Cascading Style Sheet 3.0

Lesson 3: CSS Selectors

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Lesson Objectives

In this lesson, you will be learning about:
- Introduction to Selectors
- Universal Selector
- Type Selector
- Class Selector
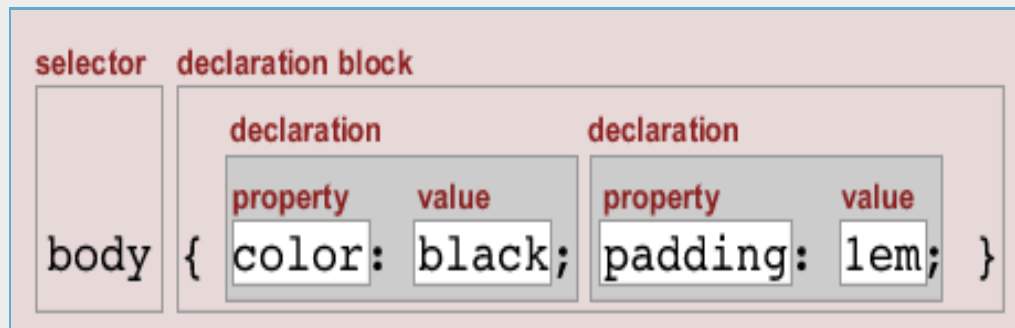- ID Selector
- Attribute Selector
- Pseudo Classes

Selectors

Introduction:

- Selectors are one of the most important aspects of CSS as they are used to "select" elements on an HTML page so that they can be styled.
- The selector "selects" the elements on an HTML page that are affected by the rule set.
- A rule or "rule set" is a statement that tells browsers how to render particular elements on an HTML page
- A rule set consists of a selector followed by a declaration block.
- Rule structure

selector	declaration block			
	declaration		declaration	
	property	value	property	value
body {	color:	black;	padding:	1em; }

Selectors

Example
- h1 { color: blue; margin-top: 1em; }
- p { padding: 5px; }
- td { background-color: #ddd; }

Universal Selector

The universal selector matches any element type.
Example:

This rule set will be applied to every element in a document:

```
* {
    margin  : 0;
    padding: 0;
}
```

Type selectors

While the universal selector matches any element, an element type selector matches elements with the corresponding element type name.

Type selectors are case insensitive in HTML (including XHTML served as text/html), but are case sensitive in XML (including XHTML served as XML).

Example

A type selector like t[   ]ll the elements within an HTML
or XML document tha[   ]llows:

```
ul {
    : declarations
}
```

 …

Class Selectors

Selecting elements on the basis of their class names is a very common technique in CSS

While type selectors target every instance of an element, class selectors can be used to select any HTML element that has a class attribute, regardless of their position in the document tree.

Example:

```
<body>
<p class="big">This is some <em>text</em></p>
        <p>This is some text</p>
        <ul>
        <li class="big">List item</li>
        <li>List item</li>
        <li>List <em>item</em></li></ul>
</body>
```

.big { font-size: 110%; font-weight: bold; }

Above code targets the first paragraph and first list items on a page to make them stand out

ID Selector

An ID selector matches an element that has a specific id attribute value. Since id attributes must have unique values, an ID selector can never match more than one element in a document.

In its simplest form, an ID selector looks like this:

```
#navigation
{
    : declarations
}
```

This selector matches any element whose id attribute value is equal to "navigation"

```
#firstname
{
background-color:yellow;
}
```

Attribute Selector

All HTML elements can have associated properties, called attributes. These attributes generally have values. Any number of attribute/value pairs can be used in an element's tag - as long as they are separated by spaces. They may appear in any order.

In the example below, the code segments highlighted in blue are attributes and the segments highlighted in red are attribute values

```
<h1 id="section1"/>

<img src="small.gif" width="100" height="100"/>

<img title="mainimage" alt="main image"/>

<a href="foo.htm"/>

<p class="maintext"/>

<form style="padding: 10px"/>
```

Attribute Selector

Attribute selectors are used to select elements based on their attributes or attribute value. For example, you may want to select any image on an HTML page that is called "small.gif". This could be done with the rule below, that will only target images with the chosen name:

There are four types of attribute selectors.

- **Example for Select based on attribute**

> img**[title]**   { border: 1px solid #000; }
> img**[width]** { border: 1px solid #000; }

  - **The example above will select an element (in this case "img") with the relevant attribute**

- **Example for Select based on value**

> img**[src="small.gif"]** { border: 1px solid
>
> #000; }

  - **The above example selects any image whose attribute (in this case "src") has a value of "small.gif"**

Pseudo Classes

A pseudo-class is similar to a class in HTML, but it's not specified explicitly in the markup. Some pseudo-classes are dynamic—they're applied as a result of user interaction with the document.

A pseudo-class starts with a colon (:). No whitespace may appear between a type selector or universal selector and the colon, nor can whitespace appear after the colon.

Demo : Selector

demoType.html
demoId.html
demoClass.html
demoAttributeSelector.html
demoPseudoClasses.html

Lesson Summary

In this lesson, you have learnt about:
- Universal Selector
- Type Selector
- Class Selector
- ID Selector
- Attribute Selector
- PseudoClasses