



Cascading Style Sheets

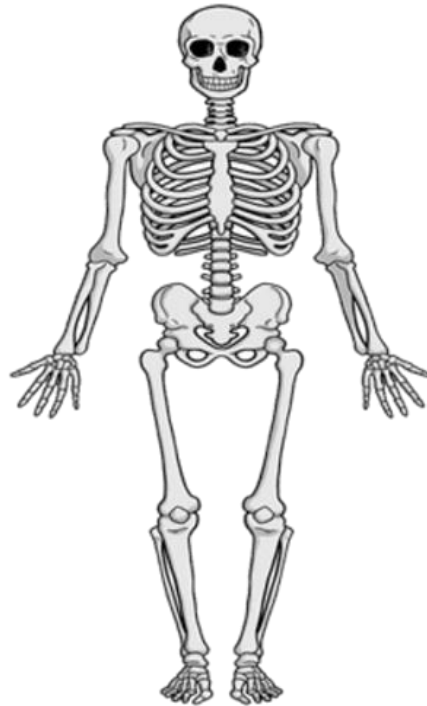


Next Level

- **Cascading Style Sheets (CSS)** - control the look and feel of your HTML documents in an organized and efficient manner.
- With CSS you will be able to:
 - Add new looks to your old HTML
 - Completely restyle a web site with only a few changes to your CSS code
 - Use the "style" you create on any webpage you wish!

Importance of CSS

HTML



STRUCTURE

HTML + CSS



PRESENTATION

Vs.

Conclusion

Learning a new language can be challenging for some, especially for beginners who have done nothing of the sort before. Still, these languages are nice-to-know insight as you can find some components of it integrated with almost everything we do.

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CSS Selector

- CSS selectors are the heart and soul of CSS.
- They define which HTML elements you are going to be manipulating with CSS code
- In a typical CSS statements you have the following:
 - **SELECTOR** { **PROPERTY**: **VALUE** }
 - Where the property is the CSS element you wish to manipulate and "VALUE" represents the value of the specified property.

CSS Selector

- If you wanted to change the way a paragraph tag behaved the CSS code would look like:
- **p { PROPERTY: VALUE }**
- NOTE: The styles must be define in the HEAD of the HTML page NOT in the body page.

Internal “Local” Styles:

```
<html>
  <head>
    <style type="text/css">
      p {color: white; }
      body {background-color: black; }
    </style>
  </head>

  <body>
    <p>White text on a black background!</p>
  </body>
</html>
```

CSS – General Format

"HTML tag" { "CSS Property" : "Value" ; }

<p>

- ◆ We chose the HTML element we wanted to manipulate. - **p**{ : ; }
- ◆ Then we chose the CSS attribute color. - p { **color**: ; }
- ◆ Next we chose the font color to be white. - p { color: **white**; }

<body>

- ◆ We choose the HTML element Body - **body** { : ; }
- ◆ Then we chose the CSS attribute. - body { **background-color**: ; }
- ◆ Next we chose the background color to be black. - body { background-color: **black**; }

CSS – General Format and example

```
<html>
<head>
  <style type="text/css">
    body { background-color: gray; }
    p { color: maroon; }
  </style>
</head>
<body>
  <h2>Internal CSS</h2>
  <p>This page uses internal CSS. Using the style tag we are
  able to modify the appearance of HTML elements.</p>
</body>
</html>
```

Some pre-defined colors

Here are some of the colors and the predefined hexadecimal number

Black	000000	Cyan	00FFFF
Gray	808080	Teal	008080
Silver	C0C0C0	Green	008000
White	FFFFFF	Olive	808000
Maroon	800000	Lime	00FF00
Red	FF0000	Yellow	FFFF00
Magenta	FF00FF		
Purple	800080		
Blue	0000FF		
Navy	000080		

Text-level Styles

font-family	Named font	Use quotations for multiple names: "Courier New"
font-size	Percent	Percent relative to font size of parent element
font-style	Normal, italic, oblique	
font-weight	Bold, bolder, lighter, normal	Bolder is equivalent to what <code> .. </code> creates
color	Named color, #hexcolor	
background-color	Name color, #hexcolor	Makes solid colored block around text.

Generic text-level styles

- ◆ You can predefine how you want a set of text to be displayed instead of the default given.
- ◆ Use `` tag:
 - Example: ` text to be different `
- ◆ In the style section, you define what you want for the span tag ie.
 - `span { font-size:150%; font-family=Verdana; color:maroon; }`

Internal CSS Exercise: ex6b.html

- ◆ use internal style definitions, construct the following page at the bottom.
- ◆ You need to modify or stylize the following:
 - <p> - text in maroon
 - <h2> - text in blue
 - - text in black (hint your default will be maroon based on the “paragraph” setting”
 - <body> - gray

Internal CSS

This page uses internal CSS. Using the style tag we are able to **modify the appearance** of HTML elements.

Multiple style sheets

- ◆ If some properties have been set for the same selector in different style sheets, the values will be inherited from the more specific style sheet.
- ◆ Cascading Order: (Lowest to Highest)
 1. Browser default
 2. External style sheet
 3. Internal style sheet (in the head section)
 4. Inline style (inside an HTML element)

Note: If the link to the external style sheet is placed after the internal style sheet in HTML< head>, the external style sheet will override the internal style sheet!

Multiple style sheets - example

Example:

Assume that an external style sheet has the following properties for the h3 selector

```
h3 {  
  color: red;  
  text-align: left;  
  font-size: 8pt;  
}
```

Assume that an internal style sheet also has the following properties for the h3 selector

```
h3 {  
  text-align: right;  
  font-size: 20pt;  
}
```

Effective Style Sheet

```
color: red;  
text-align: right;  
font-size: 20pt;
```

Types of Style - Classes

Recall that as styles are defined as

- ◆ **element_name** { property1: value; property2: value;}
example: p {font-size: 150%; color: blue;}
- ◆ What if you want to have different types of “paragraphs”?
- ◆ You create “subclasses” and define them as follows:

```
element.classname { property1: value; property2: value;}  
example: p.bigblue {font-size: 150%; color: blue;}  
p.smallred {font-size: 50%; color: red;}
```



Placed Period here

Types of Style - Classes

```
<style type="text/css">
```

```
span {font-weight: normal; font-size: normal;}
```

```
span.boldred {font-weight: bolder; color: red;}
```

```
span.italicblue {font-style: italic; color: blue;}
```

```
b {font-size: normal}
```

```
b.big {font-size: 150%;}
```

```
b.small {font-size: 75% }
```

```
b.bigbolder {font-size: 150%; font-weight: bolder;}
```

```
</style>
```

Calling a “class”

```
<style type="text/css">
  span { font-weight: normal; font-size: normal;}
  span.boldred { font-weight: bolder; color: red;}
  span.italicblue { font-style: italic; color: blue;}

  b { font-size: normal}
  b.big { font-size: 150%;}
  b.small { font-size: 75% }
  b.bigbolder { font-size: 150%; font-weight: bolder;}
</style>
```

```
<span>
This will be normal
</span>

<span class="italicblue">
  This line will be in italic and blue
</span>
<br />
<b>this is normal bold </b>
<br />
<b class=small>this is smaller bold </b>
<br />
<b class=bigbolder>this is BIG BOLDER
</b>
```

External Cascading Style Sheet

- ◆ When creating web pages, it is preferable to keep the style on a separate sheet
- ◆ Placing CSS in a separate file allows the web designer to completely differentiate between content(HTML) and design(CSS).
- ◆ It keeps your website design and content separate.
- ◆ It's much easier to reuse your CSS code if you have it in a separate file. Instead of typing the same CSS code on every web page you have, simply have many pages refer to a single CSS file with the "link" tag.
- ◆ You can make drastic changes to your web pages with just a few changes in a single CSS file.

myStyle.css

ex6b.html

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

```
p {  
  color: blue;  
}
```

```
h3 {  
  color: red;  
}
```

```
<html>  
<head>  
<link rel="stylesheet" type="text/css"  
href= "myStyle.css" />  
</head>  
<body>  
<h3> A Red Header </h3>  
<p>This paragraph has a blue font. The  
  background color of this page is gray because  
  we changed it with CSS!  
</p>  
</body>  
</html>
```

Fun and Goodies – Pseudo Classes

- ◆ Probably the coolest thing about CSS is the ability to add effects to your anchor tags, otherwise known as hyperlinks
- ◆ A link has four different states that it can be in that can be customized.
- ◆ **link** - this is a link that has not been used, nor is a mouse pointer hovering over it
- ◆ **visited** - this is a link that has been used before, but has no mouse on it
- ◆ **hover** - this is a link currently has a mouse pointer hovering over it/on it
- ◆ **active** - this is a link that is in the process of being clicked

How to define links?

```
a:STATE'S NAME { attribute: value; }
```

Style definition:

```
a:link { color: blue; }
```

```
a:visited { color: red; }
```

```
a:hover { color: green; }
```

HTML call:

```
<a href="">This is a special CSS Link</a>
```

How to remove default underline?

```
a:(STATE'S NAME) { attribute: value; }
```

Style definition:

```
a:link { color: blue; text-decoration: none; }
```

```
a:visited { color: red; text-decoration: none; }
```

```
a:hover { color: green; }
```

More fancy

```
a:link { text-decoration: none; color: gray; }
```

```
a:visited { text-decoration: none; color: gray; }
```

```
a:hover { text-decoration: none; color: maroon; font-weight: bolder; }
```