

- **Introduction to MVC**
  - What is MVC Architecture
  - What is ASP.NET MVC?
  - Understanding Model
  - Understanding View
  - Understanding Controller
  - Advantages of MVC based Web Application
  - Features of ASP.NET MVC Framework
  
- **First MVC Application**
  - Software Requirements
  - Developing First MVC Application
  - Rendering HTML output
  - Understanding Life Cycle of ASP.MVC Request.
  
- **Exploring Controller's**
  - Exploring Controllers and ControllerBase class
  - Passing data from Controller to View
  - Comparing ViewData, ViewBag and TempData
  - Types of Action Methods
  - Action Method Parameters
  - Action Selectors
  - Action Filters Overview
  - Authentication Filters in MVC 5
  - Building Custom Action Filters
  - Filter Override features.
  
- **Exploring Razor Views**
  - Types of Views
  - Introducing Razor View
  - Razor Syntax Fundamentals
  - Layout view Razor (Master Pages)
  - Significance of \_ViewStart.cshtml
  - Working with Sections
  - Working with Partial Views

- **HTML Helpers**
  - HTML Helper Methods
  - Render HTML Form
  - Using DropDownList
  - Binding Html Helper to Model
  - Using “For” Methods with Typed Model
  - Overriding Display Templates
  - Overriding Editor Templates
  - Writing Custom Helper method
  
- **Model Binders**
  - Default model Binder
  - Complex Type Model Binding
  - FormCollection Model Binding
  - Http Posted File Model Binding
  - Bind Attribute
  
- **Annotations and Validations**
  - Overview of Data Annotations
  - Annotations and Validation Attributes
  - How Validation Works
  - Explicit server side validations of Models
  - Custom Validations using IValidatableObject
  - Developing Custom Unobtrusive Client Side Validation
  - Applying Annotations to Model classes using Metadata class
  
- **Using Entity Framework**
  - Using Entity Framework to Perform CRUD operations.
  - Code First EF using MVC 5
  - Building and using BO class.
  - Writing Generic BO class.
  
- **Authentication and Authorization**
  - Authentication and Authorization

- Types of Authentication
- Authorize and [\[AllowAnonymous\]](#) attributes
- Windows Authentication Implementation
- Forms Authentication Implementation
- Roles Implementation
- AntiForgeryToken Implementation
- ASP.NET 5 Identity and Security
- [Deploy a Secure ASP.NET MVC application with OAuth, Membership and SQL Database](#)
- Code! MVC 5 App with Facebook, Twitter, LinkedIn and Google OAuth2 Sign-on
- OWIN and Katana
- [XSRF/CSRF Prevention in ASP.NET MVC and Web Pages](#)
  
- **URL Routing**
  - Overview
  - Mapping URL to Controller Action Method
  - Applying Constraints on Route parameters
  - Resolving Namespace Ambiguity
  - Ignoring Routes
  - Attribute Routing in MV 5
  
- **Working with Areas**
  - Understanding Areas
  - Adding Areas
  - Registering Areas
  - Linking between Areas
  
- **AJAX and JQuery**
  - Ajax implementation using JQuery
  - Using Ajax.BeginForm Helper method
  - JQuery UI Controls
  - JQuery Templates
  
- **Bundling and Minification**

- Why Bundling and Minification
- What is Bundling
- What is Minification
- Impact of Bundling and Minification
- Implementing Bundling and Minification
- Creating and Using Bundles
- Using Wildcard to Select Files
- Using a CDN while Bundling
  
- **Mobile Compatibility**
  - Built in support for DisplayModes
  - Adding Custom DisplayModes
  - Overriding DisplayModes
  - Deploying Mobile Application on Windows Azure
  
- **Web API**
  - Introduction
  - Web API Routing
  - Developing Sample application
  - Calling Web API with JavaScript and jQuery
  - Creating a Web API that Supports CRUD Operations using EF
  
- **New Features in ASP.NET MVC 5.1 and 5.2**
  - Attribute routing improvements
  - Bootstrap support for editor templates
  - Enum support in views
  - Unobtrusive validation for MinLength/MaxLength Attributes
  - Supporting the 'this' context in Unobtrusive Ajax