Task 8-Theme (Gemini)

**Theming in CSS**

Theming in CSS involves creating different visual styles for a website or application. This can be achieved by using CSS variables, preprocessor features like Sass, or CSS frameworks like Bootstrap. Theming allows you to easily switch between different color palettes, fonts, and other design elements.

**Implementing Theming with Sass**

Sass is a powerful CSS preprocessor that can be used to create flexible and maintainable themes. By using Sass variables, you can define the core colors, fonts, and other styles for your theme. You can then create different themes by simply changing the values of these variables.

**Creating a Simple Theme Switcher**

Here's a basic example of how to create a theme switcher using Sass and a simple JavaScript function:

**Sass Code:**

$light-primary-color: #333;

$light-secondary-color: #f0f0f0;

$dark-primary-color: #fff;

$dark-secondary-color: #222;

$is-dark-theme: false;

body {

  background-color: $secondary-color;

  color: $primary-color;

}

// Toggle theme

@mixin toggle-theme {

  $is-dark-theme: not $is-dark-theme;

  $primary-color: if($is-dark-theme, $dark-primary-color, $light-primary-color);

  $secondary-color: if($is-dark-theme, $dark-secondary-color, $light-secondary-color);

}

.theme-switch {

  cursor: pointer;

  &:hover {

    // Add hover effects

  }

  &:active {

    // Add active state styles

  }

}

**JavaScript Code:**

    const themeSwitch = document.querySelector('.theme-switch');

    themeSwitch.addEventListener('click', () => {

    document.documentElement.classList.toggle('dark-theme');

    });

**HTML:**

<button class="theme-switch">Toggle Theme</button>

**Explanation:**

1. **Sass Variables:** We define two sets of color variables: light and dark.
2. **$is-dark-theme Variable:** This variable controls the current theme state.
3. **toggle-theme Mixin:** This mixin toggles the theme by switching the values of the $primary-color and $secondary-color variables.
4. **JavaScript:** The JavaScript code listens for clicks on the theme switch button and toggles the dark-theme class on the documentElement.
5. **CSS:** The dark-theme class can be used to apply specific styles for the dark theme, such as inverting colors or adjusting font sizes.

By using this approach, you can create multiple themes with different color palettes and styles. You can also extend this concept to theme other aspects of your website, such as typography, spacing, and layout.