Introduction to Web Development Using Microsoft Visual Studio 2010 (MS-10267)

Modality: Virtual Classroom

Duration: 5 Days

SATV Value: 5

About this course:

This five-day Microsoft Training course gives students expertise and skills on developing Web applications by executing the Microsoft Visual Studio 2010.

The average pay a web developer earns is around **$78,630** per year.

Course Objectives:

After finishing this course, students will be develop the skills to:

- Discover the ASP.NET Web applications in Microsoft Visual Studio 2010

- Construct Web applications by the usage of Microsoft Visual Studio 2010 and Microsoft .NET–based languages

- Build a Microsoft ASP.NET Web Form

- Add functionality to a Microsoft ASP.NET Web Form

- Incorporate a master pages and user controls

- Verify user input

- Debug Microsoft ASP.NET Web applications

- Handle data in an ASP.NET 3.5 Web application

- Handle data access tasks by using LINQ

- Handle data by using ASP.NET Dynamic Data

- Construct a Microsoft ASP.NET AJAX application

- Consume and Windows Communication Foundation (WCF) services

- Cope with the state in Web applications

- Construct and apply a Microsoft ASP.NET Web application

- Protect a Microsoft ASP.NET Web application

- Execute new technologies supported by Visual Studio 2010 for Web development

Audience:

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

Students must possess to have the following skills:

- Capability to create a simple Web page by the use of a Microsoft or 3rd Party tool. For instance, generate or customize a Web Page on a SharePoint site.

Prerequisites:

Beforehand admitting into this course, students must have minimum of one month of experience in .NET technologies. In addition to their specialized experience, students who take admission into this training must have the following technical skills:

- Understanding and knowledge of HTML or DHTML, including:

    - Tables

    - Images

    - Forms

    - Programming experience by the use of Visual Basic .NET or Visual C# .NET, : consisting:

    - Declaring variables

    - Making use of loops

    - Utilizing provisional statements

Recommended prerequisite course:

- Programming in HTML5 with JavaScript and CSS3 (MS-20480)

Course Outline:

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

This module explains the key features of Microsoft .NET Framework and Microsoft ASP.NET. It helps you view the complete Web application that you build in the labs throughout this course

Lessons

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

After completing this module, students will be able to:

- Describe the .NET Framework.
- Describe ASP.NET.
- Describe the Lab Application.

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

This module describes the different programming languages that are available when you develop Microsoft .NET Framework applications. It explains the fundamental aspects of writing code and creating components by using two of the .NET Framework-based languages, Microsoft Visual Basic and Microsoft Visual C#. It provides an overview of Microsoft Visual Studio 2010. It also explains how to create a simple Web application.

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

After completing this module, students will be able to:

- Choose a programming language.
- Describe Visual Studio 2010.
- Create a simple Web application.

Module 3: Creating a Microsoft ASP.NET Web Form

This module explains how to create Web Forms and populate them with server controls.

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

After completing this module, students will be able to:

- Create Web Forms.
- Add and configure server controls in a Web Form.

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

This module describes the various methods that you can use to add code to your Microsoft ASP.NET Web application. It explains how to use Web server controls, event handlers, code-behind files, and components. In addition, it explains how to use page events, especially the Page_Load event.

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

After completing this module, students will be able to:

- Work with code-behind files.
- Handle server control events.
- Create classes and components by using Microsoft Visual Studio 2010.
- Handle page events.

Module 5: Implementing Master Pages and User Controls

This module explains how to create and implement master pages and how to implement user controls in a Web application.

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

After completing this module, students will be able to:

- Create master pages.
- Add user controls to a Microsoft ASP.NET Web Form.

Module 6: Validating User Input

This module provides an overview of user input validation. It covers information on adding, positioning, and configuring validation controls on a Web Form. In addition, it covers information on validating Web Forms.

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

After completing this module, students will be able to:

- Describe user input validation
- Implement Microsoft ASP.NET validation controls
- Validate Web Forms

Module 7: Troubleshooting Microsoft ASP.NET Web Applications

This module describes the steps required to enable tracing and debugging, including how you can use debugging and tracing in a Web application.

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

After completing this module, students will be able to:

- Perform debugging in Microsoft ASP.NET
- Perform tracing in ASP.NET

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

This module provides an overview of Microsoft ADO.NET. It explains how to programmatically work with data by using ADO.NET and how to create a connection to access the data stored in a Microsoft SQL Server database. In addition, it explains how to use the DataSet and DataReader objects to support the local data storage and data manipulation requirements of Web Forms.

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

After completing this module, students will be able to:

- Describe ADO.NET.
- Connect to a database.
- Manage data.

Module 9: Managing Data Access Tasks by Using LINQ

This module explains what LINQ is and how you can use LINQ to manage both XML data and Microsoft SQL Server data in a Microsoft ASP.NET Web application by using Web Server controls and code.

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

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- 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

After completing this module, students will be able to:

- Describe language-integrated query (LINQ).
- Manage XML data by using LINQ to XML.
- Manage SQL data by using LINQ.

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

This module provides an overview of Microsoft ASP.NET Dynamic Data. It also covers information on applying ASP.NET Dynamic Data. In addition, it explains how to customize ASP.NET Dynamic Data applications.

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

After completing this module, students will be able to:

- Describe ASP.NET Dynamic Data
- Apply ASP.NET Dynamic Data
- Customize ASP.NET Dynamic Data applications

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

This module provides an overview of Microsoft ASP.NET AJAX and explains how to create an ASP.NET AJAX application. It also introduces the ASP.NET AJAX Control Toolkit, and explains how to install the toolkit and add controls from the toolkit to a Web 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 Aj

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