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# STYLING LIFERAY WITH THEMES

## GETTING THE RIGHT LOOK

- No matter how beautiful the default look and feel is, you'll likely want to customize it to suit your needs.
- Liferay defines a consistent style that controls every part of the UI:
  - Buttons
  - Text
  - Icons
  - Page layout
- With a little effort, you can implement consistent branding across the platform.

## THE S.P.A.C.E. CASE

- The situation at S.P.A.C.E. is no different.
- After setting up Liferay DXP, the design team wants to implement a stellar look and feel.
- They'll need to control all of the styles across Liferay:
  - Typeface
  - Buttons
  - Background color
  - Images
- They'll also want to modify some of the page structure:
  - HTML of the page
  - Layout of applications on the page

## THEMES CAN DO IT

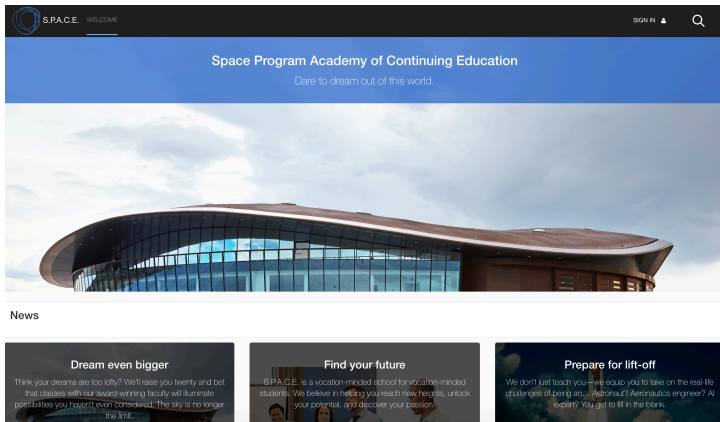- Liferay uses *Themes* to control the user experience.
- Most of our needs are met with *Themes*. We can:
  - Control the HTML of every page
  - Control global styles for text, color, and more
  - Define the icon set
  - Set margins
  - Control CSS animations
- There's one thing we can't really do with *Themes*:
  - Layout of applications on the page
- We'll tackle this one later.

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## WHAT'S IN A THEME?

- A Liferay *Theme* is a collection of files:
    - CSS
    - JavaScript
    - Images
    - Templates

- These files are packaged up in a *module* that gets deployed in your instance of Liferay.

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# WHAT A THEME CONTROLS

▸ Here's a look at what the Theme controls:



▸ Note that this includes all the text, buttons, links, and other UI elements controlled by CSS.

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## WHAT'S NOT IN A THEME

- Your *Theme* defines the basic user experience in Liferay.
- More customization can be done in additional areas:
  - Menus and Panels
  - Layout of applications on the page
  - Styling for web content
  - Customizing application displays
- These can be customized through templates or custom modules.
- You'll probably need development help for custom modules.

## WHAT DEVELOPERS CAN DO

- Developers can create modules to override:
  - The Product Menu
  - The Control Menu
  - Control Panel
  - Site Administration Panel
  - Simulation Menu
  - Some application displays

## THEME ON

- We'll dig into some additional customizations in a bit.
- Our first problem to tackle is getting the basic look and feel of S.P.A.C.E. right.
- This means creating a custom *Theme*.

# THEMATIC TOOLS

- Themes are modules that are a combination of CSS, JavaScript, HTML, and FreeMarker templates that modify the look and feel of Liferay.
  - At a high-level, themes in Liferay DXP haven't changed that much since Liferay 6.2.
- What has changed are the tools and libraries used in developing themes.
- Here is what we'll cover:
  - Liferay Theme Generator
  - Themelets
  - Bourbon
  - Theme Contributors
  - Importing Resources

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## THEME STRUCTURE

- Custom Themes are created based on one of two *base themes*.
- Liferay's base themes provide a starting look and feel to customize:
    1. **Unstyled:** The unstyled theme maintains basic functionality with no styling.
    2. **Styled:** The styled theme inherits from the unstyled theme, and simply adds some Lexicon CSS styling that inherits Bootstrap's styles.
- Using a base theme as your foundation, you can then make your customizations to the theme files.

## LIFERAY THEME GENERATOR

- ❖ A suite of development tools is available for Liferay DXP to make theme creation easier.
- ❖ New themes can be built using the *Liferay Theme Generator* in *Yeoman*.
- ❖ The *Liferay Theme Generator* is a new tool for quick and easy development of Liferay themes.

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## THEMELETS

- Sometimes you don't need to override the entire look and feel.
- You may want to modify only a few areas of the theme:
  - Colors
  - Fonts
- This is easy to do with *Themelets*.
- Themelets are small, extendable, reusable pieces of code that are implemented by a theme.
- They can consist of CSS, templates, images, and JavaScript just like a theme.
- They are created as *npm* packages and can be published to the npm registry for easy sharing and reuse.

## HANDLING CROSS-BROWSER COMPATIBILITY WITH BOURBON

- *Bourbon* is a lightweight mixin library for Sass, which is used when processing SCSS files, for Liferay DXP.

- It provides a number of mixins to handle CSS3 features.

- As an example, this:

```
section {
  @include linear-gradient(to top, blue, black);
}
```

- Translates to this:

```
section {
  background-color: blue;
  background-image: -webkit-linear-gradient(bottom, blue, black);
  background-image:         linear-gradient(to top, blue, black);
}
```

- For more information on *Bourbon* examples, you can go here: *http://bourbon.io/docs/*

## THEME CONTRIBUTORS

- Additionally, developers can now create *Theme Contributors*.
- Theme Contributors provide a way to package UI resources independent of a theme and include them on the page.
- There are theme contributors that come packaged out of the box.
- These have UI resources that style the Product Menu, Control Menu, and Simulation Menu.

## IMPORTING RESOURCES

- Lastly, as was true in previous versions, developers can package up and deploy content with their theme.
- The Resources Importer allows developers to deploy their themes with predefined content.
- This is useful for showcasing a theme and also provides a Site Template that can be used for creating new sites with a predefined look and feel.

## LET'S DO IT!

- This may seem like a lot of info, but we'll look at each topic we mentioned one at time.
- We can use our new theme to start defining the S.P.A.C.E. user experience.
- We'll then build up more customizations on top.
- Ready? Let's build a theme!

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Notes: