

Synergy MOSS 2007 Development

Vendor Course Code:

Course Length: 5 days

Overview: The purpose of this 5-day course is to give students a comprehensive understanding of development technologies and approaches in MOSS 2007. This course is oriented towards experienced .NET developers who have experience with C#, XML, and web development. The course walks student through best practices for building MOSS 2007 enhancements and introduces them to the tools and templates available from Microsoft and third party sources to help build solutions.

Skills Gained:

After completing the course students will be able to:

- Customise SharePoint sites
- Build and deploy SharePoint web parts
- Write code that uses the SharePoint object model
- Create and register Event Handler assemblies
- Create custom Field Types
- Create custom SharePoint workflows with Visual Studio
- Create business intelligence solutions with Excel Services and BDC

Key Topics:

1. Overview of SharePoint Development

This chapter introduces the concepts of development on the Office SharePoint Server 2007 platform. We discuss the various types of customisations and code modules that developers can use to enhance the out-of-the-box functionality of SharePoint.

Topics Covered:

- SharePoint as a Development Platform
- SharePoint Object Model and Web Services
- Types of SharePoint Programming such as
 - Web Parts
 - Document Management and Searching
 - Look and Feel
 - Integration with External Applications
 - Forms and Workflow

2. Office SharePoint Server Architecture

This chapter provides a developer-oriented review of the underlying components that make up Office SharePoint Server 2007.

Topics Covered:

- Differences between WSS and MOSS
- IIS and ASP.NET
- SharePoint 12 Hive
- Site Collections and Sites
- Lists and Libraries
- Web Parts and Web Services
- Master Pages and Layout Pages
- Features and Solutions

3. Developing Web Parts

This chapter covers the basics of custom web part development including how to use the Visual Studio project templates for Office SharePoint Server and how to manually deploy web parts.

Topics Covered:

- Introduction to Web Parts
- Components of a Web Part
- Building a Basic Web Part
- Core Web Part Classes
- Using Web Server Controls
- Connecting to Data Sources

- Adding Custom Properties
- Handling Post Back Events
- Using Web User Controls

4. Deploying and Debugging Web Parts

In this section we discuss how to use Solution files (WSP) to automate the deployment of web parts. We also cover how to debug web parts within Visual Studio and to introduce code tracing to assist in troubleshooting installed web parts.

Topics Covered:

- Web Part Deployment
- Deployment Options
- Strong-naming Assemblies
- Deploying Web Parts using Solutions
- Creating Solution Files
- Adding and Deploying Solutions
- Retracting and Deleting Solutions
- Code Access Security
- Deploying Web Part Resources

Debugging Web Parts

5. Programming Sites and Webs

In this chapter we explain how to use the SharePoint object model to manage site collections and sites.

Topics Covered:

- Accessing site collections using the SPSite object
- Accessing sites using the SPWeb object
- Retrieving information on site collections and webs
- Modifying site collections and webs through the object model
- Best Practices and Common Issues

6. Programming Lists and Libraries

In this chapter we discuss using the SharePoint object model to manage documents and list data.

Topics Covered:

- Site and Lists Hierarchy
- Creating and modifying a list
- Creating and modifying list data
- Querying lists
- Uploading documents to lists
- Modifying metadata

7. Web Part Connections and AJAX

This chapter covers creating connectable web parts, adding Verb actions to the web part context menu, and writing web parts which use Asynchronous JavaScript and XML (AJAX) to provide rich client-side functionality.

Topics Covered:

- Connecting Web Parts
- How to Create Provider and Consumer
- AJAX on SharePoint
- Configuring SharePoint to Support AJAX
- Building AJAX Web Parts

8. Developing SharePoint Web Services

This chapter covers how to use the built-in SharePoint web services to manage sites and lists.

Topics Covered:

- SharePoint Web Services Overview
- Web Services vs. Object Model
- Standard Web Application Web Services
- Programming with Web Services
- Developing Custom Web Services
- Best Practices

9. Creating and Deploying Features

This chapter explains how to use SharePoint Features to enable new functionality in a SharePoint site.

Topics Covered:

- Introduction to Features
- Feature Scope
- Feature Lifecycle
- Components of the Feature.xml file
- Components of the Elements.xml file
- Feature Examples
- Deploying Features with Solutions

10. Site Definitions and Feature Stapling

This chapter introduces how to create custom site definitions. It also introduces the differences between site definitions and site templates. The chapter also discusses Feature Stapling and how it can be used to enhance existing site definitions.

Topics Covered:

- Introduction to Site Definitions
- Creating a Custom Site Definition
- Using Solution Generator
- Feature Stapling
- Custom Site Templates

11. Custom Field Types

In this chapter we describe how to create new field types for use within SharePoint lists allowing you to manage additional types of data or to populate drop-down lists with data from external sources.

Topics Covered:

- Custom Field Concepts
- Installed Field Type Files
- Installed Field Types
- Sample Usage Scenarios
- Process of creating a Custom Field

12. Custom Event Handlers

This chapter shows students how to create custom event handlers on sites, lists and libraries. Both synchronous and asynchronous events are covered.

Topics Covered:

- Event Handling in SharePoint
- Event Receivers
- Before and After Events
- Event Receiver Classes
- Deploying Event Receivers
- Elevating Permissions
- Event Recursion

13. Developing SharePoint Workflows

This chapter explores the capabilities of custom workflows in Office SharePoint Server 2007 and explains how to create a basic workflow solution in Visual Studio

Topics Covered:

- Introduction to Workflow
- Windows Workflow Foundation
- Out-of-the-box Workflows
- Workflow using SharePoint Designer
- Workflow using Visual Studio
- Creating Custom Workflow Forms
- Deploying Visual Studio Workflows

14. Developing with Excel Services

This chapter discusses how to programmatically access Excel Workbooks in via the Excel Web Service. The chapter also discusses the use of User Defined Functions (UDF) and Office Data Connectors (ODC).

Topics Covered:

- Excel Services as a development platform
- Displaying Graphical Data in SharePoint 2007
- Reference the Excel Web Service
- Developing User Defined Functions (UDF)

15. Developing with Business Data Catalog

Introduces the Business Data Catalog (BDC) in Office SharePoint Server 2007 Enterprise Edition and demonstrates how to create Line of Business (LOB) definition files to connect to data sources and to use them.

Topics Covered:

- What is the Business Data Catalog?
- Creating Application Definition Files
- Core ADF Elements
- Using BDC Web Parts
- Using BDC List Columns
- Searching BDC Data
- Importing BDC Data into User Profiles

Target Audience:

The class is designed for experienced developers who need to understand how to extend and enhance SharePoint installations and change the default behaviour of SharePoint sites, lists, and web parts.

Prerequisites:

Students attending this class should have experience building ASP.NET web applications using Visual Studio and be familiar with XML, XML web services, CSS, and JavaScript. Experience with viewing and collaborating in a SharePoint site is recommended but not required.