

Deccansoft Software Services

(A Microsoft Learning Partner)

Module 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 to ASP.NET Core
- ❖ What is ASP.NET CORE?
- ❖ ASP.NET Core Features
- ❖ Advantages of ASP.NET Core
- ❖ ASP.NET Core 1.0 vs. ASP.NET MVC5 vs. ASP.NET Web Forms

Module 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 First Application
- ❖ ASP.NET Core Environment Setup
- ❖ ASP .NET Core Demo Application
- ❖ ASP.NET Core Project Layout
- ❖ Understanding Life Cycle of ASP.NET Core MVC Request

Module 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.

- ❖ Controller Overview
- ❖ ActionMethods and IActionResult object
- ❖ Passing data from Controller to View
- ❖ Action Selectors
- ❖ Action Filters
- ❖ Action Filters
- ❖ Building Custom Action Filters
- ❖ Example: UserAgent ActionFilter
- ❖ Order of Action Filter Execution
- ❖ Cancelling Filter Execution
- ❖ Middleware

- ❖ Asynchronous Action Methods

Module 4:- Views

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

- ❖ Introduction to Razor View
- ❖ Advantages of Razor View
- ❖ Razor Syntax
- ❖ Types of Views
- ❖ Partial Views
- ❖ Layout Pages (Master Pages)
- ❖ Special Views
- ❖ View Categorization based on Model

Module 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 Helpers

Module 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
- ❖ FormCollection Model Binding
- ❖ IFormFile Model Binder
- ❖ Bind Attribute
- ❖ TryUpdateModelAsync
- ❖ Binding Views to Model classes

Module 7:- Validations & Data Annotations

In this chapter you will learn how the data entered in the form elements is validated before submitting the form.

- ❖ Data Annotations and Validation Overview
- ❖ Validation with Data Annotation
- ❖ Server Side and Client Side Validation
- ❖ RemoteValidation
- ❖ Custom Server side validation
- ❖ Model level validation using IValidatableObject

Module 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

Module 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
- ❖ Authorization

Module 10:- MVC and Entity Framework Core

In this you will learn how perform simple database operations like add, update, delete and retrieve the data from SQL database using entity framework.

- ❖ Basic CRUD Operations using Entity Framework
- ❖ Separation of work using BO Classes
- ❖ Using Single Database Context Object across all Business Objects
- ❖ Writing Generic Class / Repository
- ❖ Caching in Repository

Module 11:- 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.

- ❖ Memory Caching Introduction
- ❖ In-Memory Caching

- ❖ Distributed Cache
- ❖ Response Cache

Module 12:- 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.

- ❖ Overview
- ❖ Routing Constraints

Module 13:- 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.

- ❖ Creating Admin Module using Area
- ❖ Creating User Module using Area

Module 14:- JQuery and Ajax

In this module you will learn how jQuery and Ajax are using in the web application for client side Ajax calls to use asynchronous mechanism.

- ❖ Working JQuery
- ❖ Ajax

Module 15:- Web API

In this chapter you will learn how Web API works as web service which delivers json/xml data that can be used with client side calls for applying asynchronous behavior in any type of application.

- ❖ Writing a Web API service
- ❖ Calling a Web API service

Module 16:- Bundling & Minification

In this module you will learn how bundling and minification is used for reducing the amount data transferred from the web app to improve performance.

- ❖ Bundling
- ❖ Minification