

Silverlight 2 Using C# (CTI 4146)

Microsoft's Silverlight is a new client-side web technology that enables the implementation of visually stunning web applications that depend only on a small, easy-to-install plug-in that works in browsers for both Windows and Macintosh. This course provides the C# programmer with a thorough foundation in Silverlight 2.

Prerequisites: Basic understanding of Web application development using HTML and programming experience in .NET using C#. Some exposure to JavaScript would be helpful but is not essential.

Minimum software requirements: PC running Windows XP with Service Pack 2 or MAC OS; Internet Explorer, Firefox or Safari; Silverlight plug-in and SDK. Visual Studio 2008; Silverlight Tools for Visual Studio.

Minimum hardware requirements for all machines: Pentium 2GHz or equivalent CPU; 512 Mb RAM; at least 4 GB free hard disk space before installation; Internet access.

Microsoft PowerPoint and Internet access on instructor's workstation for presentation purposes.

Module 1: Introduction to Silverlight

- The Silverlight Plug-In
- The Silverlight SDK
- Using the Silverlight Control

Module 2: Programming Silverlight

- JavaScript API for Silverlight
- Managed API for Silverlight
- Visual Studio 2008 and Silverlight
- Interactive Web Applications Using C#

Module 3: Using XAML

- Windows Presentation Framework (WPF)
- Extensible Application Markup Language (XAML)
- Canvas
- Elements and Attributes
- Property Elements
- Type Converters
- Content Property
- Collections
- Attached Properties
- XAML and C#
- XamlReader

Module 4: Shapes and Lines

- Rectangles
- Ellipses
- Polygons
- Lines and Polylines
- Curves
- Paths
- Geometries
- Strokes

Module 5: Text and Fonts

- TextBlock
- Fonts
- Run
- LineBreak

Module 6: Brushes and Images

- Color and Opacity
- SolidColorBrush
- LinearGradientBrush
- RadialGradientBrush
- Image
- ImageBrush

Module 7: Layout and Transforms

- Sizing Element
- StackPanel
- Grid
- Positioning Elements
- Z-Order
- Clipping
- Translate Transform
- Rotate Transform
- Scale Transform
- Skew Transform
- Combining Transforms

Module 8: Handling Events

- Event Handlers
- Dynamic Event Handlers
- Mouse Events
- Rubber Band Drawing
- Drag and Drop
- Event Bubbling

Module 9: Animation and Media

- Animation using Background Worker
- Silverlight Animation
- Video and Audio
- Resources

Appendix A. Learning Resources