

## 20489 - Developing Microsoft SharePoint Server 2013 Advanced Solutions

Duration: 5 days

### Overview:

This course provides SharePoint developers the information needed to implement SharePoint solutions using Enterprise Search, Managed Metadata Service (MMS), Business Connectivity Services (BCS), Enterprise Content Management (ECM), Web Content Management (WCM), Social Computing features and SharePoint Apps.

### Target Audience:

The course is intended for professional developers who develop solutions for SharePoint products and technologies in a team-based, medium-sized to large development environment. The course is ideally suited to SharePoint developers who have gained some experience with SharePoint 2013 and who are looking to build on their existing skills.

### Pre-requisites:

Before attending this course, students must have:

- Completed course [20488: Developing Microsoft SharePoint Server 2013 Core Solutions](#) (or equivalent knowledge).
- A working knowledge of using Visual Studio 2010 or Visual Studio 2012 to develop solutions.
- A basic working knowledge of SharePoint solution development, either in SharePoint 2013 or in earlier versions of SharePoint.
- A working knowledge of Visual C# and the .NET Framework 4.5.
- A basic understanding of ASP.NET and server-side web development technologies, including request/response and the page lifecycle.
- A basic working knowledge of client-side web technologies including HTML, CSS, and JavaScript.

### Module 1: Creating Robust and Efficient Apps for SharePoint

#### Lessons

- Apps for SharePoint
- Communicating with SharePoint from an App
- Authenticating and Authorizing Apps for SharePoint
- Designing Apps for Performance

#### Lab: Monitoring SharePoint Health Scores

- Creating and Deploying an App Part
- Add health score polling functionality

### Module 2: Developing Managed Metadata Solutions

#### Lessons

- Managed Metadata
- Configuring Managed Metadata Term Sets
- Working with Managed Metadata Fields

#### Lab: Developing Managed Metadata Solutions (Part 1)

- Creating and Configuring the Corporate Structure App
- Displaying the Existing Taxonomy Groups
- Creating a Group, a Term Set, and Terms

#### Lab: Developing Managed Metadata Solutions (Part 2)

- Obtaining the Host Web
- Adding Metadata Site Columns

### Module 3: Interacting with the Search Service

#### Lessons

- Understanding the SharePoint 2013 Search Service
- Building Search Queries with KQL and FQL
- Executing Search Queries from Code

#### Lab: Executing Search Queries from SharePoint Apps

- Submitting Search Queries from Client-Side Code
- Using a Custom Action to Launch A Search App

### Module 4: Customising the Search Experience

#### Lessons

- Customising Query Processing
- Customising Search Results
- Customising Content Processing

#### Lab: Configuring Result Types and Display Templates

- Configuring and Test Result Type
- Customising an Item Display Template
- Customising a Hover Panel Display Template

#### Lab: Configuring Entity Extraction

- Create and deploy an entity extractor

### Module 5: Implementing Enterprise Content Management

#### Lessons

- Working with eDiscovery
- Working with Content Management
- Automating Records Management

#### Lab: Implementing Content Management Functionality

- Creating a Custom Document ID Provider
- Registering a Custom Document ID Provider
- Applying a Custom Audit Policy

### Module 6: Developing a Publishing Site for Web Content

#### Lessons

- Programming with the Web Content Publishing API
- Developing Page Components for Web Content Publishing

#### Lab: Customising a SharePoint Publishing Site

- Building a Custom Page Field Control
- Building a Page Layout

### At Course Completion:

After completing this course, students will be able to:

- Describe the apps for SharePoint development platform.
- Use the client-side object models and the REST API to communicate with SharePoint.
- Configure security for apps for SharePoint.
- Optimise the performance of apps for SharePoint.
- Explain the capabilities and applications of managed metadata in SharePoint 2013.
- [Read on...](#)

### Module 7: Structuring and Publishing Websites for All Users

#### Lessons

- Website Structure and Navigation
- Publishing Content
- Publishing to Mobile Devices
- Multi-language sites using Variations

#### Lab: Structuring a SharePoint Publishing Site

- Creating a Navigation Term Set

#### Lab: Publishing for Multiple Devices and Languages

- Creating a Device Channel
- Using the Device Panel Control
- Creating a French Variation

### Module 8: Developing Optimised Internet Sites

#### Lessons

- Optimising a SharePoint Site for Search Engines
- Optimising Performance and Scalability

#### Lab: Optimising SharePoint Publishing Sites

- Optimising a Site for Search Engines
- Maximising the Performance of a Publishing Site

### Module 9: Working with Business Connectivity Services

#### Lessons

- Business Connectivity Services in SharePoint 2013
- Creating BDC Models in SharePoint Designer
- Creating BDC Models in Visual Studio 2012

#### Lab: Working with Business Connectivity Services

- Creating Farm-Scoped External Content Types
- Creating App-Scoped External Content Types

### Module 10: Creating Advanced Business Data Connectivity Models

#### Lessons

- Configuring BDC Models for Search
- Developing Custom Connectivity Components
- Working with External Events and Notifications

#### Lab: Creating and Deploying a .NET Connectivity Assembly

- Create a .NET Connectivity Assembly
- Implementing Entity Methods
- Deploying and testing a .NET Connectivity Model

### Module 11: Working with Business Data

#### Lessons

- Working with Business Data in Composite Solutions
- Working with Business Data in Custom Solutions
- Working with Business Data in Client Applications

#### Lab: Working with Business Data in Apps for SharePoint

- Reading Business Data in Client-Side Code
- Presenting Business Data in an App for SharePoint

### Module 12: Managing and Accessing User Profile Data

#### Lessons

- Overview of User Profile Data in SharePoint 2013
- Understanding Options for Accessing User Profile Data
- Managing User Profile Data
- Managing User Profile Properties

#### Lab: Accessing User Profile Data

- Add People Search Functionality to an App
- Display User Properties in the App

#### Lab: Managing User Profile Properties

- Add Code to Display User Profile Properties
- Add Code to Manage User Profile Properties

### Module 13: Customising the Social Workload

#### Lessons

- Overview of the Social Workload
- Developing Social Solutions
- Working with Feeds

#### Lab: Creating a Social App Part

- Displaying a Project Site Newsfeed
- Posting a Message to a Newsfeed
- Using Search to Retrieve Newsfeed Posts

### Module 14: Monitoring and Troubleshooting Custom SharePoint Solutions

#### Lessons

- Debugging SharePoint Apps in Visual Studio
- Diagnosing Faults in Deployed Apps
- Testing Performance and Scalability

#### Lab: Enabling ASP.NET Tracing

- Adding a Diagnostics Page to a SharePoint App
- Configuring ASP.NET Tracing
- Using Trace Logs