

## Introduction ASP.NET Web APIs

### Module 1. Create a web API with ASP.NET Core controllers

#### **Lesson 1: Introduction**

REST in ASP.NET Core

Exercise - Create a web API project

#### **Lesson 2: ASP.NET Core Web API Controllers**

Exercise - Add a data store

Exercise - Add a controller

#### **Lesson 3: CRUD actions in ASP.NET Core**

Exercise - Implement CRUD operations

### Module 2. Create web apps and services with ASP.NET Core, minimal API, and .NET 6

#### **Lesson 1: Introduction**

What is Minimal API?

Exercise: Create a minimal Api.

#### **Lesson 2: Learn how to add routes and use other advanced commands**

Exercise: Add Routes.

### Module 3: Use a database with minimal API, Entity Framework Core, and ASP.NET Core

#### **Lesson 1: What is Entity Framework Core?**

Exercise - Add EF Core to minimal API

#### **Lesson 2: Use the SQLite database provider with EF Core**

Exercise - Use the SQLite database provider with EF Core

### Module 4: Create a full stack application by using React/Angular and minimal API for ASP.NET Core

#### **Lesson 1: Introduction**

Design a front end for your app

Exercise - Create a front end for your app

#### **Lesson 2: Design the API**

Exercise - Create an API

### Module 5: Publish an API to Azure Static Web Apps

#### **Lesson 1: Introduction**

Exercise - Get started

**Lesson 2: Build an API with Azure Functions**

Exercise - Create an Azure Functions project

**Lesson 3: Publish the API with GitHub Actions**

Exercise - Publish the API with GitHub Actions

**Lesson 4: Publish an web api to Azure web apps.**

Exercise: publish a web api to azure.

**Lesson 5: Scaling and Deployment Slots in azure App service plans for web apis.**

Module 6: Build Serverless APIs with Azure Functions

**Lesson 1: Introduction**

Exercise - Set up the project

**Lesson 2: What is an API?**

Exercise - Create the function project

Understand Azure Functions app settings

Exercise - Add connection string to Azure Functions app settings

**Lesson 3: REST and function routes**

Exercise - Make functions RESTful

**Lesson 4: Configure CORS**

Exercise - Configure CORS

Module 7: Explore API Management

**Lesson 1: Introduction**

Discover the API Management service

Explore API gateways

Explore API Management policies

**Lesson 2: Create advanced policies**

Secure APIs by using subscriptions

Secure APIs by using certificates

Exercise: Create a backend API

**Module 8: Integrate OpenAPI-enabled Web APIs with Azure API Management through Visual Studio**

**Lesson 1: Introduction**

Use Swashbuckle to create an OpenAPI document

Exercise - Use Swashbuckle to create an Open API document

**Lesson 2: Publish an OpenAPI enabled web API to Azure App Service**

Exercise - Publish an OpenAPI enabled web API to Azure App Service

Exercise - Integrate openAPI enabled web API with Azure API Management

**Module 9: User Authentication and Authorization in web api and azure functions.**

**Lesson 1: Introduction**

Implement User Authentication using azure active directory

Exercise: Authenticate web api through azure active directory

**Lesson 2: Authenticate azure functions**

Exercise: Authenticate azure functions using Postman and validate the Serviceprincipal/Token by Azure active directory.