

Developing Microsoft® SharePoint® Server 2013 Core Solutions

Course Outline

Module 1: SharePoint as a Developer Platform

This module examines different approaches that can be used to develop applications with SharePoint Server 2013 the scenarios in which each approach might be appropriate.

Lessons

- Introducing the SharePoint Developer Landscape
- Choosing Approaches to SharePoint Development
- Understanding SharePoint 2013 Deployment and Execution Models

Lab : Comparing Web Parts and App Parts

After completing this module, students will be able to:

- Describe the opportunities for developers in SharePoint Server 2013.
- Choose appropriate execution models for custom SharePoint components.
- Choose appropriate deployment models for custom SharePoint components.

Module 2: Working with SharePoint Objects

This module introduces the server-side SharePoint object model and how the core classes relate to sites and collections. The server-side SharePoint object model provides a core set of classes that represent different items in the logical architecture of a SharePoint deployment. Students also learn how manage permissions for server-side code.

Lessons

- Understanding the SharePoint Object Hierarchy
- Working with Sites and Webs
- Working with Execution Contexts

Lab : Working with Sites and Webs

Lab : Working with Execution Contexts

After completing this module, students will be able to:

- Explain the purpose of key classes in the server-side SharePoint object model.
- Programmatically interact with SharePoint site collections and sites.
- Adapt solutions for users with different levels of permissions.

Module 3: Working with Lists and Libraries

This module explains how to interact with lists and libraries. Students learn about how to work with lists and libraries programmatically using the server-side SharePoint object model and how to use query classes and LINQ to SharePoint to query and retrieve data from SharePoint lists. Student also learn how to efficiently work with lists that contain large numbers of items.

Lessons

- Using List and Library Objects
- Querying and Retrieving List Data
- Working with Large Lists

Lab : Querying and Retrieving List Data

Lab : Working with Large Lists

After completing this module, students will be able to:

- Interact with lists and libraries programmatically.
- Query and retrieve list data.
- Perform operations efficiently on large lists.

Module 4: Designing and Managing Features and Solutions

This module examines creating and deploying custom Developing a SharePoint solutions and features. The students also learn how and when to use sandbox solutions.

Lessons

- Understanding Features and Solutions
- Configuring Features and Solutions
- Working with Sandboxed Solutions

Lab : Working with Features and Solutions

After completing this module, students will be able to:

- Explain the purpose and key functionality of Features and solutions.
- Configure and manage Features and solutions.
- Create and manage sandboxed solutions.

Module 5: Working with Server-Side Code

This module describes how to develop and deploy Web Parts and event receivers in a solution.

Lessons

- Developing Web Parts
- Using Event Receivers

- Using Timer Jobs
- Storing Configuration Data

Lab : Working with Server-Side Code

After completing this module, students will be able to:

- Describe the process for developing a web part.
- Use event receivers to handle SharePoint events.
- Use timer jobs to perform out of process, and scheduled operations.
- Store and manipulate configuration data for custom components.

Module 6: Managing Identity and Permissions

This module describes how manage permissions through code and customize authentication using custom claims providers.

Lessons

- Understanding Identity Management in SharePoint 2013
- Managing Permissions in SharePoint 2013
- Configuring Forms-Based Authentication
- Customizing the Authentication Experience

Lab : Managing Permissions Programmatically in SharePoint 2013 Lab : Creating and Deploying a Custom Claims Provider

After completing this module, students will be able to:

- Describe how authentication and identity management work in SharePoint 2013.
- Verify and manage permissions programmatically in SharePoint 2013.
- Create and configure custom membership providers and role managers for forms-based authentication.
- Create claims providers and customize the sign-in experience.

Module 7: Introducing Apps for SharePoint

This module introduces the SharePoint App, a new way to customize SharePoint functionality with SharePoint Server 2013.

Lessons

- Overview of Apps for SharePoint
- Developing Apps for SharePoint

Lab : Creating a Site Suggestions App

After completing this module, students will be able to:

- Describe SharePoint apps and compare them to SharePoint farm solutions and sandboxed solutions.
- Describe how to develop apps for SharePoint 2013 that work on-premises and in the cloud.

Module 8: Client-Side SharePoint Development

This module describes how to use JavaScript Client Object Model (CSOM), managed code CSOM and the REST API to build SharePoint Apps.

Lessons

- Using the Client-Side Object Model for Managed Code
- Using the Client-Side Object Model for JavaScript
- Using the REST API with JavaScript

Lab : Using the Client-Side Object Model for Managed Code

Lab : Using the REST API with JavaScript

After completing this module, students will be able to:

- Use the client-side object model for managed code to interact with a SharePoint deployment.
- Use the client-side object model for JavaScript to interact with a SharePoint deployment.
- Use the REST API with JavaScript or C# to interact with a SharePoint deployment.

Module 9: Developing Remote Hosted SharePoint Apps

This module examines the difference between provider hosted Apps and Remote Hosted Apps. The students will also create and deploy a Provider Hosted App.

Lessons

- Overview of Remote Hosted Apps
- Configuring Remote Hosted Apps
- Developing Remote Hosted Apps

Lab : Configuring a Provider Hosted SharePoint App

Lab : Developing a Provider Hosted SharePoint App

After completing this module, students will be able to:

- Describe how remote-hosted apps work and how to configure the permissions and cross-domain calls that they may require.
- Configure apps for hosting on Windows Azure or remote servers.
- Develop apps for hosting on Windows Azure or remote servers.

Module 10: Publishing and Distributing Apps

This module introduces the App Catalog so users to locate, purchase, and install apps easily. The students learn how to package and publish Apps to the App Catalog.

Lessons

- Understanding the App Management Architecture
- Understanding App Packages
- Publishing Apps
- Installing, Updating, and Uninstalling Apps

Lab : Publishing an App to a Corporate Catalog

Lab : Installing, Updating, and Uninstalling Apps

After completing this module, students will be able to:

- Explain how SharePoint manages app publishing and distribution.
- Describe the contents of an app package.
- Publish apps to a corporate catalog or the Office Marketplace.
- Install, update, and uninstall apps.

Module 11: Automating Business Processes

This module explains how to create workflows and workflow actions using Visio 2013, SharePoint Designer 2013 and Visual Studio 2012.

Lessons

- Understanding Workflow in SharePoint 2013
- Building Workflows by using Visio 2013 and SharePoint Designer 2013
- Developing Workflows in Visual Studio 2012

Lab : Building Workflows in Visio 2013 and SharePoint Designer 2013

Lab : Creating Workflow Actions in Visual Studio 2012

At the end of this module, student will be able to:

- Describe the architecture and capabilities of workflow in SharePoint 2013.
- Create declarative workflows in Visio 2013 and SharePoint Designer 2013.
- Create and deploy custom workflows by using Visual Studio 2012.

Module 12: Managing Taxonomy

This module explains the importance of a good taxonomy in SharePoint and working with the components of the taxonomy. The students also see how to tie event receivers to the taxonomy.

Lessons

- Managing Taxonomy in SharePoint 2013
- Working with Content Types
- Working with Advanced Features of Content Types

Lab : Working with Content Types

Lab : Working with Advanced Features of Content Types

After completing this module, student will be able to:

- Work with taxonomy building blocks in SharePoint 2013.
- Create and configure content types declaratively and programmatically.
- Work with advanced features of content types.

Module 13: Managing Custom Components and Site Life Cycles

This module explains how you can create custom component definitions and templates, which enable you to deploy custom sites, lists and other components across a farm.

Lessons

- Defining Custom Lists
- Defining Custom Sites
- Managing SharePoint Sites

Lab : Managing Custom Components and Site Life Cycles

After completing this module, students will be able to:

- Define and provision custom lists
- Define and provision custom sites.
- Manage the SharePoint site life cycle.

Module 14: Customizing User Interface Elements

This module explains different ways of customizing the SharePoint user interface, such as adding buttons to the ribbon or modifying the appearance of list views

Lessons

- Working with Custom Actions
- Using Client-Side User Interface Components
- Customizing the SharePoint List User Interface

Lab : Using the Edit Control Block to Launch an App

Lab : Using jQuery to Customize the SharePoint List User Interface

After completing this module, students will be able to:

- Use custom actions to modify the SharePoint user interface.
- Use JavaScript to work with client-side SharePoint user interface components.
- Describe how to modify the appearance and behavior of list views and forms.

Module 15: Working with Branding and Navigation

This module explains ways to customize branding, designing, publishing and navigating sites in SharePoint Server 2013. The students also learn how to create device independent sites standard web technologies, such as HTML, CSS, and JavaScript.

Lessons

- Creating and Applying Themes
- Branding and Designing Publishing Sites
- Tailoring Content to Platforms and Devices
- Configuring and Customizing Navigation