

# Microsoft.NET MVC

## Description

ASP.NET MVC Training gives you a powerful, patterns-based way to build dynamic websites that enables a clean separation of concerns and that gives you full control over markup for enjoyable, agile development. ASP.NET MVC training includes many features that enable fast, TDD-friendly development for creating sophisticated applications that use the latest web standards.

## Expectations and Goals

- Understand the MVC architectural pattern, Implement CRUD operations
- Build forms with server-side and client-side validation
- Build RESTful services using ASP.NET Web API
- Use powerful jQuery plug-ins
- Implement authentication and authorization using ASP.NET Web API
- Use Entity Framework to query or update data
- Understand and apply security best practices
- Build and deploy applications, Create and customize build configurations
- Manage client / server dependencies

## Prerequisites

Know .NET Programming.

Prior .NET web application development experience and familiarity with Object-Oriented Programming concepts is assumed. Some experience with HTML and JavaScript is also expected. Experience of developing ASP.NET applications with Web Forms would be beneficial.

## Course Schedule

Module	Topic
<b>Module 1</b>	<b>Introduction to ASP.NET MVC 6</b> Introduction to MVC 6 NET Web Forms (vs) ASP.NET MVC Advantages and disadvantages of each Determining when-to-use which one List of Versions of ASP.NET MVC Differences between versions of ASP.NET MVC Overview of installing ASP.NET MVC in various versions of Visual Studio MVC Architecture What is MVC? Architecture Explanation What is Controller and action method What is View What is Model Request Flow in ASP.NET MVC
<b>Module 2</b>	<b>Getting started with MVC Core</b> New Project in Visual Studio Overview of Folders and files of MVC project
<b>Module 3</b>	<b>Controllers</b> Introduction to Controllers Creating Controllers and Actions Calling action methods thru the browser Returning from action methods Parameters in Action methods

	<ul style="list-style-type: none"> <li>ActionLink</li> <li>URL Routing</li> <li>Overview</li> <li>The need of URL Routing</li> <li>Parameters in URL</li> <li>Default Parameter Values</li> <li>Parameters with Constraints</li> <li>Literals in URL</li> </ul>
<b>Module 4</b>	<ul style="list-style-type: none"> <li><b>Views (Razor)</b></li> <li>Introduction to Views (Razor)</li> <li>ActionResult and ViewResult</li> <li>Returning a view</li> <li>Creating a Simple Razor View</li> <li>Intermingling Code and Markup in Razor Views</li> <li>View Bag / View Data / Temp Data</li> <li>Shared Views</li> <li>ASPX View Engine (vs) Razor</li> </ul>
<b>Module 5</b>	<ul style="list-style-type: none"> <li><b>LayoutViews</b></li> <li>Introduction to LayoutViews</li> <li>The need of layout views</li> <li>cshtml</li> <li>Creating custom layout views</li> <li>Layout Views with Sections</li> <li>RenderSection()</li> <li>cshtml</li> <li>Overriding the _ViewStart.cshtml</li> </ul>
<b>Module 6</b>	<ul style="list-style-type: none"> <li><b>Partial Views</b></li> <li>Partial Views</li> <li>RenderPartial()</li> </ul>
<b>Module 7</b>	<ul style="list-style-type: none"> <li><b>Models</b></li> <li>Introduction to Models</li> <li>Need of models</li> <li>Creating models using 'CodeFirst approach'</li> </ul>
<b>Module 8</b>	<ul style="list-style-type: none"> <li><b>Entity Framework in MVC</b></li> <li>Introduction to Entity Framework</li> <li>Need of Entity Framework</li> <li>Creating DbContext and DbSet</li> <li>Configuring connection string</li> </ul>
<b>Module 9</b>	<ul style="list-style-type: none"> <li><b>Scaffold Templates in MVC</b></li> <li>Introduction to scaffold Templates in MVC</li> <li>Need of Scaffolding</li> <li>Creating controllers and views using scaffold</li> <li>Strongly typed views</li> <li>Understanding Index, Details, Create, Edit, Delete action methods and views</li> </ul>
<b>Module 10</b>	<ul style="list-style-type: none"> <li><b>HTML Helpers</b></li> <li>Introduction to HTML helpers</li> <li>DisplayNameFor( )</li> <li>DisplayFor( )</li> <li>BeginForm( )</li> <li>LabelFor()</li> <li>EditorFor( )</li> </ul>

	<p>ValidationMessageFor( )          RadioButtonFor( )          DropDownListFor( )          ListBoxFor( )          CheckBoxFor( )          AntiForgeryToken()          Code First Migrations</p>
<b>Module 11</b>	<p><b>Action Filters</b>          Introduction to action filters          [HttpPost]          [HttpGet]          [ValidateAntiForgeryToken]          [OutputCache]          [HandleError]          [NonAction]          [ActionName]</p>
<b>Module 12</b>	<p><b>Validations</b>          Introduction to Validations          Model level validations (vs) View level validations          Importing jQuery Validation Plug in          [Required]          [RegularExpression]          [Range]          [StringLength]          [Compare]          [Remote]          IsValid</p>
<b>Module 13</b>	<p><b>Data Annotations</b>          [Display]          [Datatype]          [DisplayFormat]          [ScaffoldColumn]</p>
<b>Module 14</b>	<p><b>jQuery in MVC</b>          Introduction to jQuery in MVC          Need of jQuery in MVC          Importing/updating jquery plug in          Demos          jQuery AJAX in MVC          Need of jQuery-AJAX in MVC          Demos on jQuery-AJAX (with json) in MVC with database handling          Intro to jqGrid</p>
<b>Module 15</b>	<p><b>Web API</b>          Introduction to Web API          WCF REST (vs) Web API          Understanding HTTP methods(GET, POST, PUT, DELETE)          Creating API controller          API configuration          Calling Web API from jQuery          Demo: CRUD operations using jQuery AJAX with Web API</p>
<b>Module 16</b>	<p>Project work and documentation</p>