<!DOCTYPE html>

<html>

<head>

<meta http-equiv="Content-Type" content="text/html; charset+utf-8">

<title>Understanding CSS: Selector Specificity</title>

<link rel="stylesheet" type="text/css" href="reset.css">

<link rel="stylesheet" type="text/css" href="style.css">

</head>

<body>

<header>

<h1>Understanding CSS: Selector Specificity</h1>

<p>Daniel Eden | Aug 7</p>

</header>

<section>

<p>Let me throw you a scenario you may be very familiar with.</p>

<p>You're working on a feature for a website or web app that requires some overriding or

other changes to the style of a component. You jump into Web Inspector, grab the class

for the element(s) in question and write some new CSS. Easy. However, after refreshing

the page, none of the changes have been made - or some have, but not all of them. Maybe

the color changes, but the 'margin-left: auto' you gave the element remains the same.</p>

<p>This is usually because of <strong>specificity</strong>. CSS specificity refers to the

specificity of the conditions of a CSS selector. Here's an example</p>

<ing src="images/code-01.png"/>

<p>This selector has a low specificity, since it's just targeting an 'a' element. Let's

increase the specificity.</p>

<ing src="images/code-02.png"/>

<p>This CSS is targeting an 'a' element inside any element with a class of 'modal'. we could

add a condition to the class selector, too:</p>

<ing src="images/code-03.png"/>

<p>Now the CSS is targeting 'a' elements inside 'div's with a class of 'modal'.</p>

<p>The more conditions there are in a CSS selector, the higher its specificity. Specificity

trumps the cascade, so in this case:</p>

<ing src="images/code-04.png"/>

<p>Even though the rule on line 5 appears later in the stylesheet, its specificity is not

as high as the rule on line 1, so 'a' elements inside 'div's with a class of 'modal'

will appear green.</p>

<h2>Calculating CSS specificity</h2>

<p>Now that we understand the implication of selector specificity, let's get some hard

numbers to help us diagnose specificity issues.</p>

<p>People smarter than myself managed to come up with a numerical representation of CSS

specificity, allowing us to calculate specificity scores. It works out like this:</p>

<ul>

<li>Elements and pseudo-elements ('a, div , body, :before :after') get a score of 1</li>

<li>Classes and attribute selectors ('.element, [type="text]') get a score of 10</li>

<li>IDs ('#header') get a score of 100</li>

<li>Inline styles get a score of 1000</li>

</ul>

<p>Let's calculate the score for one of the earlier examples.</p>

<ing src="images/code-05.png"/>

<p>This selector has:</p>

<ul>

<li>5 elements (5)</li>

<li>1 class (10)</li>

<li>2 IDs (200)</li>

</ul>

<p>Giving it a total specificity score of 215. You'd have to write a rule of equal or higher

specificity to override the styles applied by it.</p>

<p>With the scoring in mind, take a look at the specificity graph for Dropbox's 'main.css'

here. You can see the graph spikes at a <span class="bold">score of 532</span>. That means

a CSS selector that looks something like this:</p>

<ing src="images/code-06.png"/>

<p>Bear in mind this is the specificity of an actual selector in Dropbox's CSS today.

Yikes.</p>

<h2>Avoiding Over-Specific CSS</h2>

<p>Avoiding writing overly-specific CSS rules takes just being mindful of a couple of

things.</p>

<ol>

<li>Avoid nesting</li>

<li>Aim for low specificity when increasing specificity is a requirement</li>

</ol>

<p>Understanding how CSS specificity works will make those things much easier, and if you

made it this far, you should have a pretty good understanding by now!</p>

</section>

<footer>

<h3>Further Reading/Resources</h3>

<ul>

<li><a href="http://cssstats.com/">CSS Stats</a> is a great utility for analyzing CSS

size, specificity, and other interesting stats.</li>

<li>This <a href="https://css-tricks.com?specifics-on-css-specificity/">CSS-Tricks</a>

article has a few more code examples of specificity.</li>

<li><a href="http://specificity.keegan.st/">Specificity Calculator</a> lets you input CSS

selectors to get their specificity score. More interesting than necessarily useful.</li>

</ul>

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</footer>

</body>

</html>