Using ASP.NET MVC with Visual Studio 2010

Course Length: 3 days **Price: $2,250**

Summary

ASP.NET MVC is a fascinating technology that provides an alternative to Web forms for building Web applications. Instead of building pages using server controls that provide relatively little control over the HTML they produce, MVC gives you complete control. The course starts with an introduction to ASP.NET MVC and the Model-View-Controller pattern on which it is based. You'll learn about the main differences between MVC and Web forms applications, and see how to build a simple MVC application with Visual Studio. Then you'll explore each of the three main components of an MVC application. Next, you'll explore models, which encapsulate the data and business rules of an application. You'll learn that there are almost no limitations in how you provide data to an MVC application. Then you'll get into views, the user interface of an MVC application. You'll then move on to HTML Helpers and Action Filters where you'll also learn about custom helpers and filters. Routing and URLs are the next subjects where you'll see how to create route constraints and other items. In the next section you'll be introduced to AJAX and jQuery libraries and how to use them with MVC. In the last section of the course you'll see the upcoming enhancements for MVC 3.0. Student materials are available in both Visual Basic.NET and C#. Please specify your preferred programming language when you register so we can be sure to order the right materials for you.

In this course, you will learn:

- Differences between MVC and Web forms applications
- How to create controllers and actions to manage the workflow of an application
- About methods and results, and how to write code to implement each
- That there are almost no limitations in how you provide data to an MVC application
- How to implement a model using both custom classes and Entity Framework data models
- How to centralize data validation using a model.
- Interact with data provided by the controller
- Some of the ways to add content to a view
- About using HTML Helpers in MVC
- How action and custom filters are important for your application

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- That you can be creative with naming of your Application URLs
- The importance and usage of Routing and Web Forms
- How AJAX and jQuery libraries can add functionality to your application without increasing development time
- About working with JSON data
- What new features will be coming MVC 3

Who Should Attend?

This course assumes that you are familiar and experienced with Microsoft's .NET Framework and ASP.NET development tools. You should be familiar with Web development and understand how HTTP and HTML work to produce Web pages for the user. You should have experience writing applications with ASP.NET 3.5 or later Web forms, and be familiar with how ASP.NET processes page requests, and have strong experience with .NET Framework 3.5 or later programming. You should have experience with Visual Studio 2008 or later for building Web application projects. Experience with building database applications using these tools will be helpful, although not strictly necessary.

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Course Outline

Introduction to ASP.NET MVC

- The Model-View-Controller Pattern
- Differences Between MVC and Web Forms Applications
- Building a Simple MVC Application with Visual Studio

Working with Controllers and Actions

- Using a Controller to Manage the Application
- Controller Actions
- Returning Action Results

Creating MVC Models

- Data and Business Rules in MVC Applications
- Creating a Custom Data Model
- Creating an Entity Framework Model
- Data Validation and Data Annotations

Using MVC Views

- Views in ASP.NET MVC
- Creating Views
- Adding Content to a View

HTML Helpers and Action Filters

- Using HTML Helpers in MVC
- Creating a Custom Helper
- Using Action Filters
- Creating a Custom Filter

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Routing and URLs

- Customizing Application URLs
- Creating Route Constraints
- Routing and Web Forms

Using MVC and AJAX and jQuery

- Introducing the AJAX and jQuery Libraries
- Integrating Client-Side Script with MVC
- Using the MVC AJAX Helpers
- Working with JSON Data

MVC 3 Enhancements

- New Features that Build on Old Libraries
- The Razor View Engine
- Controller Enhancements

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