# Preparation Guide for Certification Exam 70-488

Microsoft certification exam **70-488: Developing Microsoft SharePoint Server 2013 Core Solutions** covers SharePoint 2013 topics for both SharePoint on-premises and SharePoint Online in Office 365. The exam tests the skills of developers who need to design, develop, test and deploy SharePoint solutions and SharePoint apps in a SharePoint 2013 environment. This exam provides credit toward Microsoft Certified Solutions Expert (MCSE). The following outline should be used to prepare for this exam.

#### Plan and Design SharePoint Sites (10-15 percent)

Manage the site life cycle.

* This objective may include but is not limited to: create a delayed site collection, manage site collection disposition, identify inactive site collections, back up and archive site collection data.

Create content types.

* This objective may include but is not limited to: subscribe to published content types, choose appropriate content type creation, use Schema Development, create content types using Object Model, create site columns, use content type inheritance.

Manage content type behaviors.

* This objective may include but is not limited to: manage event receivers, manage workflow associations, manage policies, manage document templates.

Implement site provisioning.

* This objective may include but is not limited to: create site definitions, create web templates, implement feature stapling, implement custom provisioning code.

#### Implement Authorization and Authentication (10-15 percent)

Implement user authentication.

* This objective may include but is not limited to: create a custom claims provider, create a custom sign-in page, create a custom membership provider, package and deploy a custom claims provider, package and deploy a custom membership provider, authenticate a user from a client application.

Implement application authentication and authorization.

* This objective may include but is not limited to: use the SharePoint App TokenHelper class, specify the App permission request scope manifest and permission request manifest, specify permissions for Office Store Apps, specify permissions for Corporate Catalog Apps, specify permissions for remote apps to access SharePoint data.

Plan and implement user authorization.

* This objective may include but is not limited to: create custom role definitions, create custom permission levels, maintain permissions, implement impersonation, plan and implement anonymous access, create a custom role manager.

#### Access and Manage Data (10-15 percent)

Design solutions to handle large amounts of data.

* This objective may include but is not limited to: create efficient CAML queries and views, choose appropriate APIs, create and use indexed columns, use Object Model Overrides, use Content Iterator, implement cross-site queries.

Access data contained in SharePoint.

* This objective may include but is not limited to: access data using server-side object model, access data using client-side object model (CSOM), access data using REST API, access data using out-of-the-box Web Services, access data using a custom WCF (Windows Communication Foundation) service to facilitate integration with an existing application.

Store configuration data.

* This objective may include but is not limited to: implement a hierarchical data store, implement a property bag, implement web.config, implement SharePoint List, implement credential storage.

#### Implement SharePoint Solutions (15-20 percent)

Manage SharePoint Object Life Cycle.

* This objective may include but is not limited to: implement Object Life Cycle management for SPWeb, implement Object Life Cycle management for SPSite, implement Object Life Cycle management for other objects, implement Object Life Cycle management with Windows PowerShell, implement Object Life Cycle management for SPContext.

Upgrade solutions and features.

* This objective may include but is not limited to: implement versioning of features and solutions, upgrade features and solutions, implement assembly versioning, build components for in-process request routing.

Determine a solution structure.

* This objective may include but is not limited to: select feature scope and visibility, define feature dependencies, define solution dependencies, organize SharePoint project items, structure app packages.

Create sandbox solutions.

* This objective may include but is not limited to: scope features to constraints, identify SharePoint artifacts that can be used in sandbox, access data outside of Sandbox scope, configure and troubleshoot sandbox solution deployment, upgrade sandbox solutions, implement solutions validators.

Create a no-code solution.

* This objective may include but is not limited to: configure no-code customizations for the SharePoint 2013 platform, create XSLT for web parts, create and upload JavaScript files, create Display Templates.

#### Implement the User Experience and Information Architecture (10-15 percent)

Implement branding.

* This objective may include but is not limited to: incorporate designer outputs, use Design Manager functionality, apply custom themes, export the design, create Master Page, create a channel.

Implement navigation.

* This objective may include but is not limited to: create a custom navigation provider, create taxonomy-based navigation, create search-driven navigation, configure global/current navigation.

Customize UI elements.

* This objective may include but is not limited to: customize the ribbon, customize the edit control block (ECB), customize the status bar and notifications, customize the modal dialog window, customize the upgrade notification, select areas for Focus on Content.

#### Create Business Processes (10-15 percent)

Create event receivers and timer jobs.

* This objective may include but is not limited to: plan the use of event receivers or timer jobs, create remote event receivers, create a work item timer job.

Create SharePoint Designer workflows.

* This objective may include but is not limited to: plan the type of workflow and associated forms (site, reusable, list, InfoPath), use custom actions, create workflow definition, create reusable workflows for content types, import and export Microsoft Visio workflows, export a workflow to a SharePoint solution.

Create and deploy Microsoft Visual Studio workflows.

* This objective may include but is not limited to: create custom actions, create a workflow definition, create external connectors, deploy a workflow as part of a SharePoint solution or app, upgrade a SharePoint 2013 Visual Studio workflow, plan the type of workflow and associated forms.

#### Create Office Apps (10-15 percent)

Plan and design applications.

* This objective may include but is not limited to: choose a hosting location, specify a starting location, specify a licensing model, specify permission requirements, select a user experience for apps.

Create applications.

* This objective may include but is not limited to: create provider-hosted applications, create auto-hosted applications, create SharePoint-hosted applications, apply chrome control.

Package and deploy Apps.

* This objective may include but is not limited to: package an application, publish to Corporate Catalog, publish to SharePoint store, publish to Windows Azure, manage trust relationship with other providers.

Manage the App life cycle.

* This objective may include but is not limited to: upgrade an application, remove an application, manage licensing, manage usage tracking.