



MODULE 4

Content Presentation



Content Presentation

Learning Objectives

Learn how to style traditional Liferay content in DXP 7.3.

Tasks to Accomplish

- Use FreeMarker to create templates that structure platform content
- Learn how to structure and style Web Content
- Understand how to use Widget Templates to customize both out-of-the-box and custom Liferay widgets

Exercise Prerequisites

- Java JDK installed to run Liferay
 - Download here: <https://www.oracle.com/technetwork/java/javase/downloads/jdk8-downloads-2133151.html>
 - Instructions on installation here: https://www.java.com/en/download/help/download_options.xml
- Unzipped module exercise files in the following folder structure:
 - Windows: C:\liferay
 - Unix Systems: [user-home]/liferay
- A Liferay DXP or CE 7.3 instance up and running

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Create Web Content Templates

Exercise Goals

- Create a Structure for Featured Hotels that includes four fields for text, images, and links
- Create a Template for the Featured Hotels that formats different hotel fields into two rows with two columns

Create a Global Snippets File in Visual Studio Code

1. **Open** *Visual Studio Code*.
2. **Go to** the *User Snippets* menu.
 - Windows: File # Preferences # User Snippets
 - OSX: Gear icon # User Snippets
3. **Click** on *New Global Snippets file...* in the drop-down menu.
4. **Type** *lfr-experience-management* for the *name*.
 - The full file name will be `lfr-experience-management.code-snippets`.
5. **Press** *Enter* to open the file.

Add the Snippet Content

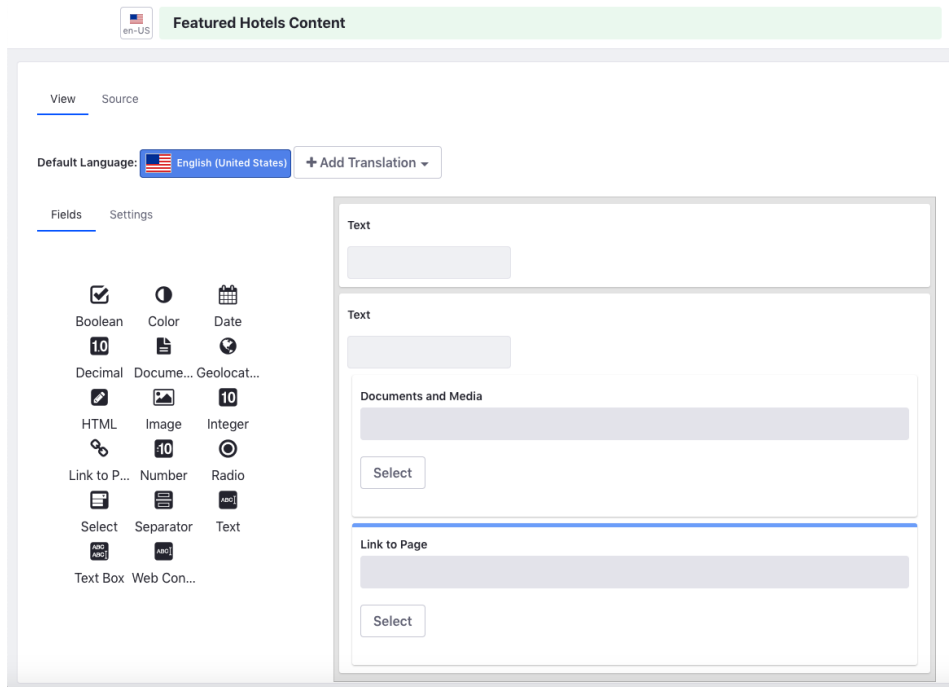
1. **Open** the `experience-management-snippets.json` in your module exercises folder.
2. **Copy** the contents of the file.
3. **Paste** the contents of the file in the `lfr-experience-management.code-snippets` file just created in Visual Studio Code.
 - Make sure to replace all the existing content in the file.
4. **Save** the file.

Start the Liferay-Tomcat Bundle

1. **Go to** the Tomcat server's bin directory:
 - Windows: `C:\liferay\bundles\liferay-dxp-[version]\tomcat-[version]\bin` in the file manager
 - Mac/Linux: `[userhome]/liferay/bundles/liferay-dxp-[version]/tomcat-[version]/bin` using the *Terminal*
2. **Start** the Tomcat Server:
 - Windows: **Double-click** on the `startup.bat`.
 - Mac/Linux: **Run** `./catalina.sh` run in your *Terminal*.
3. **Go to** `localhost:8080` in your browser if you're not already there.
4. **Sign in** to the *Livingstone Hotels & Resorts* platform.

Create a Structure with Two Text Fields, an Image, and a Link Field

1. **Go to** *Site Administration # Content & Data # Web Content* in the *Menu*.
2. **Click** the *Structures* tab at the top.
3. **Click** *Add* at the top right.
4. **Type** `Featured Hotels Content` for the *Name*.
5. **Drop** a *Text* field from the left into the right column.
6. **Drop** another *Text* field under the first field.
7. **Drop** an *Documents & Media* field into the second Text field.
8. **Drop** a *link to page* field beneath the Documents & Media field, and still nested within that second Text field.



Configure the Field Labels

1. **Click** the first *Text* field at the top of the page.
2. **Double-click** the *Field Label*/value to edit the value name.
3. **Type** Title.
4. **Click** *Save*.
5. **Click** the second *Text* field beneath the first.
6. **Double-click** the *Field Label*/value to edit the value name.
7. **Type** Text1.
8. **Click** *Save*.
9. **Click** the *Documents & Media* field.
10. **Double-Click** the *Field Label*/value to edit the value name.
11. **Type** Image1.
12. **Click** *Save*.
13. **Click** the *Link* field.
14. **Double-Click** the *Field Label*/value to edit the value name.
15. **Type** Link1.
16. **Click** *Save*.

Title

Text1

Image1

Select

Link1

Select

Repeat the Field Three More Times to Feature Four Hotels

1. **Click** the *Add* button at the top right of the Field set we just created for a second set.
2. **Click** on the *Add* button again for a third set
3. **Click** on the *Add* button again for a fourth set
 - Make sure you have a total of four field sets with Text, Documents & Media, and Link to Page fields.

Text1

Image1

Select

Link1

Select

+

Label the Second Set of Fields

1. **Click** the second *Text* field.
2. **Double-click** the *Field Label*/value to edit the value name.
3. **Type** Text2.
4. **Click** *Save*.
5. **Click** the *Documents & Media* field.
6. **Double-Click** the *Field Label*/value to edit the value name.
7. **Type** Image2.
8. **Click** *Save*.
9. **Click** the *Link* field.
10. **Double-Click** the *Field Label*/value to edit the value name.
11. **Type** Link2.
12. **Click** *Save*.

Label the Third Set of Fields

1. **Click** the third *Text* field.
2. **Double-click** the *Field Label*/value to edit the value name.
3. **Type** Text3.
4. **Click** *Save*.
5. **Click** the *Documents & Media* field.
6. **Double-Click** the *Field Label*/value to edit the value name.
7. **Type** Image3.
8. **Click** *Save*.
9. **Click** the *Link* field.
10. **Double-Click** the *Field Label*/value to edit the value name.
11. **Type** Link3.
12. **Click** *Save*.

Label the Fourth Set of Fields

1. **Click** the fourth *Text* field.
2. **Double-click** the *Field Label* value to edit the value name.
3. **Type** Text4.
4. **Click** *Save*.
5. **Click** the *Documents & Media* field.
6. **Double-Click** the *Field Label* value to edit the value name.
7. **Type** Image4.
8. **Click** *Save*.
9. **Click** the *Link* field.
10. **Double-Click** the *Field Label* value to edit the value name.
11. **Type** Link4.
12. **Click** *Save*.
13. **Click** the *Save* button at the top right corner of the page.

Web Content ?				
Web Content Structures Templates				
☐ Filter and Order ▾ ↑↓ Search for Q +				
ID	Name	Description	Scope	Modified Date
☐ 34926	Featured Hotels Content		Current Site	0 Seconds Ago ⋮

Create the Featured Hotel Content

1. **Click** on the *Web Content* tab.
2. **Click** *Add*.
3. **Choose** the *Featured Hotels Content* Structure.
4. **Type** Featured Hotels for the *Name* at the top.
5. **Type** Livingstone Group Hotels for the *Title* field.
6. **Click** the *Select* button under the *image 1* field.
7. **Click** *Select File*.
8. **Choose** the playaazul.jpg file from your Course Module exercise folder.
9. **Click** *Add*.
10. **Type** Playa Azul Hotel for the *text 1* field.

Add More Text and Images for the Featured Hotels Content

1. **Click** the *Select* button under the *image 2* field.
2. **Click** *Select File*.
3. **Choose** the grandlivingstone.jpg file from your Course Module exercise folder.
4. **Click** *Add*.
5. **Type** Grand Livingstone Hotel for the *text 2* field.
6. **Click** the *Select* button under the *image 2* field.
7. **Click** *Select File*.
8. **Choose** the ironrose.jpg file from your Course Module exercise folder.
9. **Click** *Add*.
10. **Type** The Iron Rose for the *text 3* field.

Add the Last Text and Image for the New Web Content

1. Click the *Select* button under the *image 4* field.
2. Click *Select File*.
3. Choose the `purple.jpg` file from your Course Module exercise folder.
4. Click *Add*.
5. Type `Purple Palace Hotel` for the *text 4* field.
6. Click *Publish* in the top right corner.

Add Content to the Livingstone Landing Page

1. Click *Home* at the top of the Site Administration panel.
2. Click the *Edit* icon in the top right.
3. Open the *Fragments and Widgets* tab in the sidebar.
4. Drag the *Web Content Display* widget to the top of the page.
5. Click the *options* icon next to the new display.
6. Choose *Configuration*.
7. Click the *Select* button in the pop-up.
8. Choose the *Featured Hotels Content* web content that we just created.
9. Click *Save*.
10. Close the pop-up.
11. Click *Publish*.

**Title**

Livingstone Group Hotels

Text1

Playa Azul Hotel

Image1

[Download Image1](#)

Link1

[Link1](#)

Text2

Grand Livingstone Hotel

Image2

[Download Image2](#)

Link2

[Link2](#)

Begin Creating the Featured Hotels Template

1. **Go to** your *exercise-src* folder.
2. **Open** the featured-hotels-template.ftl file with *Visual Studio Code*.
3. **Click** to highlight the `<#-- Insert 01-div-header-and-body snippet here -->` comment.
4. **Type** lfr and choose the 01-div-header-and-body snippet.
 - Alternatively, you can type the following to replace the comment:

```
<div class="card-type-asset">
  <div class="card-item-first aspect-ratio">
  </div>
  <div class="card-body">
  </div>
</div>
```

Add Code for the Image Header

1. **Press** *Enter* and *Tab* after the `<div class="card-header aspect-ratio">` line
2. **Type** `1fr` and choose the `02-hotel-image` snippet.

- Alternatively, you can type the following to replace the comment:

```
<#if Text1.Image1.getData()?? && Text1.Image1.getData() != "">
  <a href="{Text1.Image1.getData()}">
    <img class="aspect-ratio-item-fluid" ${languageUtil.format(locale, "download-x",
  </a>
</#if>
```

Add Code for the Title and Link

1. **Press** *Enter* and *Tab* after the `<div class="card-body">` line.
2. **Type** `1fr` and choose the `03-hotel-title-link` snippet.

- Alternatively, you can Type the following to replace the comment:

```
<h2 class="text-center">
  <a class="item-one" href="{Text1.Link1.getFriendlyUrl()}">${Text1.getData()}</a>
</h2>
```

Add the Second Rows and Columns

1. **Click** to highlight the `<#-- Insert 04-top-row-second-column snippet here -->` comment.
2. **Type** `1fr` and choose the `04-top-row-second-column` snippet.

- Alternatively, you can Type the following to replace the comment:

```

<li class="card col-md-6">

  <div class="card-type-asset">

    <div class="card-item-first aspect-ratio">

      <#if Text2.Image2.getData()?? && Text2.Image2.getData() != "">

        <a href="${Text2.Image2.getData()}">

          <img class="aspect-ratio-item-fluid" ${languageUtil.format(locale, "c

        </a>

      </#if>

    </div>

    <div class="card-body">

      <h2 class="text-center">

        <a class="item-one" href="${Text2.Link2.getFriendlyUrl()}">${Text2.getDat

      </h2>

    </div>

  </div>

</li>

```

Add the Final Rows and Columns

1. **Click** to highlight the <#-- Insert 05-second-row snippet here --> comment.
2. **Type** 1fr and choose the 05-second-row snippet and *Save* the file.
 - Alternatively, you can Type the following to replace the comment:

```

<ul class="list-unstyled row">

  <li class="card col-md-6">

    <div class="card-type-asset">

      <div class="card-item-first aspect-ratio">

        <#if Text3.Image3.getData()?? && Text3.Image3.getData() != "">

          <a href="${Text3.Image3.getData()}">

            <img class="aspect-ratio-item-fluid" ${languageUtil.format(locale

          </a>

        </#if>

```

```

        </div>

        <div class="card-body">

            <h2 class="text-center">

                <a class="item-one" href="{Text3.Link3.getFriendlyUrl()}">{Text3.g

            </h2>

        </div>

    </div>

</li>

<li class="card col-md-6">

    <div class="card-type-asset">

        <div class="card-item-first aspect-ratio">

            <#if Text4.Image4.getData()?? && Text4.Image4.getData() != "">

                <a href="{Text4.Image4.getData()}">

                    <img class="aspect-ratio-item-fluid" {languageUtil.format(locale

                </a>

            </#if>

        </div>

        <div class="card-body">

            <h2 class="text-center">

                <a class="item-one" href="{Text4.Link4.getFriendlyUrl()}">{Text4.g

            </h2>

        </div>

    </div>

</li>

</ul>

```

Add the Template to the Platform and Include the Title Data

1. **Go to** the *Livingstone Hotels & Resorts* site in the browser.
 - Make sure you're logged in.
2. **Go to** *Site Administration # Content & Data # Web Content* in the *Menu*.
3. **Click** the *Templates* tab in the top menu.
4. **Click** the *Add* at the top right.
5. **Type** `Featured Hotels Template` as the Title at the top of the page.
6. **Click** the *Select* button under the *Structure* field.
7. **Choose** the `Featured Hotels Content Structure`.
8. **Copy** the code from our new *featured-hotels-template.ftl/template*.
9. **Paste** it into the Template editor, replacing the default text.
10. **Click** to highlight `<#-- Insert title data here -->` at the very top of the code.
11. **Click** the *Title* field in the *Fields* section to the left.
12. **Click** *Save*.

Select the Template and View the Content

1. **Go to** the *Web Content* tab.
2. **Click** the *Featured Hotels Content*.
3. **Click** *Select* under the *Default Template* field in the right column.
4. **Choose** the `Featured Hotels Template`.
 - Click *OK* if the browser pop-up requests access.
5. **Click** *Publish* at the top right.
6. **Click** *Home* in Site Administration.

2019 Featured Livingstone Hotels



Grand Livingstone Europe



Grand Livingstone America



Iron Rose Hotel



Purple Palace Hotel

Bonus Exercises

1. Update the Featured Hotels Template to your liking.
2. Create a Structure for a Press Release with the following:
 - **Headline**
 - **Date of Publication**
 - **Logo**
 - **Content**
3. Create a Template for the Press Release using the built-in editor.

Customize a Navigation Menu Widget

Exercise Goals

- Create a Navigation Widget Template
- Change the Template on the Navigate Menu for the default Site

Create a Global Snippets File in Visual Studio Code

1. **Open** *Visual Studio Code*.
2. **Go to** the *User Snippets* menu.
 - Windows: File # Preferences # User Snippets
 - OSX: Gear Icon # User Snippets
3. **Click** on *New Global Snippets file...* in the drop-down menu.
4. **Type** *lfr-widget-templates* for the *name*.
 - The full file name will be `lfr-widget-templates.code-snippets`.
5. **Press** enter to save.

Add the Snippet Content

1. **Open** the `widget-template-snippets.json` in your module exercises folder.
2. **Copy** the contents of the file.
3. **Paste** the contents of the file in the `lfr-widget-templates.code-snippets` file just created in Visual Studio Code.
 - Make sure to replace all the existing content in the file.
4. **Save** the file.

Add Alert Information if there are No Pages

1. **Go to** the module exercise folder.
2. **Drop** the `vertical-navigation.ftl` into your *Visual Studio Code* editor.
3. **Click** to highlight the `<!-- Insert 04-if-no-content-message here -->` comment.
4. **Type** `lfr-widget` to view the available code snippets.
5. **Choose** the `04-if-no-content-message` snippet.

```
<#if themeDisplay.isSignedIn()>
    <div class="alert alert-info">
        <@liferay.language key="there-are-no-menu-items-to-display" />
    </div>
</#if>
```

Add a Macro for the Navigation Pages

1. **Click** to highlight the `<!-- insert 05-build-navigation-macro here -->` comment.
 2. **Type** `lfr-widget` to view the available code snippets.
 3. **Choose** the `05-build-navigation-macro` snippet.
- Alternatively, you can type:

```
<#macro buildNavigation navItem>
    <!-- Add 08-nav-item-assignments snippet here -->

    <li class="nav-item">
        <div class="d-inline-flex">
            <a class="{nav_item_css_class}" href="{navItem.getRegularURL()}">
                {navItem.getName()}
            </a>

            <!-- Add 07-children-menu-if-statement snippet here -->

        </div>
    </li>
</#macro>
```

Add Nav Item and Nav Item CSS Variables

1. **Click** to highlight the `<#- - Add 06-nav-item-assignments snippet here -->` comment.
2. **Type** `lfr-widget` to view the available code snippets.
3. **Choose** the `06-nav-item-assignments` snippet.

- Alternatively, you can type:

```
<#assign
    nav_item_css_class = "nav-link"
/>

<#if navItem.isSelected(>
    <#assign
        nav_item_css_class = "${nav_item_css_class} active"
    />
</#if>
```

Add If Statement for Child Pages in the Menu

1. **Click** to highlight the `<#- - Add 07-children-menu-if-statement snippet here -->` comment.
2. **Type** `lfr-widget` to view the available code snippets.
3. **Choose** the `07-children-menu-if-statement` snippet.

- Alternatively, you can type:

```
<#if navItem.hasBrowsableChildren(>
    <#assign randomNamespace = portalUtil.generateRandomKey(request, "expandCollapse") />
    <a aria-controls="{randomNamespace}" aria-expanded="true" class="collapse-icon r
        <#-- Add 08-opt-clay-symbol-macros snippet or type here -->
    </a>
</div>

<div class="collapse" id="{randomNamespace}">
    <ul class="nav nav-stacked">
        <#-- Add 09-nav-children-macro snippet or type here -->
    </ul>
</div>

<#else>
    </div>
</#if>
```

Add Clay Icon Macros for Child Menu Icons

1. **Click** to highlight the `<# - Add 08-opt-clay-symbol-macros snippet or type here -->` comment.
2. **Type** `<span class="collapse-icon-closed">` to replace the comment.
3. **Press** *Enter*.
4. **Type** `</span>` to close the div.
5. **Press** *Enter* and *Tab* after the `<span class="collapse-icon-closed">` line above the closing span.
6. **Type** `<@clay.icon symbol="caret-right" />` to add the Clay caret icon macro.
7. **Press** *Enter* after the `</span>` line.
8. **Type** `<span class="collapse-icon-open">` to replace the comment.
9. **Press** *Enter*.
10. **Type** `</span>` to close the div.
11. **Press** *Enter* and *Tab* after the `<span class="collapse-icon-open">` line above the closing span.
12. **Type** `<@clay.icon symbol="caret-bottom" />` to add the Clay caret icon macro.

- Alternatively, you can use the 08-opt-clay-symbol-macros snippet to add the following:

```
<span class="collapse-icon-open">
  <@clay.icon symbol="caret-right" />
</span>

<span class="collapse-icon-closed">
  <@clay.icon symbol="caret-bottom" />
</span>
```

Add a List with Child Navigation Items Macro

1. **Click** to highlight the `<#- - Add 9-opt-nav-children-macro snippet or type here - ->` comment.
2. **Type** `<#list navItem.getBrowsableChildren() as navItemChild>` to replace the comment.
3. **Press** *Enter*.
4. **Type** `</#list>` to close the div.
5. **Press** *Enter* and *Tab* after the `<#list navItem.getBrowsableChildren() as navItemChild>` line above the closing list.
6. **Type** `<@buildNavigation navItem=navItemChild />` to add the Clay caret icon macro.
 - Alternatively, you can use the 09-opt-nav-children-macro snippet to add the following:

```
<#list navItem.getBrowsableChildren() as navItemChild>
    <@buildNavigation navItem=navItemChild />
</#list>
```

Add the Final Navigation Code Using the Custom Macro

1. **Click** to highlight the `<#- - Insert 10-nav-menu-using-macro here - ->` comment.
2. **Type** `lfr-widget` to view the available code snippets.
3. **Choose** the 10-nav-menu-using-macro snippet.
4. **Save** the file.
 - Alternatively, you can type:

```

<nav class="menubar menubar-transparent menubar-vertical-expand-md">
    <a aria-controls="navigationWDTEExample" aria-expanded="false" class="menubar-toggler"
        ${themeDisplay.getLayout().getNameCurrentValue()}

        <@clay.icon symbol="caret-bottom" />

    </a>

    <div class="collapse menubar-collapse" id="navigationWDTEExample">
        <ul class="nav nav-nested">
            <#list entries as navItem>
                <@buildNavigation navItem=navItem />
            </#list>
        </ul>
    </div>
</nav>

```

Add the New Navigation Widget Template to the Platform

1. **Go to** the default Site in your browser.
 - Make sure you're logged in.
2. **Open** the *Menu*.
3. **Go to** *Design # Widget Templates* in the *Site Administration* panel.
4. **Click** *Add* at the top right.
5. **Choose** the Navigation Menu Template.
6. **Type** *Vertical Navigation Template* for the *Name*.
7. **Open** the completed `vertical-navigation.ftl`.
8. **Copy** the contents.
9. **Paste** the contents into the Widget Template editor.
10. **Click** *Save* at the bottom.

Change the Theme

1. **Go to** *Site Administration # Site Builder # Pages* in the Menu.
2. **Open** the *Configuration menu* next to *Public Pages*.
 - This is the gear icon.
3. **Click** the *Change Current Theme* button near the bottom.
4. **Choose** *Classic*.
5. **Click** the *Save* button at the bottom.

Change the Navigation Widget Template

1. **Click** *Home* in the *Site Administration* panel.
2. **Click** the *Options* menu at the top of the Navigation Menu.
3. **Choose** *Configuration*.
4. **Open** the *Display Template* drop-down.
5. **Choose** the new *Vertical Navigation Template*.
6. **Click** *Save*.
7. **Close** the pop-up.
 - *Note: You will need to create child pages to see the caret icons*



Home

Livingstone Life Blogs

Livingstone Gallery

Search

Test

Style Book

Bonus Exercises

1. Create child pages to test the navigation
2. Test the Navigation in Mobile, Tablet, or Desktop sizes using the Simulation Menu at the top right
3. Create new widget templates for other widgets

Content Presentation Module Quiz

1. Which of the following is not a FreeMarker Template that can be used to control presentation?
 - A. Widget Templates
 - B. Page Fragments
 - C. Web Content Templates
 - D. Theme Templates
2. What can Developers take advantage of in FreeMarker to reduce code with re-usability in their Widget Templates?
 - A. Nesting
 - B. Clay Classes
 - C. Macros
 - D. If, Else Statements
3. FreeMarker is an HTML Markup language that gives developers access to Java Objects.
 - A. True
 - B. False
4. Which API needs to be used to display Assets in an Asset Publisher Widget Template?
 - A. clayRenderer
 - B. assetDisplayRender
 - C. displayAsset
 - D. assetRenderer
 - E. bourbonRenderer
5. Web Content Templates are special FreeMarker Templates that allow front-end developers to use FreeMarker, HTML, CSS, and JavaScript to provide a design for any given Structure.
 - A. True
 - B. False

Answer Key

1. B
2. C
3. True
4. D
5. True