

# 4.1 Introduction to CSS

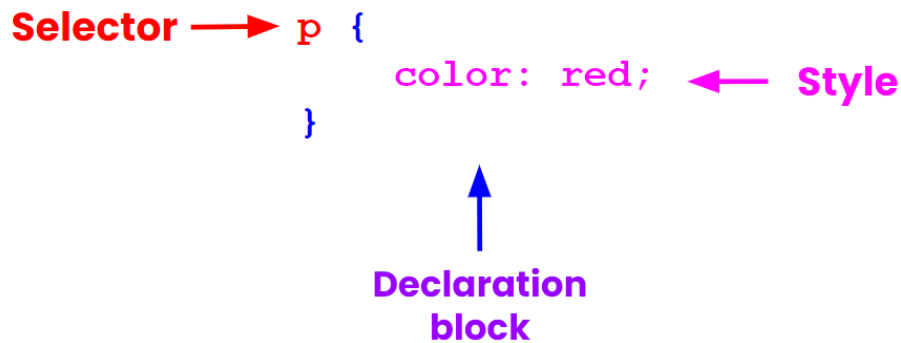


*most complex building - answered by Kevin Kenneth Daus*

- **Cascading Style Sheets (CSS)** is used to format the layout of a webpage.
- With CSS, you can control the color, font, the size of text, the spacing between elements, how elements are positioned and laid out, what background images or background colors are to be used, different displays for different devices and screen sizes, and much more!

## CSS Rules

- **CSS rules** are sets of instructions that define how HTML elements should be displayed on a web page. They control the layout, appearance, and formatting of the content, allowing developers to customize the presentation and make the page visually appealing.
- CSS rules consist of two main parts: a **selector** and a **declaration block**.
  - **Selector**. The selector targets the HTML element(s) to which the CSS rules should be applied. It can be an HTML tag name, a class name, an ID, or even a combination of these.
  - **Declaration block**. The declaration block contains one or more CSS properties and their corresponding values.
    - Each property defines a specific aspect of the element's appearance, and the value specifies how that property should be applied.
    - The declaration block is enclosed within curly braces ( `{ }` )



## Implementing CSS in HTML

- CSS can be added to HTML documents in 3 ways:
  1. **Inline** - by using the style attribute inside HTML elements
  2. **Internal** - by using a `<style>` element in the `<head>` section
  3. **External** - by using a `<link>` element to link to an external CSS file
- The most common way to add CSS is to keep the styles in external CSS files.

### Inline CSS

- An **inline CSS** is used to apply a unique style to a single HTML element.
- An inline CSS uses the style attribute of an HTML element.
- The following example sets the text color of the `<h1>` element to blue, and the text color of the `<p>` element to red.

```
<h1 style="color:blue;">A Blue Heading</h1>
```

```
<p style="color:red;">A red paragraph.</p>
```

### Internal CSS

- An internal CSS is used to define a style for a single HTML page.
- An internal CSS is defined in the `<head>` section of an HTML page, within a `<style>` element.
- The following example sets the text color of ALL the `<h1>` elements (on that page) to `blue`, and the text color of ALL the `<p>` elements to red. In addition, the page will be displayed with a `powderblue` background color.

```
<!DOCTYPE html>
```

```
<html>
```

```
<head>
```

```
<style>
```

```
body {background-color: powderblue;}
```

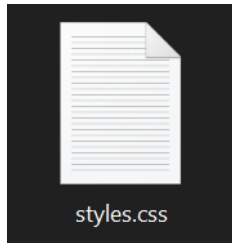
```
h1 {color: blue;}
```

```
p {color: red;}
```

```
</style>
```

```
</head>
<body>
  <h1>This is a heading</h1>
  <p>This is a paragraph.</p>
</body>
</html>
```

## External CSS



- An external style sheet is used to define the style for many HTML pages.
- To use an external style sheet, add a link to it in the `<head>` section of each HTML page:

```
<!DOCTYPE html>
<html>
<head>
  <link rel="stylesheet" href="styles.css">
</head>
<body>
  <h1>This is a heading</h1>
  <p>This is a paragraph.</p>
</body>
</html>
```

- The external style sheet can be written in any text editor. The file must not contain any HTML code, and must be saved with a .css extension.
- Here is what the **styles.css** file looks like:

```
body {
  background-color: powderblue;
}
h1 {
  color: blue;
}
p {
  color: red;
}
```

## Connecting to External CSS

- External style sheets can be referenced with a full URL or with a path relative to the current web page.
- This example uses a full URL to link to a style sheet:

```
<link rel="stylesheet" href="https://www.w3schools.com/html/styles.css">
```

- This example links to a style sheet located in the html folder on the current web site:


```
<link rel="stylesheet" href="/html/styles.css">
```

- This example links to a style sheet located in the same folder as the current page:

```
<link rel="stylesheet" href="styles.css">
```

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## Additional Material

- **References**
  - W3Schools
- **Learn more**
  - **HTML and CSS Interactive Tool**  [\(https://htmlcheatsheet.com/css/\)](https://htmlcheatsheet.com/css/)
- **Recommended watch**

CSS in 100 Seconds

