



WEBD 162

Class 08
Chapter 13 - Colors and Backgrounds

1

CSS Example Using Element Selector

```
<head>
```

```
<style>
```

Element selector

```
h1 { color: green; }
```

```
p { font-size: small;  
    font-family: sans-serif;  
}
```

```
</style>
```

```
</head>
```

2

Descendant / Contextual Selectors – pg 244

▶ descendant selector

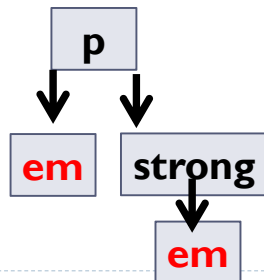
```
p em { color: red; }
```

```
<p>
```

this is **cool** and so is **this**

```
</p>
```

this is *cool* and so is *this*



3

id Selector – pg 246

▶ id selector – must be unique



```
<p id="firstpara">content here</p>
```

```
#firstpara { color: red; }
```

4

class Selector – pg 246



- ▶ **class selector** – used many times

```
<p class="red">content here</p>  
<h2 class="red">heading here</h2>  
↗  
.red { color: red; }
```

▶ 5

Grouping Selectors – pg 244

- ▶ **grouping selector**

```
h2, h3, address { color: blue; }
```

```
p strong, h1, #xyz em, .abc { color: red; }
```

▶ 6

Color Names

- ▶ **Color name**
- ▶ **Hexadecimal value**
- ▶ **RGB value**
- ▶ **RGBa value**

- ▶ **HSL value** (pg 271)
- ▶ **HSLa value** (pg 271)

▶ 7

Color Names

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

```
p { color: #ff0000; }
```

```
p { color: rgb(255, 0, 0); }
```

```
p { color: rgba(255, 0, 0, 0.5); } – CSS3
```

```
p { color: hsl(0, 100%, 50%); }
```

```
p { color: hsla(0, 100%, 50%, 0.5); } – CSS3
```

▶ 8

Color Names

`p { color: red; }`

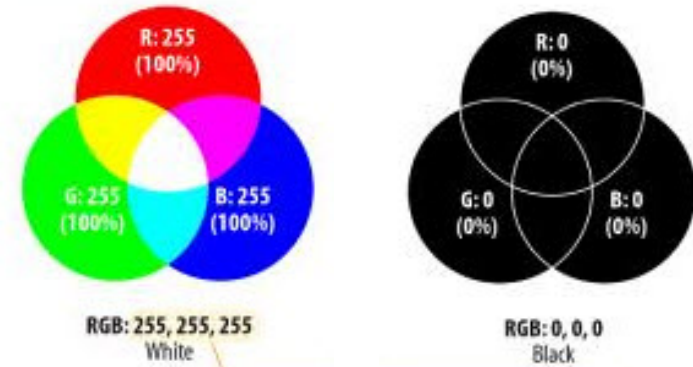
`p { color: #ff0000; }`

black (#000000)	silver (#C0C0C0)	gray (#808080)	white (#FFFFFF)
maroon (#800000)	red (#FF0000)	purple (#800080)	fuchsia (#FF00FF)
green (#008000)	lime (#00FF00)	olive (#808000)	yellow (#FFFF00)
navy (#000080)	blue (#0000FF)	teal (#008080)	aqua (#00FFFF)

▶ 9

Color Names

`p { color: rgb(255, 0, 0); }`



▶ 10

Color Names

`p { color: #ff0000; }`



▶ 11

Color Names

`h2 { color: rgba(255, 0, 0, 0.5); }`

Playing with RGBa

Playing with RGBa

Playing with RGBa

```
h1 {color: rgba(0, 0, 0, .1);}
h1 {color: rgba(0, 0, 0, .5);}
h1 {color: rgba(0, 0, 0, 1);}
```

▶ 12

Opacity VS RGBa

h1 { opacity: 0.5; }

- ▶ Effects everything inside the selector

h1 { color: rgba(255, 0, 0, 0.5); }

- ▶ Only effects the color

▶ 17

Pseudo-Class Selectors

Pseudo-Class

- Selector
- Special state of an element
- Based on its function, structure, relationship
- : (colon)

▶ 18

Anchor (link) Pseudo-Class Selectors – pg 278

a { color: navy; }

Applies to all instances of <a>
(except hover)

```
/* unvisited link */  
a:link {  
  color: #FF0000;  
}
```

```
/* visited link */  
a:visited {  
  color: #00FF00;  
}
```

```
/* mouse over link */  
a:hover {  
  color: #FFF;  
  background: #CCC;  
}
```

```
/* selected link */  
a:active {  
  color: #0000FF;  
}
```



▶ 19

Structural Pseudo Classes – not in book

:first-child

:last-child

:nth-child

:first-of-type

:last-of-type

:nth-of-type

▶ 20

:first-child (:last-child) – of a selector type

<p>first paragraph</p> ←

```
<section id="about">
  <h2>Heading 2</h2>
  <p>second paragraph</p>
  <ul>
    <li>one</li>
    <li>two</li>
    <li>three</li>
    <li>four</li>
  </ul>
  <p>third paragraph</p>
</section>
```

p:first-child { color: red; }

first paragraph ←

Heading 2

second paragraph

- one
- two
- three
- four

third paragraph

:first-child – of a selector type

<p>first paragraph</p>

```
<section id="about">
  <h2>Heading 2</h2>
  <p>second paragraph</p>
  <ul>
    <li>one</li> ←
    <li>two</li>
    <li>three</li>
    <li>four</li>
  </ul>
  <p>third paragraph</p>
</section>
```

li:first-child { color: red; }

first paragraph

Heading 2

second paragraph

- one ←
- two
- three
- four

third paragraph

:first-child – any first child

<p>first paragraph</p> ←

```
<section id="about">
  <h2>Heading 2</h2> ←
  <p>second paragraph</p>
  <ul>
    <li>one</li> ←
    <li>two</li>
    <li>three</li>
    <li>four</li>
  </ul>
  <p>third paragraph</p>
</section>
```

:first-child { color: red; }

first paragraph ←

Heading 2 ←

second paragraph

- one ←
- two
- three
- four

third paragraph

:first-of-type – of a selector type

<p>first paragraph</p>

```
<section id="about">
  <h2>Heading 2</h2>
  <p>second paragraph</p>
  <ul>
    <li>one</li> ←
    <li>two</li>
    <li>three</li>
    <li>four</li>
  </ul>
  <p>third paragraph</p>
</section>
```

li:first-of-type { color: red; }

first paragraph

Heading 2

second paragraph

- one ←
- two
- three
- four

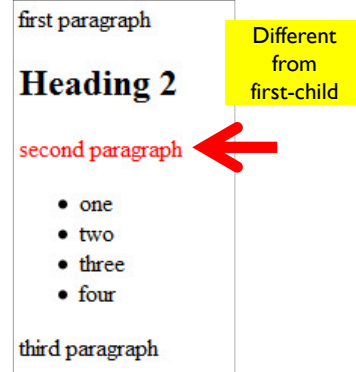
third paragraph

Similar to
first-child

:first-of-type – of a selector type

```
<section id="about">
  <h2>Heading 2</h2>
  <p>second paragraph</p>
  <ul>
    <li>one</li>
    <li>two</li>
    <li>three</li>
    <li>four</li>
  </ul>
  <p>third paragraph</p>
</section>
```

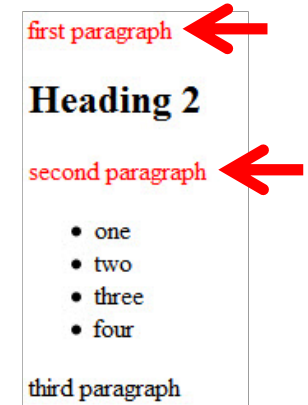
p:first-of-type { color: red; }



:first-of-type (similar but not same as first-child)

```
<p>first paragraph</p>
<section id="about">
  <h2>Heading 2</h2>
  <p>second paragraph</p>
  <ul>
    <li>one</li>
    <li>two</li>
    <li>three</li>
    <li>four</li>
  </ul>
  <p>third paragraph</p>
</section>
```

p:first-of-type { color: red; }



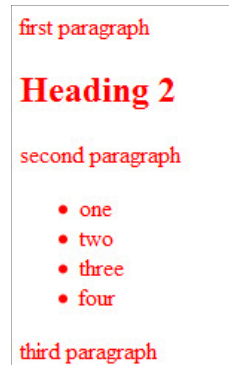
▶ 25

▶ 26

:first-of-type – any first of type

```
<p>first paragraph</p>
<section id="about">
  <h2>Heading 2</h2>
  <p>second paragraph</p>
  <ul>
    <li>one</li>
    <li>two</li>
    <li>three</li>
    <li>four</li>
  </ul>
  <p>third paragraph</p>
</section>
```

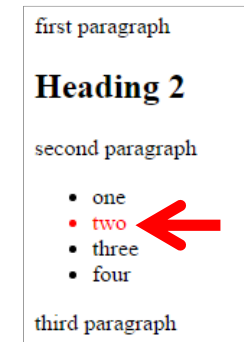
:first-of-type { color: red; }



:nth-of-type – of the given index position

```
<p>first paragraph</p>
<section id="about">
  <h2>Heading 2</h2>
  <p>second paragraph</p>
  <ul>
    <li>one</li>
    <li>two</li>
    <li>three</li>
    <li>four</li>
  </ul>
  <p>third paragraph</p>
</section>
```

li:nth-of-type(2) { color: red; }



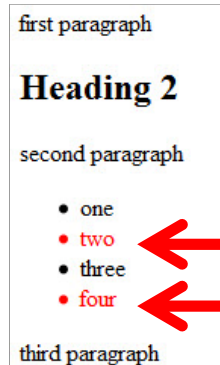
▶ 27

▶ 28

:nth-of-type – even / odd

```
<p>first paragraph</p>
<section id="about">
  <h2>Heading 2</h2>
  <p>second paragraph</p>
  <ul>
    <li>one</li>
    <li>two</li>
    <li>three</li>
    <li>four</li>
  </ul>
  <p>third paragraph</p>
</section>
```

li:nth-of-type(even) {
color: red; }

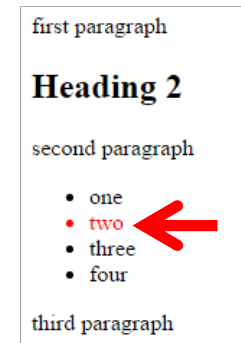


:nth-child

– of the given index position /even /odd

```
<p>first paragraph</p>
<section id="about">
  <h2>Heading 2</h2>
  <p>second paragraph</p>
  <ul>
    <li>one</li>
    <li>two</li>
    <li>three</li>
    <li>four</li>
  </ul>
  <p>third paragraph</p>
</section>
```

li:nth-child(2) {
color: red; }



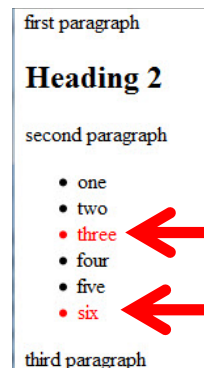
▶ 29

▶ 30

:nth-of-type(an)

```
<p>first paragraph</p>
<section id="about">
  <h2>Heading 2</h2>
  <p>second paragraph</p>
  <ul>
    <li>one</li>
    <li>two</li>
    <li>three</li>
    <li>four</li>
    <li>five</li>
    <li>six</li>
  </ul>
  <p>third paragraph</p>
</section>
```

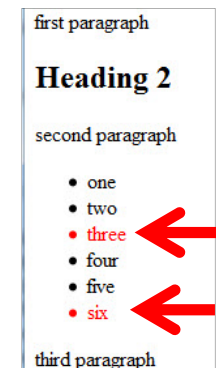
li:nth-of-type(3n) {
color: red; }



:nth-child(an)

```
<p>first paragraph</p>
<section id="about">
  <h2>Heading 2</h2>
  <p>second paragraph</p>
  <ul>
    <li>one</li>
    <li>two</li>
    <li>three</li>
    <li>four</li>
    <li>five</li>
    <li>six</li>
  </ul>
  <p>third paragraph</p>
</section>
```

li:nth-child(3n) {
color: red; }



▶ 31

▶ 32

:nth-of-type(an + b)

```
<p>first paragraph</p>
<section id="about">
  <h2>Heading 2</h2>
  <p>second paragraph</p>
  <ul>
    <li>one</li>
    <li>two</li>
    <li>three</li>
    <li>four</li>
    <li>five</li>
    <li>six</li>
  </ul>
  <p>third paragraph</p>
</section>
```

li:nth-of-type(3n + 2) {
color: red; }

first paragraph

Heading 2

second paragraph

- one
- two
- three
- four
- five
- six

third paragraph

:nth-child(an + b)

```
<p>first paragraph</p>
<section id="about">
  <h2>Heading 2</h2>
  <p>second paragraph</p>
  <ul>
    <li>one</li>
    <li>two</li>
    <li>three</li>
    <li>four</li>
    <li>five</li>
    <li>six</li>
  </ul>
  <p>third paragraph</p>
</section>
```

li:nth-child(3n + 2) {
color: red; }

first paragraph

Heading 2

second paragraph

- one
- two
- three
- four
- five
- six

third paragraph

Pseudo-Element Selectors – pg 280

:first-letter **:first-line**

(limited as to the property that can be applied – font styles)

```
p:first-line {letter-spacing: 8px;}
```

Snow White was banished for being most beautiful, fell in with seven dwarves, ate a poison apple, and fell asleep in a glass coffin until the handsome prince kissed her, married her, and they lived happily ever after.

```
p:first-letter {font-size: 300%; color: orange;}
```

Snow White was banished for being most beautiful, fell in with seven dwarves, ate a poison apple, and fell asleep in a glass coffin until the handsome prince kissed her, married her, and they lived happily ever after.

Pseudo-Element Selectors – pg 280

:before **:after** - generated content

The style sheet:

```
p:before {
  content: "Once upon a time: ";
  font-weight: bold;
  color: purple;
}
p:after {
  content: " The End.";
  font-weight: bold;
  color: purple;
}
```

The markup:

```
<p>Snow White was banished for being the most beautiful, ... and they
lived happily ever after.</p>
```

Once upon a time: Snow White was banished for being the most beautiful, fell in with seven dwarves, ate a poison apple, and fell asleep in a glass coffin until the handsome prince kissed her, married her, and they lived happily ever after. **The End.**

Attribute Selectors – pg 281

```
<section id="about">
  <a href="http://sdmesa.edu" title="Mesa Website Home Page">Mesa</a>
  <a href="http://sdcity.edu" title="City Website Home Page">City</a>
  <a href="http://sdmiramar.edu" title="Miramar College Website">Miramar</a>
</section>

<p><a href="http://sdce.edu" title="Continuing Ed">Continuing Ed</a></p>
```

a[title] { color: red; }

Mesa
City
Miramar
Continuing Ed

▶ 37

Attribute Selectors – has that attribute

```
<section id="about">
  <a href="http://sdmesa.edu" title="Mesa Website Home Page">Mesa</a>
  <a href="http://sdcity.edu" title="City Website Home Page">City</a>
  <a href="http://sdmiramar.edu" title="Miramar College Website">Miramar</a>
</section>

<p><a href="http://sdce.edu" title="Continuing Ed">Continuing Ed</a></p>
```

#about a[title] { color: red; }

Mesa
City
Miramar
Continuing Ed

▶ 38

Attribute Selectors - exact value

```
<section id="about">
  <a href="http://sdmesa.edu" title="Mesa Website Home Page">Mesa</a>
  <a href="http://sdcity.edu" title="City Website Home Page">City</a>
  <a href="http://sdmiramar.edu" title="Miramar College Website">Miramar</a>
</section>

<p><a href="http://sdce.edu" title="Continuing Ed">Continuing Ed</a></p>
```

Case sensitive

**a[title = "Mesa Website Home Page"]
{ color: red; }**

Mesa
City
Miramar
Continuing Ed

▶ 39

Attribute Selectors – starts with value

```
<section id="about">
  <a href="http://sdmesa.edu" title="Mesa Website Home Page">Mesa</a>
  <a href="http://sdcity.edu" title="City Website Home Page">City</a>
  <a href="http://sdmiramar.edu" title="Miramar College Website">Miramar</a>
</section>

<p><a href="http://sdce.edu" title="Continuing Ed">Continuing Ed</a></p>
```

a[title ^= "c"] { color: red; }

Mesa
City
Miramar
Continuing Ed

▶ 40

Attribute Selectors – ends with value

```
<section id="about">
  <a href="http://sdmesa.edu" title="Mesa Website Home Page">Mesa</a>
  <a href="http://sdcity.edu" title="City Website Home Page">City</a>
  <a href="http://sdmiramar.edu" title="Miramar College Website">Miramar</a>
</section>

<p><a href="http://sdce.edu" title="Continuing Ed">Continuing Ed</a></p>
```

a[title \$= "Page"] { color: red; }

Mesa
City
Miramar
Continuing Ed

▶ 41

Attribute Selectors – contains a value (word)

```
<section id="about">
  <a href="http://sdmesa.edu" title="Mesa Website Home Page">Mesa</a>
  <a href="http://sdcity.edu" title="City Website Home Page">City</a>
  <a href="http://sdmiramar.edu" title="Miramar College Website">Miramar</a>
</section>

<p><a href="http://sdce.edu" title="Continuing Ed">Continuing Ed</a></p>
```

a[title ~= "Website"] { color: red; }

Mesa
City
Miramar
Continuing Ed

▶ 42

Attribute Selectors – contains part of a value (word)

```
<section id="about">
  <a href="http://sdmesa.edu" title="Mesa Website Home Page">Mesa</a>
  <a href="http://sdcity.edu" title="City Website Home Page">City</a>
  <a href="http://sdmiramar.edu" title="Miramar College Website">Miramar</a>
</section>

<p><a href="http://sdce.edu" title="Continuing Ed">Continuing Ed</a></p>
```

a[title *= "Web"] { color: red; }

Mesa
City
Miramar
Continuing Ed

▶ 43

Background Properties – pg 284

background-image: url(file.gif)

body
{

background-image: url('paper.gif');

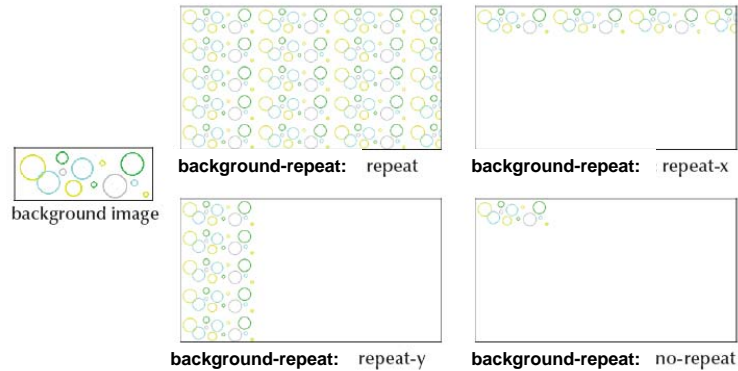
}

▶

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Background Properties - tiling

background-repeat: *type*



repeat-x	The image is tiled only horizontally across the width of the element
repeat-y	The image is tiled only vertically across the height of the element
no-repeat	The image is not repeated at all

Background Properties

```
body
{
    background-image: url('paper.gif');

    background-repeat: repeat-y;
}
```

46

Background Properties

background-attachment: *value*

background-attachment:

- ▶ values are – scroll (default), fixed
- ▶ background-attachment: fixed

47

Background Properties

background-position: *value value*

- ▶ Values – horizontal position vertical position

Value	Description
left top left center left bottom right top right center right bottom center top center center center bottom	If you only specify one keyword, the other value will be "center"
x% y%	The first value is the horizontal position and the second value is the vertical. The top left corner is 0% 0%. The right bottom corner is 100% 100%. If you only specify one value, the other value will be 50%. . Default value is: 0% 0%
xpos ypos	The first value is the horizontal position and the second value is the vertical. The top left corner is 0 0. Units can be pixels (0px 0px) or any other CSS units . If you only specify one value, the other value will be 50%. You can mix % and positions

48

Background Properties

background: color
url(url)
repeat
attachment
horizontal vertical

49

CSS3 Multiple background images

created by adding additional values to background properties

```
#xyz { width: 500px; height: 250px;
```

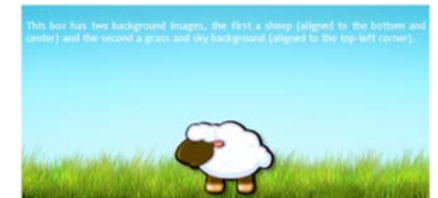
```
background-image: url(sheep.png), url(sky.png);
```

```
background-position: center bottom, left top;
```

```
background-repeat: no-repeat;
```

```
}
```

www.css3.info



50

CSS3 background-size: property – not in text

Adjusts the size of the background image

Values:

- ▶ background-size: 300px 500px;
- ▶ background-size: 20% 50%;
- ▶ background-size: cover;
- ▶ background-size: contain;



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CSS3 background gradients

Act like background image so can't have both

```
a.button-like {  
  background: linear-gradient(to bottom, #e2e2e2 0%, #dbdbdb 50%,  
    #d1d1d1 51%, #fefefe 100%);  
}
```



```
linear-gradient(to bottom, yellow, green);
```



```
linear-gradient(90deg, yellow, orange 25%, blue);
```



```
linear-gradient(to bottom, #e2e2e2 0%, #dbdbdb 50%, #d1d1d1 51%, #fefefe 100%);
```

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CSS3 background gradients

Act like background image so can't have both

```
a.button-like {
  background: linear-gradient(to bottom, #e2e2e2 0%, #dbdbdb 50%,
    #d1d1d1 51%, #fefefe 100%);
}
```



linear-gradient(to bottom, yellow, green);



linear-gradient(90deg, yellow, orange 25%, blue);



linear-gradient(to bottom, #e2e2e2 0%, #dbdbdb 50%, #d1d1d1 51%, #fefefe 100%);

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CSS3 background gradients

Some CSS3 properties still need vendor / browser prefixes

Prefix	Organization	Most popular browsers
-ms-	Microsoft	Internet Explorer
-moz-	Mozilla Foundation	Firefox, Camino, SeaMonkey
-o-	Opera Software	Opera, Opera Mini, Opera Mobile
-webkit-	Originally Apple; now open source	Safari, Chrome, Android, Silk, BlackBerry, WebOS, many others
-khtml-	Konqueror	Konqueror

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CSS3 background gradients

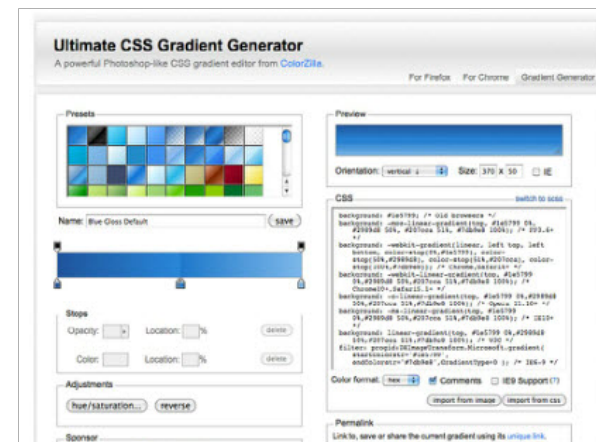
Cross browser, backward compatible example

```
background: #ffff00; /* Old browsers */
background: -moz-linear-gradient(top, #ffff00 0%, #00ff00 100%);
/* FF3.6+ */
background: -webkit-gradient(linear, left top, left bottom, color-
  stop(0%,#ffff00), color-stop(100%,#00ff00));
/* Chrome,Safari14+ */
background: -webkit-linear-gradient(top, #ffff00 0%,#00ff00 100%);
/* Chrome10+,Safari15.1+ */
background: -o-linear-gradient(top, #ffff00 0%,#00ff00 100%);
/* Opera 11.10+ */
background: -ms-linear-gradient(top, #ffff00 0%,#00ff00 100%);
/* IE10+ */
background: linear-gradient(to bottom, #ffff00 0%,#00ff00 100%);
/* W3C */
filter: progid:DXImageTransform.Microsoft.gradient(
  startColorstr='#ffff00', endColorstr='#00ff00',GradientType=0 );
/* IE6-9 */
```

55

CSS3 background gradients

colorzilla.com



56

External Style Sheet

Cannot contain any HTML at all!

```
<head>
  <title>Titles are required.</title>
  <link rel="stylesheet" href="/path/styleSheet.css">
</head>
```

```
<head>
  <style>
    @import url("/path/styleSheet.css");
    p { font-face: Verdana;}
  </style>
  <title>Titles are required.</title>
</head>
```

