

Course MS55037A

SharePoint 2013 Search Inside Out

Length: 5 Days

About this Course

This 5-day Instructor-Led course will instruct on how to create simple and advanced search topologies. How to configure the various search features like Content Sources, Result Sources, Query Suggestions and custom dictionaries. You will also learn to customize every aspect of the Search Center. Other topics include extending search with Business Connectivity Services, and reviewing best practices when maintaining and troubleshooting a search architecture.

Audience Profile

Anyone tasked with the architecture design, setup, configuration and administration of SharePoint 2013 Search.

At Course Completion

After completing this course, students will be able to:

Demonstrate knowledge essential to the setup, configuration and management of SharePoint 2013 Search!

Prerequisites

Before attending this course, students must have:

- A basic understanding of SharePoint Central Administration site.
- A firm knowledge of working with Windows PowerShell.
- Some experience working with Visual Studio is recommended, but not required.

Course Outline

Module 1: Overview

A simple introduction module.

After completing this module, students will be able to:

Understand your course, classroom, classmates, facility and instructor.

Module 2: Creating, Configuring and Upgrading Search Service Applications

In this module you will be introduced to SharePoint 2013 Search including its rich history and at a high level, the new and exciting features. You will also learn about the various roles that can be played in a Search Farm and how to configure various topologies. This is followed with a review of how to create and configure Search Service Applications and how to setup a farm using cross-farm services. If appropriate, you will also review the process to upgrade older 2010 Search applications to SharePoint 2013.

Lessons

SharePoint Search

Exploring Search Architecture and Topologies

Creating and Configuring Search Services Applications

Configuring Cross-Farm Services

Upgrading Search Service Applications

Lab : Creating Search Service Applications (Central Admin)

Create a simple Search Service Application using Central Administration

Lab : Creating Search Service Applications (PowerShell)

Create a simple Search Service Application using Windows PowerShell

Configure a complex Search Topology

Assign Search Roles

Lab : Configuring for Cross-farm services

Create new Farm

Export and Import Farm Certificates

Setup Farm Trusts

Configuring Cross Farm services

Lab : Configuring for Multi-Tenancy

Configuring Search for Multi-Tenancy

Using the Partition switch

Lab : Upgrading Search Service Applications

Upgrade a SharePoint 2010 Search Service Application

After completing this module, students will be able to:

Describe new Search features

Describe Search roles (Admin, Crawl, Index, Content Processing, Query)

Create and Configure Search Applications using Central Administration and Windows PowerShell

Configure Cross-Farm Services

Upgrade older Search Service Applications to SharePoint 2013 Search

Module 3: Configuring Search

In this module you will learn to configure your newly created Search Service Application. This includes creating and configuring content sources, configuring and executing crawls, defining search schemas and reviewing important topics of crawl and search security.

Lessons

Content Sources

Crawling

Search Schemas

Customizing Search Results

Lab : Configuring Search (Central Admin)

Creating Content Sources

Configuring Crawl Rules

Crawling Content Sources (Full, Incremental)

Crawling Content Sources (Continuous)

Executing Crawls

Configuring File Types

Performing Index Resets

Lab : Configuring Search (PowerShell)

Creating Content Sources

Crawling Content Sources (Full, Incremental)

Crawling Content Sources (Continuous)

Executing Crawls

Configuring File Types

Performing Index Resets

Lab : Crawling Special Sources

Forms Authentication

Certificate Authentication

Lab : Configuring Crawl and Managed Properties

Managing Crawl Properties

Managing Managed Properties

Lab : Working with Search Schemas

Managed Search Schemas (Farm and Site)

After completing this module, students will be able to:

Create and Configure Content Sources

Configure Crawl Rules

Utilize Windows PowerShell Cmdlets for configuration tasks

Setup content sources with specialize authentication

Manage crawl properties

Create and configure Managed Properties

Modify Search Schemas

Module 4: Customizing Search Center

In this module you will learn how to navigate the basic Search Center provided by SharePoint 2013. You will then explore various ways to customize the Search Center using Search Pages, Web Parts and Result Types.

Lessons

Search Center Introduction

Customizing Search Center

Lab : Customizing Search Center

Creating Search Pages

Create Result Pages

Modifying Search Navigation

Create Result Source

Working with Search Web Parts

Creating and Configuring Result Types

Showing map data in Search Callouts

Lab : Creating Refiners

Creating Refiners (Custom)

Creating Refiners (Managed Metadata)

Configure item counts

Lab : Content Query Web Part

Using Content Query Web Part

Implementing Top Likes

Implementing Most Viewed

After completing this module, students will be able to:

Describe the Search Center features

Add new search and results pages

Customize the Search Center using Search Web Parts

Create and use Result Types

Create Refiners

Module 5: Performing Search Queries

In this module you will learn how to effectively query the Search Index to find items you are looking for. This can be done in a myriad of ways including keyword and Full Text. There are also various ways to send a query to SharePoint search that will be explored in detail. Lastly you will be exposed to creating and configuring Federated Search Sources.

Lessons

Performing Queries

Programming Searches

Configuring Federated Sources

Lab : Performing Search Queries

Performing simple KQL Queries

Performing complex KQL Queries

Performing People Searches

Enabling FQL Queries

Lab : Programming Searches

Using Web Services (Visual Studio)

Using Server Object Model (Visual Studio)

Using Server Object Model (Windows PowerShell)

Using Client Object Model

Using REST

Lab : Configuring and Searching Federated Sources

Configuring a Federated Result Source (OpenSearch)

Create Query Rules

Configuring a Federated Result Source (Exchange)

After completing this module, students will be able to:

Perform effective Keyword and Full Text Queries

Perform effective People Searches

Program to the Search interfaces

Configure Federated Search Sources (OpenSearch and Exchange)

Module 6: Search Tuning

In this module you will learn to configure various SharePoint Search features to modify the way search results are displayed.

Lessons

Tuning Search

Ranking Models

Lab : Search Tuning

Authoritative Pages

Configuring Thesaurus

Configuring Stemming

Configure Search Query Suggestions

Configure Promoted Results

Configure Spell Checking

Configuring Search Dictionaries

Search Result Removal

Lab : Ranking Models

Configuring Ranking Models

After completing this module, students will be able to:

Describe the various ways to change search result behavior

Use Central Admin and Windows PowerShell to Tune Search

- Configure Authoritative Pages
- Modify the Thesaurus
- Configure Ranking
- Create Query Suggestions
- Create and Configure Keywords and Synonyms
- Create Search Dictionaries
- Perform Result Removal

Module 7: Extending Search

In this module you will explore IFilters and Protocol handlers and how to install and create custom search connectors using Business Connectivity Services. You will also learn to extend search by using the new Content Enrichment Service.

Lessons

- IFilters and Protocol Handler
- Business Connectivity Connectors
- Content Enrichment Service
- Ceres Engine
- Lab : Content Enrichment Services
- Create a Content Enrichment Web Service
- Configure Search to use Content Enrichment
- Lab : Business Connectivity Connectors
- Install and Configure a BCS Search Connector
- Lab : BCS With Data Warehouse
- Creating an Large External List using ECTs
- Using Filters and External lists
- Creating and Configuring Entity Profile Pages
- Lab : Creating IFilters
- Explore IFilters
- Lab : Working with Ceres Flows
- Exporting Flows
- Importing Flows
- After completing this module, students will be able to:
- Describe what an IFilter is and does
- Describe what a protocol handler is and does
- Describe Documet formatters
- Install and configure BCS Connectors
- Create new custom BCS Connectors

Module 8: Maintaining Search

In this module you will learn how to properly backup and restore a Search Service Application. You will also explore various aspects around daily, weekly and monthly tasks that should be performed to ensure a healthy environment.

Lessons

- Backup and Restore
- Maintenance Best Practices
- Lab : Backup Search
- Performing Search Backups
- Lab : Restore Search
- Performing Search Restore

Lab : Maintenance Tasks

Reviewing Crawl Logs

Checking Database Size

Checking Index Size

Implementing Search Throttling

Configuring Query Client Types

Lab : Establishing Index Redundancy

Move the Index

Create Index Replica

Create Index Partitions

After completing this module, students will be able to:

Perform Search Backups

Perform Search Restores

Create Index Replicas and Partitions

Describe the daily, weekly and monthly tasks of a Search Administrator

Module 9: Monitoring and Troubleshooting Search

In this module you will learn to find and decipher the built in reporting and analytic reporting features of SharePoint Search. You will also explore the performance metrics to build a baseline for your Search Platform architecture. Lastly, you will explore various troubleshooting techniques and common issues with Search.

Lessons

Search Reporting & Analytics

Monitoring Search

Troubleshooting Search

Lab : Monitoring Search

Exploring Search Reports and Analytics

Monitoring Performance Counters

Creating a Performance Baseline

Lab : Troubleshooting Search

Troubleshooting Search

Configure ULS Logs

Filter on ULS Search Logs

Enable WCF Debugging

After completing this module, students will be able to:

Describe Search Reporting and Analytics features

Run reporting and analysis reports

Learn how to properly monitor Search metrics for performance

Utilize the ULS logs for troubleshooting