



ASP.NET Web API Essentials Using C#

Course ISI-1469 2 Days

Instructor-led, Hands on

Course Information

This two-day course provides a practical hands-on introduction to developing and consuming ASP.NET Web API services using C# and Visual Studio 2015. This Web development framework from Microsoft makes it easy to create HTTP services that can reach a broad range of clients. It is an excellent platform for creating RESTful Web applications. The course is current to .NET Framework 4.5.2/4.6 and ASP.NET Web API 2.

At Course Completion

Upon successful completion of this course, students will be able to:

- Gain an understanding of what ASP.NET Web API is and why it is useful
- Implement HTTP services using Web API and Visual Studio 2015
- Consume HTTP services using both jQuery and the ASP.NET Web API client library
- Handle different media formats and content variations in Web API services
- Understand routing and binding in Web API
- Perform validation of request data

Prerequisites

The student should have a good working knowledge of C# and the .NET Framework. Basic knowledge of ASP.NET, HTML and JavaScript is also required.

Course Outline

Module 1: Introduction to ASP.NET Web API

- ASP.NET Web API
- Representational State Transfer
- REST and Web API
- HTTP Services Using Web API
- Using Fiddler
- Web API vs. WCF

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Module 2: Web API and HTTP

- HTTP Response Codes
- HttpResponseMessage
- Implementing POST
- Implementing PUT
- Implementing DELETE

Module 3: Media Formatters and Content Negotiation

- Internet Media Types
- Media Formatters
- JSON and XML Formatters
- Content Negotiation
- Accept and Content-Type Headers
- Using the Query String
- Custom Request Headers
- Serialization
- BSON Serialization

Module 4: JavaScript Clients

- Document Object Model
- jQuery
- Sending AJAX Requests
- Implementing a Client

Module 5: Binding, Validation and Routing

- Reading Raw HTTP Requests
- Route Data, Query String and Request Body
- Binding to Simple Types
- Binding to Complex Types
- Validation Using Data Annotations
- Routing in ASP.NET Web API
- Using Default Routes

Module 6: .NET Clients

- Web API Client Libraries
- HttpClient
- Issuing GET Requests
- Issuing POST Requests
- Other Requests

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