CSS Basics

What is CSS, Syntax, Selectors, Inheritance & Specificity

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What is CSS?

What is CSS?

- CSS - Cascading Style Sheets

  - CSS is a style sheet language used for describing the look and formatting of a document written in a markup language.

  - CSS is designed primarily to enable the separation of document content from document presentation, including elements such as the layout, colors, and fonts.

    This separation can improve content accessibility, provide more flexibility and control, enable multiple pages to share formatting, and reduce complexity and repetition in the structural content

CSS Syntax

CSS Syntax

- Every CSS document is a collection of CCS rules.
- Every CSS rule has two main parts:
  - Selector
  - One or more declarations

CSS Rule

```
selector {
    declaration
}
```

CSS Rule - Selector

```
body {
 ...
}
```

CSS Rule - One or more declarations

```
...
 font: 16px/1.5 Verdana, sans-serif;
 color: #333;
...
```

CSS Selector

- The selector is a identifier of the HTML element or the group of HTML elements you want to style.

CSS Declaration

- Declarations end with a semicolon, and declaration groups are surrounded by curly brackets.

```css
p {
    color: red;
    text-align: center;
}
```

CSS Selectors

Element selectors

- Using the HTML tag names as selectors will apply styles to all tags in the document.

Element selectors

- Styling all titles of level 1:

```css
h1 {
    text-align: center;
    color: #000;
}
```

- Adding more white space after each paragraph:

```css
p {
    padding-bottom: 15px;
}
```

The `id` selector

- The id selector uses the id attribute of the HTML element, and is defined
  with a "#".

- Using the id selector will give you the exact element you are referring to.

The `id` selector

- Adding border to the top and bottom of an HTML element with attribute id="header".

```css
#header {
    border: 1px solid #CCC;
    border-width: 1px 0;
}
```

The `class` selector

- The class selector uses the HTML class attribute, and is defined with a "." (dot)

- The class selector allows you to set a particular style for many HTML elements with the same class.

The `class` selector

- All HTML elements with class="mod" will have bordet on top:

```css
.mod {
    border-top: 1px solid #000;
}
```

Attribute selectors

- Style HTML Elements With Specific Attributes

```css
a[title] {
    color:blue;
}
```

Pseudo-classes

- CSS pseudo-classes are used to add special effects to some selectors.

```
selector:pseudo-class {property:value;}
```
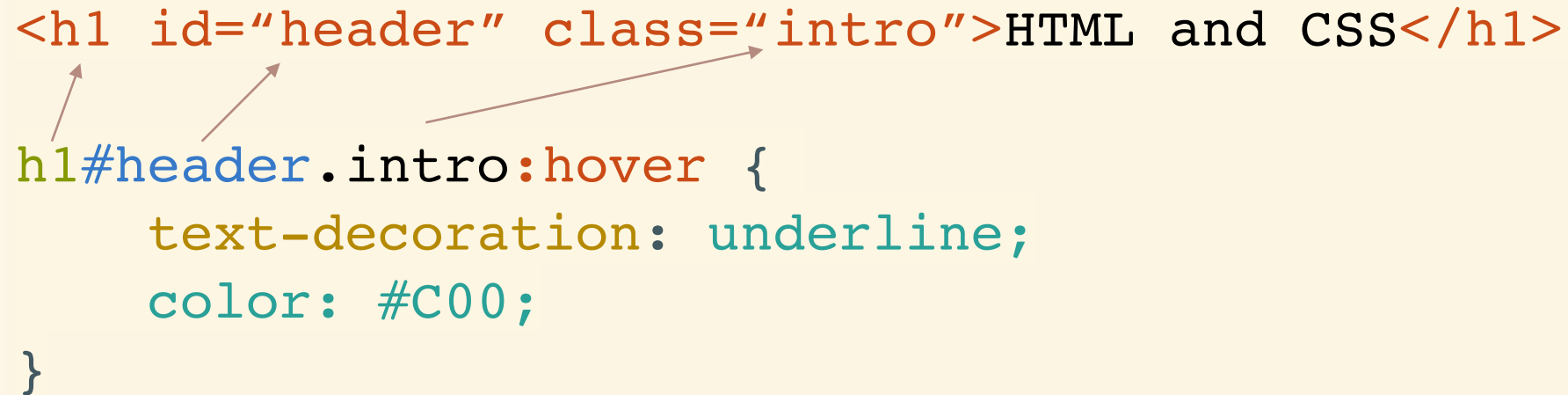
- Changing the styles of a link when the user's mouse is over it.

```
a:hover {
    text-decoration: underline:
    color: #C00;
}
```

Combining selectors

- We can combine selectors to achieve more complex and specific rules.

```
<h1 id="header" class="intro">HTML and CSS</h1>

h1#header.intro:hover {
    text-decoration: underline;
    color: #C00;
}
```

Adding CSS to our HTML documents

Three Ways to Insert CSS

- External style sheet
- Internal style sheet
- Inline style

External Style Sheet

- An external style sheet is ideal when the style is applied to many pages. With an external style sheet, you can change the look of an entire Web site by changing one file. Each page must link to the style sheet using the tag. The tag goes inside the head section:

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

Internal Style Sheet

- An internal style sheet should be used when a single document has a unique style. You define internal styles in the head section of an HTML page, by using the

Inline Styles

- An inline style loses many of the advantages of style sheets by mixing content with presentation. Use this method sparingly!

Inheritance & Specificity

Inheritance & Specificity

- CSS relies heavily on specificity and style overwriting.

- Its in the name! - *Cascading* Style Sheets

Cascade order

- In increasing order of priority.

    1. External <link>
    2. In the <head>
    3. Inline style attribute
    4. Using !important

Selector priority (specificity)

0	0	0	0
Inline styles	*number of id selectors*	*number of class selectors*	*number of element selectors*

Selector priority (specificity)

```
p { color: #FFF; }                        0, 0, 0, 1

.intro { color: #345678; }                0, 0, 1, 0

#header { color: #000; }                  0, 1, 0, 0

<p style="color: #000;">Text</p>          1, 0, 0, 0

p.intro#header { color: #FFF; }           0, 1, 1, 1

p { color: #000 !important; }             God-mode
```

Most popular CSS properties

Background

- background-color: #fff;
- background-image: url(../image.png);
- background-repeat: repeat | repeat-x | repeat-y | no-repeat;
- background-position: top left;

Text

- color: #000;
- text-align: left | right | center | justify;
- text-decoration: underline | overline | line-through | none;
- text-transform: uppercase | lowercase | capitalize;
- text-indent: 50px;

Font

- font-family: Verdana, Arial, sans-serif
- font-style: italic | normal;
- font-size: 16px;
- font-weight: bold | normal;

Border

- border-style: solid | dotted | dashed | double;
- border-color: #C00;
- border-width: 2px;

Margin

- margin-top: 10px;
- margin-right: 10px;
- margin-bottom: 10px;
- margin-left: 10px;

Padding

- padding-top: 10px;
- padding-right: 10px;
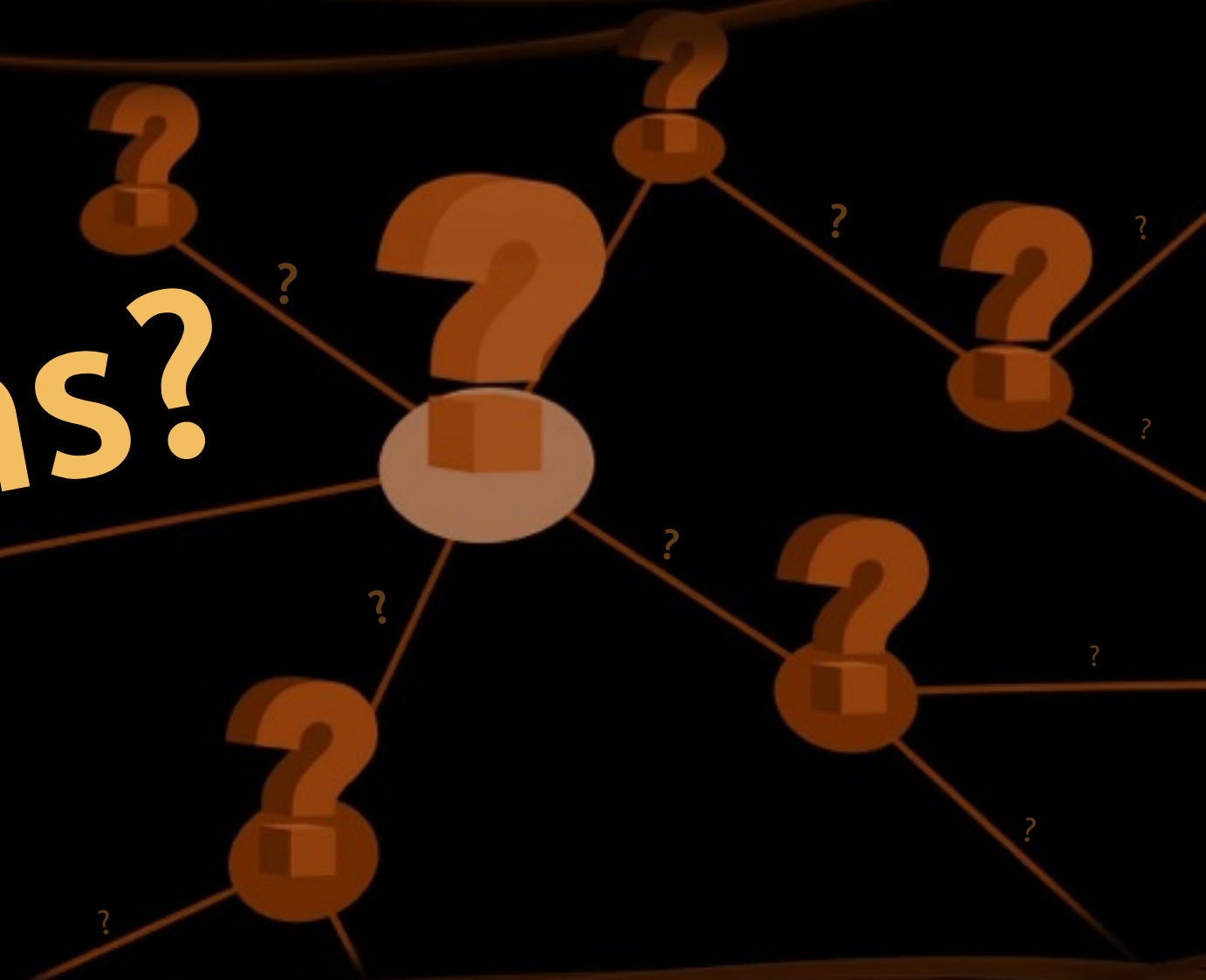- padding-bottom: 10px;
- padding-left: 10px;

Lists styles

- list-style-type: none | circle | disc;
- list-style-position: inside | outside;
- list-style-image: url('../image');

Link styles

```css
a:link      { color: #369; }   /* unvisited link */
a:visited   { color: #147; }   /* visited link */
a:hover     { color: #58B; }   /* mouse over link */
a:active    { color: #C00; }   /* selected link */
```

Questions?

Demonstration & Practice

Homework

- Task1 - Some light reading
  - Read through the [CSS section on WebPlatform.org](#)
  - Look at the [CSS Reference @ Mozilla Developer Network](#)
  - Read the first 10 chapters of [Getting started with CSS @ Mozilla Developer Network](#)

Homework

- Task2 - Create a simple HTML page including
    - At least 5 long paragraphs of text
        - Make some of the text bold
        - Make some of the text italic
        - Add a few links
    - All 6 heading levels
    - Unordered list - at least 2 levels deep
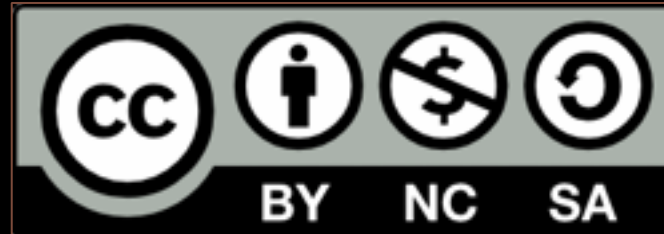   - Ordered list - at least 2 levels deep

Homework

- Task3 - Style the HTML document from Task2
  - Add some color to the text
  - Add border styles to the lists
  - Change the background of the page
  - … play around with styles, try stuff out!

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