# BULLETPROOF
## Education Services

## 10267 Introduction to Web Development with Microsoft Visual Studio 2010

This course provides knowledge and skills on developing Web applications by using Microsoft Visual Studio 2010.

**Length Days: 5 |** Length Hours: 40

## Prerequisites

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

## 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.

Students are required to have the following skills:

- Ability to construct a simple Web page using a Microsoft or 3rd Party tool. For example, create or customize a Web Page on a SharePoint site.

## Course Objectives

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.
- 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.

## 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
- Lab : There are no labs for this module

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

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

- Creating Web Forms
- Adding and Configuring Server Controls in a Web Form
- Lab : Creating a Microsoft ASP.NET 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
- Lab : Adding Functionality to a Microsoft ASP.NET Web Form

## 5 - Implementing Master Pages and User Controls

- Creating Master Pages
- Adding User Controls to an ASP.NET Web Form
- Lab : Implementing Master Pages and User Controls

## 6 - Validating User Input

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

## 7 - Troubleshooting Microsoft ASP.NET Web Applications

- Debugging in ASP.NET
- Tracing in ASP.NET
- Lab : Debugging Microsoft ASP.NET Web Applications

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

- Overview of ADO.NET
- Connecting to a Database
- Managing Data
- Lab : Managing Data in an ASP.NET 4.0 Web Application

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

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

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

## 12 - Consuming Microsoft Windows Communication Foundation Services

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

## 13 - Managing State in Web Applications

- State Management
- ASP.NET Profiles
- ASP.NET Caching
- Lab : Managing State in Web Applications

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

- Configuring an ASP.NET Web Application
- Deploying an ASP.NET Web Application
- Lab : Configuring and Deploying a Microsoft 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
- Lab : Securing a Microsoft ASP.NET Web Application

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