Developing Web Applications with ASP.Net Web Forms

Varighet: 5 Days     Kurskode: M10267

Beskrivelse:

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

Målgruppe:

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

Agenda:

- 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.

Forkunnskaper:

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

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
- Lab: There are no labs for this module
- 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 choosing a programming language.

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 a Simple Web Application
- 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.

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.

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

Module 6: Validating User Input
This module provides an overview of user input validation. It covers information on adding, positioning, and configuring validation controls.

Lessons

- Overview of User Input Validation
- ASP.NET Validation Controls

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

Module 8: Managing Data in a 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.

Lessons

- Connecting to a Database
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.

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

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.

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.

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
After completing this module, students will be able to:
- Describe ASP.NET AJAX.
- Create an ASP.NET AJAX application by using the ASP.NET AJAX extensions.
- Extend an application by using the ASP.NET AJAX Control Toolkit.

Module 12: Consuming Microsoft Windows Communication Foundation Services
This module provides an overview of Windows Communication Foundation services. In addition,
- 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: Implementing WCF Data Services

After completing this module, students will be able to:
- Describe WCF services.
- Call WCF services.
- Consume Windows Communication Foundation services.

Module 13: Managing State in Web Applications
This module explains how to manage state in a Microsoft ASP.NET Web application.
- 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

After completing this module, students will be able to:
- Describe state management.
- Describe Microsoft ASP.NET Profiles.
- Describe ASP.NET Caching.

Module 14: Configuring and Deploying a Microsoft ASP.NET Web Application
This module explains how to configure and deploy a Microsoft ASP.NET Web application by using the machine.config and web.config files.
- Configuring an ASP.NET Web Application
- Deploying an ASP.NET Web Application
- Configuring the List View Page Size and Enabling the Save Countries Button
- Configuring the Visitor Counter
- Deploying the Web Application

After completing this module, students will be able to:
- Configure an ASP.NET Web application.
- Deploy an ASP.NET Web application.

Module 15: Securing a Microsoft ASP.NET Web Application
This module explains the various Web application security functionalities. It also covers...
information on the infrastructure to build

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

After completing this module, students will be able to:
- Describe Web application security.
- Describe how to declaratively configure authentication and authorization.
- Work programmatically with authentication and authorization.

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

This module describes the new Visual Studio 2010 and:
- 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

After completing this module, students will be able to:
- Work with ASP.NET MVC 2.
- Work with Silverlight 4.

---

**Ytterligere informasjon:**

For mer informasjon eller kursbooking, vennligst ring oss 22 95 66 00
info@globalknowledge.no
www.globalknowledge.no

Greenseveien 97, 0663 Oslo, PO Box 6256 Etterstad, 0606 Oslo, Norway