



Advanced SharePoint Development

Five days

Course Description: This five-day instructor-led course provides students with the knowledge and skills to become a top-notch Microsoft SharePoint 2007 Developer. From AJAX to Event Handlers and Features, you will gain important insight into the internal workings of SharePoint 2007.

Audience: This course is for experienced SharePoint developers and students and will guide them through the process of architecting and developing SharePoint applications and customizations.

Prerequisites: Before attending this course, students must have: MS-4995: Programming with Microsoft .NET Framework Using Microsoft Visual Studio 2005; MS-2542: Advanced Data Access with Visual Studio 2005; MS-2543: Core Web Application Technologies with Microsoft Visual Studio 2005; MS-5060: Implementing Windows SharePoint Services 3.0 2007; MS-5061: Implementing Microsoft Office SharePoint Server 2007 or equivalent experience.

Outline

MODULE 1: COURSE OVERVIEW

Explains how the class is structured and introduces course materials and additional administrative information.

- Introduction
- Course Materials
- Facilities
- Prerequisites
- What We'll Be Discussing

Lab: Setup

- Set Up Web Applications for Lab Use

MODULE 2: CUSTOM AUTHENTICATION

Explains ASP.NET providers, how to create a single sign-on, and how to configure a SharePoint Web Application.

- SharePoint = ASP.NET Application
- ASP.NET Providers
- Microsoft Single Sign-On
- Demonstration: Custom Authentication

Lab: Custom Authentication

- Create a Username/Password Database
- Create a User
- Configure .NET Config File

- Configure a SharePoint Web Application to Use Forms Authentication with Custom Provider

Lab: Single Sign-On

- Configure a Single Sign-On
- Program a Single Sign-On

MODULE 3: SHAREPOINT PERMISSIONS

Explains the permissions in Microsoft Windows Server Systems (WSS) and how they have been enhanced, how to set permissions at an item level, and describes naming conventions.

- IIS Application Pools
- SharePoint Windows Groups
- SharePoint Default Groups
- ASP.NET Membership/Role Provider
- Assignable Entities
- Custom Permission Levels
- Permissions
- Site/List/Item Permission Inheritance
- Security Trimmed Interface
- Web Application Policy
- SPSecurity Class
- Single Sign-On
- Demonstration: SharePoint Permissions

Lab: SharePoint Permissions

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- SharePoint Default Groups
- Membership Users
- Custom Permission Sets
- Site/List/Item Permission Inheritance
- Web Application Policy

MODULE 4: IN-BROWSER CUSTOMIZATION

Explains how to add and edit new pages using web parts, master pages, and themes.

- SharePoint UI Overview
- Default.aspx
- Everything Is a List
- Using Web Parts
- Customization Web Parts
- Adding New Pages
- Editing New Pages
- Master Pages
- Themes
- Navigation
- Demonstration: In-Browser Customizations
- Page Layouts
- Content Types
- Content Management Server (CMS)

Lab: In-Browser Customizations

- Default.aspx page
- Adding web parts
- Add/edit a new page
- Apply a master page
- Apply a theme
- Versioning and content approval

MODULE 5: BASIC SHAREPOINT DESIGNER

Explains the SharePoint designer basics, how to create and modify existing sites, and how to create CSS style sheets.

- SharePoint Designer Basics
- Creating/Modifying Existing Sites
- Exploring Team Sites
- Exploring Portal Sites
- Demonstration: SharePoint Designer
- ASP.NET Pages
- SharePoint Designer Editing Features

- Demonstration: SharePoint Designer
- Creating Master Pages
- Demonstration: SharePoint Designer
- Using SharePoint Controls
- Demonstration: SharePoint Designer
- Creating CSS Style Sheets
- Demonstration: SharePoint Designer

Lab: Basic SharePoint Designer Tasks

- Create a Site
- Add an ASPX Page
- Create a Master Page
- Override CSS
- Check In/Check Out
- Add Web Parts
- Add Web Part Zones
- Adding Images
- Reset to Site Definition

MODULE 6: ADVANCED SHAREPOINT DESIGNER

Explains reports, data views, data sources, and how to back up and restore a Web site.

- Built-In Reports
- Data Views
- Data Sources
- Backup Web Site
- Restore Web Site
- Demonstration: Advanced SharePoint Designer

Lab: Advanced SharePoint Designer

- Reports
- Data Views
- Data Sources
- Backup a Site
- Restore a Site

MODULE 7: CONTENT TYPES

Explains different content types, document information panes, and how to create custom content types.

- Content Types Introduction
- Built-In Content Types/ Inheritance

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- Content Type Settings
- Site/Content Type Columns
- Document Information Panel
- Workflows
- Custom Content Types
- Demonstration: Content Types

Lab: Content Types

- Built-in Types
- Document Information Panel
- Workflows

MODULE 8: SITE DEFINITIONS

Explains WSS built-in definitions, Microsoft Office SharePoint Server 2007 built-in definitions, and CAML and describes the different SharePoint templates and themes.

- WSS Built-In Site Definitions
- MOSS Built-In Site Definitions
- CAML
- Custom Site Definitions
- Site Definition Elements
- Site Definition Configuration Element
- SharePoint Solution Generator
- SharePoint Templates
- SharePoint Themes
- Demonstration: Site Definitions

Lab: Site Definitions

- Create Site Definition (manually)
- Create Site Definition (Visual Studio)

Lab: SharePoint Solution Generator

- SharePoint Solution Generator
- Lab: SharePoint Templates
- SharePoint Templates
- Lab: SharePoint Themes
- Create a SharePoint Theme

MODULE 9: FEATURES

Explains types of features and how to create, activate, and deactivate them.

- Features Overview
- Types of Features

- Feature Scopes
- Feature Dependencies
- Feature Localization
- Feature Event Receivers
- Creating Features
- Deploying Features
- Activating/Deactivating Features
- Solutions
- Demonstration: Features

Lab: Features

- Creating a Feature
- Deploying a Feature
- Create a Feature using Visual Studio
- Lab: Solutions
- Package features into a solution

MODULE 10: WEB SERVICES API

Explains web services API and some common SharePoint Web Services that are available.

- Web Service APIs
- Why Use Web Services
- Common SharePoint Web Services
- Demonstration: Finding and Using SharePoint Web Services

Lab: Web Service API

- Find Web Service
- Add Web Service Reference
- Use the Web Service

MODULE 11: WEB PART DEVELOPMENT

Explains web part connections, upgrading web parts, and code access security.

- Web Parts
- WSS 2.0 vs. WSS 3.0 Web Parts
- ASP.NET Web Part Class
- Web Part Connections
- Web Part Connections (Interfaces)
- Upgrading your Web Parts to WSS 3.0
- When to use SharePoint Web Part Class
- Web Part Permissions
- Code Access Security (CAS)
- Web Part Performance Hints

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- Demonstration: WebParts

Lab: WebParts

- Creating WebParts
- Deploying WebParts
- Build WebParts that Interface with Data Sources
- Implement Web Part Connections
- Implement Synchronous Web Part
- Implement Asynchronous Web Part

MODULE 12: CLIENT SIDE SCRIPTS / AJAX

Explains how to emit client side scripts and describes common AJAX uses.

- Overview
- Client Side Scripts
- Emitting Client Side Scripts
- AJAX Introduction
- Common AJAX Uses
- SharePoint AJAX Support
- Demonstration: Client Side Scripts

Lab: Client Side Scripts / AJAX

- Client Side Scripts
- AJAX

MODULE 13: OBJECT MODEL

Explains object model DLLs and how to use the object model.

- Object Model Overview
- Object Model DLLs
- Using the Object Model
- SPSite vs. SPWeb
- Namespace Changes (2.0 to 3.0)
- Demonstration: Object Model

Lab: Object Model

- Object Model DLLs
- Using the Object Model

MODULE 14: CUSTOM FIELD TYPES

Explains how to create built-in types and custom field types.

- Field Types Introduction

- Built-In Field Types
- Custom Field Types
- Demonstration: Custom Field Types

Lab: Custom Field Types

- Building Custom Field Types

MODULE 15: SHAREPOINT EVENTS / TIMER JOBS

Explains how to create new events in SharePoint.

- SharePoint Event Handler History
- New Events
- More Event Details
- SharePoint Timer Service
- SP JobDefinition Class

Lab: SharePoint Events

- Create an Event
- Assign an Event to a List
- Assign an Event to a Site

Lab: SharePoint Timer Jobs

- Create a Timer Job

MODULE 16: SHARED SERVICES

Explains the features of the shared services.

- Shared Services Features
- Life without Shared Services Features
- Life with Shared Services Features
- Lab: Setup Shared Services
- Setup Shared Services
- After completing this module, students will be able to:
- Add extra functionality with Shared Services

MODULE 17: WORKFLOWS (SP DESIGNER)

Explains the differences between SharePoint Designer workflows, conditions, and actions.

- Built-In WSS/MOSS Workflows
- SharePoint Designer Conditions
- SharePoint Designer Actions

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- Extending SharePoint Designer Workflows
- Demonstration: SharePoint Designer Workflows

Lab: MOSS Workflows

- Create and Use Each of the MOSS Workflows

Lab: Workflows (SP Designer)

- SharePoint Designer Workflows
- Extending SharePoint Designer

MODULE 18: WORKFLOWS (VISUAL STUDIO)

Explains the types of workflows and how to use them with Visual Studio and SharePoint.

- Windows Workflow Foundation
- Workflow Persistence
- Workflow Types
- Workflows with Visual Studio
- SharePoint Workflows
- SharePoint Workflows Forms
- Debugging a Workflow
- Comparison of Visual Studio vs. SharePoint Designer
- Demonstration: Workflows (Visual Studio)

Lab: Workflow (Visual Studio)

- Create a Custom Workflow

MODULE 19: ASP.NET LOCALIZATION

Explains how to use RESX files, SharePoint resource files, and SharePoint language Packs.

- ASP.NET Localization
- Culture and UICulture
- RESX Files
- Implicit vs. Explicit
- SharePoint Resource Files
- Browser Language
- SharePoint Language Packs
- Demonstration: ASP.NET Localization

Lab: ASP.NET Localization

- RESX Files
- Browser Language

MODULE 20: SHAREPOINT/MICROSOFT FRONTPAGE RPC

This module explains how to use FrontPage RPC and SharePoint RPC.

- FrontPage RPC
- SharePoint RPC

Lab: SharePoint RPC

- Call a Simple SharePoint RPC Method

MODULE 21: EXCEL SERVICES

Explains how to use Excel Services.

- Excel Services Trusted Locations
- Excel Services Web Parts
- Excel Services Object Model/Web Services

Lab: Excel Services

- Create and Upload an Excel File
- Add a Trusted Location
- Configure Excel Web Parts

MODULE 22: BUSINESS DATA CATALOG

Explains Business Data Catalogs.

- Application Definition Files
- Business Data Catalog Web Parts
- Business Data Catalog Indexing
- Business Data Catalog with Single Sign-On

Lab: Business Data Catalog

- Install a BDC Application
- Setup BDC Web Parts
- Create a List that Uses BDC Data

MODULE 23: BUSINESS INTELLIGENCE

Explains how to use the report center, KPIs, dashboards, and Reporting Services Integration.

- Report Center
- Key Performance Indicator (KPI)

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- Dashboards
- Reporting Services Integration

Lab: Business Intelligence

- Integrate SQL Server Reporting Services
- Create a Report
- Use the Reporting Services Web Part

MODULE 24: UPGRADING WSS 2.0 TO 3.0

Explains how to use Prescan.exe and database migration and explains some migration issues.

- Prescan.exe
- In-Place Upgrade
- Side-By-Side/ Gradual Upgrade
- Side-By-Side/Gradual Upgrade Steps
- Database Migration Upgrade
- Upgrading Site Definitions
- Migration Issues

Lab: Lab 1-4: Migrating SharePoint

- In-Place Upgrade
- Gradual Upgrade
- Database Migration
- Migration Issues