SpiralTrain
developer courses

ASP.NET Core MVC and Web API

Duration: 5 days   **Price: € 2999**

Open Schedule

Audience Course ASP.NET Core MVC and Web API
The course ASP.NET Core MVC and Web API is intended for Web Developers who want to learn how to build modern web applications with the ASP.NET Core framework.

Prerequisites Course ASP.NET Core MVC and Web API
To participate in this course, good knowledge of the basics of Web Applications with HTML is desirable and basic knowledge of C# is required.

Realization Training ASP.NET Core MVC and Web API
The theory is discussed using presentation slides and demos. The course has a hands-on character where explanations are interchanged with exercises.
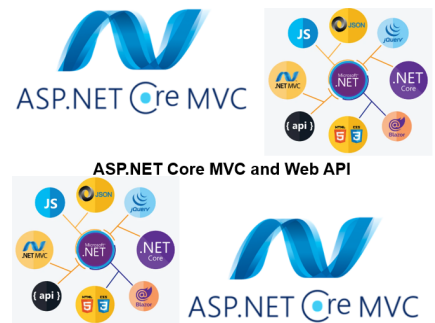
Certificate Course ASP.NET Core MVC and Web API
After successfully completing the course, attendants will receive a certificate of participation in ASP.NET Core MVC and Web API.

ASP.NET Core MVC

ASP.NET Core MVC and Web API

ASP.NET Core MVC

Content Course ASP.NET Core MVC and Web API

In the course ASP.NET Core MVC and Web API the participants acquire the skills and knowledge to build robust and maintainable web applications using ASP.NET Core. The course covers two key aspects of ASP.NET Core: MVC (Model-View-Controller) for building dynamic, data-driven web applications and Web API for creating powerful and flexible RESTful services.

Intro ASP.NET Core MVC
The course ASP.NET Core MVC and Web API begins with an overview of ASP.NET Core MVC, covering its architecture and differences from traditional ASP.NET.

Controllers and Actions
Participants learn to define actions in controllers to handle HTTP Requests.

Views and Razor
Creating dynamic views using the Razor syntax is also discussed.

Models and Data Binding
Then it is treated how you can work with models and data bindings to represent data in an application.

Route and URL patterns
Attention is paid to routing with URL patterns and route parameters to link URLs to controller actions.

Entity Framework Core
Entity Framework Core is also covered with CRUD operations and database migrations.

Intro to ASP.NET Core Web API
Standard features of REST such as resources with IDs, URL patterns and standard HTTP methods are discussed.

Routing and Controllers
Routing is then explained and the mapping of routes to controller actions.

Request and Response Handling
Then request and response handling is covered and the implementation of controller actions in more detail.

Data Validation
Part of the course is also data validation and validation errors.

Security
Security is then treated with authentication, JSON Web Tokens (JWT) and SSL.

Data Access
Finally attention is paid to data access with the Web API with OData and Entity Framework.

Modules Course ASP.NET Core MVC and Web API

Module 1 : Intro ASP.NET Core MVC	**Module 2 : Controllers and Actions**	**Module 3 : Views and Razor**
What is MVC Pattern?	Controllers in MVC	Data Presentation Views
MVC Architecture	Request Handling	User Interaction Views
Separation of Concerns	Explicit Dependencies	cshtml Files
Using Visual Studio	Action Injection	View Components
ASP.NET Core Project	Model Instantiation	Razor Pages
Service Classes	IActionResult	Embedded Razor Markup
Project Structure	Task	Model Validation
Module 4 : Models and Data Binding	**Module 5 : Routing and URL Patterns**	**Module 6 : Entity Framework Core**
Model Binding	Routing in MVC	What is EF Core?
Data Sources	Configuring Routes	Database Providers
Mapping Requests	MapRoute Method	Context Object
Type Conversions	RouteTable Class	Creating Connections
Form Collection	URL Mapping	Generating Models
Input Values	Multiple Routes	Querying with LINQ
Value Providers	Route Constraints	Transactions
Module 7 : Intro Web API	**Module 8 : Routing and Controllers**	**Module 9 : Requests and Responses**
What is Web API?	Handling HTTP Requests	HTTP Requests
Comparison with WCF	API Controllers	GET, POST, PUT and DELETE
REST versus SOAP	Action Methods	HTTP Verbs
Resources	Routing Requests	Model Binding
Unique ID's	Routing Templates	Parameter Binding
URL Patterns	Routing Configuration	Creating HTTP Responses
HTTP Methods	Routing Parameters	Handling Status Codes
Module 10 : Data Validation	**Module 11 : Security**	**Module 12 : Data Access**
Model Binding	Authentication Methods	Open Data Protocol
Model Validation	OAuth2 Sign-on	CRUD Operations
Data Annotations	Authorization	Model Classes
Validation Errors	Role Based Authorization	OData Endpoints
Http Errors	Prevent CSRF Attacks	Query Entity Set
HttpResponseException	JSON Web Tokens	Creating Entities
Exception Filters	Working with SSL	Updating Entities