

Microsoft Sharepoint Applications Boot Camp Courses

**Bootcamp Title – MCSD: Sharepoint Applications Developer (1 Cert)**
Number of Days – 6
Number of Exams – 2
Number of Certifications – 1
Cost - $5,995.00

Certifications:

MCSD: Sharepoint Applications Developer

Exams:

**70-488:** Developing Microsoft Sharepoint Server 2013 Core Solutions

**70-489:** Developing Microsoft Sharepoint Server 2013 Advanced Solutions

Course Description:

The MCSD Sharepoint Apps certification boot camp is a 6 day comprehensive deep dive into the SQL Server covering topics such as developing, managing and designing. This instructor led face to face training camp will teach you the skills needed to support a Sharepoint Developer environment.

Class Objectives (*Following information customized from Microsoft Learning Test Objectives)*

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| **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 devise 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

**Lab : Branding and Designing Publishing Sites****Lab : Configuring Farm-Wide Navigation**After completing this module, students will be able to:* Create and apply themes to SharePoint sites.
* Create publishing site design assets such as master pages and page layouts.
* Use device channels and image renditions to adapt content for different devices.
* Configure and customize the navigation experience for publishing sites.

**Module 1: Creating Robust and Efficient Apps for SharePoint**In this module, you will review key aspects of the apps for SharePoint development platform, including capabilities, packaging and infrastructure, client-side programming for SharePoint, and app security. You will also learn about how to optimize the performance of your apps.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**After completing this module, 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.
* Optimize the performance of apps for SharePoint.

**Module 2: Developing Managed Metadata Solutions**In this module you will see metadata objects and how they are used to categorize items so that you can learn how to work with them in code. You will also see how to use the advanced features of terms and manage permissions and roles. In this way you can provide a full set of terms that users can tag content with.Lessons* Managed Metadata
* Configuring Managed Metadata Term Sets
* Working with Managed Metadata Fields

**Lab : Developing Managed Metadata Solutions (Part 1)Lab : Developing Managed Metadata Solutions** **(Part 2)**After completing this module, students will be able to:* Explain the capabilities and applications of managed metadata in SharePoint 2013.
* Automate the creation and configuration of managed metadata term sets.
* Interact with managed metadata term sets and fields from client-side and server-side code.

**Module 3: Interacting with the Search Service**The module provides an overview of the search service architecture in SharePoint 2013 as it relates to developers, before describing how to construct queries using Keyword Query Language (KQL) and FAST Query Language (FQL) and submit these queries to the search service.Lessons* SharePoint 2013 Search Service
* Building Search Queries with KQL and FQL
* Executing Search Queries from Code

**Lab : Executing Search Queries from SharePoint Apps**After completing this module, students will be able to:* Describe the SharePoint Search Architecture
* Describe the structure of the search index
* Describe what a crawled property is and how they are created
* Describe what a managed property is and how they are created
* Describe the various settings of a managed property
* Modify the search schema at various levels

**Module 4: Customizing the Search Experience**In this module you will create and modify queries as well as manage search results.Lessons* Customizing Query Processing
* Customizing Search Results
* Configuring Result Types and Display Templates
* Customizing Content Processing

**Lab : Configuring Entity Extraction**After completing this module, students will be able to:* Create various types of result sources
* Create basic and complex query transforms
* Configure query rule conditions and actions to target query intent
* Create and modify result types
* Create and modify display templates
* Utilize display templates with various search web parts
* Add managed properties as refiners with counts
* Utilize entity extraction in your crawls
* Extend content processing with Content Enrichment

**Module 5: Implementing Enterprise Content Management**In this module, you will work with SharePoint document management features in code.Lessons* Working with eDiscovery
* Working with Content Management
* Automating Records Management

**Lab : Implementing Content Management Functionality**After completing this module, students will be able to:* Use SharePoint eDiscovery functionality in custom applications.
* Create and manage information management policies and document sets programmatically.
* Manage and customize SharePoint records management functionality.

**Module 6: Developing a Publishing Site for Web Content**In this module, you will learn how to utilize develop web content solutions for publishing sites.Lessons* Programming with the Web Content Publishing API
* Developing Page Components for Web Content Publishing

**Lab : Customizing a SharePoint Publishing Site**After completing this module, students will be able to:* Describe the capabilities of the Publishing API.
* Describe how to access the Publishing API utilizing the server-side object model.

**Module 7: Structuring and Publishing Websites for All Users**This module will focus on providing you with the knowledge to build web sites that are mobile device friendly, support multiple language and with proper navigation.  This will be accomplished by introducing you to SharePoint features including device channels, managed navigation and variations.Lessons* Website Structure and Navigation
* Publishing Content
* Publishing to Mobile Devices
* Multi-language sites using Variations

**Lab : Structuring a SharePoint Publishing Site****Lab : Publishing for Multiple Devices and Languages**After completing this module, students will be able to:* Configure website structure and navigation
* Describe the difference between structured and metadata navigation
* Programmatically configure site navigation
* Utilize basic publishing features of SharePoint
* Use the new cross-site publishing features of SharePoint 2013
* Work with mobile devices using Device Channels
* Configure and implement variations for multilingual sites
* Work with human and machine translation tasks in variation sites

**Module 8: Developing Optimized Internet Sites**In this module, you will learn how to optimize your site for Internet search engines, and maximize the performance of rendering your site content.Lessons* Optimizing a SharePoint Site for Search Engines
* Optimizing Performance and Scalability

**Lab : Optimizing SharePoint Publishing Sites**After completing this module, students will be able to:* Configure search engine optimization settings
* Add SEO Properties to publishing pages and Managed Navigation terms
* Configure caching to improve site rendering performance
* Optimize site assets and resources to maximize performance

**Module 9: Working with Business Connectivity Services**In this module, you will learn how to develop Business Connectivity Services (BCS) solutions.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**After completing this module, students will be able to:* Describe the key components of Business Connectivity Services in SharePoint Server 2013.
* Create and configure BDC models by using SharePoint Designer.
* Create and configure BDC models by using Visual Studio 2012.

**Module 10: Creating Advanced Business Data Connectivity Models**This module will explore how to create custom search connectors using several different methodologies and lastly, you will learn the advanced topic of the new SharePoint 2013 external event notification feature to support SharePoint list features such as alerts and event receivers when external data changes.Lessons* Configuring BDC Models for Search
* Developing Custom Connectivity Components
* Working with External Events and Notifications

**Lab : Creating and Deploying a .NET Connectivity Assembly**After completing this module, students will be able to:* Decide when to use BDC models to extend search
* Describe the BCS Connector Framework
* Describe and implement BDC search stereotyped operations
* Configure BDC model properties for search
* Configure custom item level security
* Utilize techniques to optimize search indexing

**Module 11: Working with Business Data In Client Applications**BCS provides a framework to access via a wide array of protocols such as WCF and OData services to a myriad of external data sources, ranging from data stored in databases to custom proprietary data stores. In this module you will work with Business Data in both custom and composite solutions.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**After completing this module, students will be able to:* Access business data by using composite solutions.
* Utilize the Business Data Web Parts on your Team and Publishing pages
* Work with external data columns in lists
* Work with Business Data in SharePoint workflows
* Access business data by using custom solutions.
* Utilize the various APIs available such as CSOM, JSOM, and REST
* Access business data by using client applications.
* Configure external content types for use with Office clients

**Module 12: Managing and Accessing User Profile Data**In this module, you will review key aspects of the user profile service, and see how you can write client-side and server-side code to access, update and manage user profile properties.Lessons* User Profile Data in SharePoint 2013
* Options for Accessing User Profile Data
* Managing User Profile Data
* Managing User Profile Properties

**Lab : Accessing User Profile Data****Lab : Managing User Profile Properties**After completing this module, students will be able to:* Explain how user profile data is used in SharePoint.
* Describe the options and restrictions for accessing user profile data.
* Use client-side code to access and server-side code to access and update user profile data.
* Configure and manage user profile properties.

**Module 13: Developing Microsoft SharePoint Server 2013 Advanced Solutions**In this module, you will see some of the social features in SharePoint 2013, and you will see how you can develop apps which extend and customize the social workload; tailoring the experience for your business needs.Lessons* Overview of the Social Workload
* Developing Social Solutions
* Working with Feeds

**Lab : Creating a Social App Part**After completing this module, students will be able to:* Describe the main components of the social workload.
* Develop solutions to extend the social workload.
* Create solutions which make use of the newsfeed functionality in SharePoint Server 2013.

**Module 14: Monitoring and Troubleshooting Custom SharePoint Solutions**This module will introduce methods that you can use to improve the performance and scalability of solutions and apps.Lessons* Debugging SharePoint Apps in Visual Studio
* Diagnosing Faults in Deployed Apps
* Testing Performance and Scalability

**Lab : Enabling ASP.NET Tracing**After completing this module, students will be able to:* Describe how to identify, diagnose, and remove bugs in SharePoint apps during development.
* Describe how to record information about issues that arise in deployed SharePoint apps.
* Describe how developers optimize the performance of SharePoint apps by implementing best practices,
* measuring performance, and load testing.
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