CSS Selectors

Web Authoring and Design

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Outline

- Review
- What are CSS Selectors?
- Different types of Selectors and Syntax
- Examples of how to use Selectors
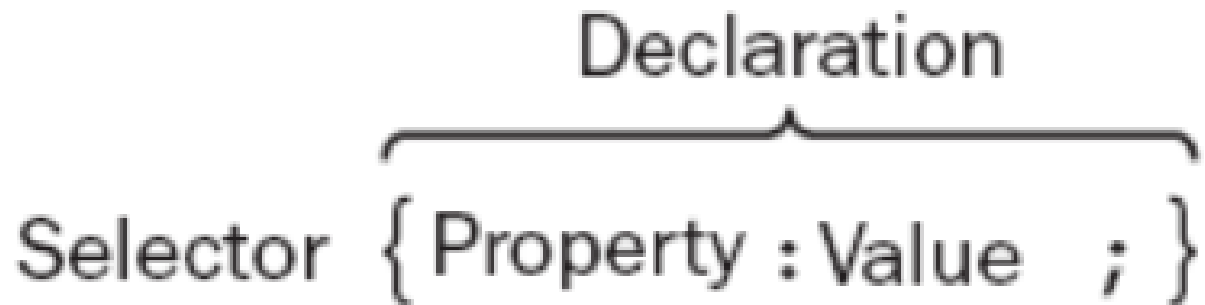- Summary
- Review/Discussion

CSS Selectors

- CSS selectors are HTML tags to which a CSS style is applied.
  - ▷ This could be any tag like < p > or < h1 >
- These are patterns used to select the HTML tags that you want to style.
- These patterns may range from simple element names to rich contextual patterns
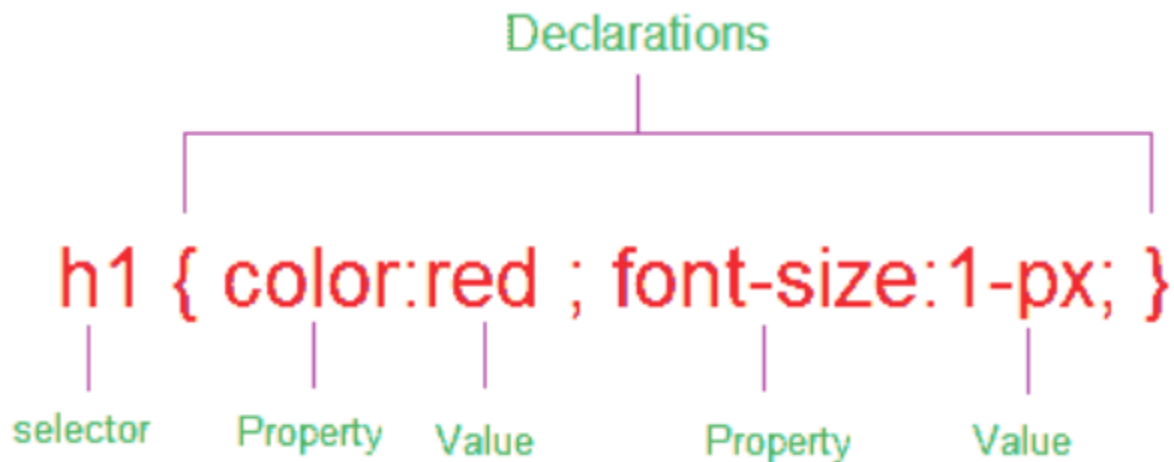
Selector Syntax

Details

■ In the following sections, looking at how you can use different types of a selectors to specify which elements a style sheet rule can apply to

Declarations

h1 { color:red ; font-size:1-px; }

selector   Property   Value   Property   Value

Element Selector or Type Selector

■ The CSS element Selector or the type selector matches occurrences of those tags specified in the list

```
synatx:

element { property:value }
```

e.g.,

```
p { font-size:32px; }
```

Above CSS code sets all paragraph font size as 32.

Example Selector

```html
<html>
<head>
    <style type="text/css">
        p {font-size:32px;}
    </style>
</head>
<body>
    This line displayed in default font size
    <p> Line formatted with element selector </p>
</body>
</html>
```

This line displayed in default font size

Applied element selector

Universal Selector

■The universal selector set a value for all elements in the HTML document

```
synatx:

* { property:value }
```

■e.g.,

```
* {font-size:14px;}
```

■Above CSS code set font size =14px to the whole HTML document

Example Universal Selector

```
<html>
<head>
    <style type="text/css">
        * {font-size:32px;}
    </style>
</head>
<body>
    Universal selector set all font size as 22 in this document
</body>
</html>
```

Grouped Selectors

■Whenever a situation that you need to apply the same style property to a number of selectors, then you can group those selectors into one rule by separating them with commas. The selector rule has the same effect to more than one selector at a time

Example Grouped Selectors

```
h1 {color: #FF0066;}
h2 {color: #FF0066;}
p {color: #FF0066;}
```

Instead of above multiple selectors you can group them as follows:

```
h1,h2,p {color: #FF0066;}
```

```html
<html>
<head>
    <style type="text/css">
        h1,h3,p {color: #FF0066;}
    </style>
</head>
<body>
    <h1>Grouped Selectors</h1>
    <h2>This one not in the group</h2>
    <h3>This elements also grouped</h3>
    This line is not in the grouped selector.
    <p>This paragraph also in the group </p>
</body>
</html>
```

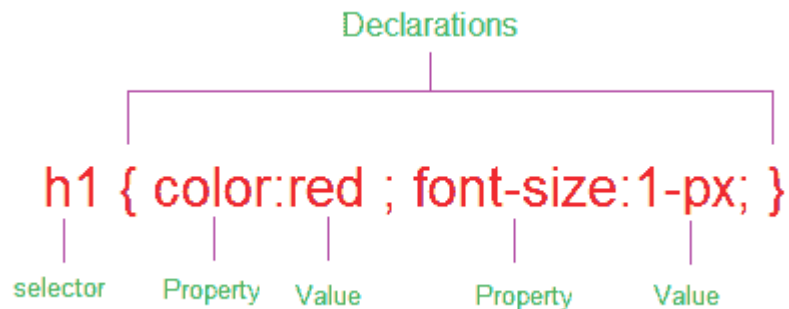# Grouped Selectors

This one not in the group

This elemenst also grouped

This line is not in the grouped selector.

This paragraph also in the group

ID Selectors and Class Selectors

- Selector is to tell the browser to which style is applied to a specific element in the HTML

- Range from simple element names to rich contextual patterns

Declarations

h1 { color:red ; font-size:1-px; }

selector   Property   Value   Property   Value

ID selector

- ID selectors in CSS allow you to <u>target elements</u> (Tags) by their ID values
- ID selectors are unique, so you can apply only to the content of <u>one element</u>
- To reference an ID, you precede the ID name with a hash mark (#)

```
e.g.

#headingcolor {color: #FF0066;}

<h1 id="headingcolor">ID Selector</h1>
```

ID Selector Example

```html
<html>
    <head>
        <style type="text/css">
            #headingcolor {color: #FF0066;}
        </style>
    </head>
    <body>
        <h1 id="headingcolor">ID Selector</h1>
        <h1>Without ID Selector</h1>
    </body>
</html>
```

ID Selector

Without ID Selector

Class Selector

- References the class attribute used on HTML elements.

- Class selector begins with a dot(.) and followed by a class name

```
.headingcolor {color: #FF0066;}

<h1 class="headingcolor">Class Selector</h1>
```

■ Unlike the id attribute, multiple elements may share same class name, also an element may belong to more than one class

Class in multiple elements

```css
.textcolor {color: #FF0066;}
<p class="textcolor">Paragraph in class selector</p>
<h1 class="textcolor">Heading in Class Selector</h1>
```

- Above code multiple element shared same class name (.textcolor)

Multiple Classes in the same Element

```css
.textcolor1 {color: #00FF00;}
.textcolor2 {color: #0000FF;}
```

```html
<p class="textcolor1">Paragraph in class textcolor1</p>
<p class="textcolor2">Paragraph in class textcolor2</p>
```

■ Above code same element implement different class name (.textcolor1 and .textcolor2).

Classes limited to one type of Element

- Class Selector, you can limit the scope of the style sheet (CSS) rule to only that type of element

```
h1.textcolor {color: #FF0066;}
```

- Above code, the selector matches any h1 elements that have a class attribute containing the word "textcolor". If any other element have the class name "textcolor" wont work.

Example

```html
<html>
    <head>
        <style type="text/css">
            h1.textcolor {color: #FF0066;}
            .textcolor1 {color: #00FF00;}
            .textcolor2 {color: #0000FF;}
        </style>
    </head>
    <body>
        <h1 class="textcolor">Heading </h1>
        <h2 class="textcolor">Wrong implementation !! </h2>
        <p class="textcolor1">Paragraph in class textcolor1</p>
        <p class="textcolor2">Paragraph in class textcolor2</p>
        <h1 class="textcolor2">Heading </h1>
    </body>
</html>
```

Heading

Wrong implementation !!

Paragraph in class textcolor1

Paragraph in class textcolor2

Heading

CSS Navigation Menu

- Menus should be simple enough for the end user to understand, but also contain the necessary information to guide the end user through the entire website

CSS Menu Bar

Horizontal Menu (CSS Navigation bar)

Vertical Menu (CSS Side Menu)

Horizontal Menu

Options change color when the mouse hovers over the items

Selectable (user can click the buttons)

| Home | HTML | CSS | JavaScript | About |

Horizontal Menu

```
<!DOCTYPE html>
<html>
<head>
<style>
.navigation ul
{
    margin: 1px;
    padding: 1px;
    list-style-type: none;
    text-align: center;
}
.navigation ul li
{
    display: inline;
}
.navigation ul li a
{
    text-decoration: none;
    padding: .2em 1em;
    color: black;
    background-color: orange;
    border: 1px solid black;
}
.navigation ul li a:hover
{
    background-color: Bisque;
    color: black;
}
</style>
</head>
```

```
<body>
<div class="navigation">
 <ul>
 <li><a href="#">Home</a></li>
 <li><a href="#">HTML</a></li>
 <li><a href="#">CSS</a></li>
 <li><a href="#">JavaScript</a></li>
 <li><a href="#">About</a></li>
 </ul>
 </div>
</body>
</html>
```

Vertical Menu

```html
<!DOCTYPE html>
<html>
<head>
<style>
.navigation ul
{
    margin: 1px;
    padding: 1px;
    list-style-type: none;
}
.navigation li
{
    margin: 0 0 4px 0;
}
.navigation a
{
    display: block;
    color: black;
    background-color: orange;
    width: 120px;
    padding: 4px 12px;
    text-decoration: none;
    border: 1px solid black;
}
.navigation a:hover
{
background-color: Bisque;
color: black;
}
</style>
</head>
```

```html
<body>
<div class="navigation">
 <ul>
 <li><a href="#">Home</a></li>
 <li><a href="#">HTML</a></li>
 <li><a href="#">CSS</a></li>
 <li><a href="#">JavaScript</a></li>
 <li><a href="#">About</a></li>
 </ul>
 </div>
</body>
</html>
```

Home
HTML
CSS
JavaScript
About

Dropdown Menu

CSS dropdown menu provides dynamic and hierarchical view of all main sections on the web page and subsections contained within them. When activated a drops down, it displays a list of values, which allows the user to choose one value from a list

```html
<!DOCTYPE html>
<html>
<head>
<style>
    .navigation ul
    {
        list-style-type: none;
    }
    .navigation ul a
    {
      text-decoration: none;
    }
    .navigation ul li
    {
        float:left;
        border : 1px solid black;
        width:80px;
        padding:3px;
        background: orange;
        margin-right:8px;
    }
    .navigation ul li:hover
    {
        background: Bisque;
    }
    .navigation li ul
    {
        display:none;
        position:absolute;
    }
    .navigation li:hover ul
    {
        display:block;
        margin-top:2px;
        margin-left:-45px;
    }
    .navigation li ul li
    {
        clear:both;
        display : block;
        border : 1px solid black;
        padding:3px;
    }
</style>
</head>
<body>
<div class="navigation">
    <ul>
        <li><a href=".">Home</a></li>
        <li><a href=".">HTML</a>
            <ul>
                <li><a href=".">Tag</a></li>
                <li><a href=".">Link</a></li>
                <li><a href=".">Table</a></li>
            </ul>
        </li>
        <li> <a href=".">CSS</a>
            <ul>
                <li><a href=".">Selector</a></li>
                <li><a href=".">Positioning</a></li>
                <li><a href=".">Box Model</a></li>
            </ul>
        </li>
        <li> <a href=".">Javascript</a>
            <ul>
                <li><a href=".">Dom</a></li>
                <li><a href=".">String</a></li>
                <li><a href=".">Image</a></li>
            </ul>
        </li>
        <li><a href=".">About</a></li>
    </ul>
</div>
</body>
</html>
```
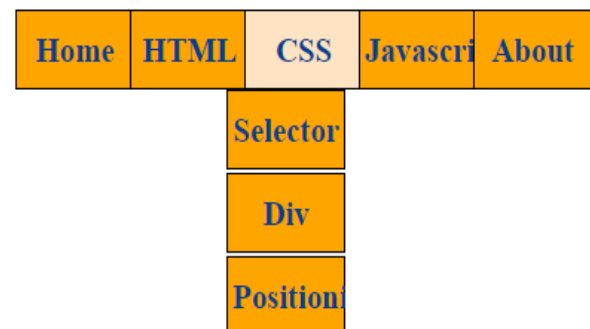
Overlay in CSS

Overlay images/text on top of one another

Add 'triggers' that allow overlays to change (e.g., when mouse is over the image/text)

Image Hover Effects (Image Rollovers)

CSS code shows how to present an Image hover effects

Image.

mouse over the Image

```html
<!DOCTYPE html>
<html >
<head>
<style type="text/css">
    .imgBox
    {
        width: 441px;
        height: 248px;
        background: url(/water.jpg) no-repeat;
    }
    .imgBox:hover
    {
        -moz-box-shadow: 0 0 10px #ccc;
        -webkit-box-shadow: 0 0 10px #ccc;
        box-shadow: 0 0 10px #ccc;
    }
</style>
</head>
<body>
    <div class="imgBox">
    </div>
</body>
</html>
```

Make A Rollover Image Effect

Image link changes when mouse hovers over the image

mouse over the Image Link

```
<!DOCTYPE html>
<html >
<head>
<style type="text/css">
    .urlImg {
        width: 185px;
        height:185px;
        display:block;
        background-image: url('img/duck.png');
    }
    .urlImg:hover {
        background-image: url('img/peng.png');
    }
</style>
</head>

<body>
<a href="http://www.hello.com" class="urlImg"></a>
</body>
</html>
```

Add color overlay to images

mouse over the image...

```html
<!DOCTYPE html>
<html >
<head>
<style type="text/css">
    .picColor{
        width:320px;
        height:240px;
        background: url(img/flower.png) no-repeat;
        border:5px solid #000000;
    }
    .picColor:hover
    {
        opacity:0.9;
        background:#FFFFFF;
        width:320px;
        height:240px;
    }
</style>
</head>

<body>
    <div class="picColor">
    </div>
</body>
</html>
```

One image on top of another

mouse over the image.......

```html
<!DOCTYPE html>
<html >
<head>
<style type="text/css">
    .imgOverlay
    {
        width: 240px;
        height: 240px;
        background: url(img/fish-all.png) no-repeat;
    }
    .imgOverlay:hover {
        background: url(img/flower.png) no-repeat;
    }
</style>
</head>

<body>
<div class="imgOverlay">
</div>
</body>
</html>
```

CSS image hover text overlay

mouse over the image...

The tiger is the largest cat species, reaching a total body length of up to 3.3 m and weighing up to 306 kg. Its most recognizable feature is a pattern of dark vertical stripes on reddish-orange fur with a lighter underside.

```
<!DOCTYPE html>
<html >
<head>
<style type="text/css">
    .txtOverlay{
        width:390px;
        height:206px;
        opacity:0.9;
        font-size:20px;
        font-weight:700;
        text-align:justify;
        border:5px solid #FFA500;
        padding:5px;
        background: url(img/tiger-img.png) no-repeat;
    }
    .theText{
        opacity:0;
    }
    .txtOverlay:hover .theText
    {
        opacity:0.9;
        color:#FFFFFF;
        font-size:20px;
        font-weight:700;
    }
</style>
</head>

<body>
<div class="txtOverlay">
    <div class="theText">
        <br><br>
        The tiger is the largest cat species,
        reaching a   total body length of up to
        3.3 m and weighing up    to 306 kg. Its
        most recognizable feature is a pattern
        of dark vertical stripes on reddish-orange
        fur with a lighter underside.<br><br>
    </div>
</div>
</body>
</html>
```

This Week

- Review Slides
- Read Associated Chapters
- Weekly Tasks
  - ▷ Update GitHub Website
- **<u>Online Quizzes</u>**

Summary

- Overview of CSS Selectors

- Different Selectors
  - ▷ E.g., Universal, Grouped, ..

- Selectors in CSS effectively for styling HTML documents

- Hands-On/Practical

Questions/Discussion