

lesson 2

CSS RULES SPECIFICITY



In the first module, we will work in style.css file for the first time in this course. If you are already familiar with CSS and know what specificity and cascading are, you can skip this lesson.

Specificity is an algorithm that user-agent uses to determine which rule to apply to a particular element if that rule occurs multiple times in a CSS file. Sounds a little confusing? Let figure out how does it work while doing the module.

Inside the svg element, There are six rect elements. The default value of the fill property for any basic shape is "black". Let's rewrite the default value in the first rect element by adding a fill presentation attribute with the value of "orange". As you can see, the color of the first rectangle has changed to orange. As I said in the lesson's video, we can style elements by using presentation attributes, but using the CSS files is much more convenient. Open the style.css file in a text editor. You can see the asterisk (*) selector at the top of the file. Inside the Declaration block, add the fill property with the value of "red". We see that the color of all elements has changed to red. The asterisk element is a universal selector, and that means that all CSS rules that located inside the declaration block will be applied to all elements in this document.

You should add three rect selectors above the asterisk selector, then add the fill property to each of the three selectors. The top rect selector should have a fill property with a value of rosybrown, the middle rect selector should have a fill property with a value of blanchedalmond, and the bottom rect selector should have a fill property with a value of green.

All the rectangles became green. Let's comment out the fill property of the lower and middle rect selectors by using the following pattern `/* fill:green */` and `/* fill:blanchedalmond*/`. As we can see the color of the rectangles has changed to rosybrown.

Let's uncomment the fill property of the middle rect selector. All rectangles became

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blanchedalmond. Why did it happen? The value of the fill property of the middle rect selector was used. Let's uncomment the rect selector with the "fill: green;" property.

Let's figure out how does it works? If any CSS rule is defined several times in the document and its selectors have the same specificity, then the lowest rule applied, in our case, it is the rect selector with the "fill:green";

Although the selector * is lower in the document, its specificity is lower (0 0 0 0 0) than the rect selector(0 0 0 0 1) specificity.

Let's add selector svg > rect {fill:yellow;} Above rect selector with the {fill:green} declaration block. As we can see the specificity of the svg > rect selector is higher (0 0 0 0 2) than the rect selector specificity(0 0 0 0 1).

Let's add a rect.third selector with the {fill:violet;} above the svg > rect selector. We can see that all rect elements that have a class with the value of "third" became violet. The rect.third selector has the specificity {0 0 0 1 1}.

Add the rect#ids selector with {fill: blueviolet;} above rect.third. Blueviolet color applied to rect element with id="ids". The specificity of the rect#ids selector is {0 0 1 0 1}.

Add the style attribute with the value "fill="brown" to the fifth rect element, cut the id attribute from the fourth rect element and paste it to the fifth rect element. As you can see, inline styles have been applied to the element. {fill:brown} rule has higher specificity {0 1 0 0 0 } than rect#ids selector's specificity.

Add rect.important{fill:cadetblue !important;} on the very top of the style.css file and add the important class to the last rect element. The specificity of the css rule {fill:cadetblue} is {1 0 0 1 1}.

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In the second module, you should calculate the specificity for each CSS rule the same way as shown in the example.

```
g.rect-container g#second-group rect {  
    fill: blanchedalmond;  
}
```

fill: blanchedalmond;

0	0	1	1	3
---	---	---	---	---

```
svg .third #forth-rect {  
    fill: burlywood;  
}
```

fill: burlywood;

--	--	--	--	--

```
g.third > g#first + g#second rect {  
    fill: blueviolet;  
}
```

fill: blueviolet;

--	--	--	--	--

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```
g.third > g#first + g#second rect.first{  
    fill:darkcyan !important;  
}
```

fill:darkcyan

