# ASP.NET MVC

## Chapter 1: Introduction to ASP.NET MVC

* What is ASP.NET MVC
* ASP.NET MVC Design Pattern Model, View, Controller
* ASP.NET MVC Comparison with Web Forms
* ASP.NET MVC Benefits of MVC Architecture
* ASP.NET MVC Overview of the .NET Platform and CLR

## Chapter 2: Environment Setup

* ASP.NET MVC Installing Visual Studio
* ASP.NET MVC Installing .NET SDK
* Creating First ASP.NET MVC Project
* ASP.NET MVC Solution Explorer Walkthrough
* ASP.NET MVC Understanding Project Files

## Chapter 3: Application Structure and Life Cycle

* ASP.NET MVC Folder Structure
* ASP.NET MVC Application Life Cycle
* ASP.NET MVC Role of Global asax
* ASP.NET MVC RouteConfig and Routing Mechanism

## Chapter 4: Routing in ASP.NET MVC

* ASP.NET MVC Introduction to Routing
* ASP.NET MVC Defining Custom Routes
* ASP.NET MVC Attribute Routing
* ASP.NET MVC Route Constraints

## Chapter 5: Controllers

* ASP.NET MVC What is a Controller
* ASP.NET MVC Creating Controllers
* ASP.NET MVC Action Methods
* ASP.NET MVC Return Types ViewResult, JsonResult, RedirectResult
* ASP.NET MVC Action Filters and their Types
* ASP.NET MVC TempData, ViewBag, ViewData

## Chapter 6: Views and Razor Syntax

* ASP.NET MVC Introduction to Views
* ASP.NET MVC Razor Syntax Basics
* ASP.NET MVC Strongly Typed Views
* ASP.NET MVC Layout Pages and Sections
* ASP.NET MVC Partial Views
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## Chapter 7: Models and Data Binding

* ASP.NET MVC Introduction to Models
* ASP.NET MVC Creating Data Models
* ASP.NET MVC Model Binding
* ASP.NET MVC Model Validation with Data Annotations
* ASP.NET MVC Custom Validation

## Chapter 8: Entity Framework Integration

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* ASP.NET MVC Database First vs Code First Approach
* ASP.NET MVC Creating DBContext and Entities
* ASP.NET MVC CRUD Operations using EF
* ASP.NET MVC Using LINQ with Entity Framework

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* ASP.NET MVC Creating Forms in Razor
* ASP.NET MVC Form Submission and Anti Forgery Tokens
* ASP.NET MVC HTTP Get and Post Methods
* ASP.NET MVC ModelState and Validation Summary

## Chapter 10: Filters in ASP.NET MVC

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* ASP.NET MVC Authorization Filters
* ASP.NET MVC Action Filters
* ASP.NET MVC Result Filters
* ASP.NET MVC Exception Filters
* ASP.NET MVC Creating Custom Filters

## Chapter 11: Security in MVC

* ASP.NET MVC Authentication vs Authorization
* ASP.NET MVC Using Authorize Attribute
* ASP.NET MVC Identity in ASP.NET MVC
* ASP.NET MVC Secure Form Submissions
* ASP.NET MVC Data Encryption Techniques

## Chapter 12: AJAX and jQuery in MVC

* ASP.NET MVC Introduction to AJAX
* ASP.NET MVC jQuery Basics and Integration
* ASP.NET MVC Making AJAX Calls to Controller
* ASP.NET MVC Using JSON in AJAX Responses
* ASP.NET MVC Partial Updates with jQuery and Partial Views

## Chapter 13: Error Handling and Logging

* ASP.NET MVC Try Catch Blocks in Controllers
* ASP.NET MVC Global Error Handling
* ASP.NET MVC Custom Error Pages
* ASP.NET MVC Logging using NLog

## Chapter 14: Bundling and Minification

* ASP.NET MVC What is Bundling and Minification
* ASP.NET MVC Enabling Bundling in MVC
* ASP.NET MVC Optimizing Page Load Performance

## Chapter 15: Web API Integration

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* ASP.NET MVC Creating and Consuming Web API in MVC
* ASP.NET MVC Calling APIs using AJAX
* ASP.NET MVC Securing Web APIs

## Chapter 16: Deployment

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* ASP.NET MVC Web Config Transformations
* ASP.NET MVC Publishing on IIS
* ASP.NET MVC Hosting on Azure

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* ASP.NET MVC Dependency Injection in MVC
* ASP.NET MVC Role Based Authentication and Claims
* ASP.NET MVC Using AutoMapper
* ASP.NET MVC Asynchronous Programming with async and await