

Using ASP.NET MVC with Visual Studio 2010

Course Length: 3 days

Price: \$2,250

Summary

This 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, see how to build a simple MVC application with Visual Studio, explore each of the three main components of an MVC application, and how to create controllers and actions to manage the workflow of an application. You'll dig into action methods and results, explore models, see how to implement a model using both custom classes and Entity Framework data models, and how to centralize data validation using a model. Next you'll get into views, how to create them, interact with data provided by the controller, how to add content to a view, and use HTML helpers to make it easier to build views. As you progress further you'll explore how you can use action filters to keep your action methods pristine while implementing cross-cutting features, look at the Routing API and how MVC makes use of it to respond to Web requests and generate URLs for links in the application. Finally, MVC and AJAX are two great tastes that taste great together, and you'll see how to use them together in an application to create a great user experience.

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
- 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 are available in MVC 4

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.

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

Routing and URLs

- Introduction to ASP.NET Routing
- Matching URLs to Methods
- Generating URLs

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