

# 10267 - Introduction to Web Development with Microsoft Visual Studio 2010 – VB.NET/C#

Duration: 5 days

## Overview:

This five-day instructor-led course provides knowledge and skills on developing Web applications by using Microsoft Visual Studio 2010.

## Target Audience:

This course is intended for Web developers who are beginners and have knowledge of Hypertext Markup Language (HTML) or Dynamic HTML (DHTML), along with some knowledge of a scripting language such as Visual Basic Scripting Edition or Microsoft Jscript.

## Pre-requisites:

Before attending this course, students must have at least one month of experience in .NET technologies. In addition to their professional experience, students who attend this training should have the following technical knowledge:

- Knowledge of HTML or DHTML, including:
  - Tables
  - Images
  - Forms
- Programming experience using Visual Basic .NET or Visual C# .NET, including:
  - Declaring variables
  - Using loops
  - Using conditional statements

## At Course Completion:

After completing this course, students will be able to:

- 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 3.5 Web application.
- Manage data access tasks by using LINQ.

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

### Lessons

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

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

### Lessons

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

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

- Exercise 1: Creating an ASP.NET Web Site
- Exercise 2: Adding and Configuring Server Controls in Web Forms
- Exercise 3: Building and Deploying an ASP.NET Web Application

## Module 3: Creating a Microsoft ASP.NET Web Form

### Lessons

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

### Lab : Creating a Microsoft ASP.NET Web Form

- Exercise 1: Creating a Web Form
- Exercise 2: Adding and Configuring Server Controls in a Web Form

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

### Lessons

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

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

- Exercise 1: Implementing Code in a Web Application
- Exercise 2: Creating Event Procedures
- Exercise 3: Creating an Entity Component
- Exercise 4: Handling Page and Control Events

## Module 5: Implementing Master Pages and User Controls

### Lessons

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

### Lab : Implementing Master Pages and User Controls

- Exercise 1: Adding and Applying a Master Page
- Exercise 2: Converting Web Forms to Content Pages and User Controls

## Module 6: Validating User Input

### Lessons

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

### Lab : Validating User Input

- Exercise 1: Adding Validation Controls
- Exercise 2: Configuring Validation Controls
- Exercise 3: Adding Server-Side Validation

## Module 7: Troubleshooting Microsoft ASP.NET Web Applications

### Lessons

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

### Lab : Debugging Microsoft ASP.NET Web Applications

- Exercise 1: Debugging a Web Application
- Exercise 2: Tracing a Web Application

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

### Lessons

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

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

- Exercise 1: Connecting to a Data Source
- Exercise 2: Binding a Server Control to a Data Source
- Exercise 3: Modifying a Data Source

- 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.

### Module 9: Managing Data Access Tasks by Using LINQ

#### Lessons

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

#### Lab : Managing Data Access Tasks by Using LINQ

- Exercise 1: Loading Data by Using the XmlDataSource Control
- Exercise 2: Displaying Data by Using LINQ to XML
- Exercise 3: Saving Data by Using LINQ to Entities

### Module 10: Managing Data by Using Microsoft ASP.NET Dynamic Data

#### Lessons

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

#### Lab : Managing Data by Using ASP.NET Dynamic Data

- Exercise 1: Adding Dynamic Data to an Existing Web Site
- Exercise 2: Registering LINQ to Entities by Using Dynamic Data
- Exercise 3: Map, Clean and Test Solution

### Module 11: Creating a Microsoft ASP.NET Ajax-enabled Web Forms Application

#### Lessons

- 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

#### Lab : Creating a Microsoft ASP.NET Ajax-Enabled Web Forms Application

- Exercise 1: Creating a Modal About Box
- Exercise 2: Customizing Dynamic Data Field Templates with Ajax Server Controls
- Exercise 3: Adding the Country Import Progress Indicator

### Module 12: Consuming Windows Communication Foundation Services

#### Lessons

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

#### Lab : Consuming Windows Communication Foundation Services

- Exercise 1: Creating a WCF Service Reference Proxy
- Exercise 2: Calling a WCF Service Method from a Web Form
- Exercise 3: WCF Data Services

### Module 13: Managing State in Web Applications

#### Lessons

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

#### Lab : Managing State in Web Applications

- Exercise 1: Examining the View State
- Exercise 2: Caching Countries
- Exercise 3: Displaying Visitors Counter on Default Page

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

#### Lessons

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

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

- Configuring the List View Page Size and Enabling the Save Countries Button
- Configuring the Visitor Counter
- Deploying the Web Application

### Module 15: Securing a Microsoft ASP.NET Web Application

#### Lessons

- Overview of Web Application Security
- Declaratively Configuring Authentication and Authorization
- Working Programmatically with Authentication and Authorization

#### Lab : Securing a Microsoft ASP.NET Web Application

- Exercise 1: Enabling Forms Authentication
- Exercise 2: Implementing Authorization
- Exercise 3: Protecting Configuration File

### Module 16: Implementing Advanced Technologies Supported by Microsoft Visual Studio 2010 for Web Development

#### Lessons

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

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

- Exercise: Implementing a Silverlight Application