COMP2155

BUILDING WEB APPLICATIONS

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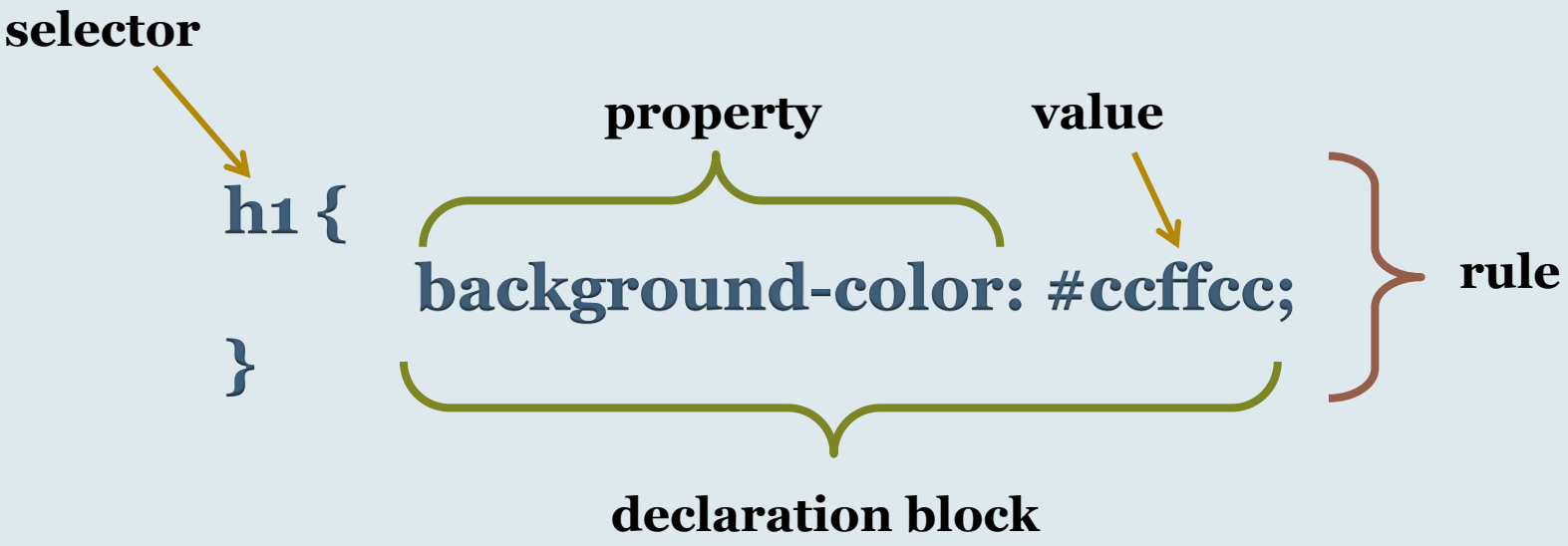
LECTURE 7

Cascading Style Sheets

CRASH COURSE ON CSS

Getting to Know You

- What are the basic elements used in CSS?



What Happens When…?

a. A rule is defined incorrectly
b. Multiple rules are defined for one element
c. Multiple style sheets are linked in one page

Answers

a. The rule is ignored
b. The rules are applied in the order they occur
c. The rules in each style sheet are combined and applied, but with exceptions

Bringing CSS and XHTML Together


```
<html>
  <head>
    <title>Eric's World of Waffles</title>
    <link rel="stylesheet" type="text/css" href="sheet1.css" media="all" />
    <style type="text/css">
      @import url(sheet2.css);
      h1 {color: maroon;}
      body {background: yellow;}
     /* These are my styles! Yay! */
    </style>
  </head>
  <body>
   <h1>Waffles!</h1>
   <p style="color: gray;">The most wonderful of all breakfast foods is the
waffle; ridged and cratered slab of home-cooked, fluffy goodness that makes
every child's heart soar with joy. And they're so easy to make! Just a simple
waffle-maker and some batter, and you're ready for a morning of aromatic
ecstasy! </p>
   </body>
</html>
```

Style Sheet Usage – The Exceptions

- Remember we said there are exceptions to style sheet usages?
- Alternate Style Sheets
  - Just like what they sound like. Style sheets that can be selected by the user if the user agent (browser) allows it
  - Declared as: <style rel="alternate stylesheet" ...>... </style>
- Example:

```
<link rel="stylesheet" type="text/css" href="sheet1.css"
title="Default" />
<link rel="alternate stylesheet" type="text/css"
href="bigtext.css" title="Big Text" />
<link rel="alternate stylesheet" type="text/css"
href="zany.css" title="Crazy colors!" />
```

Style Sheet Usage – The Exceptions

- Preferred vs. Alternate Style Sheets
  - Style sheets can also be grouped together using the title attribute
  - Give different style sheets the same title and they form a group, but this comes with caveats

```
<link rel="stylesheet" type="text/css" href="sheet1.css"
title="Default" media="screen" /> preferred
<link rel="stylesheet" type="text/css" href="print-sheet1.css"
title="Default" media="print" /> preferred
<link rel="alternate stylesheet" type="text/css" href="bigtext.css"
title="Big Text" media="screen" /> alternate
<link rel="alternate stylesheet" type="text/css" href="print-
bigtext.css" title="Big Text" media="print" /> alternate
```

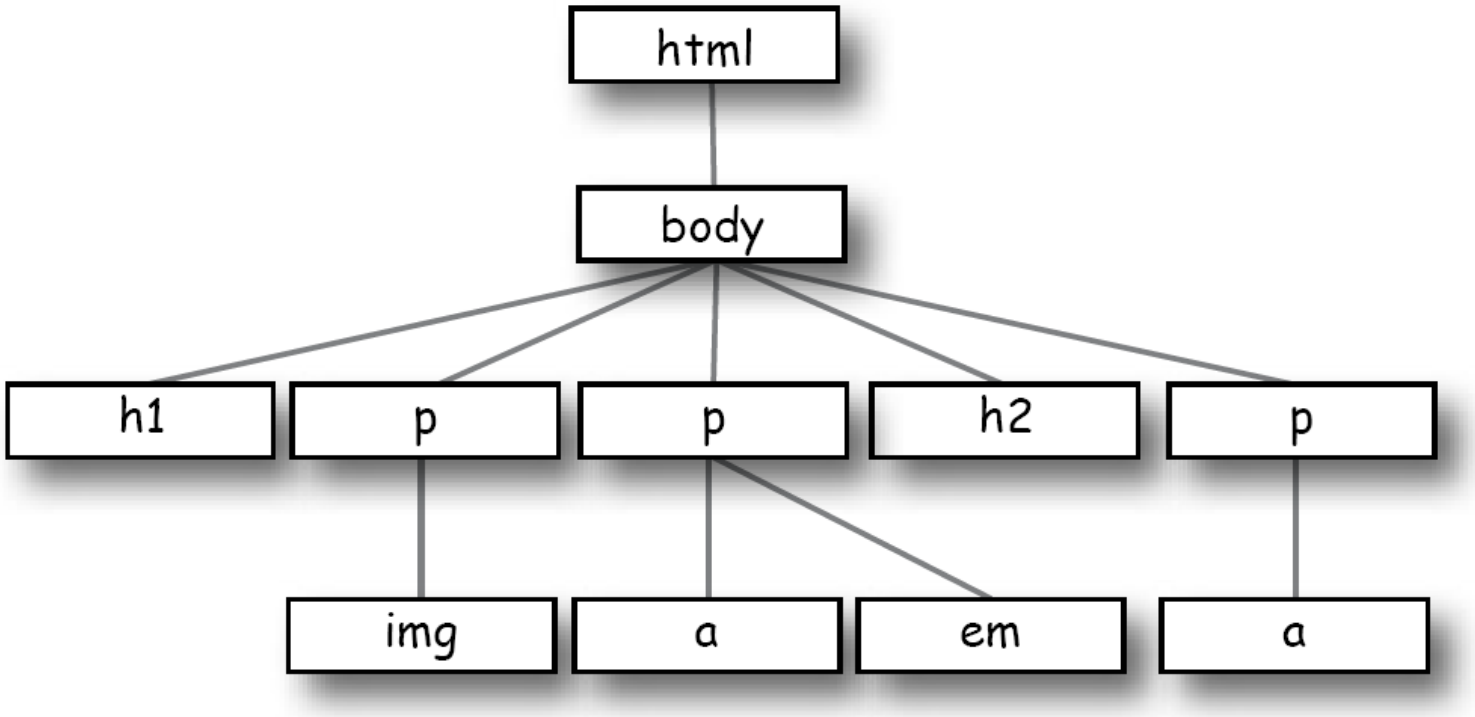
  - rel + stylesheet + title = preferred

Style Sheet Usage – The Exceptions

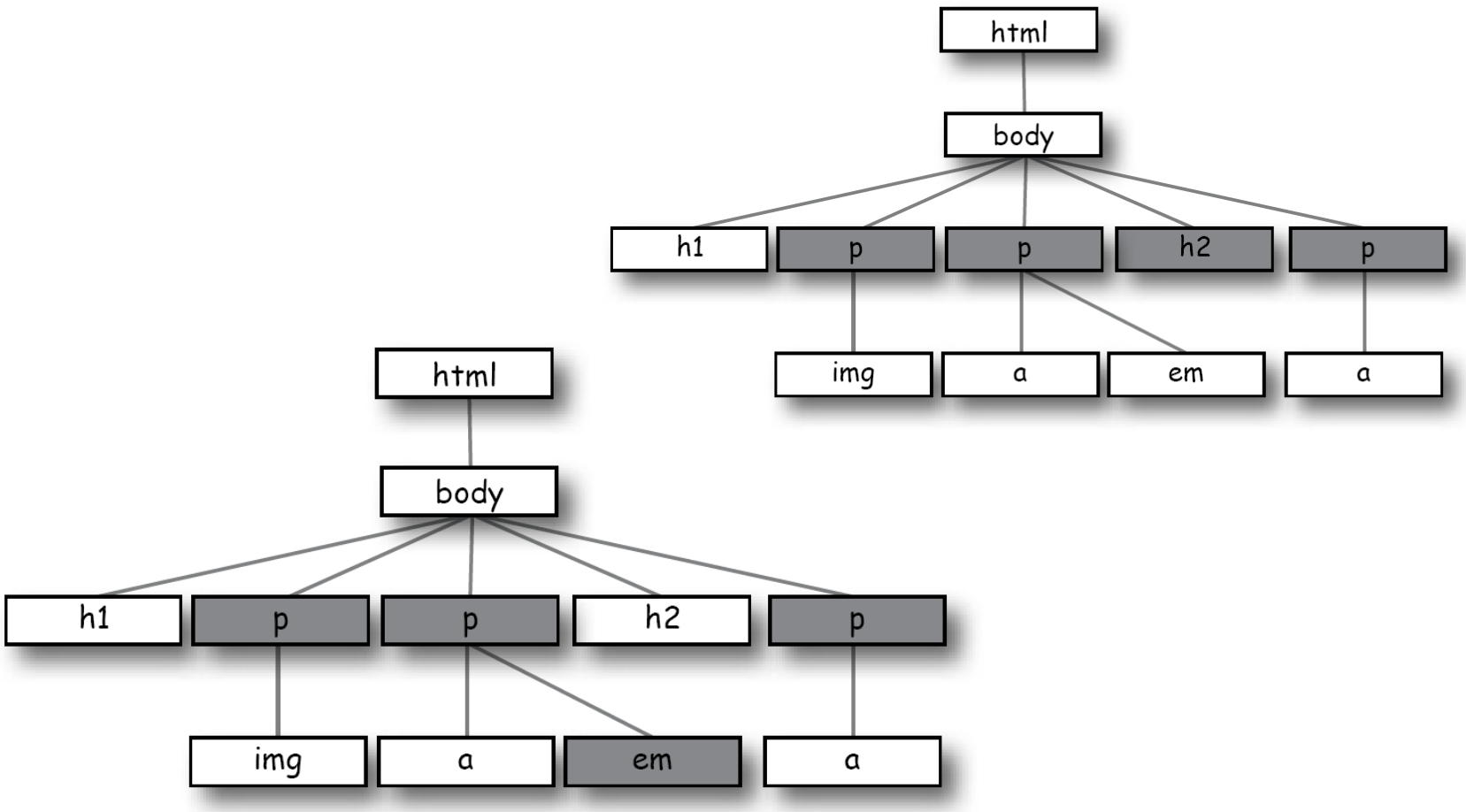
- Preferred vs. Alternate
  - If an alternate style sheet is selected, then none of the preferred style sheets are used
  - If multiple style sheets are designated as preferred, i.e. different style sheets with different titles, then only one style sheet is selected and used
    - Which one is selected? Who knows. There is nothing specified in the HTML/XHTML standard for this
- Persistent Style Sheet
  - What you really want
  - No title specified, so it always displays in the document

Yeah yeah, enough of this style sheet mumbo jumbo. Let's get back to what really matters - writing CSS!

How Selectors Work

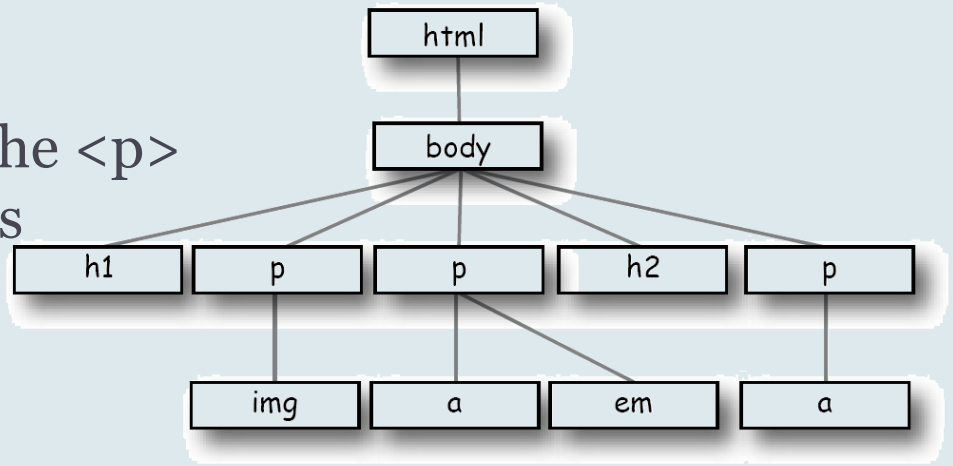


How Selectors Work



Inheritance

- It's not money.
- It's similar to the O-O concept
- It describes how styles are passed on to nested elements
- Example
  - Properties declared for the <p> element will pass onto its child elements
  - There are exceptions!



Questions

- How do you know which properties are or can be inherited?
  - You don't know off-hand, it's not intuitive
  - Decided by the CSS specification
  - See the full CSS property table at http://www.w3.org/TR/CSS2/propidx.html
- How does the browser know which rules to override?

Overriding Inheritance

- To override inheritance, simply create a more specific rule for the element that needs to be changed
- Example

```
body {
   font-family: Times Roman;
}

em {
  font-family: Verdana
}
```

Some Quick Info

- Classes
  - aka Class selector
  - The most common way to apply styles without worrying about the elements involved
  - Example

```
h1.redwarning {
    color: red;
}

<html>
…
<h1 class=“redwarning”>Danger! Danger!</h1>
…
</html>
```