MODULE 3 Creating Consistency Across Sites

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Module Overview

This module explains to site collection administrators how to more efficiently manage their site collections, as well as maintain consistency throughout the site. When setting up a SharePoint site collection, it will often involve repeating a certain number of tasks. Site collection administrators can reduce the effort of duplication by creating reusable objects in a central location by using the tools provided.

After completing this module, students will be able to:

- Create new site columns
- Design and implement content types
- Implement a taxonomy using the Managed Metadata Service
- Define site and list templates
- Define best practices around creating consistency

Lesson 1: Defining Site Columns

A site column is a reusable column template that can be assigned to different lists, libraries, content types and views across multiple SharePoint sites. Site columns are defined in a Site Column Gallery. Each site has its own Site Column Gallery, and its settings can then be inherited by subsites. A best practice is to define site columns at the highest level possible within the site collection, preferably the top level site.

Lists and Libraries: These site column settings can be used across multiple lists and libraries, so that they do not have to be recreated at the library or list level. For example, a site column named "Department" can be used across multiple libraries and lists in order to maintain consistency. Any adjustments, which need to be made to the column definition, can be effected from within the Site Column Gallery and propagated to where the site column is in use.
Content Types: Site columns are also used for defining properties of content types. When adding site columns to content types, site collection administrators can choose whether to require that the column contain data. As with their use in lists and libraries, site column definitions provide consistency of data across multiple content types.

When defining site columns, it is a best practice to provide a description of the column. This documents the intended use of the column, both for users inputting the data as well as site administrators who may choose to add that site column to a list, library or content type.

Site collection administrators can define site columns so only certain data values can be selected. For example, if there is a specific list of department names, site collection administrators can create the Department column to supply a list of choices. This can be done by defining the column as either a Choice column, or by leveraging the Managed Metadata Service.

Creating a Site Column

Site columns can be created from the Site Columns Gallery on the Site Settings page.

1. Navigate to the root of the Learning Lake site collection and click **Settings > Site Settings > Web Design Galleries > Site columns**.

   ![Site Columns Gallery](image)

   Locating site columns

2. Click **Create** in the Site Column Gallery page.

3. Type the name in the **Column name** field in the **Name and Type** section.

   ![Create Site Column](image)

   When creating site columns, the user does not have to follow the conventions that require names with no spaces. There are no URL addresses associated with site columns.

4. Choose the type of information needed for this column.

   ![Choose Information Type](image)

   Depending upon what is chosen, different properties will be displayed. For example, Choice (menu to choose from) will display a field of different choices. The following table contains different information types that are available.

<table>
<thead>
<tr>
<th>Information Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Single line of text - E, V</td>
<td>Used for a single line of information using alphanumeric and are not used in calculations</td>
</tr>
<tr>
<td>Multiple lines of text</td>
<td>The ability to include plain text, rich text or enhanced rich text</td>
</tr>
<tr>
<td>Information Type</td>
<td>Description</td>
</tr>
<tr>
<td>------------------------------------------------------</td>
<td>---------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Choice (menu to choose from)</td>
<td>Choices entered in line by line and can be displayed as drop-down menu, radio buttons or checkboxes</td>
</tr>
<tr>
<td>Number (1, 10, 100) - E, V</td>
<td>Minimum and maximum values to be assigned to a column as well as decimal and percentage format</td>
</tr>
<tr>
<td>Currency - E, V</td>
<td>Minimum and maximum values to be assigned to a column as well as decimal and currency format</td>
</tr>
<tr>
<td>Date and Time - E, V</td>
<td>Formats of date only or date and time as well as default to today’s date or a calculated value</td>
</tr>
<tr>
<td>Lookup (information already on this site) - E</td>
<td>Ability to look up information from a different list or library and add additional fields along with the primary; Enforce Relationships Behavior – added feature for list or library columns</td>
</tr>
<tr>
<td>Yes/No (checkbox)</td>
<td>Checkbox set up for “yes” and “no”</td>
</tr>
<tr>
<td>Person or Group</td>
<td>Choosing a name from the people picker and can limit which SharePoint groups and what fields to show</td>
</tr>
<tr>
<td>Hyperlink or Picture</td>
<td>Ability to add a URL for a hyperlink or for a picture</td>
</tr>
<tr>
<td>Calculated (calculated based on other columns)</td>
<td>Ability to create calculations based in fields found within the list or library or do addition, subtraction, etc. and format the information</td>
</tr>
<tr>
<td>Task Outcome - E</td>
<td>Choices entered in line by line</td>
</tr>
<tr>
<td>Full HTML content with formatting and constraints for publishing</td>
<td>Used only with publishing sites and allows applying styles, table formatting and reusable content</td>
</tr>
<tr>
<td>Image with formatting and constraints for publishing</td>
<td>Used only with publishing sites and stores links in the item properties along with optional formatting</td>
</tr>
</tbody>
</table>

**E = Enforce Unique Values Available, V = Validation Settings Available**

<table>
<thead>
<tr>
<th>Information Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hyperlink with formatting and constraints for publishing</td>
<td>Used only with publishing sites, stores hyperlinks and display names, and can be formatted</td>
</tr>
<tr>
<td>Summary Links data.</td>
<td>Used only on publishing pages to present grouped links with different styles and includes title, description, image and URL</td>
</tr>
<tr>
<td>Rich Media Data for Publishing</td>
<td>Used to connect to media to be displayed within SharePoint</td>
</tr>
<tr>
<td>Managed Metadata</td>
<td>Used to tap into the managed term set (found in term store management) that is created for the site, or used to create a custom term set</td>
</tr>
</tbody>
</table>

**E = Enforce Unique Values Available, V = Validation Settings Available**

5. Select an existing group or new group in the **Group** section. If a new group is selected, input the new group’s name.
Creating a new group for site columns

The list of default site columns is very large and is organized into different groups. Refer to the following table for a list of columns in each site column group.

When creating site columns, it is a best practice to create a new group in which to place the custom columns. By beginning the name of the new group with an underscore "_", the group will always be listed at the top of the Site Column Gallery. This makes it easier to find the custom columns.

<table>
<thead>
<tr>
<th>Site Column Groups</th>
<th>Columns Included in the Group</th>
</tr>
</thead>
<tbody>
<tr>
<td>Base Columns</td>
<td>Append-Only Comments, Categories, Languages, URL and Workflow Name</td>
</tr>
<tr>
<td>Content Feedback</td>
<td>Used to capture social feedback such as number of likes on a document or content ratings</td>
</tr>
<tr>
<td>Core Contact and Calendar Columns</td>
<td>Address, Anniversary, Assistant’s Name, Birthday and Business Phone</td>
</tr>
<tr>
<td>Core Document Columns</td>
<td>Author, Category, Comments, Contributor and Date Created</td>
</tr>
<tr>
<td>Core Task and Issue Columns</td>
<td>% Complete, Actual Work, Assigned To and Due Date</td>
</tr>
<tr>
<td>Custom Columns</td>
<td>Wiki Categories, Category Picture or Hashtags</td>
</tr>
<tr>
<td>Display Template Columns</td>
<td>Compatible Managed Properties, Crawler XSL File, Hidden Template, Managed Property Mappings, Template Level</td>
</tr>
<tr>
<td>Document and Record Management</td>
<td>Custom Router, Description, Priority, Properties used in Conditions, Route to External Location, Rule Name and Target Library</td>
</tr>
<tr>
<td>Enterprise Keywords Group</td>
<td>Enterprise Keywords</td>
</tr>
<tr>
<td>Extended Columns</td>
<td>Company Phonetic, First Name Phonetic, Issue Status, Related Issues and Task Group</td>
</tr>
<tr>
<td>JavaScript Display Template Columns</td>
<td>Target List Template ID and Target scope which are used for JS Links on web parts.</td>
</tr>
<tr>
<td>Page Layout Columns</td>
<td>Byline, Image Caption, Page Content, Page Icon, Page Image and Redirect URL</td>
</tr>
<tr>
<td>Publishing Columns</td>
<td>Article Date, Contact, Contact Email Address, Contact Name, Contact Picture and Scheduling End Date</td>
</tr>
<tr>
<td>Reports</td>
<td>Owner, Report Category, Report Status and Save to Report History</td>
</tr>
</tbody>
</table>
| Status Indicators                   | Data Source, Detail Link, Goal Cell, Indicator, Trend, Update Error, Value Cell, Warning Cell, etc.
6. In the **Additional Columns Settings** section, fill out the fields as needed:
   a. **Description:** Enter a description.
   b. **Require that this column contains information:** Select **No**.
   c. **Configure other properties needed for the column**.

   ![Additional column settings](image)

7. Click **OK** to finish.

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**Enforce unique values** is new to SharePoint. This forces the SharePoint user to input a unique value for this field. This can be equated to Unique IDs found in database tables.

8. Expand the **Column Validation** section and add a **Validation** and **User Message** if needed.

   ![Information](image)

   An example of a column validation would include ensuring that information entered is within a specific parameter. For example, sales information keyed into a list may have a minimum value of $50. Click the **Learn more about proper syntax for formulas** link for help creating formulas in this column.

9. Look for the newly-created column in its corresponding group.
Other Column Features

Within SharePoint 2016, there are added features to help the site administrator create an integrated SharePoint site. These include **Column Validation** and **Enforce relationship behaviors**.

**Column Validation**

As explained in the previous section, site collection administrators have the ability to validate the information entered in a column. The SharePoint list or library also has the ability to validate columns as a group. By doing validation at the list or library level, the SharePoint administrator now has access to all of the columns against which to validate.

1. Navigate to the desired library or list and click **Library** or **List > Library** or **List Settings** from the **Settings** group.

2. Click **Validation settings** found in the **General Settings** section.

![Validation settings](image)

**Validation settings**

3. Create a formula that will validate information for example: `=[Discount]<=[Cost]`. The square brackets “[]” identify which column is to be used in the formula. Many of the functions that can be done in Excel are available within this setting.

![Creating a Formula](image)

**Creating a Formula**

**Enforce Relationship Behaviors**

Enforce Relationship Behaviors is a specific column setting in SharePoint 2016. When using a lookup column, it allows two lists that are connected to restrict deletion or cascade deletion of the data. This is the same feature that is found in databases to ensure that data is not accidentally deleted, because it is related to other data.
This feature can only be found after a lookup column has been associated to a SharePoint list or library.

1. Click **Library** or **List > Library** or **List Settings** from the **Settings** group.
2. Under the **Columns** section, click the name of the column to access the properties.

   ![Relationship Behaviors are supported only on look up columns connected to other SharePoint lists or libraries.]

3. In the **Relationships** section, click **Enforce relationship behavior**.
4. Then choose either **Restrict delete** or **Cascade delete**.
5. Click **OK** when complete.

   ![Restrict delete: If a SharePoint user deletes an item in this library that has a connection to a different library or list, then the operation will fail and the document will not be deleted.]

   ![Cascade delete: If a SharePoint user deletes an item in this library, then anything connected or related to this item will also be deleted in other lists or libraries.]

### Lesson 2: Defining Content Types

A content type is a reusable collection of site columns, workflows, behaviors and other settings for a category of items or documents in a SharePoint list or library. For example, if multiple groups within an organization generate press releases, a content type called Press Release can be created. The Press Release content type can specify a document template for formatting the press release, a workflow for obtaining review and approval, and required column data for categorizing the press release. This Press Release content type can then be made available in the document libraries of each group which may need to generate a press release.

Content types are defined in a Site Content Type Gallery. Each site has its own Site Content Type Gallery, which can be inherited by subsites. A best practice is to define site content types at the highest level possible within the site collection, preferably the top level site. Having a central definition eliminates the redundancy of separately maintaining settings for each list or library. For document-based content types, this extends to the template being
used to generate new documents based on the content type. Two examples of this include a standard report or a standard contract.

Content types can also have their own column requirements, allowing for multiple content types to be used in a list or library, each with its own set of columns. For example, a site collection administrator may create a calendar with two content types – one for internal events and one for external events. The internal events may choose their location from a pre-defined Conference Room column, whereas the external events may have a different column for their location.

**Considerations for Site Content Types**

Content types are organized into hierarchies that allow them to inherit attributes from one another. When creating content types, the SharePoint owner has the ability to choose whether or not to continue the inheritance from parent to child content types.

Parent content types can be designated when creating a new content type for the site. This new content type will inherit the properties of its parent content type. Because of the relationship being established, the child content type will inherit changes made to the parent content type. However, the parent content type will not inherit any changes made to the child content type.

Attributes that can be inherited to a child from a parent content type include:

- Document template
- Read-only settings
- Workflows
- Columns
- Extensible attributes added by another application

When creating a site content type, these can be stored in existing groups, or a new group can be created to store it. If a site content type needs to be hidden from others, call the group *Hidden* and store the site content type or column in this group.

SharePoint comes with several site content types already defined. They are grouped in a manner similar to site columns. Refer to the following table.

<table>
<thead>
<tr>
<th>Group Name</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Business Intelligence</td>
<td>Status List content types</td>
</tr>
<tr>
<td>Community Content Types</td>
<td>Used within the Communities site</td>
</tr>
<tr>
<td>Digital Asset Content Types</td>
<td>Content that is utilized with Asset Library</td>
</tr>
<tr>
<td>Display Template Content Types</td>
<td>Used in conjunction with search results pages and the search by query web part</td>
</tr>
<tr>
<td>Document Content Types</td>
<td>Basic document content such as a Document, Picture and Web Part Page</td>
</tr>
<tr>
<td>Folder Content Types</td>
<td>Content type for folders</td>
</tr>
<tr>
<td>Group Work Content Types</td>
<td>Holiday, Phone Call Memo, Resource, Timecard and What’s New Notification</td>
</tr>
<tr>
<td>List Content Types</td>
<td>Announcement, Comment, Issue, Item, Link, Schedule and Task</td>
</tr>
<tr>
<td>Page Layout Content Types</td>
<td>Any pre-created pages such as Welcome pages used by SharePoint as the splash page for a site or document set</td>
</tr>
<tr>
<td>Group Name</td>
<td>Description</td>
</tr>
<tr>
<td>----------------------------</td>
<td>-----------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Publishing Content Types</td>
<td>Used primarily with Publishing sites and includes Page, Page Layout and Publishing Master Pages</td>
</tr>
<tr>
<td>Special Content Types</td>
<td>Unknown Document Type reserved for documents that SharePoint is not configured to recognize</td>
</tr>
</tbody>
</table>

When creating content types, it is a best practice to create a new group in which to place the custom columns. By beginning the name of the new group with an underscore "_", the group will always be listed at the top of the Site Content Type Gallery. This makes it easier to find the custom content types.

Create a Site Content Type

1. Navigate to the desired site where the site content type will reside.
2. Click Settings > Site Settings > Web Designer Galleries > Site content types.
3. On the Site Content Type Gallery page, click Create.
4. On the New Site Content Type page, complete in the following fields:
   a. Name: Type a name for the new content type.
   b. Description: Insert a description. This is a helpful prompt for the user that they will see when creating a new item of this type.
   c. Parent Content Type: Select the applicable options. This is the location in the hierarchy from which the content type will both exist and inherit from.
   d. Put this site content type into: Select a group to categorize the new content type.
5. Click OK.
Creating a new content type

Now, SharePoint should refresh and show the new content type settings window with the newly created content type as shown in the following screen capture.

Viewing content type settings

Notice the columns that are already associated with this content type. This is a result of the parent selection made at the time of creation. New columns can be added, while columns inherited from the parent can only be marked as hidden.

Change Document Template
Once the shell of a site content type is created, customizations can be added to help create a highly modular solution for site consistency. With document content types, site collection administrators can designate a specific document template to be available within the content type. This would include anything that is derived from the document parent site content type. As an example, a document template can be used for external contracts. Once created, the SharePoint administrator can associate the site content type to a library and all new documents created within the SharePoint library will use the external contracts document template. The best place in which to add the document to the site content type is from the Site Content Type Gallery found in Site Settings.

1. Click the desired site content type to configure in the Site Content Type Gallery.

   ![Image](https://skillpipe.com/#/reader/urn:uuid:9e691a33-42d3-4176-b322-412dee76a30f@2022-02-23T14:00:00Z/content)

   If you are not at the gallery level, access the Settings drop-down menu. Then, select Site Settings and choose Site Content Type.

**Observing the new content type**

2. Click Advanced settings in the Settings section of the Site Content Type Information page.

3. Choose either Enter the URL of an existing document template or Upload a new document template in the Document Template section to add a document to this content type.

   ![Image](https://skillpipe.com/#/reader/urn:uuid:9e691a33-42d3-4176-b322-412dee76a30f@2022-02-23T14:00:00Z/content)

   Refer to the following table for examples of what can be entered for a URL of an existing document template. The SharePoint administrator can use an absolute URL or a URL that is directed at a server, site or resource folder on the network.

   A resource folder is labeled _cts/(Content Type Name). A content type name in this syntax is the name of the site content type that exists at the root level of each site.

<table>
<thead>
<tr>
<th>URL Type</th>
<th>Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>Absolute</td>
<td><a href="http://bmldcserver/_cts/(Content">http://bmldcserver/_cts/(Content</a> Type Name)/(Docname).doc</td>
</tr>
<tr>
<td>Site Relative</td>
<td>~site/Library Name/Docname.doct</td>
</tr>
<tr>
<td>Server Relative</td>
<td>_cts/(Content Type Name)/(Docname).doc</td>
</tr>
<tr>
<td>Resource Folder Relative</td>
<td>Docname.doc</td>
</tr>
</tbody>
</table>

4. If the ability to upload a new document template is needed, click the Browse button to add the file.

5. In the Read Only section, select Yes if the content cannot be modified or No if it can be modified.

6. Accept the default of Yes for Update all content types inheriting from this type, since there are no child content types associated with this content type yet.
7. Click OK to finish.

![Site Content Type - Advanced Settings](image)

*Uploading a document template to a content type*

There may be times where a user does not want the child to inherit the changes of the parent. In those cases, simply select No for that last option.

**Add a Workflow to a Content Type**

Within SharePoint, workflows allow organizations to automate a set of steps such as a business process for object approval and review.

Adding a workflow at the site level for a process ensures those content types are consistent. Because of the way that workflows are created and managed, they can be initiated manually or automatically per instance of the content type. Ultimately, if there are multiple content types within a library or list, there could be multiple workflows associated with that SharePoint object.

1. Select the desired site content type to configure from the Site Content Type Gallery.
2. Select Workflow settings from the Settings section on the Site Content Type Information page.
3. Click Add a workflow in the Workflow Settings page.
4. Choose the desired workflow and complete the required properties for that workflow.

![Workflow Settings](image)

Some workflows are implemented as features at the site collection level. If a specific workflow is not listed in the workflow template box, make sure that all of the workflow features have been activated in the site collection.
Modify the Content Type for Libraries or Lists

Once a site content type has been created for the site, it must be added to a library or list so it is available to the SharePoint users. This is done directly at the library or list level.

By default, all libraries and lists have an associated content type upon creation. The process for modifying this content type begins by allowing the content type to be changed, and then modifying the content type.

1. Navigate to the desired library or list by clicking Library or List > Settings > Library or List settings.

2. Select Advanced settings in the General Settings section.

3. Click the Yes radio button to allow management of content types in the Content Type section, and then click OK.

   ![Locating advanced settings]

   This turns on the feature within the library or list first, before the owner can make changes to the existing content type.

4. When the screen refreshes to the Settings window, there should be a Content Types section available. Select the Add from existing site content types link.

   ![Observing the new content types section]

   Select the group where the site content type resides from the Select site content types from drop-down menu.

5. Select the desired site content type from Available Site Content Types and click the Add button to include it in the Content types to add list.
7. Click OK to finish. The new content type should be listed under **Content Types**.

### Change Button Order and Default Content Type

The SharePoint administrator can specify the order for content types and the default content type in the New menu.

1. In the **Settings** for the library or list, select the **Change new button order and default content type** link from the **Content Types** section.

#### Locating changing button order

2. Do one of the following in the **Content Type Order** section: Remove a content type from the **New** menu by disabling the **Visible** checkbox or change the order in which the content types appear in the **New** menu using **Position from Top**.

   - **The default content type is the first content type that is displayed on the order page as well as on the **New** menu within the library.**

3. Click **OK** when finished.
Changing button order

4. Within the library or list, access the **New Document** drop-down menu and the changes should be apparent.

Verifying the new content type

5. Test the content type by creating a new item. Verify that all columns are available and that the workflow works as designed.

Remove Content Type from Library or List

Any content type can be removed from the Library or List Settings page. However, SharePoint will not allow the default content type to be removed from the site. This means that another content type should be designated as the default content type first, before the original content type can be removed. Refer to the previous section on setting the default content type.

1. In the settings for the library or list, click the name of the content type that needs to be removed in the **Content Types** section.

2. Select the **Delete this content type** link in the **Settings** section.
Removing a content type

3. SharePoint will prompt to confirm if deleting the content type is the intended action. Click OK.

When a content type is deleted from the list or library, any columns that were associated with that content type are orphaned as custom columns within that list or library. This is to preserve any metadata that may be associated with documents or items in the library that once used the content type. To remove the columns, they must be deleted manually from the list or library after the content type is removed.

To determine if a column is part of the content type or the library, administrators can review the **Used In** column that appears in the content type section of the list or library.

In the following example, the line item **Department Type** has an empty value in the **Used In** column now that the content type has been removed from this library.

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**Identifying list columns used by content types**

**Column Ordering within Content Types**

When viewing or editing a document or an item’s properties, the order of columns is set within the content type. In the following image, the column ordering option is not available after the list or library has been configured for multiple content types.
Options for managing columns for content types

Changing the order for a specific content type is done within the content type either at the list or library level, or at the site level.

Changing the order of columns at the list or library level may be potentially overwritten if the order is modified at a site level, and the option to update all content types inheriting from this type is set to yes.

1. From the list or library settings page, click the name of the content type requiring the column reordering.

2. Click Column order directly below the Columns section.

3. Change the order in which the columns appear in the list or library properties window.
Lesson 3: Implementing a Taxonomy

A frequent concern organizations deal with is how to quickly connect people with the information they need. SharePoint 2016 offers many features that make it easy to find information – called findability. However, without proper management of these features, a company portal can quickly turn into an unorganized mess.

Findability is a term for the ease by which information contained on a website can be found, both from outside the website (using search engines) and by users navigating on the website.

To more effectively manage these features, site collection administrators need to adhere to a proper information architecture process in order to define and classify information into logical categories. For SharePoint, planning how the site is organized and how content within the site is classified are critical elements in the overall usability of the site. One way to accomplish this is to create a structured set of categories and tags within SharePoint using managed terms. This set of terms is referred to either as a taxonomy or folksonomy, based on the source of the terms. In the following table are some terms used in this conversation.

<table>
<thead>
<tr>
<th>Term</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>Terms</td>
<td>Word or phrase connected to content</td>
</tr>
<tr>
<td>Managed Terms</td>
<td>Collection of terms that have a hierarchical structure</td>
</tr>
<tr>
<td>Managed Keywords</td>
<td>User-generated keywords called tags, also called a keyword set</td>
</tr>
<tr>
<td>Metadata</td>
<td>Data about data, properties associated with an object that help to differentiate or group like sets of information together</td>
</tr>
<tr>
<td>Managed Metadata</td>
<td>SharePoint columns used to access managed terms</td>
</tr>
<tr>
<td>Keywords and Best Bets</td>
<td>Pre-staged terms that point to specific search results</td>
</tr>
<tr>
<td>Tagging</td>
<td>Managed keywords that a user generates while working within SharePoint</td>
</tr>
<tr>
<td>Taxonomy</td>
<td>Structured approach to creating categories and tags within SharePoint using Managed terms</td>
</tr>
<tr>
<td>Folksonomy</td>
<td>Grassroots approach to creating tags or metadata within SharePoint using tags created by end users</td>
</tr>
</tbody>
</table>

In developing a taxonomy or folksonomy, the result is a database of metadata. The principal difference is that a taxonomy deals with a structured hierarchy created by an administrator or site owner, whereas a folksonomy grows from user-contributed categorizations.

It is possible, and in some cases advisable, for the two to work together. That is, the site collection administrator can establish an open taxonomy that grows with new categories added by the users. This leverages the user’s knowledge of the data and useful categories, while operating within a framework established by the administrator to keep some form of structure around the categories.

The following process incorporates best practices when developing a taxonomy or folksonomy.

1. Start by interviewing employees to discover their metadata needs within different departments or business units.
2. Review current file systems to determine how employees are currently classifying and organizing their information and documents.
3. Implement folksonomy by allowing users to tag information within SharePoint, which helps them to find information easier in the future.
4. Gather the information and build the taxonomy managed term structure based on the most commonly used tags.

**Implementing Managed Metadata**

Managed Metadata is a service application that facilitates the creation and maintenance of a taxonomy.

Managed Metadata supports the creation of term groups and term sets in hierarchical relationship with the ability to delegate their administration. The following table lists definitions for terms that are associated with the Term Store Management tool.

<table>
<thead>
<tr>
<th>Term</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>Term Group</td>
<td>Defines a security boundary for taxonomy governance; the topmost boundary within the Managed Metadata Store</td>
</tr>
<tr>
<td>Term Set</td>
<td>Part of a group; can be up to 1,000 term sets within a term group</td>
</tr>
<tr>
<td>Term</td>
<td>Individual words or phrases which include term management features (create, copy, reuse, merge, deprecate, move or delete); can be up to 30,000 terms per term set</td>
</tr>
</tbody>
</table>

Managed Metadata can be implemented at both the farm level and at the site level. To manage the term groups, SharePoint 2016 includes the Term Store Management tool. This tool allows the site administrator to manage and create site specific terms and keywords based on design choices (taxonomy), and by tags entered by SharePoint users (folksonomy). Terms can be created manually or imported.

SharePoint uses the Managed Metadata Service to gather folksonomy information, and to make any Managed Metadata available that has been added to the tool. The needs of the business unit determine how often this service refreshes the term store. This service is controlled by the SharePoint administrator.

**Accessing and Modifying Term Store Management Tool**

The site-level Term Store Management tool can be accessed from the Site Settings page for each site.

1. **Navigate** to the desired site and click **Settings > Site Administration > Term store management**.

2. Click the **Site Collection** – SharePoint Site Collection Name.

3. In the **Properties** window, add a **Description** for the site collection term store.

4. In the **Group Managers** section, add the necessary SharePoint users.
Group Managers will have contributor permissions allowing them to add other SharePoint users who are contributors to the Term store. Contributors have the ability to edit terms and term set hierarchies.

---

**Term store properties**

5. Click **Save** when completed.

6. Right-click **Site Collection > New Term Set**.

---

**Creating a new term set**

7. Type the name of the new term set. This should be a descriptive category possibly by department or process.

8. In the **Properties** window, under the **General** tab, create a **Description** and ensure the administrator is the SharePoint site administrator.

9. Right-click the newly created term set and choose **Create Term**.

---

**Creating a term**

10. Type in the desired name for the term and press the **[Enter]** key. This will move the cursor to the next line to...
add another term. Continue until all terms are entered into the term set. Click a term to access the Properties for the Term. Configure a Description.

11. In the Other Labels box, enter synonyms or abbreviations for the term.

![Term Properties](image)

Setting other term labels

12. Click Save when completed.

13. Click the term set Site Collection – SharePoint Site Collection Name.

14. In the Contact section, add a contact e-mail if term suggestion and feedback is desired for this term set. If this is left blank then this feature will not be enabled.

15. In the Stakeholders section, add any e-mails of individuals or groups that need to be notified before any major changes are made to the term set.

16. For the Submission Policy determine if this is an Open or Closed term set. Closed term sets can only be managed by metadata managers. Open term sets allows SharePoint users the ability to add terms from a tagging application.

Notice the tabs across the top of the properties window. Refer to the table for their definitions.

<table>
<thead>
<tr>
<th>Tab</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>General</td>
<td>Basic information about the term set such as name, description and owner</td>
</tr>
<tr>
<td>Intended Use</td>
<td>Options to control the visibility of a term set based on how it will be used</td>
</tr>
<tr>
<td>Custom Sort</td>
<td>Ability to control the sort order of terms within a term set</td>
</tr>
<tr>
<td>Custom Properties</td>
<td>Section to add additional properties about a term set</td>
</tr>
</tbody>
</table>

17. Click the Intended Use tab.

18. Confirm the box has a checkmark next to Available for Tagging.
19. Click **Save**.

Making a term set available for tagging

**Import Terms for Term Store**

To avoid adding terms manually into the term store, SharePoint provides an import function within the Term Store Management tool. A template for the .csv import file can be downloaded from the Managed Metadata Service section. The file can then be filled out with the appropriate hierarchy for terms within the term store.

1. In the Term Store Management tool, click **Managed Metadata Service** and **View a sample import file**.

Viewing a sample import

2. Save the file locally on the computer.

3. Navigate to that location and open **ImportTermSet.csv**.

4. Use the following table to understand the different columns within the .csv file:

<table>
<thead>
<tr>
<th>Field Name</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Term Set Name</td>
<td>Name given for the term set as appears in the hierarchy, for example: Project</td>
</tr>
<tr>
<td>Term Set Description</td>
<td>To help users understand the intended use of this term set</td>
</tr>
<tr>
<td>LCID</td>
<td>Locale identifier to determine the location and language for the term set</td>
</tr>
<tr>
<td>Available for Tagging</td>
<td>True or False: property used to determine whether the term set is available to be used by end users for tagging</td>
</tr>
<tr>
<td>Term Description</td>
<td>Description used to help users know when to use the term</td>
</tr>
<tr>
<td>Level # Term</td>
<td>The different terms within a hierarchy, one column per level</td>
</tr>
</tbody>
</table>

5. After edits to the .csv file are complete, navigate to the desired site and click **Settings > Site Administration**
> Term store management.

6. Right-click the group and select **Import Term Set**.

   ![Importing a term set](image)

7. Review the term set to confirm the import was successful and that the terms are organized appropriately.

**Working with Terms**

Depending upon a company’s needs, a site administrator may be required to set up and manage multiple term sets for use across multiple web applications or site collections. This helps create consistency in how content is tagged and classified throughout SharePoint. However, multiple term sets increases the potential to have duplicate terms, which defeats the purpose of creating consistency.

To reduce the potential for duplicate terms, the Managed Metadata Service gives administrators the ability to reuse terms that already exist in a different term set. Reusing a term creates a copy of the term and any related child terms, then adds it to a new term set making it available for tagging.

**Reusing Terms**

1. Click **Settings > Site Settings > Site Administration > Term Store Management**.

2. Click the term set where the reused term is to be inserted.

3. Right-click the term and select **Reuse Terms**.

4. Click the term to be shared in the **Term Reuse** window.

5. Click **OK**.
The term reuse dialog box

Notice the icon for reused terms is different than those used with typical terms. The icon for reused terms contains two blue arrows indicating that the term is reused.

Icons for reused items

Other Metadata Term Options

<table>
<thead>
<tr>
<th>Option</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Copy Term</td>
<td>This creates a copy of a term for use in other term sets and does not maintain a connection to the source term.</td>
</tr>
<tr>
<td>Copy Term with Children</td>
<td>This creates a copy of a term and any subordinate terms for use in other term sets and does not maintain a connection to the source term(s).</td>
</tr>
<tr>
<td>Reuse Terms</td>
<td>This supplies the ability to share terms between term sets.</td>
</tr>
<tr>
<td>Pin Terms with Children</td>
<td>This is the ability to share terms and child terms within different term sets, while maintaining a connection to the source term in order to retrieve updates to the hierarchy.</td>
</tr>
<tr>
<td>Merge Terms</td>
<td>This option grants the ability to consolidate terms. All of the synonyms, translations and custom properties are collapsed into the selected target term. Content tagged with this term will continue to be tagged as before. Merging terms is not reversible.</td>
</tr>
<tr>
<td>Option</td>
<td>Description</td>
</tr>
<tr>
<td>----------------</td>
<td>---------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Deprecate Terms</td>
<td>Terms that should no longer be used can be deprecated. Content currently using this term will retain the classification; however, new content will not be able to use this term for tagging.</td>
</tr>
<tr>
<td>Move Terms</td>
<td>This is the ability to move a term from one term set to another.</td>
</tr>
<tr>
<td>Delete Terms</td>
<td>This supplies the ability to delete a term; any terms that have been reused and are sourced to this term set will be placed in the Orphaned term set.</td>
</tr>
</tbody>
</table>

**Adding a Managed Metadata Column**

Once the term store has been created, this information can be made available within SharePoint lists and libraries. This is done by adding a Managed Metadata column.

1. Navigate to the desired list or library within SharePoint and click **Library** or **List > Create Column** from the **Manage Views** group.
2. Name the column and from **The type of information in this column is**, select **Managed Metadata**.

SharePoint will refresh and a warning will be displayed reading, “Earlier version of client programs might not support this type of column. Adding this column might block those programs from saving documents to this library.” This can be seen if trying to add data within the **Datasheet View** within a list or library.

3. **Add a Description**.
4. **Require and enforce unique values** as desired.
5. **Choose whether or not to Allow multiple values**.
6. **Under Display Value**, select either to display only the term or the entire path to the term.

7. **In the Term Set Settings section**, select either **Search for the Term Set** or **expand Managed Metadata**.
Service and select the term set desired for this library or list.

Choosing a term set

8. There is also the option of creating a term set specifically at the list or library level. To do this, click Customize your term set, add a Description, and using the same technique at the site collection level, add terms.

9. Choose the Allow Fill-In options and a Default Value if desired and click OK.

10. Navigate back into the list or library and click the document/item menu and choose Edit Properties.

11. The Managed Metadata field will be included in the properties. Click the tag icon (two small boxes on the far right side of Classification) behind the textbox to access the terms.

Using the term set

12. Notice that only the selected term store information is shown. Click the desired term or terms (depending upon the options selected), and click the Select button to add.

13. When finished, click OK.
Lesson 4: Configuring the Content Organizer

Maintaining consistency across sites is a difficult task as SharePoint becomes an integral part of the company. Another tool available to site administrators is the Content Organizer. This tool enables site owners to configure a set of rules that automatically routes documents to specific libraries as well as controls the number of items that reside within a folder.

Site administrators have the option to enable a Content Organizer within their site, and force all contributors to upload documents to the Drop Off Library. The Drop Off Library will then route the files to the appropriate location based upon how the file is classified.

Enabling the Content Organizer

1. Navigate to the root of the Learning Lake Site.
2. Click **Settings > Site Settings > Site Actions > Site Features**.
3. Click **Activate** next to **Content Organizer**.

![Content Organizer](image)

**Enabling the Content Organizer**

4. In the quick launch, a new item called **Drop Off Library** is now displayed. This is the primary library for all files when the Content Organizer is enabled. Files are temporarily held in this library until the document matches a rule. Then, it is then automatically moved from the Drop Off Library to the destination library or folder.

**Configuring the Content Organizer**

1. Navigate to the root of the Learning Lake site.
2. Click **Settings > Site Settings > Site Administration > Content Organizer Settings**.
3. To enforce the use of the Drop Off Library, make sure the box is selected under the **Require users to use the organizer when submitting new content to libraries with one or more organizer rules pointing to them**.

<table>
<thead>
<tr>
<th>Configuration Setting</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Allow rules to specify another site as a target location</td>
<td>This option moves documents to another site collection in cases where there are too many items to fit into one site collection.</td>
</tr>
<tr>
<td>Create subfolders after a target location has too many items</td>
<td>This option creates folders automatically when a specified number of documents are reached.</td>
</tr>
<tr>
<td>Duplicate submission</td>
<td>This option determines how duplicate files are handled within a library.</td>
</tr>
<tr>
<td>Preserving Context</td>
<td>The organizer can save the original audit logs and properties if they are included with submissions. The saved logs and properties are stored in an audit entry on the submitted document.</td>
</tr>
<tr>
<td>Rule Managers</td>
<td>This option identifies the users who manage the rules, and can respond when incoming content doesn't match any rule. Rule managers must have the Manage Web Site permission to access the rules list from the site settings page in the Content Organizer.</td>
</tr>
<tr>
<td>Submission Points</td>
<td>This is a web service URL used to send content to the current site.</td>
</tr>
</tbody>
</table>

4. Click **OK** to save the settings.

**Configuring the Content Organizer Rules**

1. Click **Settings > Site Settings > Site Administration > Content Organizer Rules**.
2. Click **new item**.
Creating a new rule

3. Enter a name for the rule in the Name box.

4. Click Active in the Rules Status and Priority section.

5. Click the Priority drop-down menu, and select 1 (Highest).

A rule that is configured with a higher priority takes precedence over a rule with a lower priority. Also, rules with higher priority are executed sooner.

6. Select the Learning Lake group within the Group drop-down menu in the Submission's Content Type section.

7. Click the Type drop-down menu so when the content type satisfies specific conditions, the rule will be applied.

Definition of a new rule

8. Click the Property drop-down menu, and select the appropriate field that will satisfy a condition.

9. Click the Operator drop-down menu to select the appropriate function.

10. Click the metadata tag icon to the right of the Value box to select the tag to which this rule must match.
11. Click **Browse** to select the destination for the content that matches this rule.

- **Conditions**
  - **Property-based conditions:**
    - **Property:** Classification
    - **Operator:** is equal to
    - **Value:** SharePoint

- **Target Location**
  - Specify where to place content that matches this rule.

- **Destination:**
  - Use a browser to select the destination for the content that matches this rule.

**Setting rule conditions**

- **Automatically create a folder for each unique value of a property** may be greyed out if the option to create subfolders within the Content Organizer Settings page was not specified.

12. Click **OK** to finalize creating the rule.

**Testing the Content Organizer Rules**

1. Navigate to the document library targeted by a rule.

2. Click **new document**. Notice the message on the **Submit Document** window about the use of the content organizer.

- **Content Organizer message:**
  - Documents uploaded here are automatically moved to the correct library and folder after document properties are collected.

3. Click **Browse** to locate and uploading a file.
4. Click OK. Notice the prompt to complete additional metadata about the file. Also, the upload has been redirected to the Drop Off Library.

5. Type SharePoint as the metadata property in the Classification field.

6. Click Submit.

Specifying document properties

7. Review the confirmation message that the document was uploaded and saved to the final location and then click OK.

Document saved to final location

8. Browse to the final location to confirm the document was added and that the document library and metadata are retained.

Lesson 5: Using Templates to Promote Consistency

SharePoint provides the ability to build and use templates for sites, lists and libraries. As sites, lists and libraries are being created it is helpful to consider whether or not they may be needed elsewhere. Once a component is created, it can be saved as a template and made available across a site collection or site. When saving a template, it is possible to save almost all attributes and content. Refer to the following table to view what is included in each template.

<table>
<thead>
<tr>
<th>SharePoint Templates</th>
<th>Template Contents</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

https://skillpipe.com/#/reader/urn:uuid:9e691a33-42d3-4176-b322-412dee76a30f@2022-02-23T14:00:00Z/content
<table>
<thead>
<tr>
<th>SharePoint Templates</th>
<th>Template Contents</th>
</tr>
</thead>
</table>
| Library or List Template (.stp) | **Includes:** Columns, fields and views; content optional  
| | **Does Not Include:** Security settings from which the list template was created, lookup field references |
| Site Template (.wsp) | **Includes:** Lists, web part pages, custom pages, themes and Quick Launch customizations; content of lists and libraries optional  
| | **Does Not Include:** Security settings or alerts from which the site template was created; personalization to web part pages |

When creating templates, it is beneficial to seek feedback from users to find out what should and should not be included. Templates are an important way to create consistency and prevent extra work each time a new site, list or library is needed. It is common for organizations to spend a great deal of time effectively developing their various templates and then remove the default choices available.

The ability to create templates is reserved for members of the site administrators permission group. Some templates require the server administrator to upload and install them successfully, since they are integrated with other elements of SharePoint 2016.

**Creating a Site Templates**

1. Create the initial site from which the template will be based.
2. Click **Settings > Site Settings > Site Actions > Save site as template**.
   
   ![Save a site as template](image)

   **Save a site as template**

   When creating a site template, a best practice is to avoid using spaces in the actual file name. Eliminating spaces makes it easier to work with the file using scripting tools such as PowerShell. Also, keep in mind that the name and description will be viewed by users who select the template. So, be sure the name is concise and that the description explains its purpose.

   ![Info](image)

   If the **Save site as template** option is not available under the Site Actions settings, it is likely due to the SharePoint Server Publishing feature being deactivated on this site.

3. Type the file name in the **Save Site as Template** window.
4. Provide a template **File name** and **Template description**.
Site Settings > Save as Template

File Name
Enter the name for this template file.

Name and Description
The name and description of this template will be displayed on the Web site template picker page when users create new Web sites.

Template name:
Learning Lake Department

Template description:

Include Content
Include content in your template if you want new Web sites created from this template to include the contents of all lists and document libraries in this Web site. Some customizations, such as custom workflows, are present in the template only if you choose to include content. Including content can increase the size of your template.

Caution: Item security is not maintained in a template. If you have private content in this Web site, enabling this option is not recommended.

This document belongs to Ankur Jain.
ankur.jain@koenig-solutions.com
No unauthorized copies allowed!

Site template properties

5. Click OK.

When creating the site template, there is an option to Include Content. This allows a site owner the ability to move the entire site from one location to the next.

6. SharePoint should refresh to the Operation Completed Successfully window. Click the solution gallery link.

The web site has successfully been saved to the solutions gallery. You can now create sites based on this solution.

To manage solutions in the gallery, go to the solution gallery.

To return to the site administration page, click OK.

Success message for creating a site template

SharePoint should refresh to the Solutions Gallery, which is found at the top level site within the site collection.

The site template should be automatically Activated.
7. To deactivate the site template, select the template and click **Solutions > Deactivate** from the **Commands** group.

8. In the **Activate Solution** window, click **Solutions > Deactivate** from the **Command** group.

---

**Activating and deactivating a solution**

---

**Saving a Site Template as a File**

Saving a template as a file provides the opportunity to share templates across site collections and with other SharePoint users. It is also useful for backup purposes.

1. Navigate to the top level site within the site collection.

   Depending on permissions, not all site administrators have access to the top site. Typically, only site collection administrators have access to settings at the top site, such as accessing the site template gallery or creating site templates. Keep in mind, this is the typical scenario and each user experience can vary. This makes accessibility difficult to accurately predict since the SharePoint administrator dictates how all permissions are set and how settings are defined.

2. Click **Settings > Site Settings > Web Designer Galleries > Solutions**.

   **Locating the solutions gallery**

3. Click the **Site Template link** and a **File Download** window should open. Save the .wsp file locally.
Uploading a Site Template

1. Navigate to the top level site within the site collection.
2. Click **Settings > Site Settings > Web Designer Galleries > Solutions**.
3. Click **Solutions > Upload Solution** in the **New** group.
4. Click **Browse** and navigate to the location of the template.

   ![Uploading a site template](image)

5. Select the location and click **Open**.
6. Click **OK**.
7. In the **Activate Solution** dialog click **Activate** from the **Commands group**.

Removing a Site Template

1. Navigate to the top level site within the site collection.
2. Click **Settings > Site Settings > Web Designer Galleries > Solutions**.
3. Select the desired template to delete, and click **Solutions > Delete** from the **Commands group**.

   ![Removing a site template](image)

4. Click **OK** to move to the site's **Recycle Bin**.

Creating List and Library Templates

Creating a list or library template is almost identical to creating a site template. The only difference is where the templates are stored. In the following set of directions, a library template and a list are created in exactly the same manner.

1. Create or navigate to the initial library from which the template will be based.
2. Click **Library** or **List > Library** or **List Settings** from the **Settings group**.
3. Select **Save document library as template** from the **Permissions and Management** group.

4. **Saving a library as a template**

Type the **File name** in the **Save Library as Template** window.

A best practice, when creating list or library templates, is to avoid using spaces in the actual file name. This makes it easier to work with solution files in tools like PowerShell. Keep in mind that the name and description will be viewed by users who select the template, so be sure that the name is concise and the description explains its purpose.

5. **Provide a Template name and Template description.**

6. **List template properties**

Choose whether or not to include content.

7. **Click OK.** Notice that a new page displays, indicating the library template was saved successfully.

8. **Click the list template gallery link to navigate to the List Gallery.**
Saving a List Template as a File

Saving a template as a file provides the opportunity to share templates across site collections and with other SharePoint users. This is also useful for backup purposes.

1. Navigate to the top level site within the site collection.

   Depending on permissions, not all site owners have access to the top site. Typically, only site collection administrators have access to settings at the top site, such as accessing the site template gallery or creating site templates. Keep in mind, this is the typical scenario and each user experience can vary. This makes accessibility difficult to accurately predict since the SharePoint Administrator dictates how all permissions are set and how settings are defined.

2. Click Settings > Site Settings > Web Designer Galleries > List Templates.

   Viewing list templates

3. Click the List Template link and a File Download window should open. Save the .stp file locally.

   Saving a list template to file

Uploading a List Template

1. Navigate to the top level site within the site collection.

2. Click Settings > Site Settings > Web Designer Galleries > List templates.

3. Click Files > Upload Document from the New group.
Uploading a list template

4. Click the **Browse** button and navigate to the location of the list template (.stp) and click **Open**.

5. Click **OK** to upload.

6. Ensure the properties for the list template are correct and click **Save**.

7. SharePoint should refresh and the new template will be available in the library.

Removing a List Template

1. Navigate to the top level site within the site collection.

2. Click **Settings > Site Settings > Web Designer Galleries > List templates**.

3. Select the desired template to delete and click **Files > Delete Document** from the **Manage** group.

4. Click **OK** to move to the site **Recycle Bin**.

Page Layout and Site Template Settings

Another set of administrative and governance features offered in SharePoint 2016 is to limit the available templates, or set a specific page as default when creating SharePoint content within the site collection. In addition, the administrator can dictate that all subsites created will inherit these preferred settings. Examples include:

- Subsite templates
- Page layouts
- New page default

1. Navigate to the top level site within the site collection and click **Settings > Site Settings > Look and Feel > Page layouts and site templates**.
2. In the **Subsite Template** section, select **Subsites can only use the following site templates** option.

3. Click the desired site templates, and click **Add** to include allowed templates.

4. In order to allow all subsites created to inherit these preferred subsite template settings, click the checkbox that reads, **Reset all subsites to inherit these preferred subsite template settings.**

![Subsite Template Selection]

**Selecting available templates**

5. In the **Page Layouts** section, select the **Pages in this site can only use the following layouts** option.

6. In order to allow all subsites created to inherit these preferred page layout settings, click the checkbox that reads, **Reset all subsites to inherit these preferred page layout settings.**

![Page Layout Selection]

**Selecting available layouts**

7. In the **New Page Default Settings** section select the default page by selecting it within the scrolling text box. The **Default Page** needs to be one of those included in the **Page Layouts** section.

![Default Page Selection]

8. In order to allow all subsites created to inherit these new page settings, click the checkbox that reads, **Reset all subsites to inherit these new page settings.**

9. Be sure to check the box that reads, **Convert blank spaces in the page name to ‘-‘.** This will ensure that the ‘-‘ symbol will replace any spaces that are inadvertently added to a page file name.
10. Click OK.

**Consistency Best Practices**

Administrators should:

- Use content types to maintain consistency for document templates, metadata and workflows across multiple sites.
- Ensure that metadata used in content types meets the information architecture plan.
- Use site columns for consistent metadata across sites and site collections. (Otherwise, create columns at the list or library level.)
- Create consistent metadata, content types and views prior to creating list and library templates.
- Create and use site templates to maintain a consistent look and feel across the site collection.
- Reuse Managed Metadata terms instead of creating duplicate terms.

**Lab 1: Creating Site Columns and Content Types**

In order to make Learning Lake’s SharePoint site consistent with company standards, Learning Lake will use content types to capture a specific set of information for documents. When making these content and document types available to all sites within the organization, you will help meet company standards. Lastly, to ensure that all future document libraries are created with the same standards, you will need to create a template that will be used for new SharePoint objects.

After completing this lab, you will be able to:

- Design and implement content types
- Create new site columns
- Create a library or list template (optional)
Estimated time to complete this lab: 20 minutes

Exercise 1: Creating a Content Type

This content type will be used to work with all document libraries throughout the Learning Lake site. The goals are to have the same set of metadata captured for department documents. Additionally, within these content types, it is important that the metadata, which you capture, is displayed in a certain way to make it easier to look through and find information in the library.

1. Navigate to the Learning Lake Intranet site located at http://intranet.learninglake.com. (You can click the link at the top of the page.)

   Content types can be created and stored at any level. The higher the content type is stored the more places it can be used. Typically, a content type should be stored at the top site level, because it can then be used in all locations below it.

2. Click Settings > Site Settings > Web Designer Galleries > Site content types > Create.

3. Complete the fields as displayed below and then click OK:
   a. Name: Learning Lake Department Documents
   b. Description: This content type uses the standard document template with Department and Review Date being required metadata fields.
   c. Select parent content type from: Document Content Types
   d. Parent Content Type: Document
   e. New group: Learning Lake
4. In Site Content Type Settings, under the Columns section, click Add from new site column.

5. Use the following information to create a site column. Leave all other fields with the default settings.
   a. **Name**: Review Date
   b. **Information Type**: Date and Time
   c. **Group**: New Group and type Learning Lake

   ![Image of Site Content Types with new site column settings]

   You will be creating the remaining columns in Lab 2.

6. Click OK.

   As these columns were created, you may have noticed that the **Require that this column contains information** option was always grayed out. You will now go back into the settings of most columns and force them to be required.

7. To make the column required, click Review Date in the Columns section.

8. On the following screen, select **Required (Must contain information)**.

9. Click OK.

**Exercise 2: Applying Content Types to Libraries**

It is now necessary to apply these content types to the Document libraries in the Department sites.

1. Navigate to the Human Resources department located at [http://intranet.learninglake.com/dept/hr](http://intranet.learninglake.com/dept/hr).

2. Click Settings > Add an app.

3. Click the Document Library app.
4. Name the library **Forms** and click **Create**.

5. Click the **Forms** library that you just created.

6. On the ribbon, click **Library > Settings > Library Settings**.

7. On the **Forms – Settings** page, under **General Settings**, click **Advanced Settings**.

8. Choose **Yes** to **Allow management of content types**. Then, scroll to the bottom of the page and then click **OK**.

9. In the **Content Types** section, click **Add from existing site content types**.

10. From the drop-down **Select site content types from**, select **Learning Lake**.

11. Double-click the **Learning Lake Department Document** site content type to add it to the **Content types to add** column, and then click **OK**.

12. Below **Content Type**, click the link **Change new button order and default content type**.

13. Deselect the **Visible** checkbox for the **Document** content type, and set **Position from Top** to **1** for **Learning Lake Department Documents**. By doing this, you set the default content type for this library.

14. When complete, click **OK**.

15. Use the local breadcrumb trail and navigate back to **Forms**.

16. On the ribbon, click **Files > New Document** in the **New** section.
17. **Select Learning Lake Department Documents** to open it in Microsoft Word.

It might take a moment for the document to open. The metadata will appear under File > Info in the properties section to the right. Notice that the field you created, **Review Date**, should appear and display an asterisk indicating it is required.

**Office 2016 applications do not have a Document Information Panel, which was available in older Office applications. The feature has been removed.**


**Lab 2: Implementing a Taxonomy**

Learning Lake is looking to migrate all department documents from their corporate shared drives to SharePoint in order to use the document management capabilities within SharePoint. Learning Lake organizes their shared network drives into separate department folders. Over time, however, they have created a large number of folders.
and should have considered structure. Without structure, it is almost impossible and very frustrating to find information on the shared drives.

As a site collection administrator, it is your responsibility to work with each department to understand their content storage needs, how they are organized and the necessary retention periods. This information will serve as the foundation of your taxonomy by reducing the number of folders, and making it easier to find things in SharePoint.

After completing this lab, you will be able to:

1. Design and create taxonomy
2. Add managed metadata columns

Estimated time to complete this lab: 30 minutes

Exercise 1: Designing a Taxonomy

After meeting with the various departments, you now have a solid understanding of their content storage needs, and are ready to create a term set based upon the information collected during your discovery meetings.

1. On the ribbon, click Browse > Learning Lake Intranet.
2. Navigate to Settings > Site settings.
3. In the Site Administration section, click Term store management.
4. Right-click Managed Metadata Service and select New Group.
5. Name the group **Learning Lake** and then press [Enter] to finish creating the group.

6. Complete the **Term Group properties** shown under the **General** tab as follows:
   a. **Name:** Learning Lake
   b. **Description:** *This term set is used by all document libraries for the classification of information in the Learning Lake site.*
   c. **Group Managers:** IreneW
   d. **Contributors:** NatashaP

7. Click **Save**. The term set is saved when the Save button is grayed-out.

8. Click the **Managed Metadata Service** group.

9. Click **View a sample import file** under the **General** tab.

10. Click **Open** to view the sample import file in Microsoft Excel. Take a moment and look at the file structure. Next, you will review an import file that has been built for our environment.

11. In Microsoft Excel, navigate to **File > Open > Browse**.

12. At the bottom of the dialog box, above the **Open** button, change the file type to **All Files (*.*)**.

13. Navigate to and open **C:\Labfiles\Templates\Learning Lake Taxonomy.csv**. This file has been prepared to be used with this lab.
14. After reviewing the taxonomy, close all Microsoft Excel windows and return to your browser.

15. In the **Term Store Management Tool**, right-click **Learning Lake** and select **Import Term Set**.

16. Click the **Browse** button. Navigate to and open **C:\Labfiles\Templates\Learning Lake Taxonomy.csv**.

17. Click **OK** to import the term set under the **Learning Lake** group.

18. Review the imported terms to confirm that they imported.
Exercise 2: Adding Managed Metadata Columns

Learning Lake is interested in adding some additional fields to their document content type created in Lab 1. The fields are going to be using the managed metadata service you imported in the previous exercise.

1. Navigate to the root of the Learning Lake Intranet home page.
2. Click Settings > Site settings.
3. In the Web Designer Galleries section, click Site Content Types.
4. Scroll to the Learning Lake group and click Learning Lake Department Documents.
5. Under the Columns section, click Add from new site column.
6. Use the following information to create the site column:
   a. Column Name: Department Name
   b. Information Type: Managed Metadata
   c. Existing Group: Learning Lake
   d. Multiple Value Field: Allow multiple values
   e. Display format: Display term label in the field
   f. Term Set Setting: Expand Learning Lake > Categories and select the Department term set.
7. Click OK when complete.
8. Under the Columns section, click Add from new site column.
9. Use the following information to create the site column:
   a. Column Name: Document Classification
   b. Information Type: Managed Metadata
   c. Existing Group: Learning Lake
   d. Multiple Value Field: Allow multiple values
   e. Display format: Display term label in the field
   f. Term Set Setting: Expand Learning Lake > Categories and select Document.
10. Click OK when complete.
11. Navigate to the Forms library in the Human Resources site.

12. Click Library > Library Settings.

13. Review the columns associated with the library to confirm that Department Name and Document Classification are associated with the library.

14. In the current navigation on the left, click Forms.

15. Click New Document to add a new file.

16. Click the Browse button. Navigate to and open C:\Labfiles\Documents\Explanation of Benefits.pdf.

17. Click Open.

18. Click OK to continue uploading the file.

19. In the document properties window, enter the following metadata.
   a. Name: Defaults to file name
   b. Title: Explanation of Benefits
   c. Review Data: Type one year from today’s date.
   d. Department: Human Resources
   e. Document Classification: Forms; Benefits; (Press [Enter] after each semicolon, so SharePoint recognizes each metadata tag.)

20. When complete, click Check in.

Lab 3: Configuring the Content Organizer

Learning Lake is looking to decentralize the content publishing process, allowing others in the company rights to add content to the site. The Human Resources department (HR) has spent a fair amount of time structuring their sites, and it is concerned about maintaining their structure as other individuals in HR start contributing content. As a site administrator, you need to ensure that HR has a way to maintain consistency in the placement of documents as well as the classification of files.

After completing this lab, you will be able to:

- Customize default column values on a per-folder basis
- Provision and configure the Content Organizer for automated document routing

Estimated time to complete this lab: 25 minutes

Exercise 1: Setting Column Default Values

The Learning Lake Human Resources department has created several document libraries containing a hierarchy of folders to help content contributors understand where information should be stored within SharePoint. While this approach works well for the content contributors, visitors to the site are frustrated when they have to drill deeper into folders to find information. Additionally, content contributors are not tagging the documents with all of the necessary metadata.
As a site owner, you can configure the column default values for specific libraries and folders within those libraries to make it faster for content contributors to upload and tag information.

1. Navigate to the **Forms** library on the **Human Resources** site. (You should already be there from the previous lab.)

2. On the ribbon, click **Files > New Folder** from the **New** section.

   ![In some browsers, the new folder feature may not work as expected. If this is the case, try switching browsers.](image)

3. Name the folder **Benefits** and click **Create**.

4. Click **Files > New section > New Folder**.

5. Name the folder **Payroll** and then click **Create**.

6. On the ribbon, click **Library > Library Settings**.

7. In the **General Settings** section, click **Column default value settings**.

   Notice the document library name (**Forms**) and sub folders (**Benefits** and **Payroll**) that you just created in the **Location to configure** section on the left side of the page.

   ![Settings > Change Default Column Values](image)

   Notice, in the middle section, the columns associated with this library that can be configured to have a different default value.

8. On the left side of the page, click **Forms** under **Location to configure**.

9. Click **Department Name** under the **Columns** section.

   a. Select **Use this default value**.

   b. Type **Human Resources** in the **Default value** box.
10. When complete, click OK.

11. Click Document Classification under the Columns section.
   
   a. Select **Use this default value**.
   
   b. Type **Forms** in the Default value box.
   
   c. Click **OK** when complete.

Notice the tags under the Default Value column.

12. Click **Benefits** under Location to configure.

13. Click Document Classification under the Columns section.

14. Click **Use this default value**.

15. Type **Forms; Benefits**; in the Default value box. Again, press [Enter] after each semicolon, so that SharePoint recognizes each metadata tag.

16. Click **OK**.

17. Notice the tags under the Default Value column for the Benefits folder is different than the root Forms library. The green gear icon appears on the folder indicating a custom default value exists for this folder.
18. Click Payroll under Location to configure.

19. Click Document Classification under the Columns section.

20. Click Use this default value.

21. Type Forms; Payroll; in the Default value box. Again, press [Enter] after each semicolon, so that SharePoint recognizes each metadata tag.

22. Click OK.

23. From the breadcrumb, click Payroll.

24. Click New.

25. Click Choose File. Navigate to and open C:\Labfiles\Documents\Open Enrollment Form.docx.

26. Click OK to continue uploading the file.

Notice the default tags for the Department Name and Document Classification fields in the document properties window.

27. In the Review Date field, enter a date that is one year from today's date.

28. Click Check In.
Exercise 2: Configuring the Content Organizer

Learning Lake has worked with each department to identify key terms that should be associated with every document added to SharePoint. However, many individuals are concerned about content contributors placing documents in the wrong library, not completing the necessary metadata or incorrectly tagging information.

As a site owner, you can configure the Content Organizer within the Human Resources site to ensure that content being uploaded to the Human Resource site is placed in the correct location without the contributors having to worry about where the content is going.

1. Navigate to the Human Resources site from the global navigation.
2. Click Settings > Site Settings > Site Actions > Manage site features.
3. Click Activate next to Content Organizer.

Notice a new item called Drop Off Library on the Quick Launch. This is the primary library for all files when the Content Organizer is enabled. Files are held in this library temporarily until the document matches a rule in which it is then automatically moved from the Drop Off library to the destination library or folder.

4. Click Site Settings in the local breadcrumb.
5. Click Site Administration > Content Organizer Settings.
6. To enforce the use of the Drop Off Library, make sure the box is selected under Require users to use the organizer when submitting new content to libraries with one or more organizer rules pointing to them.
7. Click OK to save the settings.
8. Click Settings > Site Settings > Site Administration > Content Organizer Rules.
9. Click new item.
10. Type HR Benefits in the Name box.
11. Click Active under Rule Status and Priority * > Status.
12. Click the Priority drop-down menu and select 1 (Highest).
13. Click the **Group** drop-down menu and select the **Learning Lake** content type.

14. Click the **Type** drop-down menu and select the **Learning Lake Department Documents** content type.

15. Under **Property-based conditions**, click the **Property** drop-down menu and select the **Document Classification**.

16. Click the **Operator** drop-down menu and select **is equal to**.

17. Click in the **Value** box and type **Benefits**.

18. Scroll down to the **Target Location** section and click **Browse** to select the destination for the content that matches this rule.

19. In the pop-up window, expand **Forms** and select **Benefits**.

20. Click **OK** to confirm this location.

21. Click **OK** at the bottom of the page to finalize creating the rule.

22. On the Quick Launch, click the **Forms** library listed in the quick launch menu.

23. Click **New**.
Notice the message on the **Submit Document** window about the use of the Content Organizer.

24. Navigate to and open `C:\Labfiles\Documents\HR Policies.docx`.

25. In the **Review Date** field, enter a date one year from today.

26. Type **Benefits** in the **Document Classification** field.

27. Click **Submit**.

28. Notice the message about the document being moved to the final destination and then click **OK**.

29. Click **Forms** in the quick launch menu.

Notice the document that was uploaded does not reside in the root **Forms** folder.

30. Click the **Benefits** folder within **Forms**.

Notice that the document that was uploaded has been placed in the **Benefits** folder.

31. Select the **HR Policies** document.

32. Select the document menu … > … > **Properties** as seen in the following graphic:
Notice, in the document properties, window that **Human Resources** has been added automatically to the **Department** field and the **Document Classification** field contains **Benefits**.

33. **Click Cancel.**