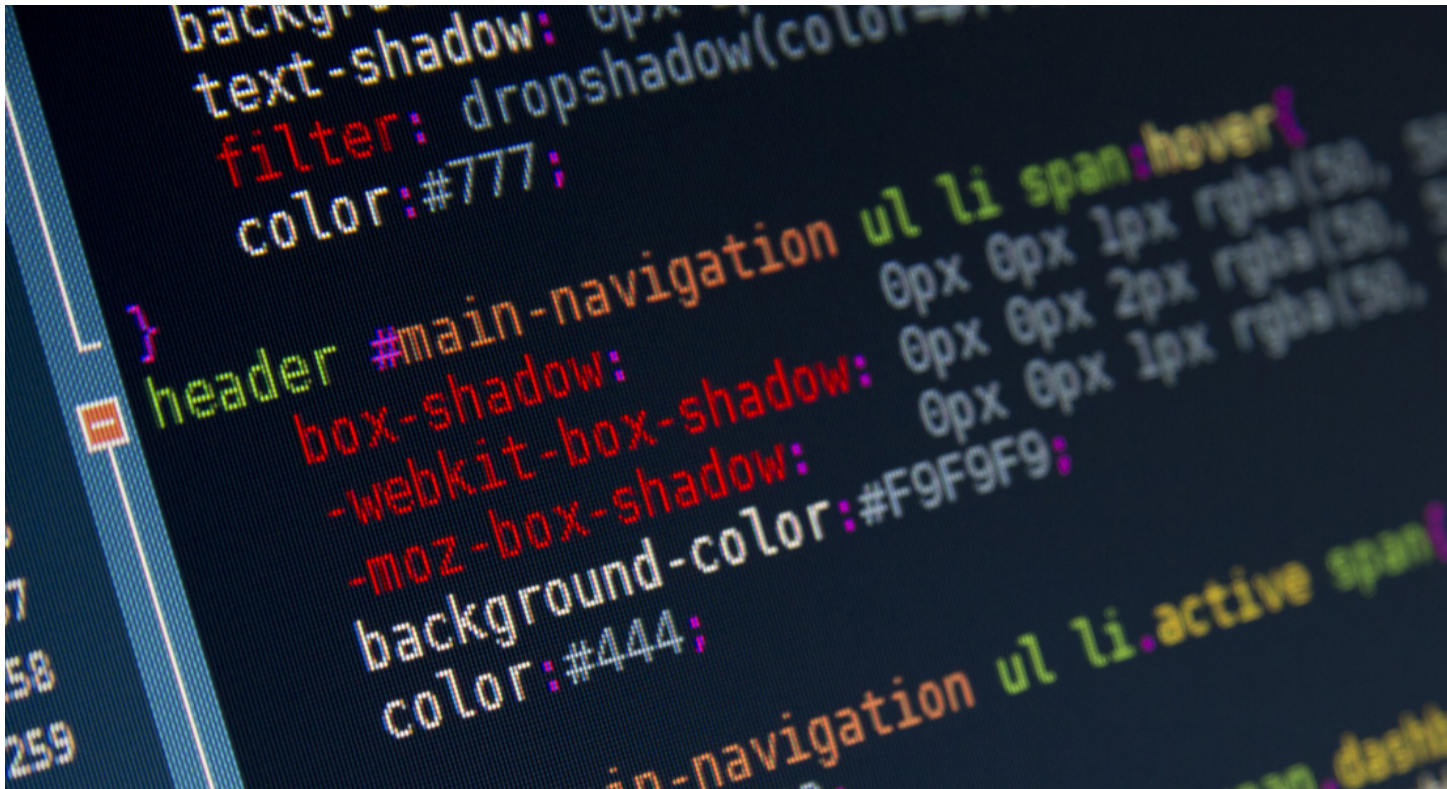


## Getting Started Writing CSS



There are three ways to specify styles. They have a hierarchical order, from the style with the greatest to the least: inline(or local), embedded (or global), and external CSS files. This course will focus on the use of these three, as these are the most commonly used, and the least problematic! Click on the following tab to learn more.

### ▸ External

**External**, or linked style sheets, are linked to a document using the `<link>` tag. External styles are the styles you have specified in an external file (external to the html page). This external file has a .css extension. You link to that CSS file in the `<head></head>` of your document like so:

Example 1:

```
<link rel="stylesheet" type="text/css" href="path/to/stylesheet.css">
```

The CSS rules of an external stylesheet will apply to every HTML page that links to the stylesheet. This makes it easy and convenient to uniformly style many elements across many different pages. You can also make changes to your CSS to optimize your site for mobile and different sized viewports without having to edit every page in one file.

External CSS files are overridden by both embedded/global styles in the document head and inline styles in the tags. External CSS files offer one major advantage over the other styles in that they can be used for more than one page. External style sheets are text-only documents that contain the file extension .css.

The use of **inline style sheets** is highly discouraged, because it violates the fundamental principle which is that HTML is for structure and CSS is for presentation. Also, it's not mobile friendly. It applies to the `<p>` that you've added it to (if you wanted all of your `p` tags to look the same, you'd have to apply it to all of the `p` tags on the page) and it bloats your HTML markup.

\*Inline styles should **not** be used because they override other styles, they mix structural and presentation information, and they make it harder to find and change code.

## ► Embedded

**Embedded** This style is found inside the `<head></head>` tags on your page and delimited by `<style></style>` tags.

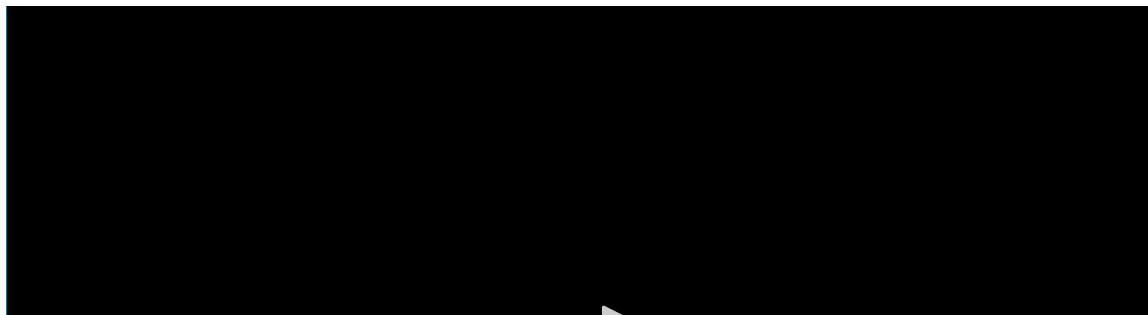
**Embedded style sheets** apply to the entire document and are overridden by inline styles or external CSS files. Embedded styles are written within opening and closing `<style>` tags and style specifications are enclosed in braces `{}`. Embedded/internal styles are also known as global styles.

Example 3:

```
<head>
<style>
  p {
    font-size: 16pt;
  }
</style>
</head>
```

\*The use of embedded, or internal, styles is also **not** recommended because it's a lot harder to make changes to your pages, as these styles apply only to the page that you have them embedded in. This method and sometimes even inline styles, are used when writing HTML emails.

## Video Commentary: Global and Local Styles



The <link> tag is used to link an external file that contains style elements to each web page on a website. This way, you can reuse the same styles from the external style sheet, providing consistency across all of the affected web documents. If you want to change the styles, you only need to update the external style sheet. Click on the following tab to view how to apply external styles.

## ► Create an External Style Sheet

### Example 4:

Follow these steps to create a CSS file (remember to use vertical quotation marks where appropriate).

1. Using a text editor, such as Notepad (for Windows) or TextEdit (for Mac), create a new file. Do not use a word processing program.
2. Type in the code for your new HTML page. It could look like the following and though not necessary, it is a good practice to incorporate. Notice the code that follows just

```
<!DOCTYPE html>
<html>
<head>
  <title>Our Second HTML Page</title>
  <link rel="stylesheet" href="/styles.css" />
</head>
<body>
  <h1>Create an External Style Sheet</h1>
  <p>Some text related to our external style sheet example.</p>
</body>
</html>
```

The <link> tag instructs the browser to look for an external resource. This tag is used to link the current HTML document with another document, i.e., the CSS file you are about to create. The **rel** attribute directs the browser to look for a style sheet and defines the relationship between the HTML document and the CSS files. The **href** attribute provides the name and location of the style sheet. The style sheet in this example is **/styles.css**.

3. Save the newly created HTML file.
4. Create a .css file that contains CSS rules in the text editor of your choice. Let's add

```
h1 {
  font-family: Georgia, serif;
  font-size: 2em;
  text-align: center;
  text-decoration: underline;
  color: #ff0000;
  background-color: #00ffff;
}
```

```
4   text-align: center;
5   text-decoration: underline;
6   color: #ff0000;
7   background-color: #00ffff;
8 }
9
10 p {
11   font-family: cursive;
12   font-size: 1em;
13   color: #0000ff;
14   background-color: #ffff00;
15 }
```

Style Sheet

Some text related to our sheet example.

## Exercise: More External Style Sheets

In this lab, we will write code using the external style. In this and other labs, write code exactly as it appears, otherwise the code may not render properly in the code tool. Click on the following tab to begin the lab.

### ▸ External Styles, Part 1

Click on styles.css in the code tool and type in the following code:

```
body {
  background-color: #09F;
}
h1 {
  font-family: sans-serif;
  font-size: 30px;
}
p {
  font-family: sans-serif;
  font-size: 20px;
}
```

You should see the following in the CSS file:

```

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

<body>
  <h1>External Style Example</h1>
  <p>Change the color, font-family,
    and font-size in the .css file.</p>
  <p>See what happens!</p>
</body>
</html>

```

The HTML code should look like the following:

```

1 <!DOCTYPE html>
2 <html>
3   <head>
4     <title>CSS External Style
      Lab</title>
5     <link rel="stylesheet"
      href="styles.css"/>
6   </head>
7
8   <body>
9     <h1>External Style
      Example</h1>
10    <p>Change the color, font-
      family,
11    and font-size in the .css
      file.</p>
12    <p>See what happens!</p>

```

Once the CSS and HTML code has been entered, click on the **Run Code** button. The code will appear like the following:

```

1 <!DOCTYPE html>
2 <html>
3   <head>
4     <title>CSS External Style
      Lab</title>
5     <link rel="stylesheet"

```

## External Style Example

Change the color, font-family, and font-size in the .css file.

Let's say we have the following code, saved with the .css file extension:

```
body {
  background-color: azure;
}
h1 {
  color: black;
}
p {
  color: #0C438C;
  font-size: 25px;
}
```

Now, place the following code between the <head> </head> tags of all of the HTML documents that reference the external style sheet. The code also uses the HTML <link> element to link to the style sheet.

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

The code above will look like the following in the code tool:

```
<!DOCTYPE html>
<html>
  <head>
    <title>CSS External Styles</title>
    <link rel="stylesheet" href="styles.css">
  </head>

  <body>
    <h1>External Styles</h1>
    <p>This style will be applied to all pages.</p>
  </body>
</html>
```

The CSS code will look like the following in the style sheet file of the code-mirror tool:

```
1 body {
2   background-color: azure;
3 }
4 h1 {
5   color: black;
6 }
7 p {
```

```
10     <p>this style will be  
    applied to all pages.</p>  
11 </body>
```

Find other colors to apply by performing an online search and see how these render using the browser. Change `<h1>` to `<h3>` or another size, change the font-size of the text in the paragraph, change the background color for the background.

[Run Code](#)[Save](#)[Export](#)[Reset](#)[index.html](#)[styles.css](#)

```
1 <html>  
2   <head>  
3     <link rel="stylesheet" href="/styles.css" />  
4   </head>  
5   <body>  
6     <div class="testClass" onclick="clickThis()"> test body</div>  
7   </body>  
8 </html>  
9  
10
```

rule like one of the following:

Example 5:

```
color: red;  
border-color: fuchsia;  
background-color: yellow;
```

Prior to CSS3, CSS2 supported only 16 colors. An update came with CSS2.1 where orange was added. Up to 140 predefined color names are available when using CSS3. You can do a quick online search to find color names, some with quite unique names, such as "lemonchiffon" and "gainsboro." Click on the following to see more colors.

### ► CSS2.1 Colors

This image displays what the colors that were available with version CSS2.1.

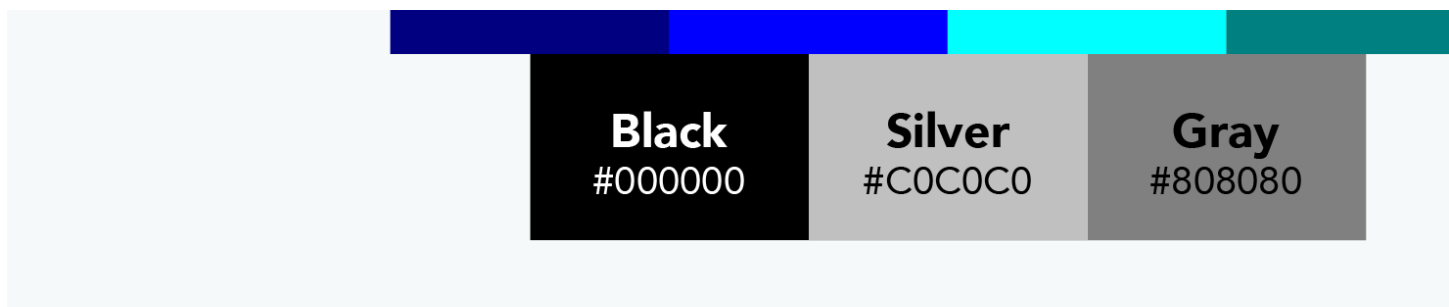


## Hexadecimal Color

Using the naming method described above limits the color choices available to users. The hexadecimal method is more common and allows users to select from a vast list of colors. Click on the following tabs to see how hexadecimal colors can be represented in CSS.

### ► Hex RGB





### ▸ Hexadecimal short

When a value happens to consist of three pairs of letters or digits that are the same, for example, #333333 and #666666, then the redundant digits can be dropped to create a shorter value, #3366 and #FF00FF, respectively.

Example 7:

`color: #369;`

Example 8:

`color: #F0F;`

There are a number of online tools that assist in selecting colors and there are also a number of image editors, such as Acorn, and Adobe Photoshop, among others, that make color selection easier.

## Exercise: Using Color in CSS

In this lab, we will explore various ways to apply color to components of a webpage using CSS. Click on the tab below to start the lab.

### ▸ Mixed Methods - CSS

For this portion of the lab, we will use a variety of methods to apply color to parts of a webpage. Follow the steps below to apply a variety of color models to a style sheet.

In the styles.css file, specify the following for the **body** of the style sheet:

1. A background using hexadecimal: #E5E0EB;
2. A sans-serif font-family: Arial, Helvetica, etc.;
3. A font-size of 1.3em;

Next, apply the following to the **section** area:

1. Padding of 20 pixels;
2. A margin of 20 pixels;
3. A background color using papayawhip;
4. A border of 2 pixels solid with #FFD700;

```

11 }
12 h1 {
13     color: #369;
14 }
15 p {
16     font-family: serif;
17     color: #00F;

```

## ► Mixed Methods - HTML

We also need an HTML file. Under index.html, create an external style sheet that incorporates

```

<!DOCTYPE html>
<html>
  <head>
    <title>CSS Lab</title>
    <link rel="stylesheet" href="styles.css">
  </head>

  <body>
    <section>
      <h1>Color Example</h1>
      <p>Demonstration of different color application methods in CSS.</p>
    </section>
  </body>
</html>

```

The code will look like the following in the code tool:

```

1 <!DOCTYPE html>
2 <html>
3   <head>
4     <title>CSS Lab</title>
5     <link rel="stylesheet"
6       href="styles.css">
7   </head>
8   <body>

```

```
2 <html>
3   <head>
4     <title>CSS Lab</title>
5     <link rel="stylesheet"
      href="styles.css">
6   </head>
7
8   <body>
9     <section>
10      <h1>Color Example</h1>
11      <p>Demonstration of
        different color application
        methods in CSS.</p>
12    </section>
13  </body>
14 </html>
```

## Color Example

Demonstration of  
different color applica  
methods in CSS.

[Run Code](#)[Save](#)[Export](#)[Reset](#)[index.html](#)[styles.css](#)

```
1 <html>
2   <head>
3     <link rel="stylesheet" href="/styles.css" />
4   </head>
5   <body>
6     <div class="testClass" onclick="clickThis()"> test body</div>
7   </body>
8 </html>
9
10
```

