

COURSE OUTLINE FOR MICROSOFT SILVERLIGHT APPLICATION DEVELOPMENT

Duration: 40 hrs.

Fees: INR XXX ☺ per Individual + Taxes

Course Outline

Module 1: Introduction to the Silverlight Development Platform

This module describes the Silverlight development platform and the benefits and features that it offers to developers.

Lessons

- Lesson 1: What is Silverlight?
- Lesson 2: Silverlight and WPF
- Lesson 3: Types of Silverlight application

Lab: Getting started with first Silverlight application

- Exercise 1: Creating Silverlight project by Using Visual Studio 2010
- Exercise 2: Displaying tweets from twitter account in Silverlight application

After completing this module, students will be able to:

- Describe Silverlight as a development platform.
- You will have knowledge of when to use WPF or Silverlight and differences between them.
- Work with Silverlight project for developing any other small ideas.

Module 2: Designing layouts in XAML

This module describes how XAML can be used in Silverlight application.

Lessons

- Lesson 1: Understanding Canvas Layout
- Lesson 2: Understanding Stack Panel Layout
- Lesson 3: Understanding Grid Layout

Lab: Designing layouts in XAML

- Exercise 1: Use Canvas for developing simple whiteboard like application in Silverlight
- Exercise 2: Use stack panel and grid to format twitter application developed before

After completing this module, students will be able to:

- You will be able to choose between different layouts and how they can be used effectively.

Module 3: Understanding XAML Basics

This module describes how XAML can be used in Silverlight application.

Lessons

- Lesson 1: Understanding Object, Namespace and Properties
- Lesson 2: Understanding dependency and attached properties
- Lesson 3: Events command and behavior and XAML

Lab: Use XAML fundamentals in application

- Exercise 1: Refractor tweets application using XAML fundamentals

After completing this module, students will be able to:

- You will be able to understand implement XAML basics in your application.

Module 4: Silverlight application Model and plug-in

This module describes Silverlight application model and plug-in for integration.

Lessons

- Lesson 1: Silverlight application model
- Lesson 2: Creating Silverlight plug in
- Lesson 3: Integrating Silverlight plug in

Lab: Develop simple application with plug-in architecture

- Exercise 1: Creating Silverlight application with plug in architecture

After completing this module, students will be able to:

- Develop Silverlight plug-in and use it in your application.

Module 5: Integrating with the browser

This module describes how to develop code that uses the server-side objects provided by the SharePoint 2010 development platform.

Lessons

- Lesson 1: Silverlight and HTML DOM understanding
- Lesson 2: Managing web page from Managed code
- Lesson 3: Working with user's browser window
- Lesson 4: Deploying Silverlight application in HTML

Lab: Creating and deploy Silverlight applications

- Exercise 1: Create and deploy Silverlight application in browser

After completing this module, students will be able to:

- Creating and manipulating Silverlight in browser .

Module 5: Integrating with the desktop

This module describes how to develop Silverlight application (out of browser application).

Lessons

- Lesson 1: Understanding Silverlight out of browser application
- Lesson 2: Local file access with Silverlight
- Lesson 3: Controlling the host window and running in full screen

Lab: Creating application with desktop machine

- Exercise 1: Creating application and running it out of browser

After completing this module, students will be able to:

- Create out of browser application.

Module 6: Bindings basics

This module describes binding basics.

Lessons

- Lesson 1: Binding data to your application
- Lesson 2: Customizing the display

Lab: Create sample application for experimenting with binding techniques

- Exercise 1: Create sample application for experimenting with binding basics

After completing this module, students will be able to:

- Use binding and handling bindings effectively.

Module 7: Understanding data templates

This module describes how to purpose and use of data templates in Silverlight applications.

Lessons

- Lesson 1 : Understand and use date templates for effective data bindings

Lab: Using data templates in application

- Exercise 1: Use data templates in twitter application for data bindings

After completing this module, students will be able to:

- Use date templates properly in Silverlight project.

Module 8: Using data display controls, Input validation and Navigation techniques

This module describes how to use different data display controls and use validation and navigation in Silverlight application.

Lessons

- Lesson 1: Use of data display controls
- Lesson 2: Use of input validation
- Lesson 3: Navigation mechanism for WPF application

Lab: Developing Silverlight application for using data display, input validation and Navigation

- Exercise 1: Modifying existing twitter application with new feature for adding new tweet and using above given fundamentals.

After completing this module, students will be able to:

- Use data binding controls in Silverlight
- Will be able to use validation and navigation mechanism.

Module9: Understanding MVVM architecture and how to develop Silverlight application accordingly

This module describes how to develop Silverlight applications with MVVM design Pattern.

Lessons

- Lesson 1: Understanding MVVM design pattern
- Lesson 2: Create one application with MVVM design pattern

Lab: Creating project with MVVM design pattern

- Exercise 1: Modify Silverlight twitter application with MVVM design pattern

After completing this module, students will be able to:

- Understand and implement MVVM design pattern in any project.

Module 10: Developing and Consuming WCF RIA services

This module describes how WCF RIA services can be used to in Silverlight application.

Lessons

- Lesson 1: Understanding WCF services architecture
- Lesson 2: Implementing database operations with WCF

Lab: Creating and using WCF services

- Exercise 1: Creating WCF and WCF rest web service
- Exercise 2: Consuming web service in previously developed twitter application

After completing this module, students will be able to:

- Create WCF web services
- Consuming them in Silverlight application

Module 11: Working with Graphics

This module describes how to work with graphics in Silverlight.

Lessons

- Lesson 1: Use shaped and Geometry
- Lesson 2: Use of Brushed and Effects

Lab: Working with geometry shapes and brushes programmatically

- Exercise 1: Extending Whiteboard application with Shapes and geometry
- Exercise 2: Use of brushes and effects for making your application user interactive

After completing this module, students will be able to:

- Use Shapes, geometry, brushes and effects effectively in your Silverlight application

Module 12: Working with Media

This module describes how to use Media in your application.

Lessons



- Lesson 1: Working with Audio and Video in WPF
- Using Silverlight Media Framework

Lab:

- Creating simple media player application to play audio and video

After completing this module, students will be able to:

- Use media objects properly in your application.