# CSS Variables Review

**CSS Custom Properties (CSS Variables)**

* **Definition**: CSS custom properties, also known as CSS variables, are entities defined by CSS authors that contain specific values to be reused throughout a document. They are a powerful feature that allows for more efficient, maintainable, and flexible stylesheets. Custom properties are particularly useful in creating themeable designs. You can define a set of properties for different themes:

:root {

--bg-color: white;

--text-color: black;

}

.dark-theme {

--bg-color: #333;

--text-color: white;

}

body {

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

color: var(--text-color);

}

**The @property Rule**

* **Definition**: The @property rule is a powerful CSS feature that allows developers to define custom properties with greater control over their behavior, including how they animate and their initial values.

@property --property-name {

syntax: '<type>';

inherits: true | false;

initial-value: <value>;

}

* **--property-name**: This is the name of the custom property you're defining. Like all custom properties, it must start with two dashes. --property-name can be things like <color>, <length>, <number>, <percentage>, or more complex types.
* **syntax**: This defines the type of the property.
* **inherits**: This specifies whether the property should inherit its value from its parent element.
* **initial-value**: This sets the default value of the property.
* **Gradient Example Using the @property Rule**: This example creates a gradient that smoothly animates when the element is hovered over.

<div class="gradient-box"></div>

@property --gradient-angle {

syntax: "<angle>";

inherits: false;

initial-value: 0deg;

}

.gradient-box {

width: 100px;

height: 100px;

background: linear-gradient(var(--gradient-angle), red, blue);

transition: --gradient-angle 0.5s;

}

.gradient-box:hover {

--gradient-angle: 90deg;

}

* **Fallbacks**: When using the custom property, you can provide a fallback value using the var() function, just as you would with standard custom properties:

.button {

background-color: var(--main-color, #3498db);

}