Build New Sites with Liferay DXP

Lecture Script

# Introduction

Slide 1:

Hello, my name is [your name] and I will be teaching you how to build new sites using Liferay DXP 7.4. Let us begin.

Slide 2:

The key takeaways from this module are:

* Sites in Liferay DXP act as repositories that store all Liferay Assets
* Site Templates and Page Templates are useful tools for cutting time to market and customizing the look and feel of Sites
* Site Membership comes in three varieties, Open, Restricted, and Private, and can be used to control access to certain content
* Permissions on a specific Site can be assigned through Site Roles or Teams

Slide 3:

Before beginning the exercises for this module, you will need to have:

* Java JDK installed to run Liferay DXP
* Unzipped module exercise files in the following folder structure:
  + Windows: C:\liferay
  + Unix Systems: [user-home]/liferay

Note: The download link directs you to download Java JDK 8. Running Liferay DXP on more recent versions of Java JDK may result in errors.

Slide 4:

Our Use Case for this module is the Mondego Group. The Mondego Group is a financial services conglomerate that is using Liferay DXP to create multiple projects.

* The Mondego Group needs a customer self-service portal to empower customers to find answers and resolve issues on their own
* Mondego also needs a public website that:
  + Attracts customers with targeted content
  + Implements an intuitive user journey
  + Reaches the appropriate audience

Slide 5:

The relevant Key Performance Indicators that we will be focusing on for Mondego Group’s customer self-service portal are:

* Increase customer satisfaction and empowerment with a customer self-service portal
* Decrease cost of customer support with self-service solutions
* Decrease time to market for new Sites and Pages

# Creating Reusable Page Structures

Slide 6:

Now that you have been introduced to Site Building in Liferay DXP, we can begin diving deeper. In this section I will tell you how you can create reusable page structures.

Slide 7:

What are page templates in Liferay DXP?

* There are two main types of Page Templates:
  + **Widget Page Templates** are added in the Global Site and give the page a layout, widgets (e.g., Asset Publisher, Message Board, Blogs), and content instead of starting out with a blank page.
  + **Content Page Templates** are created using Page Fragments and widgets; they will be covered in more depth on the next slide.
* Page Templates are beneficial because they allow you to rapidly build out a site with a consistent look and feel across the platform, giving Content Creators, Administrators, and Designers less to worry about.
* Page Templates not only speed up page creation when a Site is initially built, but also allow for changes to be made more quickly when Inherit Changes are configured for Widget Pages or by configuring Fragment Propagation.
  + Note that when *Inherit Changes* is activated, individual instances of the Widgets on the page can no longer be customized. If students will need to turn automatic propagation off, they will need to go to that page's *Configuration* menu and turn off the *Inherit Changes* option.
  + For Fragments, propagation can be configured manually for a single Fragment or automatically for all Fragments, though the latter should only be used for testing or development purposes to prevent errors. More details on Page Fragments can be found in the module “Improve Sites with Liferay DXP’s Modern Tools.” The Mondego Group has several Sites that require the same types of Pages, including a page for signing up for an account, product and informational pages, and a page to contact customer support. By creating Page Templates on the Global Site, Mondego can easily populate any new Sites with these required Pages without having to build them from scratch. Individual Sites can use Content Page Templates to quickly create new pages specific to the needs of that Site. For instance, one Mondego Site may create Content Page Templates for Financial Advice Articles.

Slide 8:

* A few important things to keep in mind for Content Page Templates:
  + Changes to Content Page Templates are not automatically propagated
  + A Collection must be created before a Content Page Template can be added
* Page Fragments, the key component of Content Pages, are reusable page elements that include editable components, such as text, images, and links. These elements can be mapped to available content. More information on Content Pages and Page Fragments is included in the “Improve Sites with Liferay DXP’s Modern Tools” training module.
* Content Pages are edited using the Site Builder. Content Pages can also be enabled with custom Workflows and adapted to create personalized experiences and alternative versions. Keep in mind, new Content Pages will remain as Drafts until they are published.

The Mondego Group can use Content Pages to quickly design new pages and directly edit content on the page. Content Pages also allow the Group to create personalized experiences for Users through the Page Experiences and the Responsive Layout. Rather than existing as a single static page, a well-designed Content Page can include text, images, and more that can change depending on the User. One version of the page can include a prompt for guest users to sign up for a Mondego account while an existing User might see options for how to manage their account.

Slide 9:

Page Template configuration options include HTML titles, descriptions, keywords, and adding metadata for SEO.

Custom Themes can be applied specifically to the Page Template. JavaScript and icons can be added to a Page Template using the *Advanced Features* section of page configuration.

By configuring SEO optimization at the Page Template Level, Mondego page creators and site admins can ensure that all Pages made from a template have the same metadata, keywords, and other settings applied. For example, a Page Template created for Special Offers and Promotions can include appropriate tags or categories so that all promotional pages using the template can be found using those metadata.

Slide 10:

**Master Pages** allow non-developers to define Master Page Templates which can be used throughout a site

* With Master Pages, Users can easily define:
  + Rows and Columns
  + Headers, footers, navigation, etc.
  + Which Fragments can be deployed
  + Where Users can in-line deploy Fragments and Widgets
* All pages must be associated with a Master Page Template. The default Master Page Template is Blank with no defined elements.
* Master Page Templates can be used for an entire Site or for individual Pages.

By creating a Master Page, it is possible to ensure that all Pages on a Mondego Site include a standard header with the Mondego logo, a navigation menu for easy access to the rest of the Site, and a footer with relevant links and contact information. This Master Page can then be used to generate additional templates or simply to create new Pages within the Site.

Slide 11:

So what does this mean for the Mondego Group?

They can utilize page types, tools, and templates to create new Pages for their customer portal with ease.

* With a Content Pages, the Web Team can quickly create a visually engaging Home Page using Fragments and Widgets
* The team can use Page Templates to design a standard layout for informational pages on Mondego’s different services and products
* The Web Team can also ensure uniformity across the Site by using a Master Page that includes the Mondego logo, a header, and a footer of useful links

Slide 12:

Now it’s time for a knowledge check on what we’ve learned about reusable Page Structures. [read bullets in slide] Now take some time to pause the video and figure out the missing answers.

Slide 13:

And here are the answers to the knowledge check: [read bullet points]

**Slides 14-18 [skip]**

# Creating Sites with Site Templates

Slide 19:

In this section we will explore site templates in Liferay DXP.

Slide 20:

In Liferay DXP 7.4 Site Templates are predefined sets of pages, layouts, widgets, and content. Site Templates allow you to quickly create Sites across a platform.

* New sites created from a Site Template have all the pages and widgets that were added in the Site Template.
* Site Templates can only be accessed from the Control Panel, unlike Sites, which can be accessed using the Site Selector or in the Control Panel. Both Sites and Site Templates use the same *Site Menu* once a user has selected their Site/Site Template.
* Sites built using a Site Template must designate whether the default pages are created as Private or Public. Public and Private Sites will be discussed further in the next section.

Since the Mondego Group’s customer portal needs to accommodate the organization’s different subsidiaries, regional branches, internal groups, partners, and more, Site Templates provide a way to quickly generate similar sites across the platform without building each Site from scratch.

Slide 21:

Site Templates can be used to create new sites. Make sure to go over the difference between page management in Page Templates versus page management in Site Templates.

Creating a site where pages are already filled out with content allows for the fastest site generation.

In Liferay DXP 7.4, the default site will be created through a site initializer. This allows more flexibility when it comes to adding elements (such as fragments, style books or master pages) in the future.

To build on our use case, Mondego has several regional offices for the Banking subsidiary. Each region needs its own website with some general information about the Group as a whole and with basic pages and layout already established. By creating a Mondego Banking Regional Office site template, these Sites can be easily created for each region.

Slide 22:

Sites built from Site Templates are changed automatically when the Site Template is changed.

* By default, new Site Templates are set to *enable propagation of changes*. This can be disabled on the General Site Settings page to prevent Sites from inheriting any changes made to the pages, content, or widgets in the Site Template.
* Pages added after a Site is created from the template exist separate from the template components and are managed from the specific Site Administrator panel.

If the Mondego Group decides to update the main page of all Regional Offices sites to reflect a new update in the company, these changes will automatically show up on any Sites utilizing the template as long as *propagation of changes* is enabled. Rather than changing every Home Page to include a new banner, button, or form, the admin can change the page in the template.

Slide 23:

The Mondego Group’s customer portal is composed of several different Sites, for both internal and external users.Site Templates enable the team to quickly create Sites.

* The Web Team can create a Site Template to use for all branch and regional office Sites ensuring a uniform appearance across the platform
* If the Web Team decides to redesign the Sites for regional offices, they can enable the propagation of changes and revise the Site Template, automatically updating all Sites made from the template

Slide 24:

Now it’s time for a knowledge check on what we’ve learned about Site Templates. [read bullets in slide] Now take some time to pause the video and figure out the missing answers.

Slide 25:

And here are the answers to the knowledge check: [read bullet points]

**Slides 26-29: [skip]**

# Managing Site Configuration

Slide 30:

In this section I will go over managing site configuration with Liferay DXP.

Slide 31:

* Site Membership grants a user access beyond that of a Guest. Site Members can view Private Pages, have more permissions on widgets for content creation, and can be associated with Roles.
* Open and Restricted Sites can be viewed by anyone, but Users must request membership to join Restricted Sites.
* Private Sites can only be viewed by those who are already Members, and membership is manually granted by the Site Administrator.

The Mondego Group can utilize the different kinds of Site Membership for its Sites in a number of ways. Mondego could create a Private Site for investors or partners where Users are manually added by the Site Administrator. Membership for Mondego Banking sites can be set to Restricted, allowing customers to request access but requiring membership approval to ensure that members are actual customers. Mondego might use Open Membership for customer service or community forum sites where anyone can join the conversation, answer questions, or engage with other members.

Slide 32:

* Roles are how permissions are assigned to different Users. Roles exist at the Regular, Site, Organization, and Asset Library levels.
* Site Roles are roles that are scoped to individual Sites. Users with Membership in a Site can be granted additional permissions and access when they are assigned a Site Role.
* Site Roles are managed in the Control Panel under *Usersà Roles*. The default Site Roles are Site Administrator, Site Content Reviewer, Site Member, and Site Owner.
* Keep in mind that Roles can be assigned but cannot be created by Site Administrators (or Owners). If a Site Administrator needs to assign a set of permissions to a User(s), they can use Teams, which is discussed on the next slide.

In order to keep Mondego’s customer service portal running efficiently and reduce the work of the Platform Administrator, the Administrator assigns Site Roles to several members. The Site Owner has the ability to assign Site Roles to Users and the Site Administrator can manage every aspect of the Site. All users of the Site are automatically assigned the Site Member Role. For other tasks that don’t require as many permissions, such as reviewing an informational article, the Site Content Reviewer can be assigned.

Slide 33:

* Teams are groups of Site Members that have permissions on a specific Site resource
* Site Roles vs. Teams:
  + Site Roles can give access to any number of resources in a Site
  + Teams only grant permissions for Site-specific tasks and resources
* Teams are the preferred method for Site Administrators to assign permissions within a single Site
* Teams also allow for flexibility over membership and are ideal for *ad hoc* groups of users.
* Since Site Administrators cannot create Custom Roles, Teams allows Site Admins control over permissions granted to Users.
* Primary examples of using Teams over Site Roles include:
  + Message Board management
  + Blog creation
  + Page editing

The Site Administrator for the Mondego Customer Service Site needs to assign permissions to a set of Users so that they can answer customer submitted questions. Rather than require the Platform Administrator to create a new role specifically for this purpose, the Site Administrator can create a designated FAQ Team with permissions that allow the Team to answer questions.

Slide 34:

Site Membership is not the only way to manage visibility of and access to a Site. You can control visibility and access on the page level as well. There are two types of pages that can be used to build a website in Liferay DXP: Public and Private.

* **Public Pages** are used to build a website that is visible to the public; they do not require Site membership to access pages
* **Private Pages** are hidden from non-members but allow Members to interact with and collaborate on content
* Liferay DXP allows public and private pages to coexist within the same Site
* Private pages of a Child Site can only be accessed by members of the Parent Site if they are also members of the Child Site
* Private pages can exist on Open Sites; Users with membership can access them while Guests can only see Public pages.
* Since Private Sites require membership to view, truly Public pages cannot exist on Private Sites.
* The control over which users can see and act on Pages in Liferay DXP is a key feature of Liferay Sites.
* Child Sites will be discussed in more detail on the next slide.

Much like Mondego’s use of Open, Restricted, and Private Sites, Private and Public Pages provide the option to limit what is and is not publicly visible. For its main Site, Mondego should use Public Pages to create an engaging website with clear information for potential customers. The main Site can also include Private Pages that are only visible once users log in.

Slide 35:

In Liferay DXP site hierarchies can be created which allows content to be shared between parent-child sites.

* Site Administrators can enable content sharing so that content types, such as document types, present in Parent Sites automatically appear in Child Sites
* Roles and Members are not automatically inherited:
  + Site Administrators of a Parent Site do not automatically inherit the Site Administrator Role of the Child Sites
  + Child Sites do not inherit the Members and Roles of their Parent Sites
  + Access needs to be defined for each individual Site
* Content that can be shared across hierarchical Sites include web content structures and templates, document types, vocabularies and categories, widget templates, and data definitions.
* If a Site Administrator creates a Child Site, they maintain the same permissions in the Child Site. Otherwise, a specific role based on the Site Administrator role must be created with the *Manage Subsites* permission to grant administrative access to all Sites in a hierarchy.
* Unlike Organization hierarchies, which only manage Users, Site hierarchies organize pages, content, application data, and Users.
* Additional details on creating Roles and granting Permissions can be found in the “Add Users and Manage Permissions” Module.

With many subsidiaries and sub-organizations, Mondego can organize Sites hierarchically to reflect the organizational structure. This also enables them to share content types between Sites in the hierarchy. For instance, the main Mondego site may have a vocabulary established for categorizing Publications and Media. By enabling the sharing of this content, the Child Sites created for the main regional offices can also use the Publications and Media Vocabulary to sort their own content

Slide 36:

* Sites can be associated with Organizations, though they can be created independently and do not need to be associated with Organizations.
* Organizations allow Users and Sites to be arranged in a way that reflects real world organizational hierarchies
* Organization Sites can be created when you create an Organization
* Organizations are similar to Site hierarchies but do not require a Site. Users and Members of an Organization can be granted a set of permissions based on their role.

To add structure to its platform, the Mondego Group can add Organizations based on its real world organizational structure. For example, Mondego can create a Human Resources Organization with sub-organizations for Payroll, Recruiting, Generalists, and more. An Organizational Site can also be created to serve as the main HR portal.

Slide 37:

* Liferay DXP separates Site-scoped information from the *Control Panel* by placing it in the *Site Administration* panel
* Custom *Navigation Menus* make Sites easier to traverse
* *Navigation Menus* can be managed from the *Site Administration* panel in the *Page Tree* or under *Site Builder*
* As a refresher, Site-scoped information is accessed in the Site Administration panel, located on the left side of the UI.
* Navigation menus are managed under *Site Builder > Navigation Menus* or under *Page Tree > Navigation Menus.*
* In DXP 7.3 and earlier, Navigation Menus are added to the Page using the Navigation Menu widget.
* DXP 7.4 includes two new options for adding navigation features, the Menu Display and Dropdown fragments. These fragments and additional information on creating custom navigation bars and menus will be covered in a later module.

By creating custom Navigation Menus, Mondego can improve the navigability of certain areas on the Site. For instance, one of its sites includes a collection for financial advice. A “Financial Advice” item can be included in the main menu to direct users to all the articles and a custom Navigation Menu including specific topics, media type, and more can be included on specific Financial Advice pages to improve user navigation of those pages.

Slide 38:

* To better manage Mondego’s Sites and members, the Web Team uses several configuration tools included with Liferay DXP
  + The Web Team builds the main Mondego Site using Public Pages so that anyone, including Guests, can access the website
  + The Customer Portal includes a Public landing page and Private pages that require Site membership, which is set to Restricted
* The Web Team also needs to assign members appropriate Roles within a Site:
  + The Mondego Banking Site and its branch-specific Child Sites each have an assigned Site Administrator with authorization to manage the Site, assign additional roles, and create Site Teams

Slide 39:

Now it’s time for a knowledge check on what we’ve learned about Managing Site Configuration. [read bullets in slide] Now take some time to pause the video and figure out the missing answers.

Slide 40:

And here are the answers to the knowledge check: [read bullet points]

**Slides 41-48 [skip]**

# Build New Sites Summary

Slides 49-50:

Now it is time to go over what we have learned about Site Building in Liferay DXP. [read slide, pausing between each point]

Slide 51:

Check out learn.liferay.com for more information on Building Sites in Liferay DXP or other Liferay products.