

Course Description

In this course, students will learn to develop Windows Communication Foundation applications using .NET Framework 4 and Visual Studio 2010. Service Oriented Application design considerations will also be included as part of this training

Course Outline

Module 1: Testing, Unit Testing, and Debugging

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

Module 2: 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 3: 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 4: Windows Client Application Design

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

Module 5: Introduction to Visual Studio 2010 and WPF Version 4

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

Module 6: Designing and Developing a User Interface

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

Module 7: 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 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: Configure and Deploy Windows Client Applications

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

Module 14: Animations in WPF

- Using Animations
- Using Triggers
- Implementing Data Visualizations

Module 15: Application State, Settings, and Lifecycle

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