

Useful VS Code Extensions

- CSS Peek :- Allows you to see the CSS code directly in the HTML file.
- Color Highlight :- Highlights colors in your CSS files.
- Image Preview :- Shows image previews when you hover over image URLs.
- HTML CSS Support :- Provides CSS class and ID completion support in HTML files.
- HTML to CSS Autocompletion :- Auto-completes CSS properties and values.
- Stylelint :- Checks your CSS for errors and helps you follow best practices.
- Intellisense for CSS Class Names :-Suggests class names that are already defined in your project.

Simple Selectors

Tagname Selector :- Selects all elements of a specified tag.

Example: `p { }`

ID Selector :- Selects a single element with a specific ID.

Example: `#unique-id { }`

Class Selector :- Selects all elements with a specific class.

Example: `.class-name { }`

Universal Selector :- Selects all elements.

Example: `* { }`

Grouping Selector :- Groups multiple selectors to apply the same styles.

Example: `h1, h2, p { }`

Class Naming Convention

Introduction

1. Class naming conventions help keep your code organized.
2. They make the code more readable.
3. Facilitate understanding of the code structure.
4. Enable easier code navigation and debugging.
5. Promote best practices in web development.

Importance

1. Consistent class names improve code maintainability.
2. Meaningful class names make it easier for others to understand the code.
3. Reduces the chance of conflicts and duplication.
4. Helps in better project management and scalability.
5. Enhances teamwork by providing a common coding language.

Popular Naming Convention

1. BEM (Block, Element, Modifier) is a structured naming convention.
2. Block: Represents a standalone entity, e.g., `block`.
3. Element: Represents a part of the block, e.g., `block__element`.
4. Modifier: Represents a different state or version of a block or element, e.g., `block--modifier`.
5. Example: `block__element--modifier` clearly defines relationships and states.

Color in CSS

Color Name

1. Use simple color names to set colors.
2. Easy to remember and use.
3. Common names include red, blue, green.
4. Example: `color: red;`
5. Limited predefined names available.

Hex Color

1. Uses hexadecimal values to define colors.
2. Consists of a # followed by six digits/letters.
3. Offers precise color selection.
4. Example: `color: #ff0000;` (red)
5. Can be shortened for some values, e.g., `#fff` for white.

RGB

1. Stands for Red, Green, Blue.
2. Defines colors by mixing these three colors.
3. Values range from 0 to 255.
4. Example: `color: rgb(255, 0, 0);` (red)
5. Useful for creating custom colors.

RGBA

1. Similar to RGB but includes an Alpha value.
2. Alpha controls the transparency (opacity) of the color.
3. Values range from 0 (fully transparent) to 1 (fully opaque).
4. Example: `color: rgba(255, 0, 0, 0.5);` (red with 50% opacity)
5. Useful for overlay and blending effects.

HSL

1. Stands for Hue, Saturation, Lightness.
2. Hue is a degree on the color wheel (0-360).
3. Saturation is a percentage (0% is gray, 100% is full color).
4. Lightness is a percentage (0% is black, 100% is white).
5. Example: `color: hsl(0, 100%, 50%);` (red)

HSLA

1. Similar to HSL but includes an Alpha value.
2. Alpha controls the transparency (opacity) of the color.
3. Values range from 0 (fully transparent) to 1 (fully opaque).
4. Example: `color: hsla(0, 100%, 50%, 0.5);` (red with 50% opacity)
5. Useful for sophisticated color and transparency control.

Opacity

1. Sets the opacity level of an element.
2. Values range from 0 (fully transparent) to 1 (fully opaque).
3. Applies to the whole element, including background and borders.
4. Example: `opacity: 0.5;` (50% opacity)
5. Useful for creating overlay effects and emphasizing content.

Background in CSS

Background Color

1. Sets the background color of an element.
2. Can use color names, hex values, RGB, RGBA, HSL, or HSLA.
3. Example: `background-color: blue;`
4. Provides a solid color background.
5. Useful for enhancing readability and visual appeal.

Background Image

1. Sets an image as the background.
 2. URL specifies the path to the image file.
 3. Example: `background-image: url('image.jpg');`
 4. Can use local or external image sources.
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2. URL specifies the path to the image file.
3. Example: `background-image: url('image.jpg');`
4. Can use local or external image sources.
5. Enhances design with visual elements.

Background Repeat

1. Controls if/how the background image repeats.
2. Options include `repeat`, `repeat-x`, `repeat-y`, `no-repeat`.
3. Example: `background-repeat: no-repeat;`
4. Prevents the image from repeating.
5. Useful for custom background patterns.

Background Attachment

1. Controls the scroll behavior of the background.
2. Options include `scroll`, `fixed`, `local`.
3. Example: `background-attachment: fixed;`
4. Keeps the background image fixed in place during scrolling.
5. Useful for creating parallax effects.

Background Position

1. Sets the starting position of the background image.
2. Common values include `left`, `center`, `right`, `top`, `bottom`.
3. Example: `background-position: center;`
4. Centers the background image.
5. Can use pixel or percentage values for precise positioning.

Background Shorthand

1. Combines all background properties into one declaration.
2. Properties include `color`, `image`, `repeat`, `attachment`, `position`.
3. Example: `background: #ff0000 url('image.jpg') no-repeat fixed center;`

4. Simplifies CSS code by consolidating multiple properties.
5. Useful for setting multiple background attributes quickly.
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