

# **Build Web APIs using ASP.NET**

**Modality: On Demand**

**Duration: 16 Hours**

## **About this Course:**

This intermediate-level 16 Hours Training Program is specifically designed for Web Developers striving to learn the fundamentals of Web APIs Developing using ASP.NET. This course presents an incredible learning opportunity for professionals who are looking to amplify storage capabilities and gain better control over data. Focusing on C# Programming Language and ASP.NET, this course focuses on Client/Server Architecture and sheds light on the key concepts of JSON Serialization & Deserialization.

Professionals also get to learn about REST and RESTful Web API Development and will get a conceptual understanding of synchronous & asynchronous concepts of programming. Besides this, candidates will also learn how to utilize Entity Framework to augment data accessibility and will learn about the application of Cross-Origin Resource Sharing (CORS).

## **Course Objectives:**

The core objective of this course is to help professionals develop a better understanding and sound knowledge of the following key concepts:

- Fundamentals of Web API and Serialization & Deserialization Essentials
- Client-Server System Operations and Working with Cross Applications
- REST and RESTful Web API Core Concepts & Functionalities
- Debugging Web API and HTTP Response & Request Creation
- Getting to Know Web APO Actions and Controllers
- Model Bindings and Parameter Extraction
- Action Result Serialization and Routes
- Entity Framework Core Essentials and Web API Evaluation
- Cross-Origin Resource Sharing (CORS) Applications
- Web APIs Security and Protective Measures

## **Audience:**

This course is tailored for the following group of professionals and interested candidates:

- Web Developers
- Mobile App Developers
- IT Professionals & Experts
- Professionals striving to learn the features of ASP. NET & C# Programming Language

## **Prerequisites:**

Professionals planning to enroll in the Build Web APIs using ASP.NET course must comply with the following prerequisites:

- Fundamental Knowledge of C# Programming Language
- Basic Understanding of Web Technologies
- Familiarity with Database Management System

## Course Outline:

### Module 1 | Introduction to Web API

- Lesson One: What is Web API?
- Lesson Two: Serialization and Deserialization
- Lab Overview And Config
- Lab01 Run Client-Server System
- Lab02 Serialize and Deserialize in C# and JavaScript
- SelfAssessment Serialize and Deserialize Cross Applications

### Module 2 | REST and HTTP

- Lesson One: What is REST?
- Lesson Two: What is RESTful Web API?
- Lesson Three: HTTP Request and Response
- Labs Overview And Config
- Lab01 Use Postman Create HTTP Requests
- Lab02 Debug Web API with Postman

### Module 3 | Basic ASP.NET Core Web API

- Module Introduction
- Lesson One: Controllers and Actions
- Lesson Two: Extract Parameters from HTTP Request
- Lesson Three: Model Bindings
- Lesson Four: Action Result Serialization
- Lab00 Labs Overview And Config
- Lab01 Create Controllers and Actions
- Lab02 Working with Routes
- Lab03 Extract Action Parameters
- Lab04 Model Bindings
- Lab05 Status Codes in Response
- SelfAssessment Create Controller Actions

### Module 4 | Advanced ASP.NET Core Web API

- Module Introduction
- Lesson One: Work With Entity Framework Core
- Lesson Two: Test the Web API
- Lesson Three: Cross-Origin Resource Sharing (CORS)

- Lab00 Labs Overview And Config
- Lab01 Tutorial WebAPI and Entity Framework Core
- Lab02 Tutorial Debug WebAPI with Unit Test
- Lab03 Final Project?