





Global Knowledge®

Aug 12 - 16

## Introduction to Web Development with Microsoft Visual Studio 2010 (M10267)

### Learn to develop web applications with Visual Studio 2010 in 14 hands-on labs.

In this five-day, instructor-led course, you will gain the knowledge and skills to develop web applications with Microsoft Visual Studio 2010. In 14 hands-on labs, you'll learn the basics, from creating web applications using Visual Studio 2010 and .NET-based languages to implementing advanced technologies supported by Visual Studio 2010 for web development.

#### Global Knowledge Exclusive!

Continue developing your skills after class with 24/7 access to our live remote labs for six months, providing you with valuable extra time for hands-on practice.

#### What You'll Learn

- Explore ASP.NET web applications in Microsoft Visual Studio 2010
- Create web applications by using Microsoft Visual Studio 2010 and Microsoft .NET-based languages
- Create a Microsoft ASP.NET Web Form
- Add functionality to a Microsoft ASP.NET Web Form
- Implement master pages and user controls
- Validate user input
- Debug Microsoft ASP.NET web applications
- Manage data in an ASP.NET 4.0 web application
- Manage data access tasks by using LINQ
- Manage data by using ASP.NET Dynamic Data
- Create a Microsoft ASP.NET AJAX application
- Consume and Windows Communication Foundation (WCF) services
- Manage state in web applications
- Configure and deploy a Microsoft ASP.NET web application
- Secure a Microsoft ASP.NET web application
- Implement new technologies supported by Visual Studio 2010 for web development

#### Who Needs to Attend

Beginning web developers who have knowledge of HTML or DHTML along with some knowledge of a scripting language such as Visual Basic Scripting Edition or Microsoft Jscript

#### Prerequisites

- At least one month of experience in .NET technologies
- Knowledge of HTML or DHTML, including tables, images, and forms
- Programming experience using Visual Basic .NET or Visual C# .NET, including declaring variables and using loops and conditional statements

#### Follow-On Courses

There are no follow-ons for this course.

#### Course Outline

##### 1. Exploring Microsoft ASP.NET Web Applications in Microsoft Visual Studio 2010

- Introduction to the .NET Framework
- Overview of ASP.NET

- Overview of the Lab Application

## **2. Creating Web Applications by Using Microsoft Visual Studio 2010 and Microsoft .NET-Based Languages**

- Choosing a Programming Language
- Overview of Visual Studio 2010
- Creating a Simple Web Application

## **3. Creating a Microsoft ASP.NET Web Form**

- Creating Web Forms
- Adding and Configuring Server Controls in a Web Form

## **4. Adding Functionality to a Microsoft ASP.NET Web Form**

- Working with Code-Behind Files
- Handling Server Control Events
- Creating Classes and Components by Using Visual Studio 2010
- Handling Page Events

## **5. Implementing Master Pages and User Controls**

- Creating Master Pages
- Adding User Controls to an ASP.NET Web Form

## **6. Validating User Input**

- Overview of User Input Validation
- ASP.NET Validation Controls
- Validating Web Forms

## **7. Troubleshooting Microsoft ASP.NET Web Applications**

- Debugging in ASP.NET
- Tracing in ASP.NET

## **8. Managing Data in an Microsoft ASP.NET 4.0 Web Application**

- Overview of ADO.NET
- Connecting to a Database
- Managing Data

## **9. Managing Data Access Tasks by Using LINQ**

- Overview of LINQ
- Managing XML Data by Using LINQ to XML
- Managing SQL Data by Using LINQ to SQL and LINQ to Entities

## **10. Managing Data by Using Microsoft ASP.NET Dynamic Data**

- Overview of ASP.NET Dynamic Data
- Applying ASP.NET Dynamic Data
- Customizing ASP.NET Dynamic Data Applications

## **11. Creating a Microsoft ASP.NET AJAX-Enabled Web Forms Application**

- Introduction to AJAX
- Creating an ASP.NET AJAX Application by Using the AJAX Features for ASP.NET
- Extending an ASP.NET Web Forms Application by Using the AJAX Control Toolkit

## **12. Consuming Microsoft Windows Communication Foundation Services**

- Overview of Windows Communication Foundation Services
- Calling Windows Communication Foundation Services
- Working with WCF Data Services

## **13. Managing State in Web Applications**

- State Management
- ASP.NET Profiles
- ASP.NET Caching

## **14. Configuring and Deploying a Microsoft ASP.NET Web Application**

- Configuring an ASP.NET Web Application
- Deploying an ASP.NET Web Application

## **15. Securing a Microsoft ASP.NET Web Application**

- Overview of Web Application Security

- Declaratively Configuring Authentication and Authorization
- Working Programmatically with Authentication and Authorization

#### **16. Implementing Advanced Technologies Supported by Microsoft Visual Studio 2010 for Web Development**

- Working with the ASP.NET MVC 2 Framework
- Working with Silverlight 4

#### **Labs**

**Lab 1: Creating Web Applications by Using Microsoft Visual Studio 2010 and Microsoft .NET-Based Languages**

**Lab 2: Creating a Microsoft ASP.NET Web Form**

**Lab 3: Adding Functionality to a Microsoft ASP.NET Web Form**

**Lab 4: Implementing Master Pages and User Controls**

**Lab 5: Validating User Input**

**Lab 6: Debugging Microsoft ASP.NET Web Applications**

**Lab 7: Managing Data in an ASP.NET 4.0 Web Application**

**Lab 8: Managing Data by Using ASP.NET Dynamic Data**

**Lab 9: Creating a Microsoft ASP.NET AJAX-Enabled Web Forms Application**

**Lab 10: Consuming Windows Communication Foundation Services**

**Lab 11: Managing State in Web Applications**

**Lab 12: Configuring and Deploying a Microsoft ASP.NET Web Application**

**Lab 13: Securing a Microsoft ASP.NET Web Application**

**Lab 14: Implementing Advanced Technologies Supported by Microsoft Visual Studio 2010 for Web Development**



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## **Classroom**

**Course Code: 6281**

Authorized Course

**\$2995 USD**

5 Day Course

GSA Eligible

5 Day SATV Voucher

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## **Other Delivery Methods**

Virtual Classroom

On-Site

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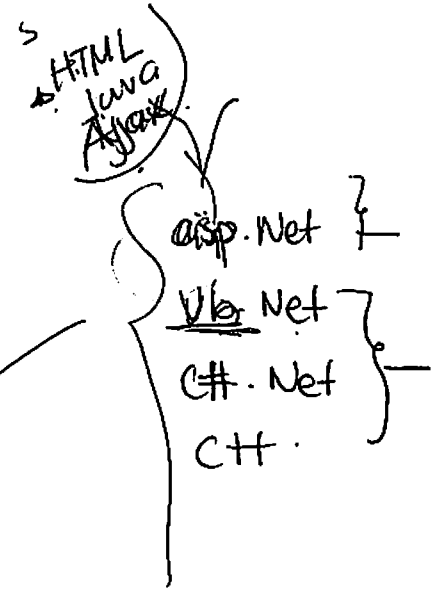
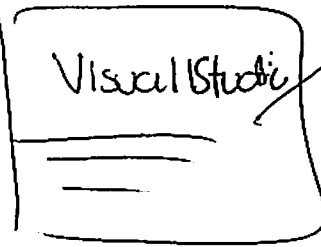
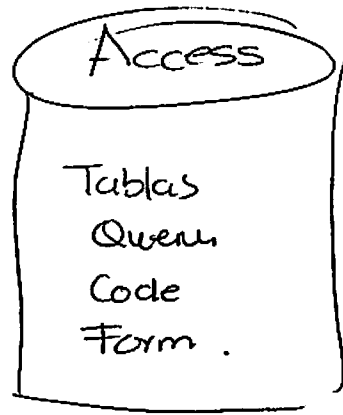
## Introduction to Web Development with Microsoft Visual Studio 2010 (M10267)

### Classroom Dates and Locations

Aug 5 - 9, 2013	New York, NY	Nov 4 - 8, 2013	Chicago (Schaumburg), IL
Aug 12 - 16, 2013	Chicago (Schaumburg), IL	Nov 11 - 15, 2013	Morristown, NJ
Aug 26 - 30, 2013	San Jose, CA	Nov 18 - 22, 2013	San Jose, CA
Sep 9 - 13, 2013	Dallas, TX	Dec 2 - 6, 2013	Dallas, TX
Sep 16 - 20, 2013	Raleigh, NC		
Oct 21 - 25, 2013	Washington, DC		
Oct 28 - Nov 1, 2013	New York, NY		

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Sep 09-13

## Developing Web Applications with Microsoft Visual Studio 2010 (M10264)

### Enhance the performance and scalability of web site applications.

Develop advanced ASP.NET MVC and Web Forms applications using .NET Framework 4 tools and technologies. Through 15 hands-on labs, you will practice coding activities that can enhance the performance and scalability of web site applications. During the course, you will compare ASP.NET MVC with Web Forms and learn when each should/could be used.

Also, this course will prepare you for Exam 70-515: TS: Web Applications Development with Microsoft .NET Framework 4. Success on Exam 70-515 earns you the MCTS: .NET Framework 4, Web Applications certification and credit towards MCPD: Web Developer 4 certification.

### Global Knowledge Exclusive!

Continue developing your skills after class with 24/7 access to our live remote labs for six months, providing you with valuable extra time for hands-on practice.

### What You'll Learn

- Underlying architecture and design of a web application
- Apply best practices and make appropriate trade-offs based on business requirements
- Develop MVC models, controllers, and views
- Optimize the design of a web application for discoverability by search engines
- Write server-side code for Web Forms
- Optimize data management for Web Forms
- Ensure quality by debugging, unit testing, and refactoring
- Secure a web application
- Apply Master Pages and CSS for a consistent application UI
- Develop client-side scripts and services for a responsive, rich, and interactive UI
- Implement advanced AJAX in a web application
- Deploy a web application
- Develop a web application using Silverlight

### Who Needs to Attend

Professional web developers who use Microsoft Visual Studio in a team-based, medium-to-large-sized development environment, who have at least two-to-three years of experience developing web-based applications using Microsoft Visual Studio and Microsoft ASP.NET, who are experienced users of Microsoft Visual Studio 2008 SP1 and newer releases of the Visual Studio product, and who already understand how to use the new features of Visual Studio 2010

### Prerequisites

- Understanding of the problem-solving techniques that apply to software development, including principles of software development
- Basic understanding of scripting techniques and some hands-on experience writing scripts
- General understanding of the purpose, function, and features of .NET Framework
- Experience using Visual Studio 2008
- Experience in object-oriented design and development

- Experience in N-Tier application design and development

### **Follow-On Courses**

- [Developing Data Access Solutions with Microsoft Visual Studio 2010 \(M10265\)](#)

### **Course Outline**

#### **1. Overview of Web Application Design**

- IIS 7.0
- ASP.NET 4.0
- Introduction to the MVC Framework
- Request Life Cycle

#### **2. Designing a Web Application**

- Web Applications: Case Studies
- Web Application Design Essentials
- Guidelines for Determining When to Use Web Forms and MVC
- Visual Studio 2010 Tools and Technologies for Web Application Design

#### **3. Developing MVC Models**

- Exploring Ways to Create MVC Models
- Creating a Data Repository

#### **4. Developing MVC Controllers**

- Implementing MVC Controllers
- Creating Action Methods

#### **5. Developing MVC Views**

- Implementing MVC Views
- Implementing Strongly Typed MVC Views
- Implementing Partial MVC Views

#### **6. Designing for Discoverability**

- Overview of Search Engine Optimization
- Creating the Robots and Sitemap Files
- Using ASP.NET Routing

#### **7. Writing Server-Side Code for Web Forms**

- Structure of a Web Application
- Controlling ViewState
- Localizing a Web Application
- Persisting Data on a Web Forms Page
- Validating User Input

#### **8. Optimizing Data Management for Web Forms**

- Managing Data by Using LINQ to Entities
- Using Data Source Controls
- Using ASP.NET Dynamic Data

#### **9. Ensuring Quality by Debugging, Unit Testing, and Refactoring**

- Debugging and Refactoring Code
- Unit Testing Code
- Processing Unhandled Exceptions
- Test Driven Development

#### **10. Securing a Web Application**

- Configuring Authentication
- Configuring ASP.NET Membership
- Managing Authorization by Using ASP.NET Roles

#### **11. Applying Master Pages and CSS**

- Applying Master Pages
- Applying CSS, Skins, and Themes

#### **12. Developing Client-Side Scripts and Services**

- Developing Client-Side Scripts
- Implementing AJAX
- Creating Services

### **13. Implementing Advanced AJAX in a Web Application**

- Implementing AJAX in ASP.NET MVC Pages Using Microsoft AJAX
- Implementing AJAX in ASP.NET MVC Pages Using jQuery
- Working With jQuery and AJAX Events

### **14. Deploying a Web Application**

- Overview of Web Application Deployments
- Overview of Web Site Deployments
- Deploying AdventureWorks

### **15. Developing a Web Application by Using Silverlight**

- Introduction to Rich Internet Applications
- Overview of Silverlight
- Creating a Silverlight Application

### **Labs**

**Lab 1: Exploring the Adventure Works Web Site**

**Lab 2: Redesigning the Adventure Works Web Site**

**Lab 3: Developing MVC Models**

**Lab 4: Developing MVC Controllers**

**Lab 5: Developing MVC Views**

**Lab 6: Designing for Discoverability**

**Lab 7: Writing Server-Side Code for Web Forms**

**Lab 8: Optimizing Data Management for Web Forms**

**Lab 9: Debugging, Unit Testing, and Refactoring**

**Lab 10: Securing a Web Application**

**Lab 11: Applying Master Pages and CSS**

**Lab 12: Developing Client Side Scripts and Services**

**Lab 13: Implementing Advanced AJAX for the AdventureWorks Web Application**

**Lab 14: Deploying AdventureWorks**

**Lab 15: Developing a Web Application by Using Silverlight**



### **Virtual Classroom**

**Course Code: 6284**

Authorized Course

**\$2995 USD**

5 Day Course

5 Day SATV Voucher

### **Other Delivery Methods**

On-Site



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## Developing Web Applications with Microsoft Visual Studio 2010 (M10264)

### Virtual Classroom e-Learning Dates

Aug 5 - 9, 2013 11:30 AM - 7:30 PM ET

Sep 9 - 13, 2013 8:30 AM - 4:30 PM ET

Oct 7 - 11, 2013 8:30 AM - 4:30 PM ET

Nov 4 - 8, 2013 8:30 AM - 4:30 PM ET

Dec 9 - 13, 2013 8:30 AM - 4:30 PM ET

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