

ASP.NET MVC Training Syllabus

Introduction to MVC

1. What is MVC Architecture
2. What is ASP.NET MVC?
3. Understanding Model
4. Understanding View
5. Understanding Controller
6. Advantages of MVC based Web Application
7. Features of ASP.NET MVC Framework

First MVC Application

1. Software Requirements
2. Developing First MVC Application
3. Rendering HTML output
4. Understanding Life Cycle of ASP.MVC Request

Exploring Controller's

1. Exploring Controllers and ControllerBase class
2. Passing data from Controller to View
3. Comparing ViewData, ViewBag and TempData
4. Types of Action Methods
5. Action Method Parameters
6. Action Selectors
7. Action Filters Overview
8. Authentication Filters In MVC 5
9. Building Custom Action Filters
10. Filter Override Features

Exploring Razor Views

1. Types of Views
2. Introducing Razor View
3. Razor Syntax Fundamentals
4. Layout view Razor (Master Pages)
5. Significance of _ViewStart.cshtml
6. Working with Sections
7. Working with Partial Views

HTML Helpers

1. HTML Helper Methods
2. Render HTML Form
3. Using DropDownList
4. Binding Html Helper to Model

5. Using "For" Methods with Typed Model
6. Overriding Display Templates
7. Overriding Editor Templates
8. Writing Custom Helper method

Model Binders

1. Default model Binder
2. Complex Type Model Binding
3. FormCollection Model Binding
4. Http Posted File Model Binding.
5. Bind Attribute

Annotations and Validations

1. Overview of Data Annotations
2. Annotations and Validation Attributes
3. How Validation Works
4. Explicit server side validations of Models
5. Custom Validations using IValidatableObject
6. Developing Custom Unobtrusive Client Side Validation
7. Applying Annotations to Model classes using Metadata class

Using Entity Framework

1. Using Entity Framework to Perform CRUD operations.
2. Code First EF using MVC 5.
3. Building and using BO class.
4. Writing Generic BO class.

Authentication and Authorization

1. Authentication and Authorization
2. Types of Authentication
3. Authorize and [AllowAnonymous] attributes
4. Windows Authentication Implementation
5. Forms Authentication Implementation
6. Roles Implementation
7. AntiForgeryToken Implementation
8. ASP.NET 5 Identity and Security
9. Deploy a Secure ASP.NET MVC application with OAuth, Membership and SQL Database
10. Code! MVC 5 App with Facebook, Twitter, LinkedIn and Google OAuth2 Sign-on
11. OWIN and Katana
12. XSRF/CSRF Prevention in ASP.NET MVC and Web Pages

URL Routing

1. Overview
2. Mapping URL to Controller Action Method
3. Applying Constraints on Route parameters
4. Resolving Namespace Ambiguity
5. Ignoring Routes
6. Attribute Routing in MVC 5

Working with Areas

1. Understanding Areas
2. Adding Areas
3. Registering Areas
4. Linking between Areas

AJAX and JQuery

1. Ajax implementation using JQuery
2. Using Ajax.BeginForm Helper method
3. JQuery UI Controls
4. JQuery Templates

Bundling and Minification

1. Why Bundling and Minification
2. What is Bundling
3. What is Minification
4. Impact of Bundling and Minification
5. Implementing Bundling and Minification
6. Creating and Using Bundles
7. Using Wildcard to Select Files
8. Using a CDN while Bundling

Mobile Compatibility

1. Built in support for DisplayModes
2. Adding Custom DisplayModes
3. Overriding DisplayModes
4. Deploying Mobile Application on Windows Azure

Web API

1. Introduction
2. Web API Routing
3. Developing Sample application
4. Calling Web API with Javascript and jQuery
5. Creating a Web API that Supports CRUD Operations using EF

New Features in ASP.NET MVC 5.1 and 5.2

1. Attribute routing improvements.
2. Bootstrap support for editor templates.
3. Enum support in views.
4. Unobtrusive validation for MinLength/MaxLength Attributes.
5. Supporting the this context in Unobtrusive Ajax.