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|  | **Trainer : Madan.Patakota****Topic : Asp.NetCore Course Index** ☎ : 7204185064  ✉ : [madan.patakota@gmail.com](mailto:madan.patakota@gmail.com) | [madan@misard.com](mailto:madan@misard.com)  **LinkedIn** : <https://www.linkedin.com/in/madanpatakota>  **GitHub** : <https://github.com/madanpatakota>  **You tube** : <https://www.youtube.com/@madan4422>  **Training** : <https://learn.cloudcamp.in/learn/Html>  **Websites** : https://misardcourses.azurewebsites.net  <https://misard.azurewebsites.net> |
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**Dot net Core Index Duration: 25 Hours**

**Trainer: Madan.Patakota**

**Section 1: Introduction to building ASP.NET Core Web APIs using .NET6**

* Introduction to building ASP.NET Core Web APIs using .NET6
* Prerequisites
* Introduction on Environment setup
* Download and Install Visual Studio 2022
* Install .NET SDK and .NET Runtime
* Install SQL Server Management Studio

**Section 2: Create New ASP.NET Core Web API & Domain Models**

* Introduction
* Create New ASPNET Core Web API
* Understand ASP.NET Core Web API and File Structure
* Understand REST and HTTP Verbs
* Routing In ASP.NET Core Web API
* Running and Calling ASP.NET Core Web API
* Understanding about Domain (Domain Driven Development)
* Create Domain Models
* Adding Entity Framework Core Packages into visual studio
* Creating the DB Context Class
* Adding Connection String for connecting to the database In Appsettings.Json
* Introduction on Dependency Injection & Injecting DB Context Into Our Application
* Run EF(Entity Framework) Core Migrations
* Team Discussions and quiz

**Section 3: Create New Controller - Regions Controller and CRUD Operations / Action Methods**

* Introduction
* Create New Controller (Regions Controller)
* Get All Regions Action Method
* Get Region By Id Action Method
* DTOs and Domain Models
* Change Methods To Use DTOs
* Create Region Action Method
* Update Region Action Method
* Delete Region Action Method

**Section 4: Asynchronous Programming, Repository Pattern and Auto mapper**

* Introduction
* Implement Async and Await pattern Into our Methods
* Understanding of Repository Pattern and its Benefits
* Implement Repository Pattern In ASP.NET Core Web APIs
* Add Other Methods To Repository
* Introduction of Auto mapper
* Implement Auto mapper

**Section 5: Functionality for Customers - Create, Read, Update, Delete**

**For North Wind Database**

* Introduction
* Seeding Data Using Entity Framework Core
* Creating Customer Controller and Create New Customer Action Method
* Get All Customers Action Method
* Navigation Properties In Entity Framework Core
* Get Customer By Id Action Method
* Update Customer Action Method
* Delete Customer Action Method

**Section 6: Validations in ASP.NET Core Web API**

* Introduction To Model Validations
* Adding Model Validations To Endpoints
* Custom Validate Model Attribute

**Section 7: Filtering, Sorting, Pagination in ASP.NET Core Web API**

* Introduction
* Seeding Data in SQL Server
* Filtering Data
* Sorting Data
* Pagination Data

**Section 8: Securing our ASP.NET Core API - Authentication and Authorization - JWT Tokens**

* Introduction
* Authentication Flow and How it Works
* Setting Up Authentication
* Checking Authentication Without JWT Token
* Setting Up Identity into the Db Context
* Seeding Roles
* Run EF Core Migrations To Create Identity Database
* Setting Up Identity
* Create Auth Controller and Register Action Method
* Create Login Action Method
* Create JWT Token in ASP.NET Core Web API
* Inject Token Repository and Create Token
* Role Based Authorization
* Add Authorization To Swagger

**Section 9: Image Upload In ASP.NET Core Web API**

* Introduction
* Create Domain Model For Image Upload
* Db Context changes and Migrations For Image Upload
* New Controller and Action Method for Image Upload
* Image Upload Repository Implementation
* Serving Static Files Through ASPNET Core Web API

**Section 10: Advanced Concepts in ASP.NET Core Web APIs**

* Introduction and importance of the Logging
* Add Logging to Console in ASP.NET Core Web API
* Add Logging to Text File In ASP.NET Core Web APIs
* Global Exception Handling In ASP.NET Core Web APIs

**Section 11: Versioning In ASP.NET Core Web API**

* Introduction and importance of the Versioning
* Understanding Versioning in ASP.NET Core Web API By Folder Structure
* Implement Versioning
* Fix Versioning In Swagger

**Section 12: Consuming our Web API**

* Consuming REST Web APIs
* Creating ASP.NET MVC Web Application
* GET - Consume Web API
* POST - Consume Web API
* GET single Region - Edit Region Prerequisite
* PUT - Updating Using Web API
* DELETE - Deleting a Resource using Web API

**Section 13: Deploying ASP.NET Web API to Azure**

* Deploying ASP.NET Web API To Azure