ASP.NET MVC Programming for Experienced VB.NET Programmers

Duration: 21 hours

Prerequisites: Prior experience with VB.NET is required.

Course Description: This course provides students with hands on experience using Visual Studio to create dynamic web applications using ASP.NET MVC and VB.NET. Students should already have a working knowledge of VB.NET.

This course teaches students how to leverage the power of the Model-View-Controller design pattern with the ASP.NET MVC Framework to separate the layers of a web application. Students will use the ASMX and Razor view engines to design a user interface. Students will learn how to build models to manage an application's data layer using both the Entity Framework and LINQ to SQL. Students will also learn how to build controllers containing action methods to manage communication between views and models.

Other topics include data scaffolding; URL routing; implementing security; using MVC and Web Forms in the same application, unit testing; and deploying ASP.NET MVC applications. Comprehensive labs provide the students with experience creating, debugging, testing and deploying dynamic ASP.NET MVC applications.

Students Will Learn

- Introduction to ASP.NET MVC
- Building ASP.NET MVC Applications
- Building Controllers
- Working with Views
- Working with Models
- Understanding ASP.NET MVC Routing
- Working with ASP.NET Objects and Web Forms
- Securing ASP.NET MVC Applications
- Deploying ASP.NET MVC Applications
- ASP.NET MVC and Unit Testing

Overview

Overview of ASP.NET MVC

- Overview of Model-View-Controller Design Pattern
- ASP.NET MVC Application Architecture
- Understanding the MVC Execution Process
- Building an ASP.NET MVC Application Using Visual Studio
- Visual Studio MVC Project Templates
- Using a `web.config` File

Developing Views

- Creating Views

Developing Controllers

- Creating Controllers
- Defining Action Methods
- Mapping URLs to Action Methods
- Understanding `ActionResult` Types
- Working with `ViewData` and `ViewBag`

Developing Models

- Creating Model Classes

- Understanding View Engines
- Using the ASMX View Engine
- Using the Razor View Engines
- Using HTML Helpers
- Adding Validation
- Working with Strongly-Typed Views

Routing Control

- Understanding Routing in ASP.NET MVC
- Defining URL Routes
- Registering Routes
- Adding Constraints to Routes
- Debugging Routes

MVC Unit Testing

- Test-Driven Development
- Designing Test Cases
- Creating Unit Tests
- Using MS Test

Deploying ASP.NET MVC Applications

- Understanding Deployment Issues
- Required MVC Assemblies
- Server Requirements
- Configuring an ASP.NET Application for Deployment
- Using XCOPY Deployment
- Using WebDeploy

- Working with the Entity Framework
- Working with LINQ to SQL
- Using Scaffolding

Integrating ASP.NET MVC and Web Forms

- What are Web Forms
- Using Web Forms in an MVC Application
- Using MVC in a Web Form Application
- Linking to MVC Actions from Web Forms

Securing MVC Applications

- ASP.NET Security
- Windows vs Forms Authentication
- Configuring Authentication
- Configuring Authorization
- Building a Secure Web Site
- Defending against Attacks
    - Cross-site Scripting
    - Session Hijacking
    - SQL Injection
    - Input Forgery

Related Bootcamp

Track	Duration	Price
Microsoft .NET Developer: VB.NET	147 hours	$4,475

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