**Introduction to ASP.NET Core MVC**

* Overview of **MVC Architecture**
* Request-Response Pipeline
* Understanding Controllers, Views, and Models
* Middleware in ASP.NET Core

**Into Controllers & Views**

* Passing Data from Controller to View
* Strongly Typed Views (Model)
* View Models and Data Binding
* Dynamic Views

**Client-Side Features**

* Static Files Handling
* Client-Side Libraries

**Razor View Engine & Layouts**

* Razor Syntax Basics
* Layout & Sections
* ViewStart File
* ViewImports File
* Partial Views
* View Components

**Tag Helpers**

* Environment Tag Helper
* Link Tag Helper
* Anchor Tag Helper
  + Integration with Routing (Pattern)
  + Passing Parameters
  + Specific Fragment
  + External Links
  + Integration with Routing (Route)
  + Route Name
* Form Tag Helpers
* Drop Down List Tag Helper
* Custom Tag Helpers

**Controllers from/to Views**

* **Passing Data from Controller to View**
  + View Data
  + View Bag
  + Temp Data
  + Strongly Typed Views (Model)
* **View Models and Data Binding**
* **Dynamic Views**

**Model Validations**

* Model State
* Server-Side Validation
* Client-Side Validation
* Custom Validation Attributes
* Data Annotations
* Validation Summary & Error Messages

**Structuring Large MVC Projects**

* Solution Structure Best Practices

**Entity Framework Core (EF Core) in MVC**

* Database Context Configuration (AppSettings & DI)
* EF Loading Mechanisms (Eager, Lazy, Explicit)
* Migrations & Database Updates
* Repository Pattern with EF Core

**Services & Dependency Injection**

* Configuring DI in ASP.NET Core
* Using Services in Controllers
* Lifetime of Services (Transient, Scoped, Singleton)

**Routing in ASP.NET Core MVC**

* Default Routing
* Changing Route Patterns
* Static Segments
* Attribute Routing
* Route Constraints

**Authentication & Authorization**

* User Table & Identity Setup
* Role-Based Authorization
* Access Denied Handling
* Return URL Implementation
* Changing Password of a User
* Email Services in ASP.NET Core
  + Confirm User Email
  + Forgot Password
  + Token Expiration & Life Span

**File Handling & AJAX**

* Uploading Files (Images, PDFs, etc.)
* AJAX in ASP.NET Core MVC
  + Fetching Data with jQuery AJAX
  + Partial Updates with AJAX
  + Handling JSON Data

**Performance Optimization**

* Bundling & Minification

**Filters in ASP.NET Core MVC**

* Authorize Filter
* Resource Filter
* Action Filter (Logging, Execution Time, etc.)
* Exception Filter
* Result Filter

**Structuring Large MVC Projects**

* Solution Structure Best Practices
* Separation of Concerns (Services, Repositories, Controllers, Models)
* Using Areas for Modular Development