Developing Windows Applications with Microsoft Visual Studio 2010

Varighed: 5 Days   Kursus Kode: M10262

Beskrivelse:

In this course, experienced developers who know the basics of Windows Forms development gain more advanced Windows Client design and development skills. WinForms and WPF programming models, as well as relative strengths and when to use each technology, are covered

Målgruppe:

This course is intended for Technology Specialists in the area of Windows Client Development who work in a development environment that uses Microsoft Visual Studio .NET 2010 and Microsoft .NET Framework 4.0 to create rich client applications for Windows

Agenda:

- **After you complete this course you will be able to:**

- Understand how varying business requirements influence the design decisions when planning a Windows Client application.

- Understand the new features of Visual Studio 2010 WPF

- Design and build a UI that provides the expected end-user experience and UI functionality

- Create a consistent and manageable user interface

- Understand best practices when testing and learn how to debug their applications

- Use advanced exception handling in Windows Client application scenarios

- Implement advanced data binding scenarios

- Use coding techniques to improve the responsiveness of their applications

- Implement localization, user assistance, and accessibility features within an application

- Understand the basics of graphics in WPF

- Customize controls and introduce students to custom controls

- Implement application behaviors based on user actions or events by using attached properties and Expression Blend behaviors

- Develop data visualization within their applications in a manner that enables the application user to drill down into data visually

- Manage application state and settings throughout the application lifecycle

- Deploy their applications using the various methods supported by Visual Studio 2010

Forudsætninger:

Attendees should meet the following prerequisites:

- An understanding of the problem-solving techniques that apply to software development, including the following principles of software development:
- modern software development models
- typical phases of a software development lifecycle
- concepts of event-driven programming
- concepts of object-oriented programming
- creating use-case diagrams
- designing and building a user interface
- developing a structured application
- A general understanding of the purpose, function, and features of following .NET Framework topics:
- Common Language Runtime
- .NET Framework class library
- Common Type System
- Component interoperation

Test og certificering

Recommended preparation for exam(s):

- None specified at this moment in time

- Cross-Language Interoperability
- Assemblies in the Common Language Runtime
- Application Domains
- Runtime hosts supported by the .NET Framework
- Experience using Visual Studio 2008 in the following task areas:
- Declaring and initializing typed variables using the Camel case naming convention
- Using arithmetic, relational, and logical operators in code statements
- Using branching statements to control code execution
- Using looping statements to iterate through collections or repeat steps until a specified condition is met
- Creating classes and methods to establish the basic structure of an application
- Using methods and events to implement the programming logic of an application
- Identifying syntax and logic errors
- Accessing and managing data from a data source
- Experience in object oriented design and development as follows:
- Creating and accessing classes and class properties
- Creating and accessing methods and overloaded methods
- Implementing inheritance, base classes, and abstract classes
- Declaring, raising, and handling events
- Responding to and throwing exceptions
- Implementing interfaces and polymorphism
- Implementing shared and static members
- Implementing generics
- Creating components and class libraries
- Experience in N-Tier application design and development as follows:
- Managing a software development process
- Controlling input at the user interface level in Windows Client applications
- Debugging, tracing, and profiling .NET applications
- Monitoring and logging .NET applications
- Implementing basic testing best practices
- Performing basic Data Access tasks with LINQ
- Basics of LINQ to XML
- Basics of LINQ to Entities
- Basics of LINQ to SQL
- Implementing basic security best practices in .NET Applications
- Basics of Code Access Security
- Basics of Role-Based Security
- Basics of Cryptography Services
- Implementing basic service calls
- Basics of consuming XML Web Services
- Basics of consuming WCF Services
- Using .NET Configuration Files
- Deploying .Net Framework Applications using ClickOnce and the MS Installer

Yderligere Kurser:

The following courses are recommended for further study:

- None specified at this moment in time

Indhold:

Module 1: Windows Client Application Design

- Windows Client Technologies
- Architectural Patterns
- Interoperability between Windows Forms and WPF

Module 2: Introduction to Visual Studio 2010 and WPF Version 4

- What's New in Visual Studio 2010?
- What's New in WPF Version 4

Module 3: Designing and Developing a User Interface

- Defining Page Layout
- Using Content Controls
- Using Item Controls
- Sharing Logical Resources in a Window

Module 4: Taking Control of the User Interface

- Sharing Logical Resources in an Application
- Creating Consistent User Interfaces by Using Styles
- Changing the Appearance of Controls by Using Templates
- Handling Events and Commands

Module 5: Testing, Unit Testing, and Debugging

- WPF Testing Strategies
- Debugging XAML
- Providing User Feedback for Unhandled Exceptions
- UnderstandingSecurity Features

Module 6: Simple Data Binding and Validation

- Overview of Data Binding
- Creating a Data Binding
- Implementing Property Change Notification
- Converting Data
- Validating Data
- Presenting Data at Design Time

Module 7: Data Binding to Collections

- Binding to Collections of Objects
- Using Collection Views
- Creating Master-Detail User Interfaces
- Using Data Templates
- Presenting Design Time Data Collections

Module 8: Enhancing UI Responsiveness

- Implementing Asynchronous Processes
- Implementing Responsive User Interfaces

Module 9: Integrating Localization and User Assistance Features

- Localization and Globalization
- Implementing User Assistance Features
- Providing User Accessibility Features

Module 10: WPF 2D Graphics, Multimedia, and Printing

- Displaying 2D Graphics
- Displaying Images
- Adding Multimedia to WPF Applications
- Creating and Printing Documents

Module 11: Control Customization

- Overview of Control Authoring
- Creating User Controls
- Creating Custom Controls
- Managing Control Appearance by Using Visual States
- Integrating WPF and Windows Forms

Module 12: Attached Properties and Behaviors in WPF

- Implementing Attached Properties
- Implementing Drag-and-Drop User Interfaces
- Implementing Expression Blend Behaviors, Triggers and Actions

Module 13: Animations in WPF

- Using Animations
- Using Triggers
- Implementing Data Visualizations

Module 14: Application State, Settings, and Lifecycle

- Creating Application Settings
- Consuming Application Settings
- Creating Custom Configuration Sections

Module 15: Configure and Deploy Windows Client Applications

- Deployment Options
- Deploying a Standalone WPF Application
- Deploying an XBAP Application
- Configuring Security Settings

Labs

- Lab 1: Planning Windows Client Applications
- Lab 2: Guided Tour of Visual Studio 2010 and XAML
- Lab 3: Building a User Interface
- Lab 4: Dynamically Controlling the User Interface
- Lab 5: Testing and Debugging WPF Applications
- Lab 6: Data Binding
- Lab 7: Data Binding to Collections
- Lab 8: Enhancing Application Performance
- Lab 9: Localizing a WPF Application
- Lab 10: Drawing 2-D Graphics
- Lab 11: Building a User Control
- Lab 12: Implementing Drag-and-Drop Operations
- Lab 13: Creating Animations
- Lab 14: Creating a Settings Dialog
- Lab 15: Deploying Applications

Additional Information:

No further information available

Flere Informationer:

For yderligere informationer eller booking af kursus, kontakt os på tlf.nr.: 44 88 18 00

training@globalknowledge.dk

www.globalknowledge.dk

Global Knowledge, Stamholmen 149,7 , 2650 Hvidovre