

Create and Manage Your Content with Liferay DXP

Learning Objectives

- Learn how Asset Libraries can be used to share content across Sites
- Understand the ways in which Assets can be related to one another through the use of metadata
- Learn how folders can be used to further organize Assets
- Understand how Display Pages can be used to dynamically display Assets

Tasks to Accomplish

- Create an Asset Library
- Add multiple Assets to the platform
 - Documents
 - Web Content
- Learn to organize Assets and link products with metadata
 - Use Tags
 - Use Categories
 - Create Product Relations
- Create Folders for Assets
- Display Assets using Display Pages
- Add an External Video Link to a Page

Exercise Prerequisites

- Unzipped module exercise files in the following folder structure:
 - Windows: C:\liferay
 - Unix Systems: [user-home]/liferay
- A Liferay DXP 7.4 instance up and running
 - If you have not started your instance yet, first, make sure you have installed Docker. Then, use the following commands to get and start the Liferay Docker Image:
 - `docker pull liferay/[product]:[version]`
 - `docker run -it -m 8g -p 8080:8080 liferay/[product]:[version]`
 - Once started, sign in using the default credentials:
 - Email: test@liferay.com
 - Password: test
 - Check out the Liferay Foundations: Introduction to Liferay DXP course for more information on starting a new instance of Liferay DXP
- Two Sites created:
 - The main Marvin Robotics Site, created from a blank Site template
 - The Marvin Robotics Store Site, created using the Minium Accelerator

Table of Contents

- [Organize Content with Asset Libraries](#)
- [Organize Content with Categories and Tags](#)
- [Organize Content with Folders](#)
- [Present Content with Display Page Templates](#)

Organize Content with Asset Libraries

Exercise Goals

- Create two new Asset Libraries for Marvin Robotics
- Add Content to the Asset Libraries
- Create a new Document Type

Create the Product Assets Asset Library

1. **Sign In** to Liferay as an Administrator.
2. **Open** the *Global Menu*
3. **Go to** *Applications > Content*.
4. **Click** *Asset Libraries*.
5. **Click** the *Add* icon at the top right.
6. **Type** Product Assets for the *Name*.
7. **Click** the *Save* button.
8. **Type** Marvin Robotics' asset library for product assets. as the *Description*.
9. **Click** the *Save* button at the bottom of the page.

Connect the Asset Library to the Marvin Robotics Sites

1. **Click** the *Sites* tab on the left.
2. **Click** the *Add* button next to *Connected Sites*.
3. **Choose** *Marvin Robotics*.
4. **Click** the *Add* button next to *Connected Sites*.
5. **Choose** *Marvin Robotics Store*.

Add Images to the Product Assets Library

1. Click the *Back* (<) icon at the top beside *Product Assets* to view all Asset Libraries.
2. Click *Product Assets* to view the Asset Library.
3. Select *Documents and Media* under the *Content & Data* section.
4. Click the *Add* icon at the top right.
5. Choose *Multiple Files Upload*.
6. Click *Select Files* and locate the *product-images* folder you unzipped at the start of the module.
7. Select all images.
8. Click *Open*.
 - You can also drag and drop the files you want into the *Drop Files Here to Upload* box.
9. Click the *Publish* button in the right column.

Create the Technical Documents Asset Library

1. Open the *Global Menu*
2. Go to *Applications > Content*.
3. Click *Asset Libraries*.
4. Click the *Add* icon at the top right.
5. Type *Technical Documents* for the *Name*.
6. Click the *Save* button.
7. Type *Marvin Robotics' asset library for technical documents.* as the *Description*.
8. Click the *Save* button at the bottom of the page.

Connect the Asset Library to the Marvin Robotics Sites

1. Click the *Sites* tab on the left.
2. Click the *Add* button next to *Connected Sites*.
3. Choose *Marvin Robotics*.
4. Click the *Add* button next to *Connected Sites*.
5. Choose *Marvin Robotics Store*.

Add Documents to the Technical Documents Library

1. Click the *Back* (<) icon at the top beside *Technical Documents* to view all Asset Libraries.
2. Click *Technical Documents* to view the Asset Library.
3. Select *Documents and Media* under the *Content & Data* section.
4. Click the *Add* icon at the top right.
5. Choose *Multiple Files Upload*.
6. Click *Select Files* and locate the *technical-documents* folder you unzipped at the start of the module.
7. Select all documents.
8. Click *Open*.
 - You can also drag and drop the files you want into the *Drop Files Here to Upload* box.
9. Click the *Publish* button in the right column.

Create a New Document Type in the Technical Documents Library

1. Click the *Document Types* tab to the right of *Files*.
2. Click the *Add* button at the right.
3. Type *Technical Guides* for the *Name*.
4. Drop a *Select From List* field onto the Page.
5. Type *Guide Format* for the *Label*.
6. Type *Video, Photo, Text, Diagram* as the four *Options*.
7. Click the *Back* arrow beside *Select From List* to go back to the *Builder* menu.
8. Drop a *Text* field below the *Guide Format* field.
9. Type *Language(s)* for the *Label*.
10. Click the *Back* arrow.
11. Drop a *Date* field onto the page.
12. Type *Date Created* for the *Label*.
13. Click the toggle beside *Required Field* to make it a required field.
14. Click *Save* in the top right corner.

Add a New Document using the Technical Guides Document Type

1. Click the *Files* tab.
 2. Click the *Add* button at the right.
 3. Choose *Technical Guides*.
 4. Click *Select File*.
 5. Choose *TS2-100 Guide.pdf* from your exercise folder.
 6. Click *Open*.
 7. Choose *Text* from the *Guide Format* drop-down.
 8. Type *English* in the *Language(s)* field.
 9. Type *12/01/2021* or select today's date as the *Date Created*.
 10. Click *Publish*.
-

Bonus Exercises

1. Add another Asset Library for Marketing. Connect it to just the Marvin Robotics Site.
2. Add a Document Type for Order Forms in the Product Assets Asset Library.

Organize Content with Categories and Tags

Exercise Goals

- Create a new Vocabulary for Robotics Products
- Create new Categories within the Vocabulary
- Add Categories and Tags to your assets
- Connect assets using Related Assets

Create a Vocabulary for Marvin Robotics Products

1. **Open** the *Global Menu*.
2. **Go to** *Applications > Content*.
3. **Click** *Asset Libraries*.
4. **Open** the *Product Assets* Asset Library.
5. **Go to** *Categorization > Categories*.
6. **Click** the *Add* button next to *Vocabularies*.
7. **Type** *Robotics Products* as the *Name*.
8. **Type** *The Vocabulary for organizing all Marvin Robotics Products* as the *Description*.
9. **Click** *Save*.
10. **Click** *OK* in the pop-up.

Add the Robotic Machines Category

1. **Click** on the *Robotics Products* vocabulary if you are not already in it.
2. **Click** the *Add* button near the top right.
3. **Type** in *Robotic Machines* for the *Name*.
4. **Click** *Save*.

Add Three More Categories

1. Click the *Add* button near the top right.
2. Type in *Spare Hardware* for the *Name*.
3. Click *Save and Add a New One*.
4. Type in *Controllers* for the *Name*.
5. Click *Save and Add a New One*.
6. Type in *Electronic Components* for the *Name*.
7. Click *Save*.
 - You should see four categories in the Robotics Products vocabulary.

Add a Sub-Category for Robotic Arms

1. Click the *Robotic Machines* Category.
2. Click the *Add* button.
3. Type in *Robotic Arms*.
4. Click *Save*.

Categorize the Product Assets Images

1. Open the *Global Menu*.
2. Go to *Applications > Content > Asset Libraries*.
3. Click the *Product Assets* Asset Library.
 - Alternatively, click the *Product Assets* link in the breadcrumb menu at the top of the page.
4. Open *Documents and Media* in the *Content & Data* section.
5. Select the *CSM Robotic Gearbox* image.
6. Click the *Categories* icon (two tags) that appears in the top right beside the *Add* button.
7. Click *Select* next to the *robotics products* field.
8. Choose the *Spare Hardware* category to highlight it.
9. Click *Done* at the bottom right.
10. Click *Save*.

Add Tags to the Product Assets Images

1. Click the *Tags* icon (one tag) beside the *Categories* icon.
2. Type spare parts, replacements in the *Tags* field.
 - The commas should separate each word or phrase into its own tag. Alternatively, you can press *Enter* after each tag is typed.
3. Click *Save*.
4. Select all *TS2* images (seven images).
5. Click the *Tags* icon.
6. Type *TS2* in the *Tags* field.
7. Click *Save*.

Categorize Robotic Arm Images

1. Click *Clear* at the top beside number of images selected to deselect all images.
2. Select all *Robotic Arm* images (three images).
3. Click the *Categories* icon.
4. Click *Select* next to the *robotics products* field.
5. Click the plus sign beside *Robotic Machines* to expand the sub-categories.
6. Choose the *Robotic Arms* category to highlight it.
7. Click *Done* at the bottom right.
8. Click *Save*.

Add Related Assets to the TS2-40 Robotic Machine

1. Click the *Options* menu (three dots) on the *TS2-40 Robotic Machine* image.
2. Choose *Edit*.
3. Click *Related Assets* to expand the section.
4. Click *Select*.
5. Choose *Basic Document*.
6. Check the boxes by *TS2-40 Programming Graphic* and *TS2-40 Manual Image*.
7. Click *Done*.
8. Click *Publish* at the bottom.

Bonus Exercise

1. Create a Vocabulary for the *Technical Documents* Asset Library. Add categories for Manuals, Demonstrations, and Warranties.

Organize Content with Folders

Exercise Goals

- Create folders for Documents and Media in the Asset Libraries
- Organize content using the new folders

Create a Folder Structure for the Product Assets Asset Library

1. **Open** the *Global Menu*.
2. **Go to** *Applications > Content > Asset Libraries* (if you're not already there from the previous exercise).
3. **Click** *Product Assets*.
4. **Click** *Documents and Media* under *Content & Data*.
5. **Click** the *Add* button at the top right.
6. **Choose** *Folder*.
7. **Type** *Product Images* for the *Name*.
8. **Click** the *Save* button at the bottom.
9. **Click** the *Add* button.
10. **Choose** *Folder*.
11. **Type** *Product Descriptions* for the *Name*.
12. **Click** the *Save* button at the bottom.

Add a Sub-Folder to Product Descriptions

1. **Click** the *Product Descriptions* folder.
2. **Click** the *Add* button.
3. **Choose** *Folder*.
4. **Type** *Product Graphics* for the *Name*.
5. **Click** the *Save* button at the bottom.

Move Existing Files to the Appropriate Folders

1. **Click** the *Files* tab at the top of the page to view files and main folders.
2. **Check** the box next to TS2 Robot Connectivity, TS2-40 Manual Image, and TS2-40 Programming Graphic (three images).
3. **Click** *Move* icon (folder with an arrow) in the menu at the top.
4. **Click** *Product Descriptions*.
5. **Click** *Product Graphics*.
6. **Click** the *Select This Folder* button at the bottom.
 - You can view the newly moved images by clicking *Product Descriptions* and then *Product Graphics*.
7. **Select** all of the remaining images.
8. **Click** *Move* icon in the menu at the top.
9. **Click** *Product Images*.
10. **Click** the *Select This Folder* button at the bottom.
 - You can also drag and drop images into the desired folder.

Create a Folder Structure for the Technical Documents Asset Library

1. **Open** the *Global Menu*.
2. **Go to** *Applications > Content > Asset Libraries*.
 - You can also click *Asset Libraries* in the breadcrumb menu to view all available libraries.
3. **Click** *Technical Documents*.
4. **Click** *Documents and Media* under *Content & Data*.
5. **Click** the *Add* button at the top right.
6. **Choose** *Folder*.
7. **Type** warranties for the *Name*.
8. **Click** the *Save* button at the bottom.
9. **Click** the *Add* button.
10. **Choose** *Folder*.
11. **Type** User Manuals for the *Name*.
12. **Click** the *Save* button at the bottom.
13. **Click** the *Add* button.
14. **Choose** *Folder*.
15. **Type** Product Specifications for the *Name*.
16. **Click** the *Save* button at the bottom.

Move Existing Files to the Appropriate Folders

1. **Click** the *Files* tab at the top of the page if you are not already on the main *Documents and Media* page.
 2. **Click** the *Options* (three dots) menu next to the warranty-disclaimer document.
 3. **Choose** *Move*.
 4. **Click** *Warranties*.
 5. **Click** the *Select This Folder* button at the bottom.
 6. **Select** the remaining documents, TS2_84_Operations Manual and TS2_60_Operations Manual.
 7. **Click** *Move* (folder) icon in the menu at the top.
 8. **Click** *User Manuals*.
 9. **Click** the *Select This Folder* button at the bottom.
-

Bonus Exercise

1. Create a folder structure for Web Content in the Product Assets Asset Library. Include folders for Product Highlights, New Products, and Product Development.

Present Content with Display Page Templates

Exercise Goals

- Create Display Page Templates for:

- Web Content Articles
- Categories

-

Preview the Display Page Layouts Using Published Content

Create a Display Page Template for Product Highlights

1. **Sign In** to your Liferay platform as an Administrator if you are not already.
2. **Open** the *Global Menu*.
3. **Select** *Marvin Robotics Store* on the *Sites* tab.
4. **Go to** *Design > Page Templates* in the *Site Menu*.
5. **Click** the *Display Page Templates* tab.
6. **Click** the *Add* button at the top right.
7. **Type** *Product Highlights* for the *Name*.
8. **Choose** *Web Content Article* from the *Content Type* drop down.
9. **Choose** *Basic Web Content* from the *Subtype* drop down.
10. **Click** *Save*.

Add Fragments to the Product Highlights Display Page Template

1. **Open** the *Fragments and Widgets* menu (the plus sign) in the sidebar at the right.
2. **Go to** *Fragments > Basic Components*.
3. **Drop** a *Heading* fragment onto the page.
4. **Go to** *Fragments > Layout*.
5. **Drop** a *Grid* fragment onto the page below the *Heading*.
6. **Click** the *Grid* element.
7. **Go to** *Number of Modules* under *Browser > General*.
8. **Select** 2.
9. **Open** the *Fragments and Widgets* menu.
10. **Go to** *Fragments > Basic Components*.
11. **Drop** an *Image* fragment into the left column of the *Grid*.
12. **Drop** a *Paragraph* fragment into the right column of the *Grid*.

Map Basic Web Content Articles to the Fragments

1. **Open** the *Browser* (arrow icon).
2. **Select** the *Title* element under the *Heading* fragment.
3. **Go to** *Field* under the *Mapping* tab.
4. **Choose** *Title* under *Basic Information* from the drop-down menu.
5. **Click** the *Image* fragment.
6. **Select** the *image-square* element in the *Browser*.
7. **Go to** the *Image Source* tab.
8. **Choose** *Mapping* from the drop-down menu under *Source Selection*.
9. **Go to** *Field*.
10. **Choose** *Small Image* under *Featured Image* in the drop-down menu.
11. **Click** the *Paragraph* fragment.
12. **Select** the *element-text* element in the *Browser*.
13. **Go to** *Field* under the *Mapping* tab.
14. **Choose** *Content* under *Content (Basic Web Content)* from the drop-down menu.
15. **Click** *Publish* at the top right.

Set Product Highlights as the Default Template

1. **Open** the *Options* menu (three dots) beside *Product Highlights*.
2. **Click** *Mark as Default*.

Create a Web Content Article

1. **Open** the *Site Menu*.
2. **Go to** *Content & Data > Web Content*.
3. **Click** the *Add* button.
4. **Choose** *Basic Web Content*.
5. **Type** TS2-100 Robotic Machine for the *Title*.
6. **Copy & Paste** the text from *TS2-100 Product Highlights.txt* into the *Content* box.
 - You should find the *TS2-100 Product Highlights.txt* file in your unzipped module exercise files.
7. **Go to** *Featured Image* in the *Properties* sidebar on the right.
8. **Choose** *From URL* from the drop-down menu.
9. **Open** the *Global Menu*.
10. **Right Click** *Asset Libraries* under Applications > Content and *Open Link in New Tab*.
11. **Go to** Product Assets > Documents and Media > Product Images.
12. **Click** on the *TS2-100 Robotic Machine* image.
13. **Click** the *Info* icon.
14. **Copy** the *Latest Version URL*.
15. **Go to** the *New Web Content Article* tab in your browser.
16. **Paste** the URL link into the box below *Featured Image*.
17. **Click** *Publish*.

Preview the Web Content Article

1. **Open** the *Options* menu beside the *TS2-100 Robotic Machine* Web Content.
2. **Click** *Preview*.
 - You should see that the Web Content Article we just created now has the format we established in the template: the heading at the top, an image on the left, and the text on the right.
 - Note: You can also preview different types of content on your Display Page Template while you are editing the Display Page Template. This is done using the *Preview With* option at the top right and selecting the Item you want to preview.

Create a Display Page Template for Categories

1. **Open** the *Site Menu*.
2. **Go to** *Design > Page Templates*.
3. **Click** the *Display Page Templates* tab.
4. **Click** the *Add* button at the top right.
5. **Type** Product Bundles for the *Name*.
6. **Choose** *Categories* from the *Content Type* drop down.
7. **Click** *Save*.

Add Fragments to the Product Bundles Display Page Template

1. **Open** the *Fragments and Widgets* menu (the plus sign) in the sidebar at the right.
2. **Go to** *Fragments > Basic Components*.
3. **Drop** a *Heading* fragment onto the page.
4. **Drop** an *Image* fragment below the *Heading*.
5. **Go to** *Fragments > Layout*.
6. **Drop** a *Grid* fragment onto the page below the *Heading*.
7. **Click** the *Grid* element.
8. **Go to** *Number of Modules* under *Browser > General*.
9. **Select** 2.
10. **Drag** the divider to resize the modules and make the left side smaller.
11. **Open** the *Fragments and Widgets* menu.
12. **Go to** *Fragments > Basic Components*.
13. **Drop** a *Button* fragment into the left column of the *Grid*.
14. **Drop** a *Paragraph* fragment into the right column of the *Grid*.

Map Category Basic Information to the Fragments

1. **Open** the *Browser* (arrow icon).
2. **Select** the *Title* element under the *Heading* fragment.
3. **Go to** *Field* under the *Mapping* tab.
4. **Choose** *Vocabulary* under *Basic Information* in the drop-down menu.
5. **Click** the *Image* fragment.
6. **Select** the *image-square* element in the *Browser*.
7. **Go to** the *Image Source* tab.
8. **Choose** *Mapping* from the drop-down menu under *Source Selection*.
9. **Go to** *Field*.
10. **Choose** *Main Image* in the drop-down menu.
11. **Click** the *Button* fragment.
12. **Click** the *link* element.
13. **Go to** *Field* under the *Mapping* tab.
14. **Choose** *Name* from the drop-down menu.
15. **Click** the *Paragraph* fragment.
16. **Select** the *element-text* element in the *Browser*.
17. **Go to** *Field* under the *Mapping* tab.
18. **Choose** *Description* from the drop-down menu.
19. **Click** *Publish* at the top right.

Set Product Bundles as the Default Template

1. **Open** the *Options* menu (three dots) beside *_Product Bundles*.
2. **Click** *Mark as Default*.

Create a Product Bundles Vocabulary

1. **Open** the *Site Menu*.
2. **Go to** *Categorization > Categories*.
3. **Click** the *Add* button beside *Vocabularies*.
4. **Type** *Product Bundles* for the *Name*.
5. **Click** *Save*.
6. **Click** *OK* on the pop-up notification.

Add a Multi-Product Bundles Category

1. **Click** the *Add* button at the right to create a new Category.
2. **Type** *Multi-Product Bundles* for the *Name*.
3. **Copy & Paste** the text from the *Multi-Product Bundles Description.txt* file into the *Description*.
 - You should have this file unzipped in your module exercise folder.
4. **Click** *Save*.
5. **Open** the *Options* menu (three dots) to the right of the *Multi-Product Bundles* category.
6. **Choose** *Edit*.
7. **Click** on the *Images* tab.
8. **Click** the *Add* button in the top right.
9. **Drag & Drop** the *Multi-Product Bundles Title Card.jpeg* from your exercise files folder.
10. **Click** *Publish*.

Preview the Product Bundles Category Display Page

1. **Click** *Product Bundles* to view the *Categories*.
 2. **Click** the *Options* menu beside *Multi-Product Bundles*.
 3. **Choose** *View Display Page*.
-

Bonus Exercise

1. Create another Display Page Template. Choose any Content Type you want. Add Fragments to the page and map content elements to the Fragments. Preview the Display Page Template using the Preview feature in the top right corner.