

ASP.NET Web API Training

Duration: 3 Days

Description

The variety of modern clients makes client-independent services essential. ASP.NET Web API provides tools for developing, configuring and publishing REST services.

What Will You Learn?

Participants develop an understanding of the API development principles needed for professional ASP.NET Web API projects.

Outline

Introduction to ASP.NET Web API

- Background: SOAP versus REST
- Architectural details and elements
- The role of Web API in modern architecture
- Web API and other architectural approaches
- Web API management

Asynchronous Programming with .NET

- Task-based asynchronous patterns
- Asynchronous language features in C# 5.0

HTTP, REST and Hypermedia

- HTTP fundamentals
- REST
- HttpClient
- Retrieving and sending data with HttpClient
- Sample application

Routing

- The routing mechanism
- Defining Web API routes

Controllers and Actions

- Creating controllers and actions
- Controller configuration

Message Handlers

- The message handler mechanism
- Creating custom message handlers
- Route-specific message handlers

Filters

- The filter processing model
- Filter types

Media Type Formatters and Model Binding

- The formatter processing model
- Default and custom formatters
- Formatter configuration
- Media type mappings
- Model binding

Input Validation

- Data annotations
- Customization

Dependency Management

- Dependency inversion and dependency injection
- Inversion of control (IoC)
- The service locator pattern

Unit and Integration Testing

Optimization and Performance

- Asynchronous operations
- HTTP caching

Deployment

Monitoring, Logging and API Documentation

Prerequisites

Knowledge of C#, object-oriented programming, database concepts, basic HTML and JavaScript is required.