Introduction to CSS

Reference: We look at CSS summary from these three sources

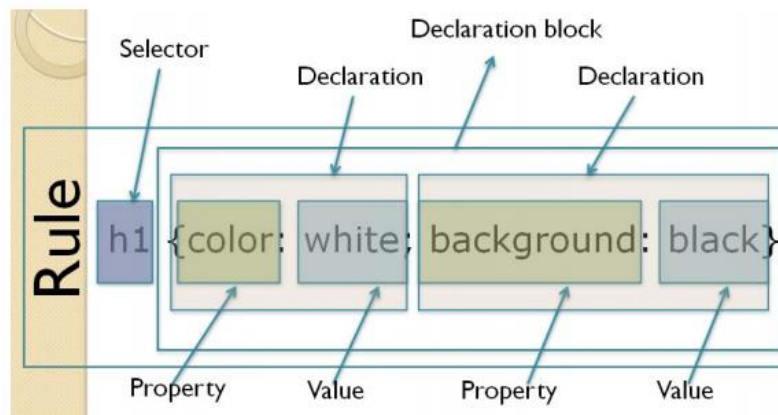- http://www.cssbasics.com/full.pdf
- https://library.rice.edu/services/dmc/guides/web/IntroToCSS.pdf
- http://www.csus.edu/training/handouts/workshops/css-introduction.pdf
- http://www.w3.org/community/webed/wiki/Main_Page#CSS

Syntax

What is a CSS rule?

A CSS rule is simply a statement that consists of a selector and a declaration.

- **Selector:** is the hook used to choose what part(s) of your HTML to apply the CSS to. It indicates the element to which the rule is applied. Following the selector is the…
- **Declaration Block:** Everything within the curly brackets, "{" and "}", is called the declaration block
- **Declaration:** Inside a declaration block you can have as many declarations as you want and each declaration is a combination of a CSS Property and a value.
- **Property:** is one of the CSS Properties used to tell what part of the selector will be changed (or styled). It specifies a characteristic, such as color, font-family, position, and is followed by a colon (:)
- **Value:** assigns a value to the property.

There are 3 types of selectors

1-HTML element selectors

h1 { font-family: "Times New Roman", Georgia, Serif; }

```
h1 {
        font-size: 165%;
        margin-top: 0px;
}
```

2-Class – use a "." as first character in a selector

```
.intro {
    background-color: yellow;
}
```

Another example

```
.darkgreen { background-color: #00573D;}
.lightgreen { background-color: #C6D6CE;}

<h1 class="darkgreen">First Heading</h1>
<p class="lightgreen">The text in this paragraph has a light green background
        color.</p>
<p>Here we have another paragraph, but only <span class="lightgreen">some
        text</span> has a light green background color.</p>
```

3-Id – use a "#" as the first character in a selector

```
#footer {
        color: #00573D;
        font-size: 10px;
        text-align: center;
}

<div id="footer"><p>My Department name</p>
<p>California State University, Sacramento | 6000 J Street | Sacramento, CA 95819 |
        (916) 278-6011</p></div>
```

Pseudo classes
Pseudo classes are definitions of stages of an HTML element like <a>:

```
a:link {
        text-decoration: underline;
        font-weight: normal;
        color: #003300;
}

a:visited {
        text-decoration: underline;
        font-weight: normal;
        color: #999999;
}
```

There are four types of pseudo-classes with the <a> tag:
1. a:link – the default state for a hyperlink
2. a:active – when a hyperlink is clicked
3. a:visited – if the linked site is in the browser's history cache
4. a:hover – while the mouse pointer hovers over the hyperlink

CSS comment

```
/* These are basic element selectors */
```

Grouping multiple selector

```
h1, h2, h3, h4, h5, h6 {
   color: #009900;
   font-family: Georgia, sans-serif;
}
```

Combining Selectors

Combining Selectors

You can join selectors together to define even more specific rules:

- `p.warning {}` matches all paragraphs with a `class` of `warning`.
- `div#example {}` matches the element with an `id` attribute of `example`, but only when it is a `div`.
- `p.info, li.highlight {}` matches paragraphs with a `class` of `info` and list items with a `class` of `highlight`.

CSS shorthand

Comparing individual and shorthand values

Consider the following margin rule:

```
div.foo {
   margin-top: 1em;
   margin-right: 1.5em;
   margin-bottom: 2em;
   margin-left: 2.5em;
}
```

Such a rule could also be written as:

```
div.foo {
   margin: 1em 1.5em 2em 2.5em;
}
```

Inheritance

When you nest one element inside another, the nested element will inherit the properties assigned to the containing element. Unless you modify the inner elements values independently.

There are instances where nested elements do not inherit the containing elements properties.

For example, if the body margin is set to 20 pixels, the other elements within the file will not inherit the body margin by default.

```
body {margin: 20px;}
```

Inline, Embedded, External

Inline

> *<h2 STYLE="background: #000080; color: green; line-height: 50px; font-size: 40px">The Best Poetry I <em STYLE="font-weight: 900">NEVER Wrote</h2>*

Embedded

```
<head>
<meta http-equiv="Content-Type" content="text/html; charset=iso-8859-1" />
<title>Sacramento State – Sample Embedded Styles</title>

<style type="text/css">
<!--
body {
        background: #FFFFFF;
        font-family: Verdana, Geneva, Arial, helvetica, sans-serif;
        font-size: 80%;
}
#footer {
        color: #00573D;
        font-size: 10px;
        text-align: center;
}
h1 {
        font-size: 165%;
        margin-top: 0px;
}
.darkgreen { background-color: #00573D;}
.lightgreen { background-color: #C6D6CE;}
-->
</style>
</head>

<body>
<h1 class="darkgreen">First Heading</h1>
<p class="lightgreen">The text in this paragraph has a light green background
        color.</p>
<p>Here we have another paragraph, but only <span class="lightgreen">some
        text</span> has a light green background color.</p>
```

External Style Sheet

The <head> section of the html file will have a "link" element

```
<head>
<link rel="stylesheet" type="text/css" href="mystyle.css">
</head>
```

The "mystyle.css" example:

```
body {
    background-color: lightblue;
}
h1 {
    color: navy;
    margin-left: 20px;
}
```

Import stylesheet

@importing stylesheets

There is actually another way to import external style sheets into HTML files - the @import property. This is inserted into an embedded style sheet, in the same way as the embedded CSS shown above. The syntax looks as follows:

```
<style type="text/css" media="screen">
  @import url("styles.css");

  ...other import statements or CSS styles could go here...

</style>
```

You'll sometimes see import statements without the brackets, but it does the same thing. Another thing to be aware of is that @import should always be first in an embedded style sheet. Finally, you can specify that the imported style sheet be applied only to certain types of media by including the media type at the end of the import statement (this works in every browser except IE6 and below). The following does the same thing as the previous code example: