#### **ASP.Net Core MVC**

# Chapter 1:- Introduction to ASP.NET Core

In this module you learn what is ASP.NET Core and its features. Also you find here the advantages of ASP.NET Core framework over the existing frameworks for developing a web application.

- Introduction
- What is ASP.NET Core?
- ASP.NET Core Features
- Advantages of ASP.NET Core
- MVC Pattern
- Understanding ASP.NET Core MVC
- ♣ ASP.NET Core vs. ASP.NET MVC vs. ASP.NET Web Forms

### Chapter 2:- ASP.NET Core First Application

In this chapter you get knowledge about how to create an ASP.NET Core application and setting up project initials with basic web page example.

- ASP.NET Core Environment Setup
- ASP .NET Core First Application
- Project Layout
- ♣ Understanding Life Cycle of ASP.Net Core Request

# Chapter 3:- Controllers & Action Methods

In this chapter you will know what is a controller and action method and the responsibilities of a controller, the basic functionality of filters with few examples.

- Controllers Overview
- Action Methods and IActionResult object

- Passing data from Controller to View
- Understanding Action Selectors
- Action Filters
- Building Custom Action Filters
- Middleware
- Asynchronous Action Methods

### Chapter 4:- Views

This deals with what is a view, razor syntax and different types of views with examples.

- Introducing Razor View
- Advantages of Razor View
- Razor Syntax
- Types of Views
- Partial Views
- Layout Pages
- Special Views
- ➡ View Categorization based on Model

# Chapter 5:- Helpers

In this chapter we have different types Helper used to reduce number of key strokes when writing the html content in views and writing reusable components.

- Html Helpers
- Built-In Html Helpers
- URL helpers
- Tag Helpers
- Custom Tag Helpers

#### **Chapter 6:- Model Binding**

This module contains the model binding examples that describes how a form bind to its corresponding action method with when the form is submitted.

- Html Form behavior
- Model Binder Overview
- DefaultModelBinder
- Binding to Complex Classes
- IFormCollection Model Binding
- IFormFile Model Binder
- Bind Attribute
- TryUpdateModelAsync

#### Chapter 7:- Validations & Data Annotations

In this chapter you will learn Build application with proper error messages in minimum code.

- Data Annotations and Validations Overview
- ♣ Validations with Data Annotation
- Server Side and Client Side Validation
- Custom Server side validation
- Model level validation using IValidatableObject
- Custom unobstrive Client side Validation
- Remote Validation

# Chapter 8:- State management Techniques

In this chapter you will find how data can be maintained temporarily in different locations and used that for multiple requests.

- Cookies
- Sessions

#### **Chapter 9:- Security**

In this chapter you will learn how to implement security for a web application using ASP.NET Identities which is recommended by Microsoft for all web applications.

- Authentication and Authorization
- Implementing Security using ASP.NET Core Identity

### Chapter 10:- ASP.NET Core - Web Caching

In this chapter you will learn how to improve the performance of a web application by storing the frequently used data using different caching techniques.

- Cache Tag Helpers
- Memory Caching Introduction
- In-Memory Caching
- Response Cache Distributed Cache

### Chapter 11:- Routing

In this chapter you learn how the URL is mapping to controller action methods for rendering the particular web page and the examples for customizing the URL.

- Url Routing Overview
- Custom Routes
- Attribute Routing
- Routing Constraints

#### Chapter 12:- Module Development

In this chapter you will learn the concept of splitting a large web app into multiple modules so that maintains will be easy by using Areas.

- Understanding Areas
- Adding Areas
- Defining Area Routes
- ♣ Linking between Areas

# Chapter 13:- Bundling & Minification

In this module you will learn how Bundling and Minification is used for reducing the amount data transferred from the web app while rendering to improve the performance of your web app.

- What is Bundling and Minification in ASP.net Core?
- Bundler and Minifier Extension
- How to Bundle your files
- How to minify your Bundles
- Convert to Gulp