**Gemini**

**CSS variables** (also known as custom properties) are a powerful feature introduced in CSS3 that allows you to store and reuse values throughout your stylesheet. They provide a dynamic way to manage styles and make your CSS more maintainable.

**How CSS Variables Work:**

1. **Define a Variable:** Use the -- prefix to declare a variable. For example, --primary-color: blue;.
2. **Use the Variable:** Reference the variable using the var() function. For example, color: var(--primary-color);.

**Example:**

HTML

<!DOCTYPE html>

<html>

<head>

<title>CSS Variables Example</title>

<style>

:root {

--primary-color: blue;

--font-size: 18px;

}

.button {

background-color: var(--primary-color);

color: white;

font-size: var(--font-size);

padding: 10px 20px;

border: none;

cursor: pointer;

}

</style>

</head>

<body>

<button>Click Me</button>

</body>

</html>

Use code [with caution.](/faq#coding)

In this example:

* The :root selector is used to define variables that apply to the entire document.
* Two variables are defined: --primary-color and --font-size.
* The .button class uses these variables to set the background color, font size, and other properties.

**Changing Variable Values:**

To change the value of a variable, you can modify its declaration in the stylesheet or use JavaScript to dynamically update it.

**Example (JavaScript):**

JavaScript

const button = document.querySelector('.button');

button.style.setProperty('--primary-color', 'red');

Use code [with caution.](/faq#coding)

This code changes the --primary-color variable to red, which will immediately update the background color of the button.

**Benefits of CSS Variables:**

* **Maintainability:** Centralizing styles in variables makes it easier to update and manage them.
* **Consistency:** Ensures consistent styling throughout your website.
* **Responsiveness:** Can be used to create responsive designs by dynamically changing variable values based on screen size or user preferences.
* **Theming:** Allows for easy theming by simply changing the values of a few variables.

By effectively using CSS variables, you can improve the maintainability, consistency, and flexibility of your stylesheets.