Description

ASP.NET is a development framework for building web applications. MVC (Model-View-Controller) is a way to handle a complex system by dividing it into parts. This course will teach you how to develop web-based applications using the .NET framework and the C# programming language. You will learn how to use MVC to create web systems that are easier to maintain and customise.

Objectives

After you have completed the ASP.NET MVC Development course, you will be able to:

- Develop web applications using ASP.NET
- Understand how to use MVC to make your code better and easier to maintain.
- Use Razor syntax to embed server-based code in your web page.
- Create a dynamic web site that delivers content based on the user's choices.

Intended Audience

You should attend the ASP.NET MVC Development course if:

- You are a C# programmer and you want to learn to develop web applications using ASP.NET.
- You are a C# programmer and you need to support web applications that use ASP.NET.
- You have already learnt some ASP.NET, but you want to learn about MVC or close the gaps in your knowledge.

Prerequisites

Before you attend the ASP.NET MVC Development course:

- You must have attended our HTML and CSS course or have experience using HTML and CSS.
- You must have attended our C# Programming course or be able to program in C#. You should have at least 6 months practical experience programming in C#.
- You will find it useful to know some SQL. It is not essential for this course, but it is a good idea to add our SQL Fundamentals course to your training program.

Course Contents

Introduction to ASP.NET MVC

- ASP.NET MVC.
- The MVC Pattern.
- MVC as Applied to Web Frameworks.
- Convention and Configuration.

Controllers and Views

- Role of Controllers.
- Controller Actions.
- Parameters in Actions.
- View Conventions.
- Strongly Typed Views.
- View Models.
- The Razor View Engine and Razor Syntax.
- Partial Views.

**Routing**
- Uniform Resource Locators.
- Routing versus Rewriting.
- Attribute Routes vs. Traditional Routes.
- StopRoutingHandler and IgnoreRoute.
- URL Generation.
- Route Constraints.
- Catch-All parameter.

**Models**
- Scaffolding.
- Code First Conventions.
- Entity Framework and Data Context.
- Database Initializers.
- Models and View Models.
- Model Binding.

**Forms and HTML Helpers**
- The Action and the Method.
- HTML Helpers.
- Encoding and Binding.
- Helpers, Models and ViewData.
- Strongly Typed Helpers.
- ModelState.

**Data Annotations and Validation**
- Annotating Orders for Validation.
- Custom Validation Logic.
- Display and Edit Annotations.
- IValidatableObject.

**Membership, Authorization, and Security**
- Using the authorize attribute to require login.
- Using authorizeattribute to require role membership.
- Extending user identity.

**Miscellaneous**
- Unit Testing.
- Extending MVC.
- Single Page Applications with AngularJS.
- ASP.NET MVC 5.1.

**The lecturer reserves the right to modify the contents of the course to suit the needs of the delegates.**