Developing ASP.NET MVC /Core Advance Web Applications

About Course:

This course is step by step learning from the basics to the more advanced patters used by industry professionals. You will become an expert ASP.NET MVC and Asp.Net Core Web Developer.

Introduction

1. What is MVC? Why MVC? How MVC Works & Benefits ?
2. Understanding the ASP.NET MVC Solution Architecture
3. MVC Page Life Cycle – Model View Controllers
4. Razor View Engine Vs Aspx View Engine

URL Routing

1. What is URL Patterns ?
2. Routing in MVC, Default Routes & MVC Route tables
3. Custom URL Routing
4. Constraining, Attribute Routing

Security in MVC

1. Security Model in MVC & how it works?
2. Authentication and Authorization, ASP.NET User Identity
3. Enable User & role-based security in MVC web application
4. Creating Login & Register new user module using security Model.
5. MVC 5 App with Social media Single Sign On

Filters

1. What are Filter & types ? How to use them?
2. Authorization Filters, Authentication Filters, Exception Filters, Action Filters, Result Filters

ASP.NET Web API 2.0

1. WCF vs WebApi, Why Webapi?
   a. ApiController implementation & debugging with different type of data
2. Newtonsoft.json.dll usage
   a. Json serialization & deserialization.
   b. MediaTypeFormatters
   c. HTTP Method implementation.

Design Patterns

1. Repository Pattern
2. Unit of work design pattern

Razor View Engine

1. What is view engine ?
2. How to design MVC view using HTML5, CSS3
3. Implementation of Razor view
4. Razor syntax & Expressions in Razor
5. View implementation using model & viewModel.
6. Advantages & disadvantages of Razor

Views

1. What is view ? It's mapping with controller & Action
2. Views in CRUD operations
3. Viewdata, Session, TempData and Viewbag
4. Strongly-Typed Views
5. Default Pages &Layout Pages
6. Custom Sections
7. Custom Error Pages
8. Partial Views
9. Child Actions
10. Bundling & Minification – App_Start Config Files

11.   HTML Helpers & extension methods
12.   Action Links, Action Buttons, Post Form

Controllers and Actions

1. IController, ControllerBase, Controller & Async Controllers
2. MVC Actions & their data return types
3. HTTP Verbs- GET, POST,PUT, DELETE
4. HttpContext, ActionExecutingContext and RouteData
5. Returning Data with ActionResult

Model Binding

1. Object Relational Mapping (ORM)
2. Entity Framework (EF) Database-first & Code-first approach
3. Model Validation & Data Annotations
4. ModelState
5. Client Side Validation
6. Html.ajax forms & Unobtrusive AJAX
7. Ajax calls using generic plugin

Asp.Net Core

1. Introduction to Asp.Net Core
2. Entity framework 6 Vs Entity Framework Core

Creating Responsive UI

1. Basics of HTML 5, Jquery, CSS3, Bootstrap & best UI practices

Single-page Applications(SPA)

1. What is SPA & importance of SPA ?
2. How to implement it ?

Unit Testing in MVC

1. Test driven development - TDD
2. Mocking & Service Testing
3. Xunit Testing framework

Web App Deployment to Server

Overview of Latest Trends in industry, MVC 6 & old versions

1. Task parallel Liabrary, Async Await Programming.
2. Git, GitLab
3. .Net Framework 4.6.1, C#6.0
4. Web Api v2.
5. Guidance to prepare for Microsoft MVC Certification 70-486

Prerequisites

C# Asp.Net OOP Concepts

Basic SQL Concept

Visual Studio

Goal

This course is step by step practical implementation of advance responsive web application using ASP.NET MVC 5, C#6.0, VS 2013, .Net Framework 6.1, WebApi 2, Entity Framework, bootstrap, Basic AngularJs,HTML5, CSS3, Jquery, Git as Version Control.