

DOT.NET MODULE 6: SILVERLIGHT

UNIT 1 Introducing Silverlight

1. Silverlight and Visual Studio
2. Understanding Silverlight Websites
3. Creating a Stand-Alone Silverlight Project
4. Creating a Simple Silverlight Page
5. Adding Event Handling Code
6. Browsing the Silverlight Class Libraries
7. Testing a Silverlight Application
8. Silverlight Compilation and Deployment
9. Compiling a Silverlight Application
10. Deploying a Silverlight Application
11. The HTML Test Page
12. The Application Manifest
13. Creating an ASPNET-Hosted Silverlight Project

UNIT 2 XAML

1. XAML Basics
2. XAML Namespaces
3. The Code-Behind Class
4. Properties and Events in XAML
5. Simple Properties and Type Converters
6. Complex Properties
7. Attached Properties
8. Nesting Elements
9. Events
10. The Full Eight Ball Example
11. Resources
12. The Resources Collection
13. The Hierarchy of Resources
14. Accessing Resources in Code

UNIT 3 Layout

1. The Layout Containers
2. The Panel Background
3. Borders
4. Simple Layout with the StackPanel
5. Layout Properties
6. Alignment
7. Margins
8. Minimum, Maximum, and Explicit Sizes
9. The Grid

10. Fine-Tuning Rows and Columns
11. Nesting Layout Containers
12. Spanning Rows and Columns
13. The GridSplitter
14. Coordinate-Based Layout with the Canvas
15. Layering with ZIndex
16. Clipping
17. Custom Layout Containers
18. The Two-Step Layout Process
19. A Wrapping Panel
20. Sizing Pages
21. Scrolling
22. Scaling
23. Full Screen
24. Navigation
25. Loading Child User Controls
26. Hiding Elements

UNIT 4 Dependency Properties and Routed Events

1. Dependency Properties
2. Defining and Registering a Dependency Property
3. Dynamic Value Resolution
4. Attached Properties
5. The WrapPanel Example
6. Routed Events
7. The Core Element Events
8. Event Bubbling
9. Handled (Suppressed) Events
10. An Event Bubbling Example
11. Mouse Movements
12. Capturing the Mouse
13. A Mouse Event Example
14. Mouse Cursors
15. Key Presses
16. Key Modifiers
17. Focus

UNIT 5 Elements

1. The Silverlight Elements
2. Static Text
3. Font Properties
4. Underlining
5. Runs
6. Wrapping Text

7. Images
8. Image Sizing
9. Image Errors
10. Content Controls
11. The Content Property
12. Aligning Content
13. Buttons
14. The HyperlinkButton
15. The ToggleButton and RepeatButton
16. The CheckBox
17. The RadioButton
18. Tooltips and Pop-Ups
19. Customized ToolTips
20. The Popup
21. Items Controls
22. The ListBox
23. The ComboBox
24. The TabControl
25. Text Controls
26. Text Selection
27. The PasswordBox
28. Range-Based Controls
29. The Slider
30. The ProgressBar
31. Date Controls

UNIT 6 The Application Model

1. Application Events
2. Application Startup
3. Application Shutdown
4. Unhandled Exceptions
5. XAML Resources
6. Application Tasks
7. Accessing the Current Application
8. Initialization Parameters
9. Changing the Page
10. Splash Screens
11. Resources
12. Placing Resources in the Application Assembly
13. Placing Resources in the Application Package
14. Placing Resources on the Web
15. Class Library Assemblies
16. Using Resources in an Assembly
17. Downloading Assemblies on Demand

UNIT 7 Shapes and Geometries

1. Basic Shapes
2. The Shape Classes
3. Rectangle and Ellipse
4. Sizing and Placing Shapes
5. Line
6. Polyline
7. Polygon
8. Line Caps and Line Joins
9. Dashes
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11. Line, Rectangle, and Ellipse Geometries
12. Combining Shapes with GeometryGroup
13. Curves and Lines with PathGeometry
14. The Geometry Mini-Language
15. Clipping with Geometry
16. Exporting Clip Art
17. Expression Design
18. Conversion
19. Save or Print to XPS

UNIT 8 Brushes and Transforms

1. Brushes
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3. The RadialGradientBrush
4. The ImageBrush
5. Transparency
6. Opacity Masks
7. Making the Silverlight Control Transparent
8. Transforms
9. Transforming Shapes
10. Transforms and Layout Containers
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UNIT 9 Animation

1. Understanding Silverlight Animation
2. The Rules of Animation
3. Creating Simple Animations
4. The Animation Class
5. The Storyboard Class
6. Starting an Animation with an Event Trigger
7. Starting an Animation with Code
8. Configuring Animation Properties

9. Animation Lifetime
10. Simultaneous Animations
11. Controlling Playback
12. Desired Frame Rate
13. Animation Types Revisited
14. Animating Transforms
15. Animating Brushes
16. Key Frame Animation
17. Animations in Code
18. The Main Page
19. The Bomb User Control
20. Dropping the Bombs
21. Intercepting a Bomb
22. Counting Bombs and Cleaning Up
23. Encapsulating Animations
24. Page Transitions
25. The Base Class
26. The Wipe Transition
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UNIT 10 Sound, Video, and Deep Zoom

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2. The MediaElement
3. Controlling Playback
4. Handling Errors
5. Playing Multiple Sounds
6. Changing Volume, Balance, and Position
7. Playing Video
8. Progressive Downloading and Streaming
9. Client-Side Playlists
10. Server-Side Playlists
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12. Video Encoding
13. Markers
14. VideoBrush
15. Video Effects
16. Deep Zoom
17. Creating a Deep Zoom Image Set
18. Using a Deep Zoom Image Set in Silverlight

UNIT 11 Styles, Templates, and Custom Controls

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3. Applying a Style

4. Organizing Styles
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6. Creating a Template
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8. Understanding States with the Button Control
9. Showing a Focus Cue
10. Transitions
11. Understanding Parts with the Slider Control
12. Creating Templates for Custom Controls
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14. Creating the Solution
15. Starting the Expander Class
16. Adding the Default Style with Genericxaml
17. Choosing Parts and States
18. Starting the Default Control Template
19. The Expand or Collapse Button
20. Defining the State Animations
21. Wiring Up the Elements in the Template
22. Using the Expander
23. Using a Different Control Template

UNIT 12 Browser Integration

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2. Getting Browser Information
3. The HTML Window
4. Inspecting the HTML Document
5. Manipulating an HTML Element
6. Handling JavaScript Events
7. Code Interaction
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9. Calling Silverlight Methods from the Browser
10. Instantiating Silverlight Objects in the Browser
11. A Browser History Example
12. Combining Silverlight and HTML Content
13. Sizing the Silverlight Control to Fit Its Content
14. Placing the Silverlight Control Next to an HTML Element

UNIT 13 ASPNET and Web Services

1. ASPNET Controls That Use Silverlight
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3. The MediaPlayer Control
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5. Hybrid Pages
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7. Creating a Web Service
8. Consuming a Web Service
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10. Cross-Domain Web Service Calls
11. Using ASPNET Platform Services

UNIT 14 Data Binding

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2. Building a Data Object
3. Displaying a Data Object with DataContext
4. Storing a Data Object As a Resource
5. Editing with Two-Way Bindings
6. Validation
7. Change Notification
8. Building a Data Service
9. Calling the Data Service
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11. Displaying and Editing Collection Items
12. Inserting and Removing Collection Items
13. Binding to a LINQ Expression
14. Master-Details Display
15. Data Conversion
16. Formatting Strings with a Value Converter
17. Creating Objects with a Value Converter
18. Applying Conditional Formatting
19. Data Templates
20. Separating and Reusing Templates
21. More Advanced Templates
22. Changing Item Layout
23. The DataGrid
24. Creating a Simple Grid
25. Resizing and Rearranging Columns
26. Defining Columns
27. Formatting and Styling Columns
28. Formatting Rows
29. Row Details
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31. Sorting Rows
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UNIT 15 Isolated Storage

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2. The Scope of Isolated Storage
3. What to Put in Isolated Storage

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6. Writing and Reading Data
7. Requesting More Space
8. Storing Objects with the XmlSerializer
9. Storing Application Settings
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UNIT 16 Multithreading

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2. The Goals of Multithreading
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5. Marshalling Code to the User Interface Thread
6. Creating a Thread Wrapper
7. Creating the Worker Class
8. Using the Thread Wrapper
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10. The BackgroundWorker
11. Creating the BackgroundWorker
12. Running the BackgroundWorker
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