



To register or for more information call our office **(208) 898-9036** or email register@leapfoxlearning.com

Microsoft®

MS-SL300 Developing Web Applications using Silverlight 2.0

Duration:

Traditional Instructor Led Learning -3 days

Software Assurance Vouchers Available 

Introduction

This three-day instructor-led course provides students with the knowledge and skills to develop Microsoft Silverlight 2.0 web applications. The course focuses on user interfaces, program structure, language syntax, and implementation details.

Audience

This course is intended for both novice and experienced programmers who have a minimum of one year programming experience using the Microsoft? .NET Framework and have an understanding of HTML.

At Course Completion

After completing this course, students will be able to:

- Create a simple Silverlight 2.0 web application based on the Silverlight project template.
- Understand Windows Presentation Foundation and how web browsers can display Silverlight 2.0 applications.
- Create comprehensive user interfaces using XAML.
- Utilize built in UI Automation mechanisms to provide accessibility options.
- Understand resources and how they can provide styling and templating to the interface.
- Use animation to provide an interactive and aesthetically pleasing user interface.
- Develop a deep understanding of the Silverlight 2.0 framework and programming libraries.
- Build dynamic data driven applications using the Silverlight service architecture.
- Prepare and package Silverlight 2.0 applications so that they may be successfully deployed to the client.

Prerequisites

Before attending this course, students must have:

- Experience with Microsoft .NET Programming Framework
- Working knowledge of web development techniques

Additional Reading

- Working knowledge of web development techniques

To help you prepare for this class, you could review the following resources:

- Silverlight Resource Site (<http://www.silverlight.net>)
- MSDN Articles. Search terms: XAML, WPF, HTML (<http://msdn.microsoft.com>)

Course Outline

Module 1: Introduction to Microsoft Silverlight 2.0

This module explains some of the basic concepts of web development and introduces the Microsoft Silverlight technology.

Lessons

- Introduction and Discussion: What is Silverlight?
- Benefits of Microsoft Silverlight
- Technology overview: How the Microsoft Silverlight platform delivers rich media and content.

Lab: Navigating Silverlight projects using the IDEs

- Creating a Simple Silverlight Application
- Layout, Controls and Vector Content
- XAML Elements and Objects
- Events and Input Handling
- Full-Screen Mode

Module 2: Silverlight 2.0 Media

Lessons

- DEMO: FOX Movies
- Silverlight video in a nutshell
- Established Media Ecosystem
- Skinable
- DEMO: Video Puzzle
- Cost of Ownership
- Content Protection
- Media Playlist

Lab: Building a Simple Media Player

- Build a simple media player using the Silverlight <MediaElement> control.
- Use the Play, Stop and Pause functionality,
- How to handle progress, buffering and media markers.

Module 3: Browser Integration

Lessons

- Defining how Silverlight Integrates with the Browser
- Exposing .NET to the Browser
- Exposing the XAML Render Tree
- Manipulating HTML from Code Behind
- Calling Java Script from .NET

Lab: Browser Integration

- Introduction
- Exposing .NET Functions to the Browser
- Understanding the Silverlight .NET Code and XAML
- Exposing a .NET method to JavaScript
- Calling the .NET Method from JavaScript
- Manipulating the XAML Render Tree from the Browser

- Updating existing XAML elements
- Creating new XAML Elements
- Further Study
- Calling Browser Script from .NET
- Further Study

Module 4: Networking and Connectivity

Lessons

- Connectivity with JavaScript
- The WebClient Class
- The HttpRequest/HttpResponse classes
- Consuming WCF Web Services
- Consuming SOAP Web Services
- Sockets

Lab: Customizing Appearance

- Introduction
- Section 1: Using WebClient to Read Bind Remote Data to Silverlight
 - Task 1: Create a Silverlight application, and add the CityData Class
 - Task 2: Create the XML Service
 - Task 3: Create the XAML to bind to
 - Task 4: Create the WebClient request and callback
 - Task 5: Binding the Data on the Callback
 - Further Study
- Section 2: Using WebRequest / WebResponse to get Data
 - Task 1: Create the Project and set up the server application
 - Task 2: Create the Silverlight UI
 - Task 3: Write the Data Binding and UI logic
- Section 3: Building and Binding to a WCF Service
 - Task 1: Create the Silverlight Project and add the WCF Service
 - Task 2: Create the Silverlight Client and Bind it to the Service

Module 5: Layout in Silverlight

Lessons:

- DEMO: Canvas grid and StackPanel
- Two pass layout
- Properties that Effect Layout
- Layout Events
- Transforms

MegaLab: Building the UI for an application

In this lab you will build the main page of the lab application, using different layout controls including Grid, StackPanel, TabControl and ItemsControl. Each container control has its own strength and learning what they are and how to use them will increase your productivity and happiness.

- Section1: A look at the final design

- Section 2: Laying the foundation
 - Beginning the layout in Blend
 - Dynamic Data and design-time data in Visual Studio
 - Final Touches

MegaLab: Styling the application

In this lab you will be updating the appearance of the lab application by using Styles, Templates and the Visual State Manager. We'll walk through exposing and editing the default template in Blend and from there integrating it into our application as a Resource in Visual Studio.

- Section 1: Updating the default ListBox Style
 - Modifying the ListBox Template

Module 6: Data in Silverlight

Lessons:

- Working with data on the web
- Shaping Data
- Language Integrated Query
- Language Innovations
- Databinding
- Data Sources
- Binding Modes
- Data Templates
- Validation
- DataGrid
- Converters
- Content Control

MegaLab: Binding Data in lab application

In this lab, developers will be updating the main page of the lab application so that all controls are driven by real data. Additionally all of the controls on the page are kept in synch to ensure that they are all showing the correct and in some cases selected data. We'll be exploring the functionality of Databinding, DataContext, DataTemplates and Converters. It's all about the data in this one.

- Section1: Looking Beneath the Covers
- Section 2: Enabling a Dynamic IU Based on Data
 - One Property to rule them all
 - Updating the XAML to be more Dynamic
 - Updating Code to Finish the Job
 - One More Detail

MegaLab: Browser Integration in lab application

In this Lab, you will learn how to call managed code from JavaScript and how to call JavaScript from managed code, as well as get a integrate with the Virtual Earth API.

- Section1: Change Tours from HTML
- Section 2: Update the Virtual Earth Map from Managed Code
 - Draw the Tour Path on the Map
 - Update the map based on attraction selection

Module 7: Silverlight Controls

Lessons:

- Control Model
- UserControl
- Custom Controls
- Property Bag Styling
- Skinning
- Parts and States Model
- Transitions
- State Group Support
- Using States
- Using Transitions
- Control Class Logic

Module 8: Silverlight Animation

Lessons:

- Animation Basics
- Simple Animations
- Key Frame Animation
- DEMO: Animation with Blend
- Procedural Animation
- DEMO: Procedural Animation

Module 9: Silverlight and Isolated Storage

Lessons:

- Store Isolation
 - Operations
 - DEMO: Silverlight Isolated Storage
 - Quota Management
 - DEMO: Extending your Quota
 - End-user has control

Module 10: Silverlight Deep Zoom

- DEMO: Hard Rock Memorabilia
- Image Deep Zoom
- Creating Deep Zoom Images
- DEMO: Deep Zoom Composer
- Programmability

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