



# Responsive Navigation in Liferay

## A Masterclass on Using the Responsive Menu Fragments

Welcome to this masterclass on creating responsive navigation in Liferay! In these exercises, you will learn how to use a collection of powerful, responsive menu fragments to build flexible and accessible navigation menus for your Liferay sites. These fragments are designed to be highly customizable and mobile-friendly right out of the box.

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### Prerequisite: Verifying and Launching Liferay Workspace

*If you already have a fully configured Liferay Workspace, you can skip to the next lesson.*

Throughout this training, you'll use a local Liferay environment. Here you'll verify that you've completed the prerequisites and finish setting up your workspace:

1. Open your terminal and verify you have Java JDK 21.

```
java -version
```

If you don't have Java 21 installed, see [Microsoft OpenJDK installation](#) for instructions according to your OS.

## 2. Verify Git is installed:

```
git version
```

If Git is not installed, see [Git's official documentation](#) for how to install it on your OS ([macOS](#)|[Windows](#)|[Linux](#)|[Unix](#)).

## 3. Verify Liferay Blade CLI is installed:

```
blade version
```

If you don't have Blade installed, see [Blade CLI documentation](#) for how to install it on your OS ([Linux](#)/[macOS](#)|[Windows](#)).

## 4. In your terminal, go to your desired folder and clone the training workspace to your computer:

```
git clone https://github.com/liferay/liferay-course-building-enterprise-websites.git
```

This saves a copy of the project in your current terminal directory.

**Note:** If you've cloned the repo previously, ensure your workspace is up to date by running `git pull origin main`.

## 5. Go to the workspace's root folder in your terminal:

```
cd liferay-course-building-enterprise-websites/
```

## 6. Initialize your Liferay bundle:

```
blade server init
```

If you don't have Blade installed, run this command:

- **Unix-based systems:**

```
./gradlew initBundle
```

- **Windows:**

```
.\gradlew.bat initBundle
```

This downloads and builds dependencies for running Liferay, including the Liferay server.

7. Start your Liferay server:

**Blade:**

```
blade server run
```

- **Unix-based systems:**

```
./bundles/tomcat/bin/catalina.sh run
```

- **Windows:**

```
.\bundles/tomcat/bin/catalina.bat run
```

**Tip:** Wait until you see `org.apache.catalina.startup.Catalina.start Server startup in X milliseconds` to indicate startup completion.

8. When finished, access your Liferay DXP instance by going to <http://localhost:8080> in your browser.

9. Sign in using these credentials:

- Username: `test@liferay.com`
- Password: `test`

Great! Now you're ready to start using the Responsive Menu fragments.

## Optional Exercise: Uploading Language Properties

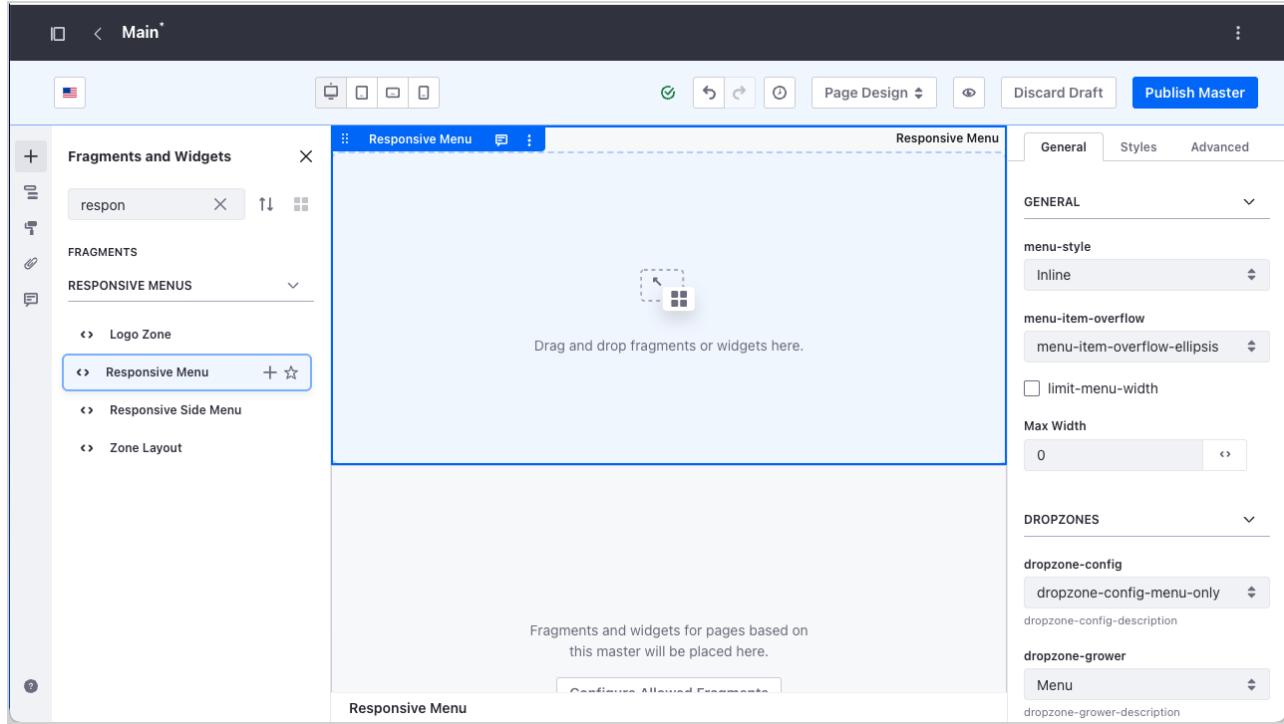
This optional step replaces placeholder labels in Liferay with the correct text, which will improve the user experience.

1. Navigate to the **Control Panel -> System -> Language Override**.
2. Click the **(+)** button to add a new language override.
3. From the dropdown menu, select **Upload**.
4. Select the `Language_en_US.properties` file from the `resources` folder of this project.
5. Click **Publish**.

## Exercise 1: Build a Responsive Menu

**Goal:** Use the **Responsive Menu** fragment to create a sticky menu at the top of a master page.

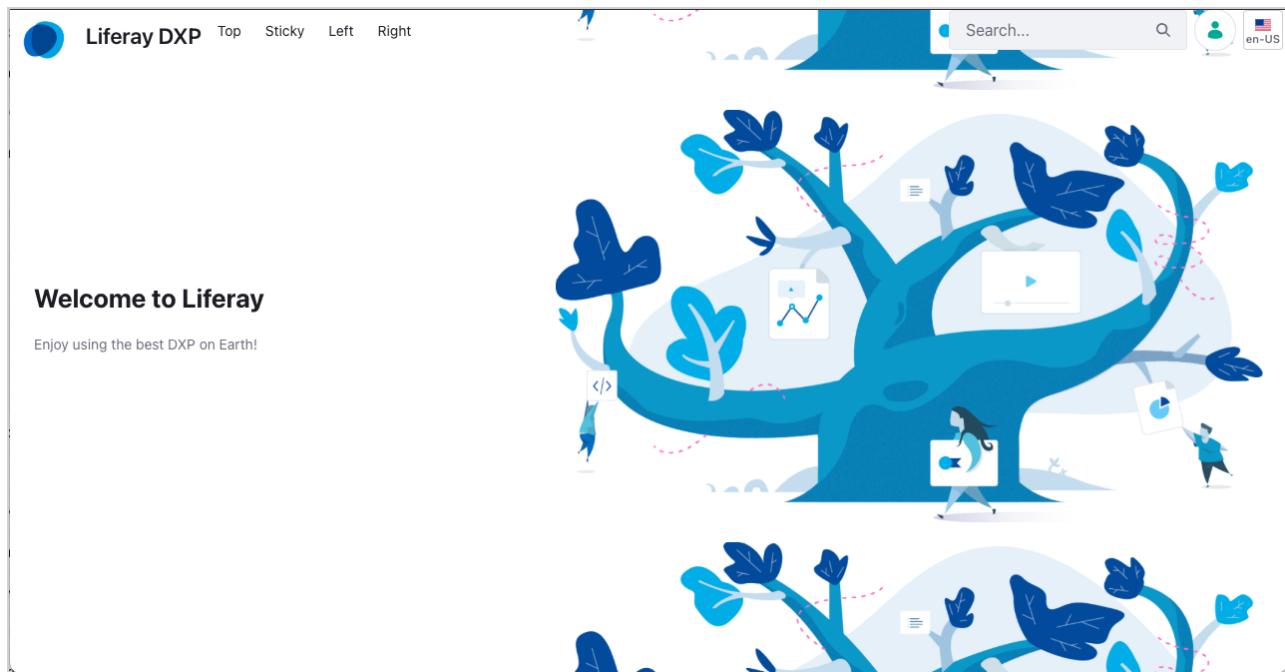
1. Navigate to the **Design -> Page Templates** section in the Site Menu.
2. Create a new **Master Page Template**.
3. Add the **Responsive Menu** fragment to the top of the page.



4. In the fragment's configuration, under the **General** tab, set the **Menu Style** to **Sticky Top**. This will make the menu stick to the top of the page when scrolling.
5. The fragment provides a dropzone labeled **Menu**. Drag and drop the out-of-the-box **Menu Display** fragment into this dropzone. This will populate the menu with your site's navigation.

**Note:** These responsive menu fragments provide dropzones for you to add additional content. While you would typically use the out-of-the-box Menu Display fragment, you could use a different fragment or build your own.

6. Publish the Master Page and apply it to your site's pages to see the sticky menu in action.



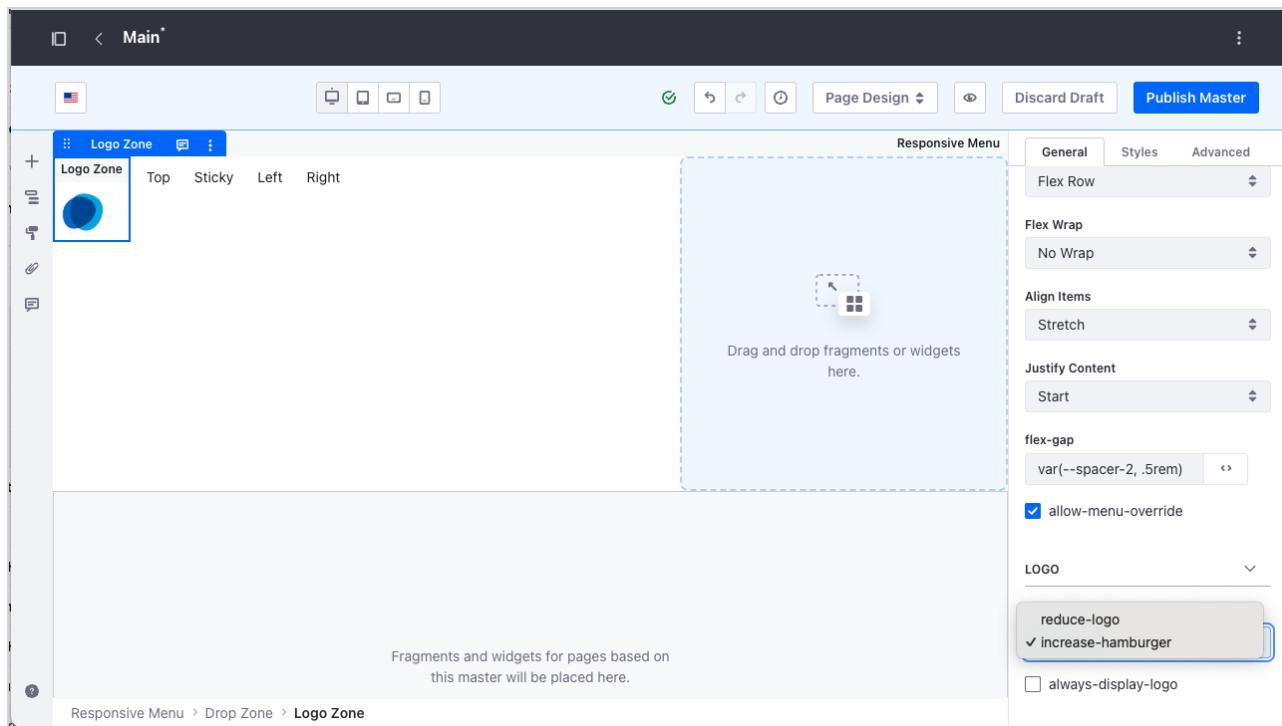
## Exercise 2: Customize Styles and Behaviour

**Goal:** Customize the appearance and behavior of the responsive menu, especially for mobile devices.

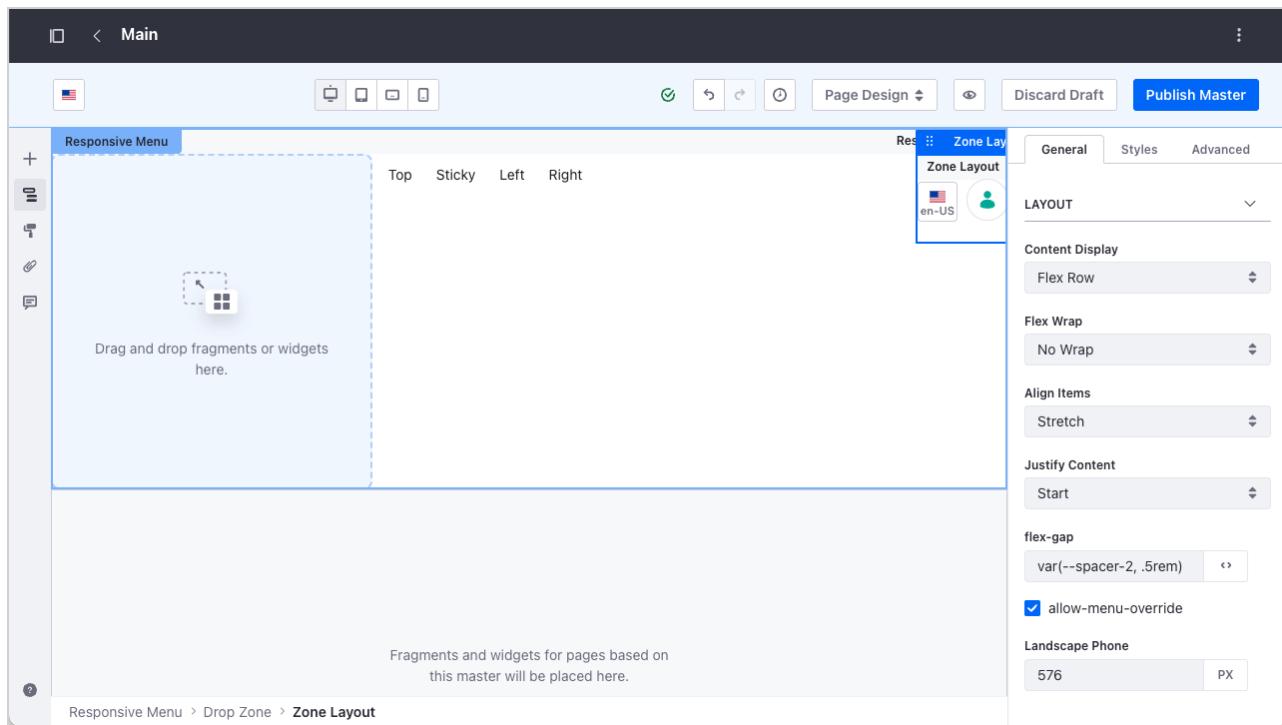
1. Select the **Responsive Menu** fragment on your Master Page.
2. In the configuration panel, explore the **Menu Colors** section. Enable **Override Menu Colors** to change the default colors of the menu items, including their hover and selected states.

A screenshot of the Liferay DXP configuration interface for a "Main" master page. On the left, there's a sidebar with "Fragments and Widgets" and a list of basic components like Button, Card, Date, Dropdown, etc. The main area shows a "Responsive Menu" fragment with tabs for "Menu Display", "Menu", and "Responsive Menu". The "Responsive Menu" tab is active, showing options for "Top", "Sticky", "Left", "Right", and "Color Override". The "Color Override" tab is selected. To the right, there's a detailed "MENU-COLORS" configuration panel with sections for "General", "Styles", and "Advanced". Under "General", the "override-menu-colors" checkbox is checked. Under "Color", "Danger" is selected. Under "Background Color", "White" is selected. Under "Hover Color", "White" is selected. Under "Hover Background Color", "Brand Color 1" is selected. Under "Selected Item Color", a color swatch for "var(--light-white," is shown. Under "selected-item-background-color", "Brand Color 3" is selected. At the bottom, there's an "EDITOR" section.

3. To add a logo, drag the **Logo Zone** fragment into one of the available dropzones within the **Responsive Menu** (e.g., the left zone). You can then add a logo image within the **Logo Zone**.



4. For more complex layouts, use the **Zone Layout** fragment. This fragment can be dropped into the responsive menu's dropzones and allows you to create flexible layouts using CSS flexbox properties, which can be configured in the fragment's settings. This is particularly useful for controlling the alignment and spacing of elements in the mobile view.



5. Experiment with the **Breakpoints** section in the **Responsive Menu** configuration to control how the menu appears at different screen sizes.

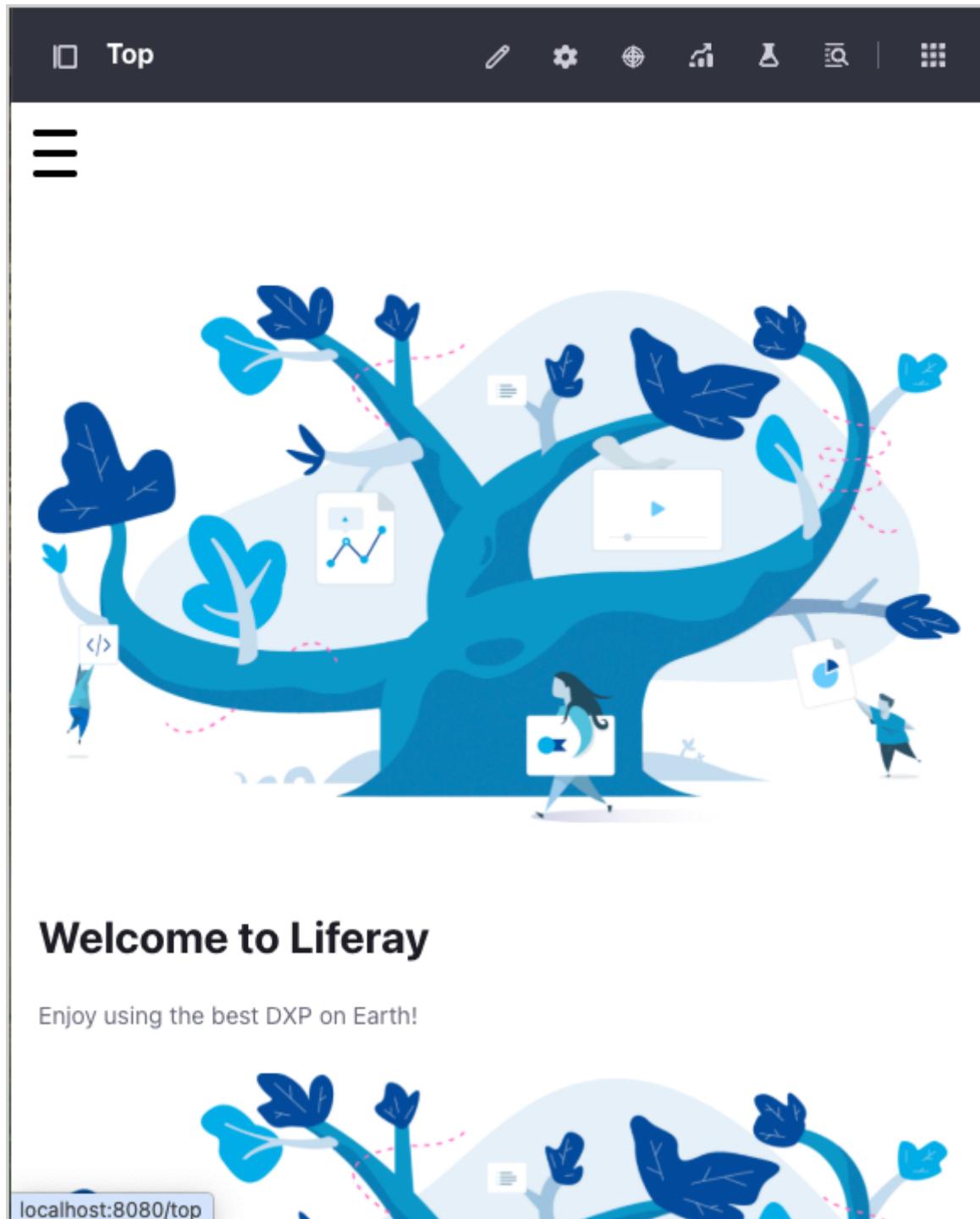


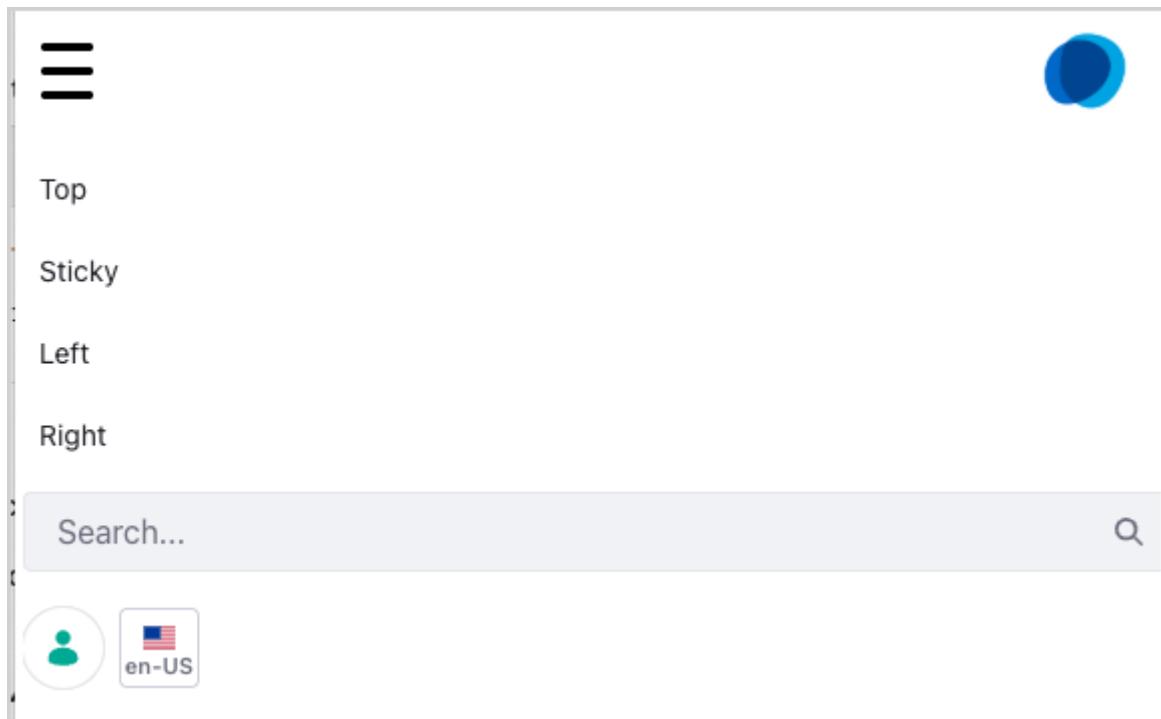
## Welcome to Liferay

### Exercise 3: Accessibility and Mobile Usability

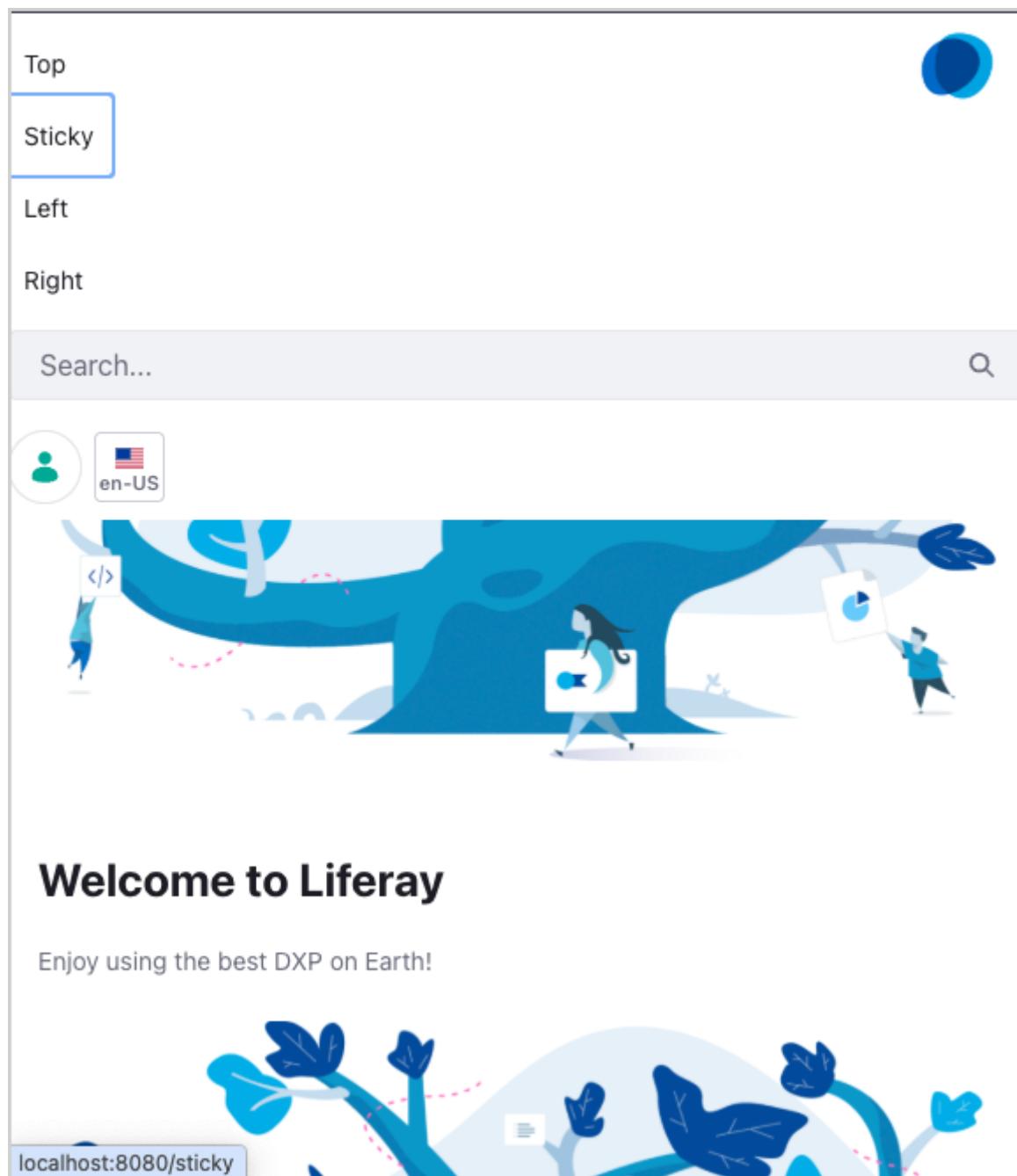
**Goal:** Explore the built-in accessibility and mobile usability features of the responsive menu fragments.

1. View your page on a mobile device or by resizing your browser window. Notice how the menu collapses into a hamburger icon.





2. The mobile menu is fully keyboard navigable. Use the **Tab** key to navigate through the menu items and **Enter** to select them.

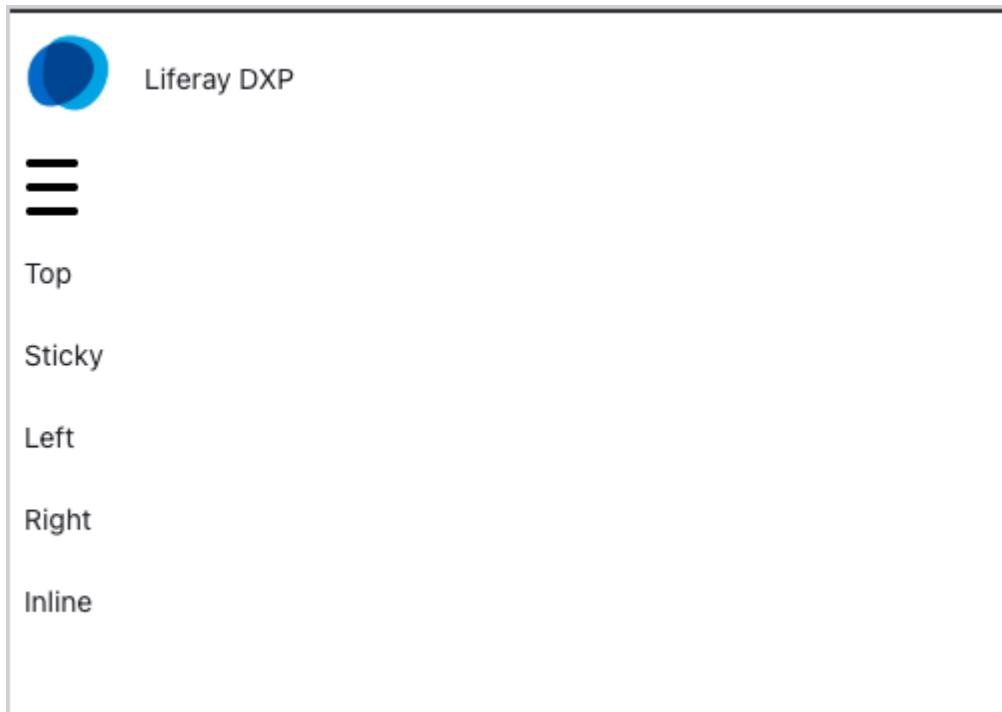


3. The fragment also includes features like **Scroll Lock** (under the **Behavior** tab), which prevents the page from scrolling when the mobile menu is open, and **Close on Internal Nav**, which automatically closes the menu after navigating to a page section.
4. The **Scroll back to top** feature can be enabled to provide an easy way for users to return to the top of the page.

## Exercise 4: Adapt Menus for Layouts

**Goal:** Explore other menu variations and advanced features.

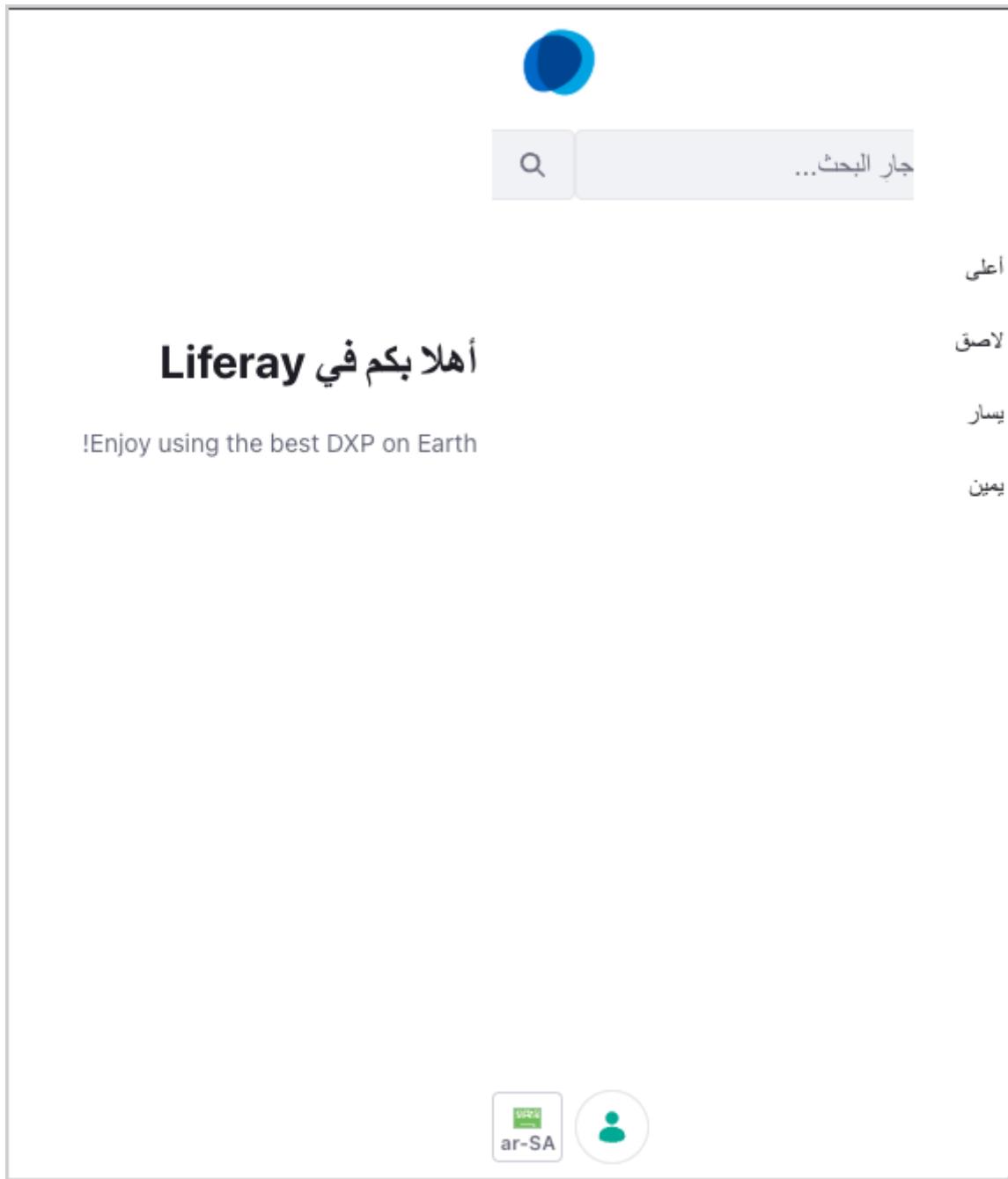
1. In the **Responsive Menu** configuration, change the **Menu Style** to **Inline**. This will display the menu items inline with other content, which is useful for secondary navigation or menus within a page layout.



2. For vertical navigation, use the **Responsive Side Menu** fragment. This can be placed on the left or right side of the page and also supports sticky positioning.

The screenshot displays a responsive navigation interface. On the left, there is a dark sidebar with the title "Left" and a blue circular icon. Below the title, there are four menu items: "Top", "Sticky", "Left", and "Right". A search bar with a placeholder "Search..." and a magnifying glass icon is positioned above the menu. The main content area features a large "Welcome to Liferay" heading and a subtext "Enjoy using the best DXP on Earth!". To the right of the content, there is a decorative graphic of a stylized tree or leaf pattern in blue and teal colors. At the bottom left of the main content area, there are two small icons: a user profile icon and a flag icon labeled "en-US".

3. The fragments support Right-to-Left (RTL) languages. If your site uses an RTL language, the menus will automatically adjust their layout. You can test this by adding an RTL language to your site and viewing the page.



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Congratulations! You have now learned how to use the responsive menu fragments to create a variety of navigation experiences in Liferay. You've seen how to build a sticky top menu, customize its appearance, ensure it's accessible, and adapt it for different layouts. With these skills, you can now create powerful and flexible navigation for your Liferay sites.