting, utilizing web APIs, and the nuances of on premise hosting and deployment.

Course Objectives:

- Confidently plan and construct ASP.Net Core MVC web applications, ensuring a solid understanding of the interplay between models, controllers, and views, which forms the foundation of robust web application architecture.
- Write secure ASP.Net code with an emphasis on authentication and authorization strategies. Participants will be capable of crafting applications that not only perform efficiently but also adhere to best practices in security, protecting data integrity and user privacy.
- Utilize the advanced features of C# effectively, such as asynchronous programming with async/await, leveraging tuples and records for more expressive code, and implementing nullability features to improve code safety and reliability.
- Harness the power of Entity Framework Core for data-driven applications, enabling smooth interaction with databases and the ability to perform CRUD operations seamlessly within web applications.
- Create RESTful Web APIs using ASP.Net Core and consume them from both server-side and client-side code, facilitating communication between different software applications and services in a distributed environment.
- Apply testing methodologies to isolate and resolve issues in MVC components, implement exception handling strategies for graceful failure management, and use logging to monitor application health, thus ensuring applications are not only functional but also resilient and maintainable.

Audience:

- This course is intended for experienced professional web developers who use Microsoft Visual Studio in an individual-based or team-based, small-sized to large development environment. Candidates for this course are interested in developing advanced web applications and want to manage the rendered HTML comprehensively.

Prerequisites:

- This course is NOT for non or new developers.

Course Outline:

- Design and Implement Web Applications
- Write and Deploy Secure Code
- Apply Advanced C# Features
- Integrate Entity Framework Core
- Develop and Consume Web APIs
- Troubleshoot and Optimize Web Applications