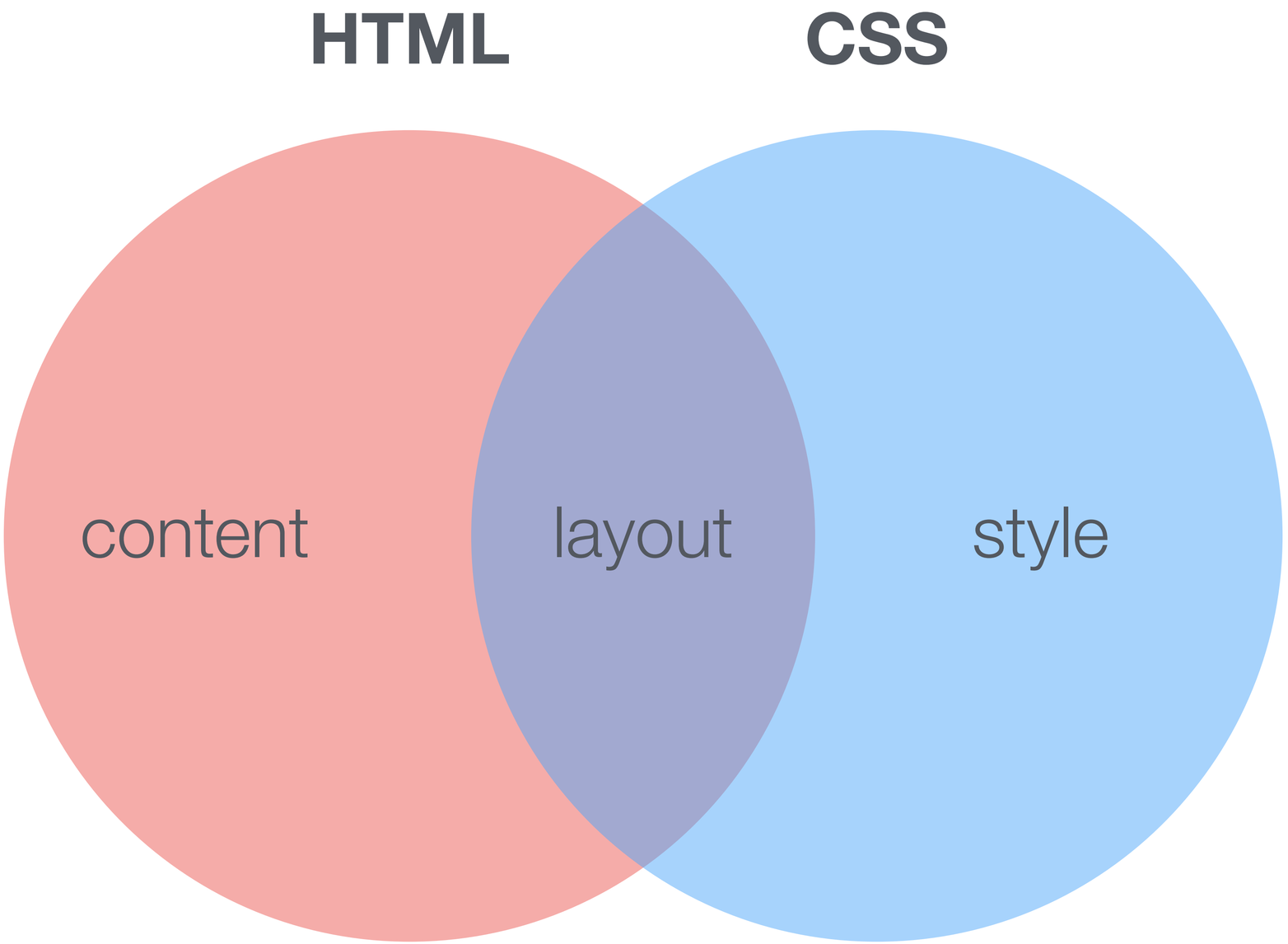
CSS

CSS

- **CSS defines how the content is presented**
  - Determines stuff like font size, colors, animations


HTML
CSS
content
layout
style

WITH CSS

CSS

Languages | Edit

CSS (Cascading Style Sheets) is a declarative language that controls how webpages look in the browser. The browser applies CSS style declarations to selected elements to display them properly. A style declaration contains the properties and their values, which determine how a webpage looks.

CSS is one of the three core Web technologies, along with HTML and JavaScript. CSS usually styles HTML elements, but can be also used with other markup languages like SVG or XML.

A CSS rule is a set of properties associated with a selector. Here is an example that makes every HTML paragraph yellow against a black background:

```
/* The selector "p" indicate that all paragraphs in the document will be affected by that rule */
p {
  /* The "color" property defines the text color, in this case yellow. */
  color: yellow;

  /* The "background-color" property defines the background color, in this case black. */
  background-color: black
}
```

"Cascading" refers to the rules that govern how selectors are prioritized to change a page's appearance. This is a very important feature, since a complex website can have thousands of CSS rules.

Learn more

General knowledge

WITHOUT CSS

CSS

Jump to:

1. Learn more

CSS (Cascading Style Sheets) is a declarative language that controls how webpages look in the browser. The browser applies CSS style declarations to selected elements to display them properly. A style declaration contains the properties and their values which determine how a webpage looks.

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Learn more

General knowledge

- Learn CSS
- CSS on Wikipedia

Technical reference

- The CSS documentation on MDN
- The CSS Working Group current work

Learn about CSS

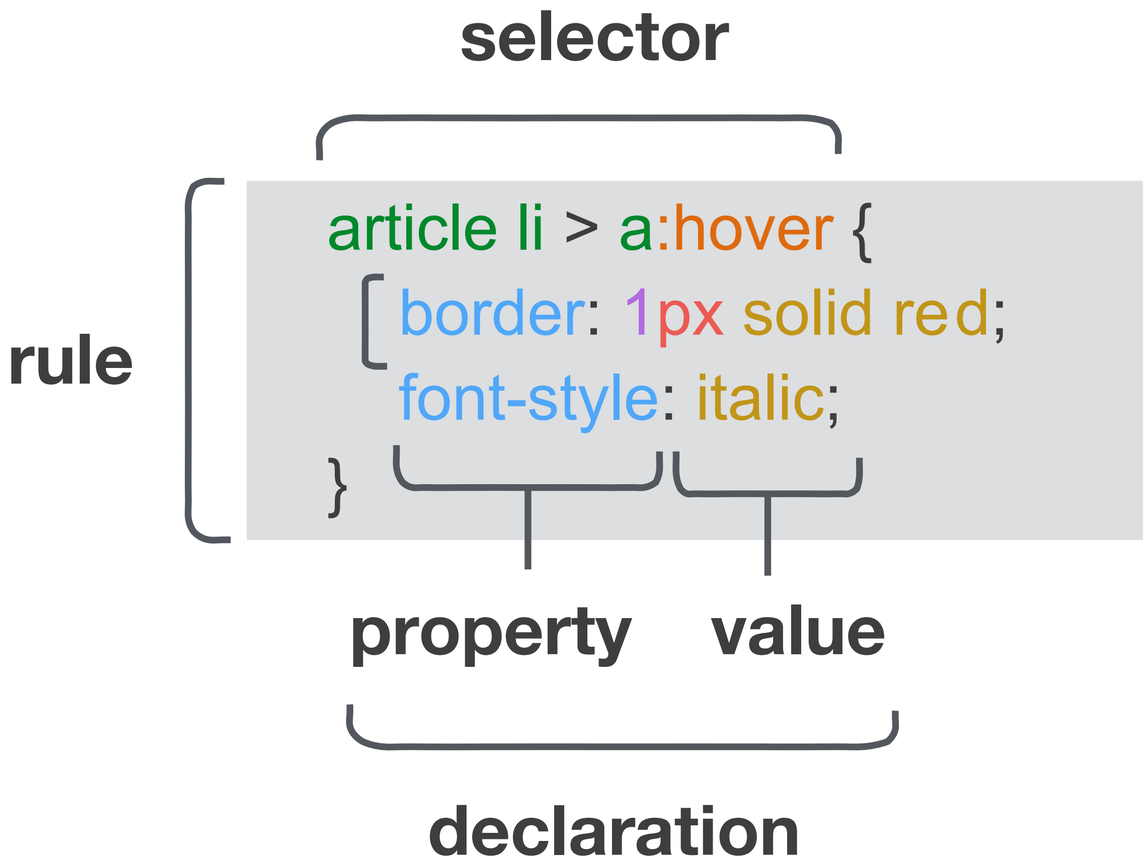
- The web course on codecademy.com

Document Tags and Contributors

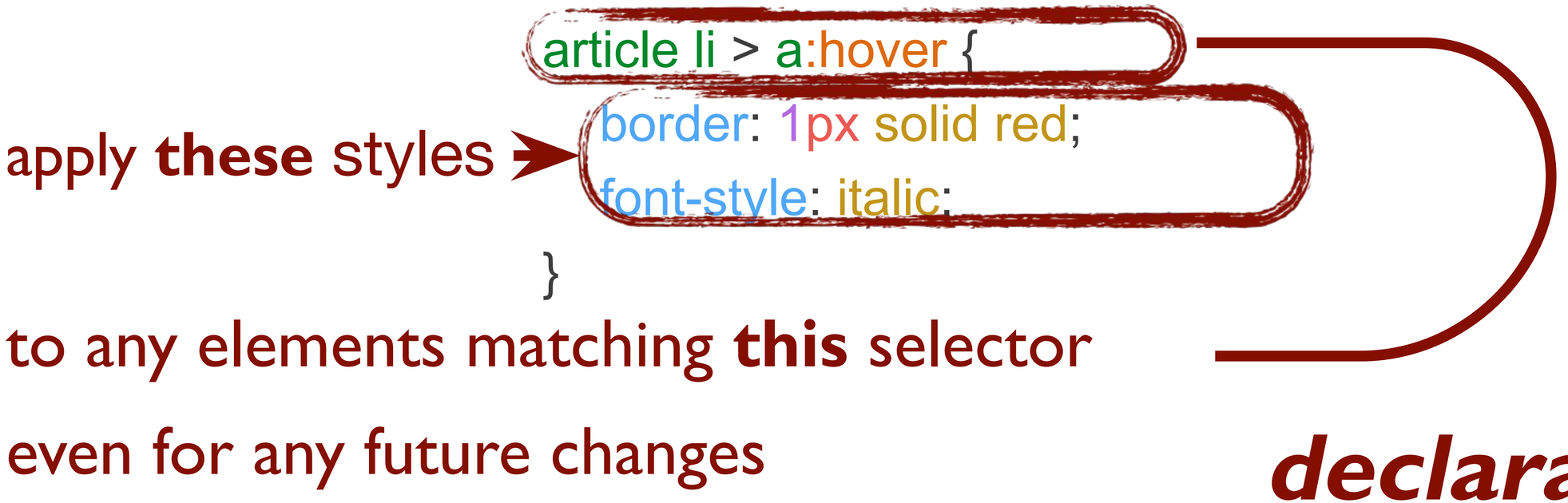
Tags:

- CodingScripting
- CSS
- Glossary
- l10n:priority
- Web

TERMS


selector
rule
article li > a:hover {
border: 1px solid red;
font-style: italic;
}
property
value
declaration

RULE EXAMPLE



SELECTORS

tag	input
class	.btn
id	#upload
attribute	[type=“file”]
pseudo-element	::after
pseudo-class	:hover
*	*

COMBINATORS

tag.class	element with BOTH tag AND .class
tag .class	element with .class whose ANCESTOR matches tag
tag,.class	element with EITHER tag OR .class
tag>.class	element with .class whose PARENT matches tag

CASCADING STYLE SHEETS

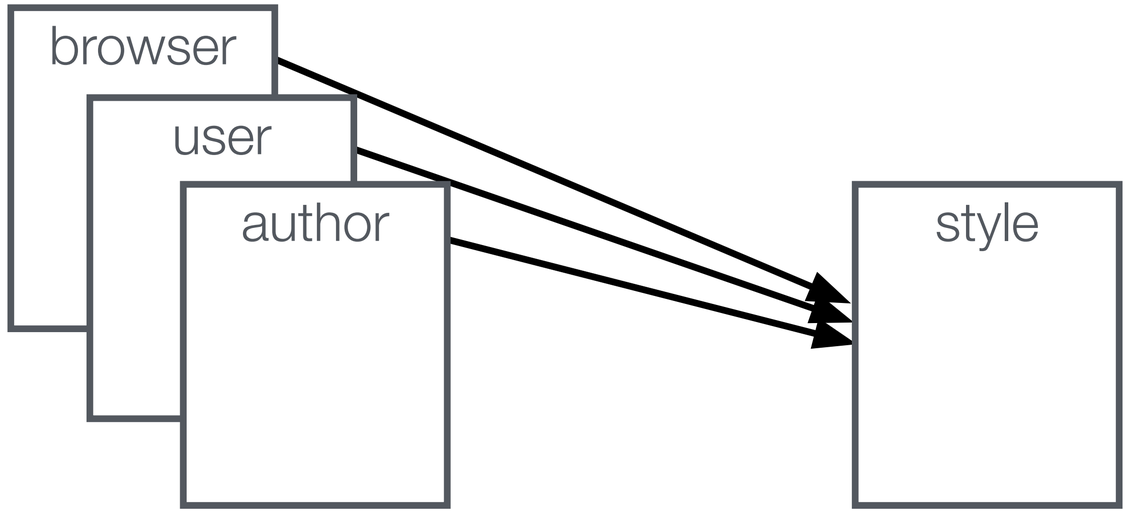
CASCADING

In ~1994... *CSS had one feature that distinguished it from all the [competing style languages]: it took into account that on the Web the style of a document couldn't be designed by either the author or the reader on their own, but that their wishes had to be combined, or "cascaded," in some way.*

CASCADING STYLE SHEETS, DESIGNING FOR THE WEB, BY HÅKON WIUM LIE AND BERT BOS (1999) - CHAPTER 20

CASCADING

An element's style is a merge of every rule whose selector matches



index.html

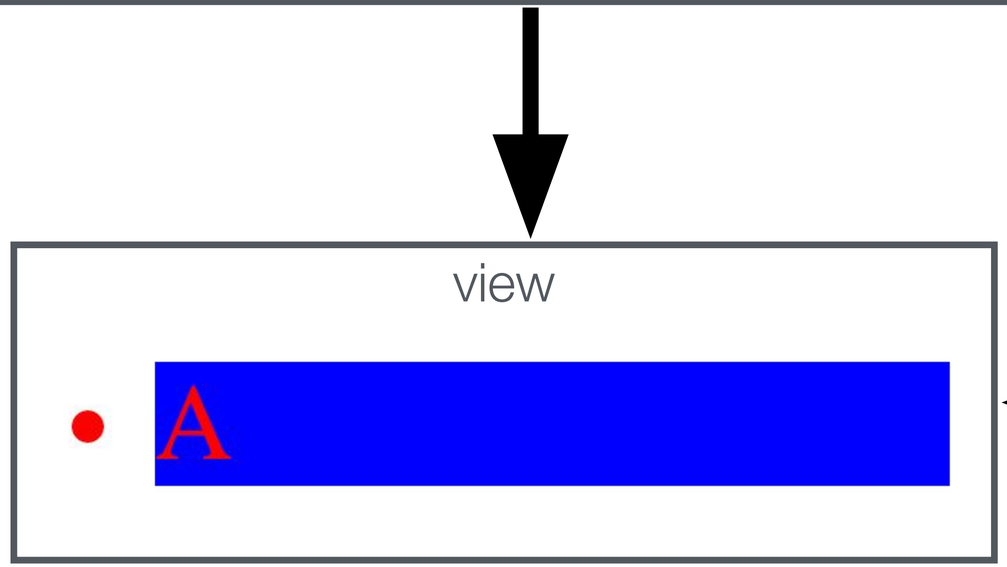
```
<head>
  <link rel="stylesheet" href="styles-B.css" />
  <link rel="stylesheet" href="styles-A.css" />
</head>
<body>
  <ul>
    <li style="background-color:blue;">A</li>
  </ul>
</body>
```

styles-A.css

```
li {
  color: red;
}
```

styles-B.css

```
li {
  font-size: 40px;
}
```



style

```
element.style {
  background-color: blue;
}

li {                                    styles-A.css:1
  color: red;
}

li {                                    styles-B.css:1
  font-size: 40px;
}

li {                                    user agent stylesheet
  display: list-item;
  text-align: -webkit-match-parent;
}
```

What happens when declarations conflict?

```
<div id="thing"></div>
```

```
div {
  background: red;
}
```

```
#thing {
  background: blue;
}
```

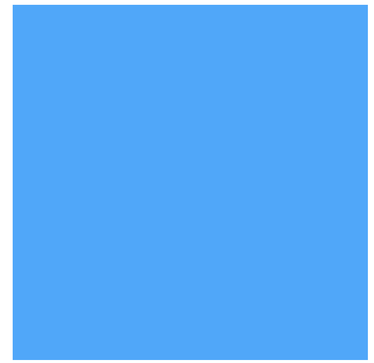
```
<div class="foo"></div>
```

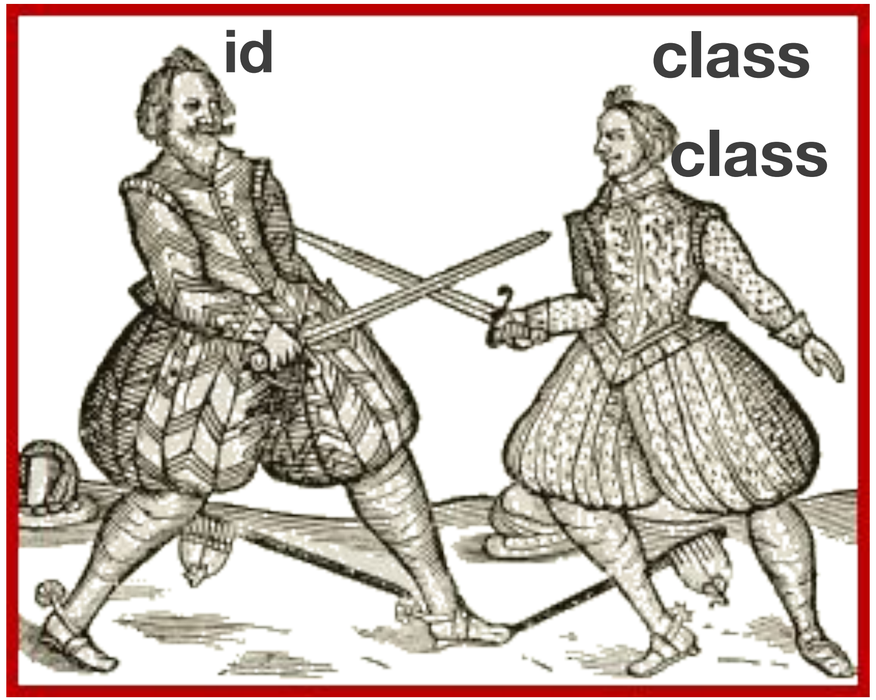
```
div {
  background: red;
}
```

```
.foo {
  background: green;
}
```

```
<div id="thing" class="foo bar"></div>
```

```
#thing {
  background: blue;
}
```

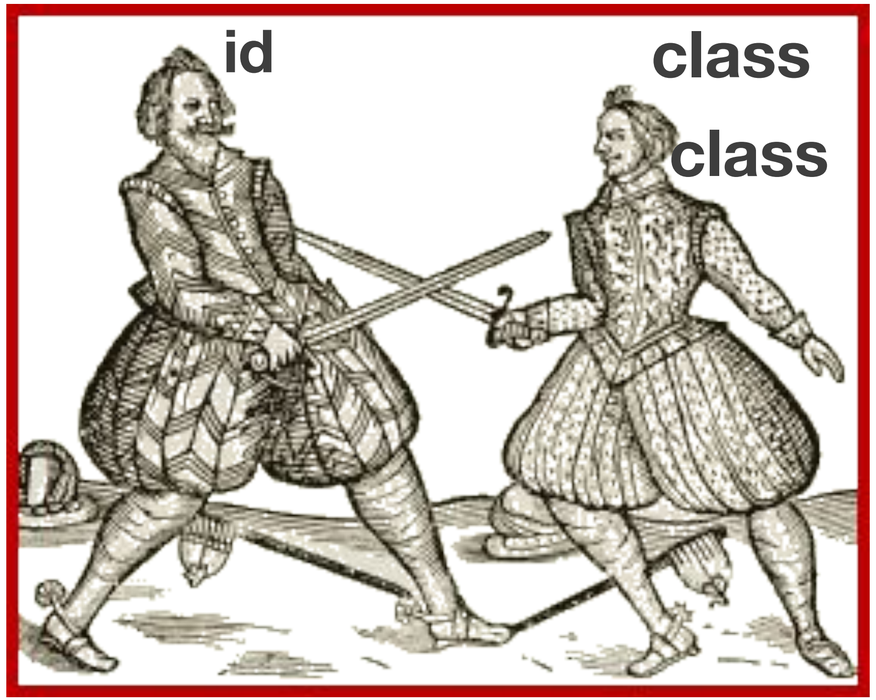





```
.foo.bar {
  background: green;
}
```

```
<div class="outer">
  <div id="thing" class="foo" style="background:orange;"></div>
</div>
```

```
#thing {
  background: blue;
}
```




```
.outer .foo {
  background: green;
}
```

SPECIFICITY

- **If there are two or more conflicting rules that point to the same element, there are rules the browser follows to figure out what is the most specific one**
  - That most specific one will be the style the browser goes with
- **CSS Gotcha:** Check your specificity if some CSS rules are not being applied
- **Rule of specificity**
  - Inline styling > IDs > Classes, Pseudo-classes, Attributes > Elements, Pseudo-elements
- **Specificity Calculator:** For when your styling gets out of control

THE BOX MODEL

THE BOX MODEL

- **A set of rules that define how every webpage on the Internet is rendered**
- **CSS treats each element in your HTML document as box with different properties that determine where/how it appears on a page**
  - Recall: HTML Elements have two flavors:
    - Block elements
    - Inline elements

SOME TERMINOLOGY OF THE BOX MODEL

- **Content:** The text, image, or other media content in the element
- **Padding:** The space between the box's content and its border
- **Border:** The line between the box's padding and margin
- **Margin:** The space between the box and surrounding boxes

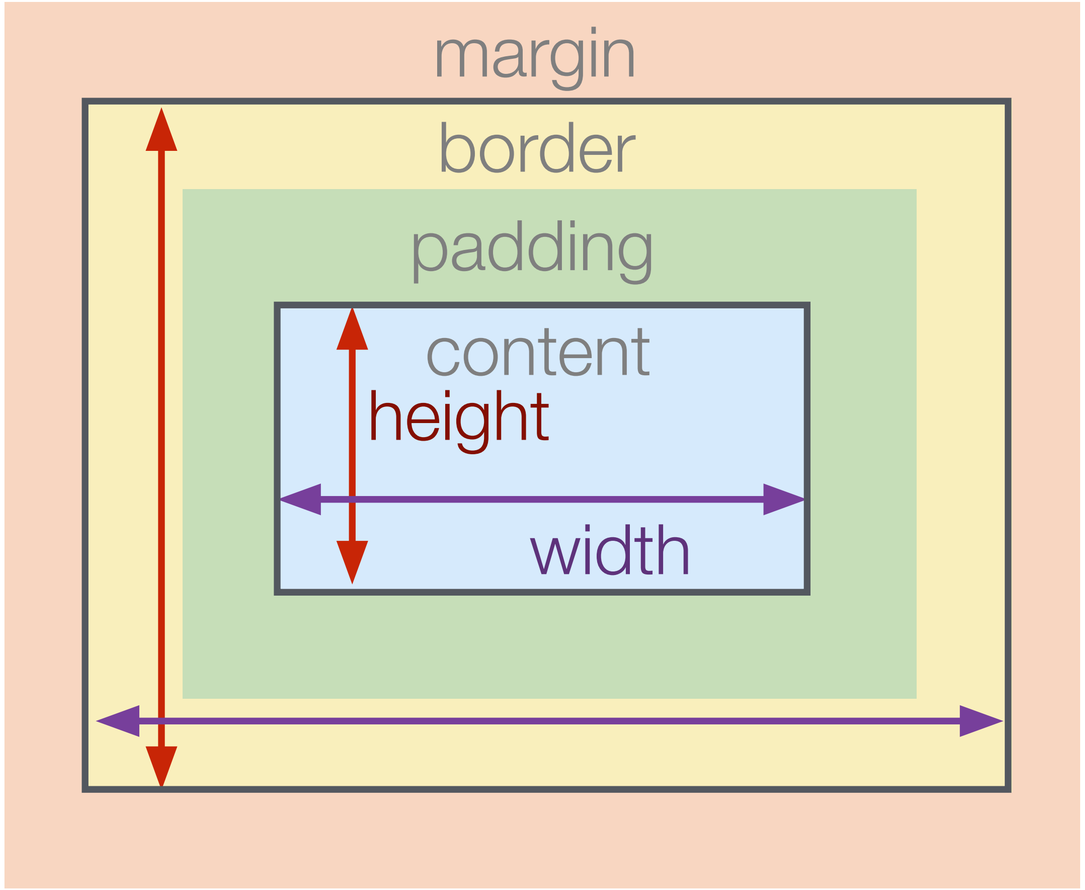
BOX MODEL

border box

```
{
  box-sizing: border-box;
}
```

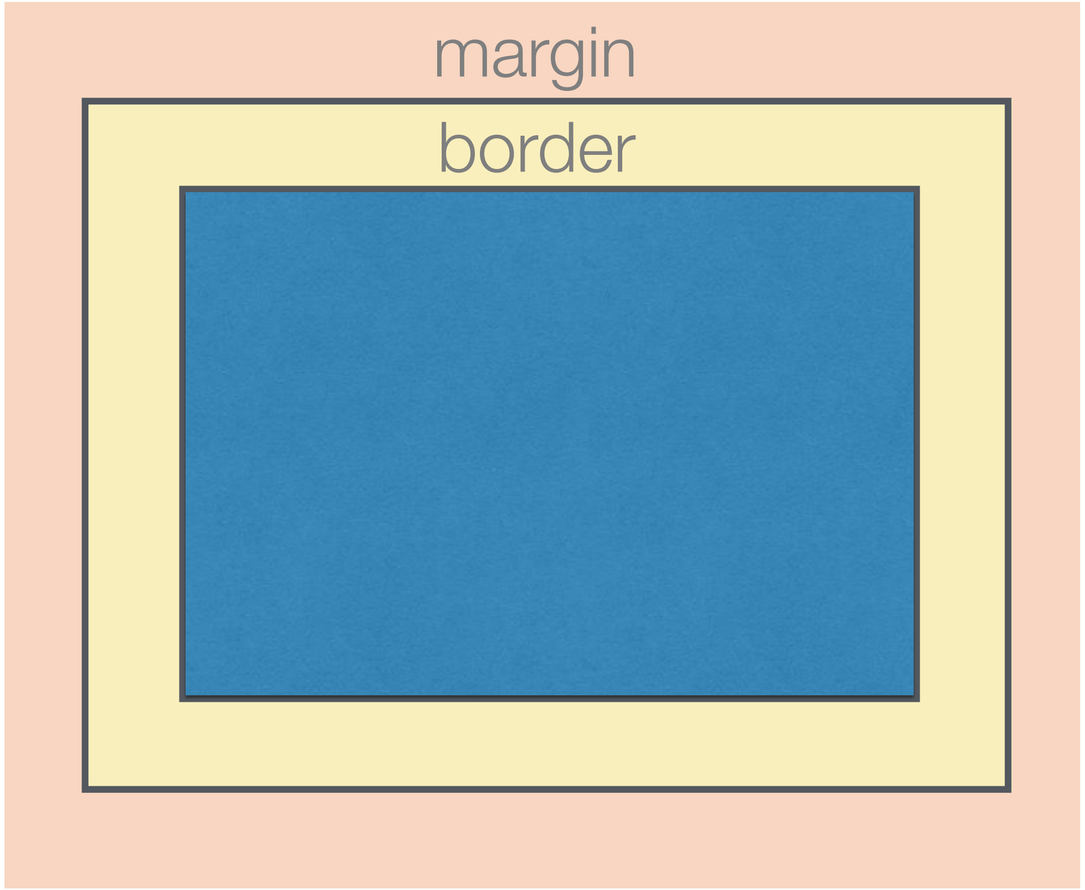
content box

```
{
  box-sizing: content-box;
}
```

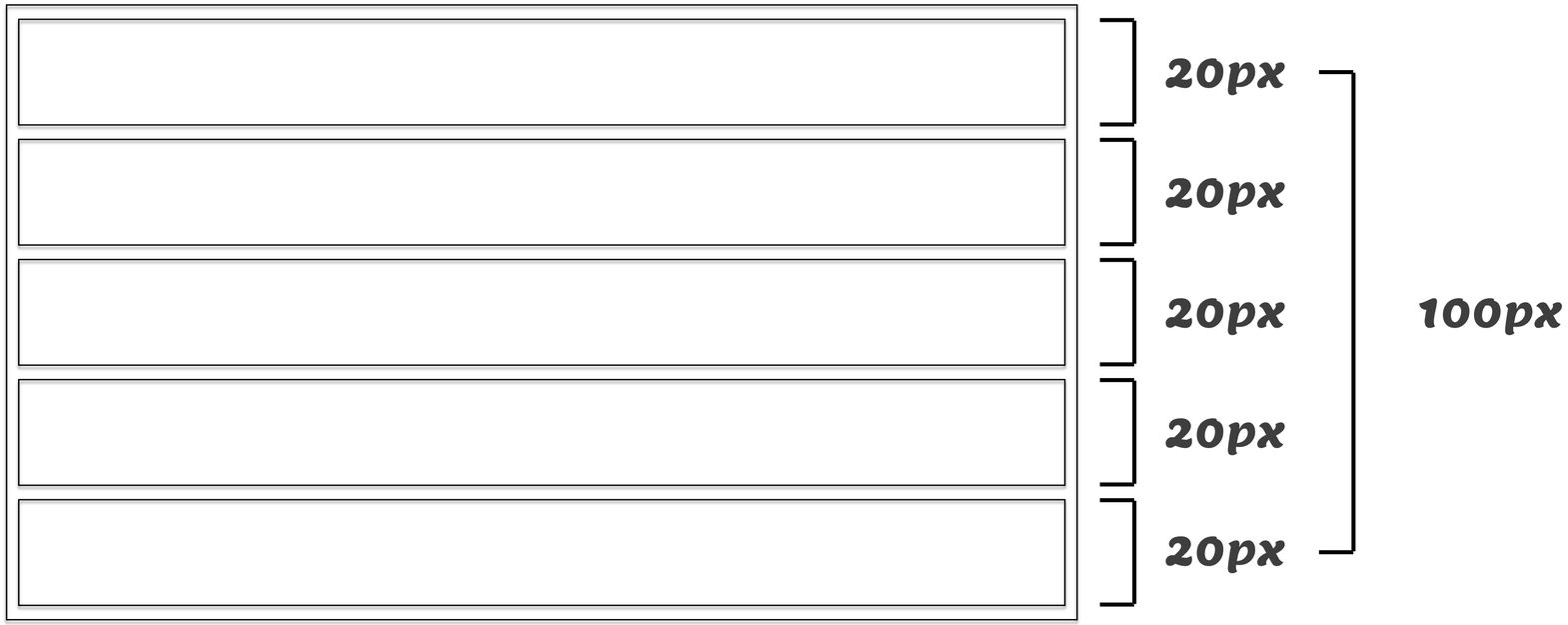


BOX MODEL

background



$$parent.height = \Sigma\ children.height$$



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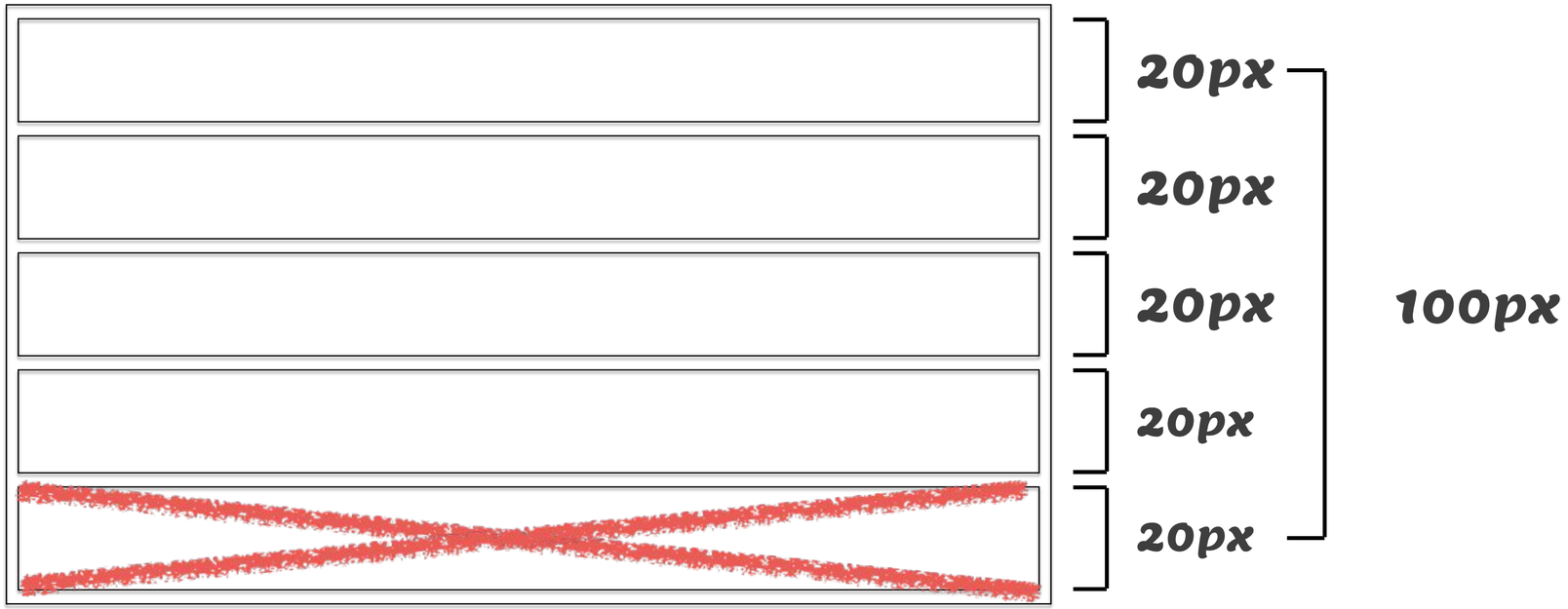

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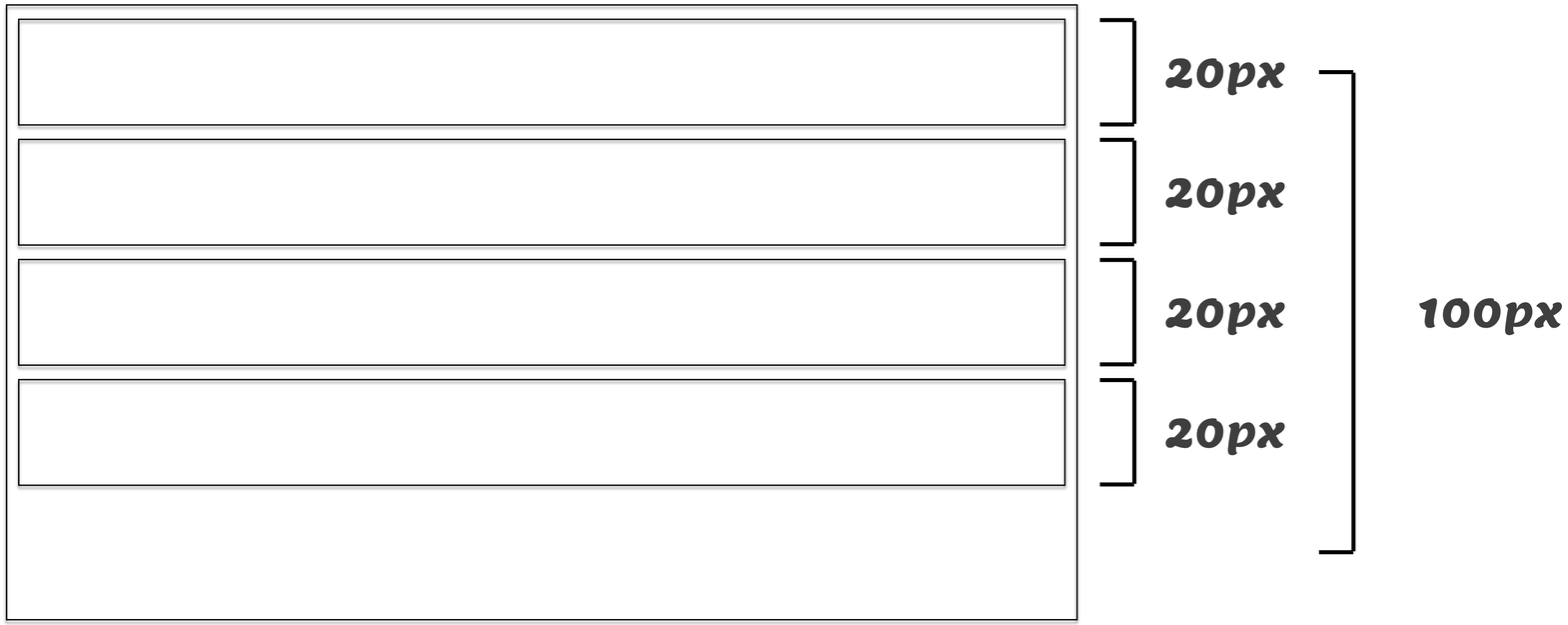

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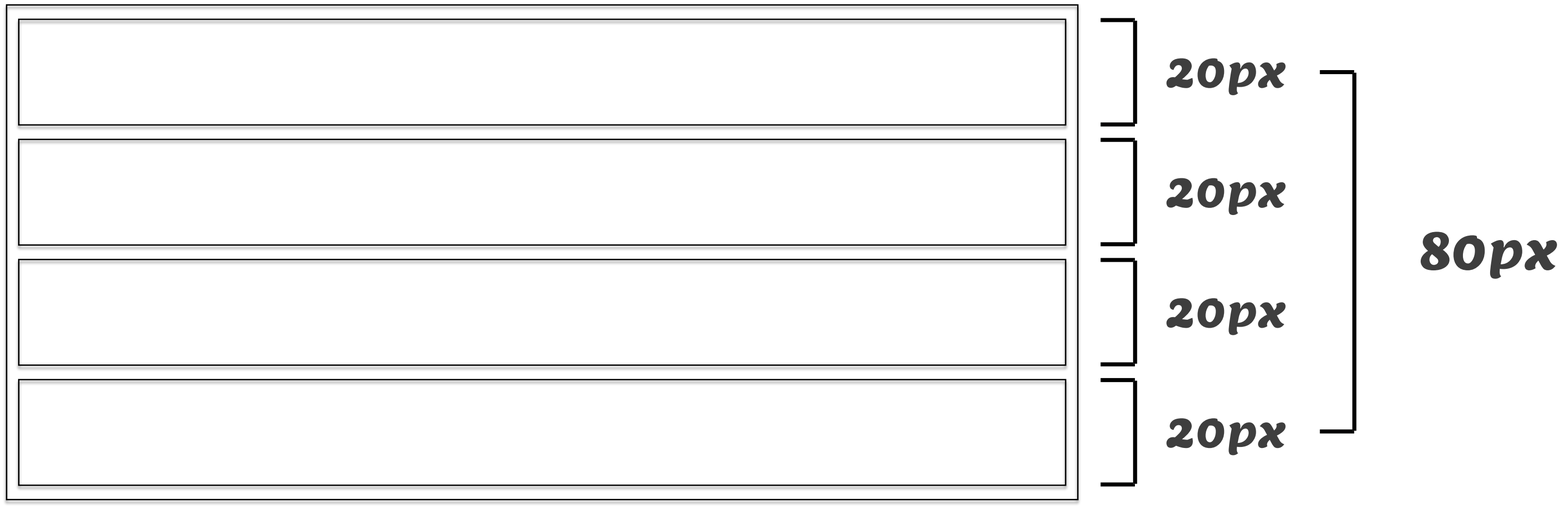

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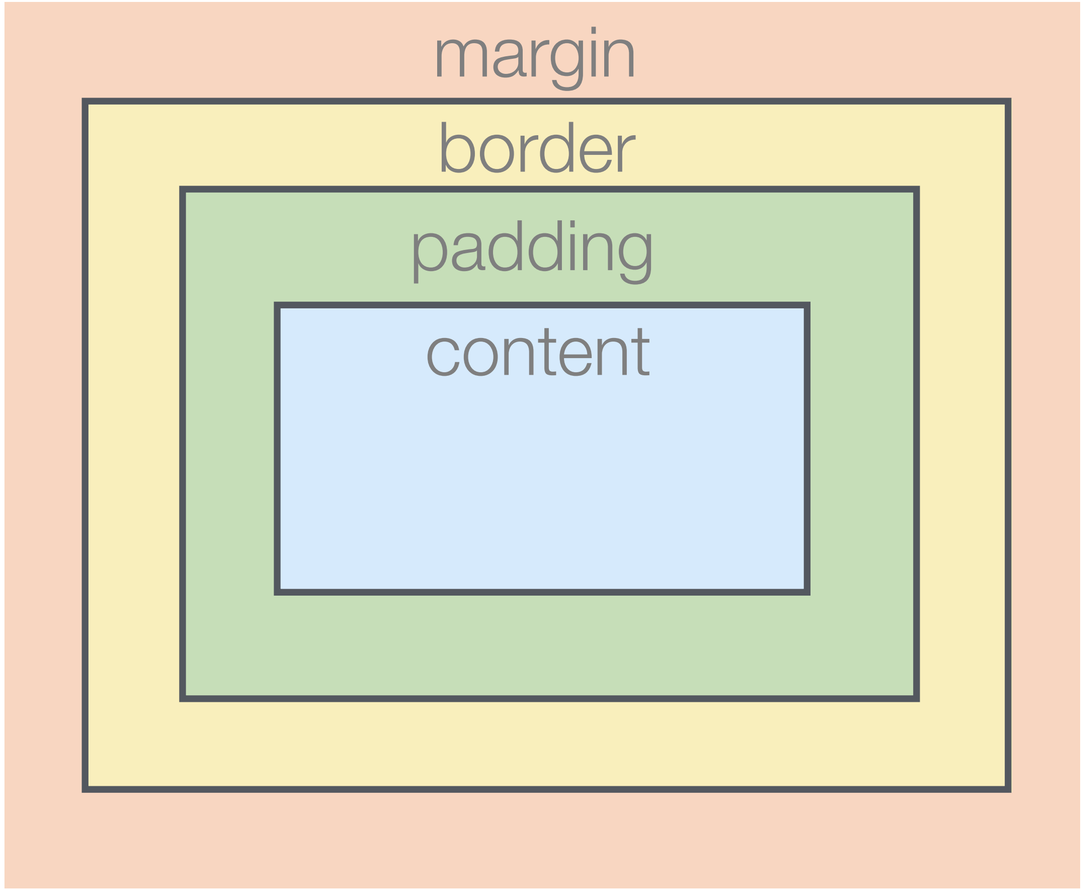
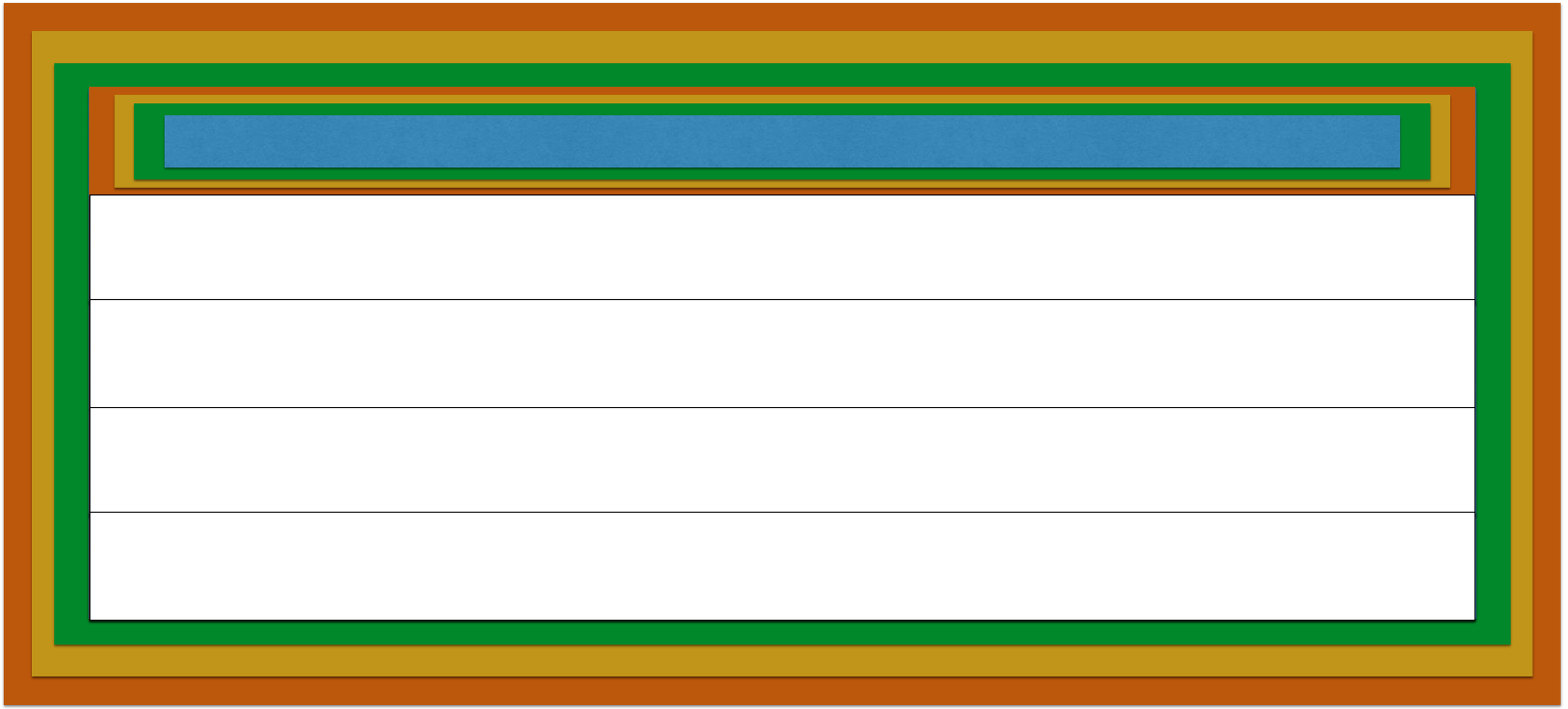
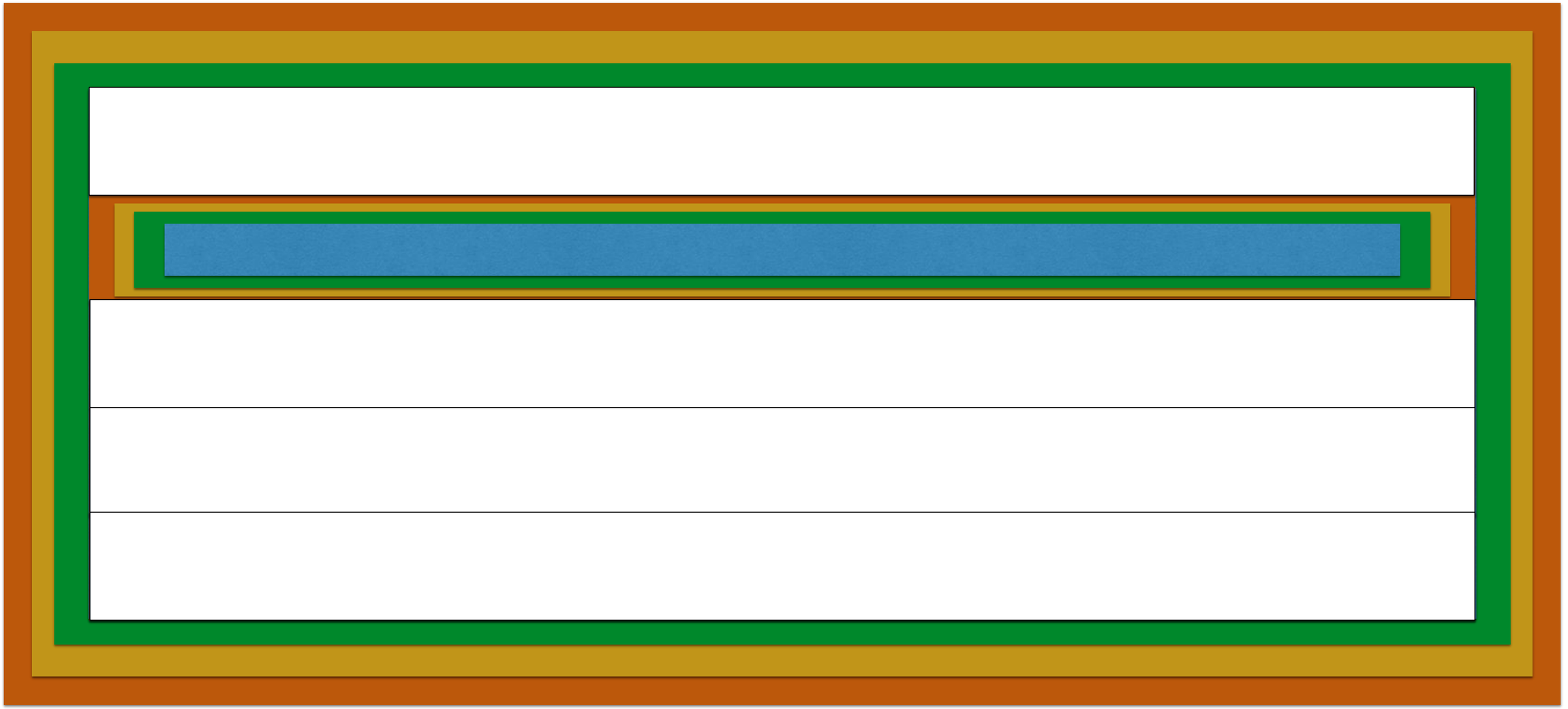
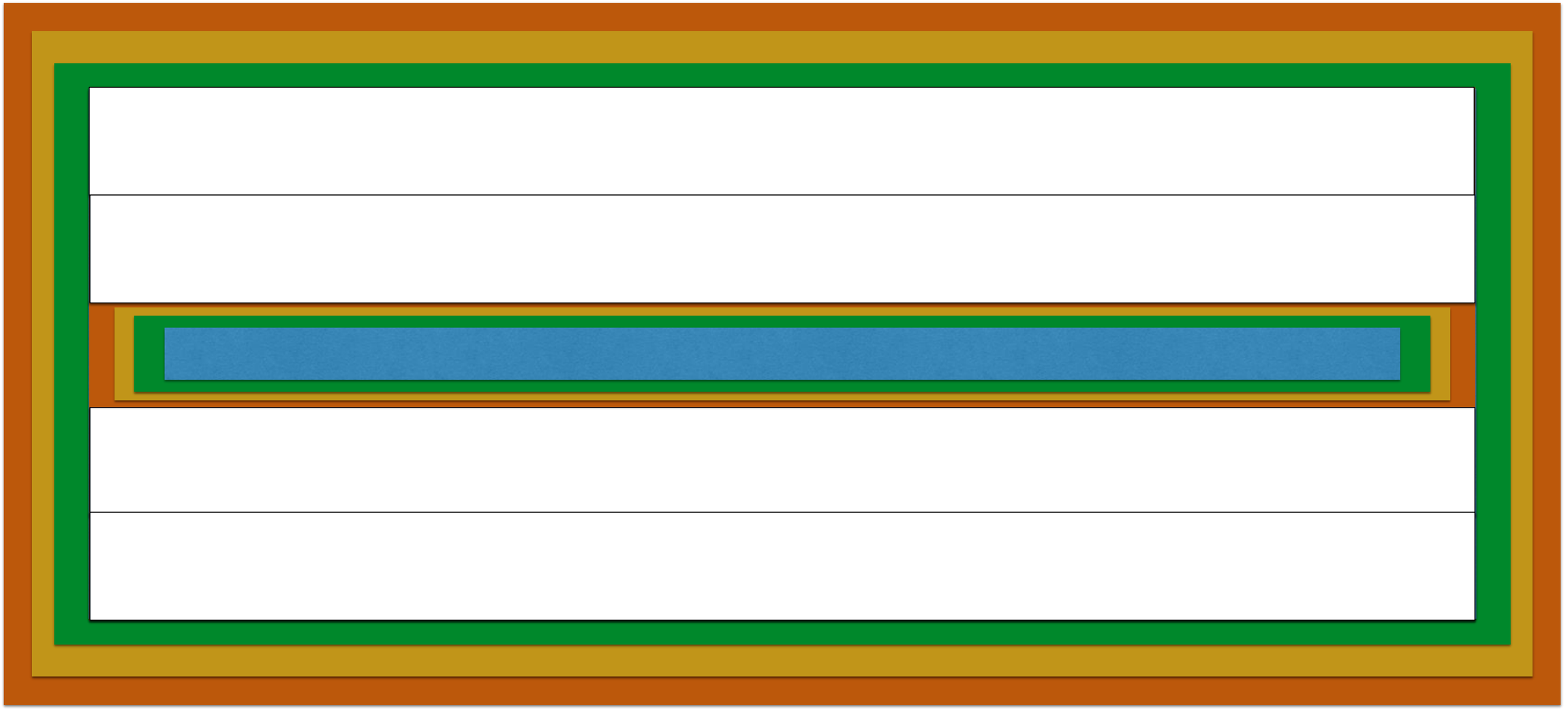
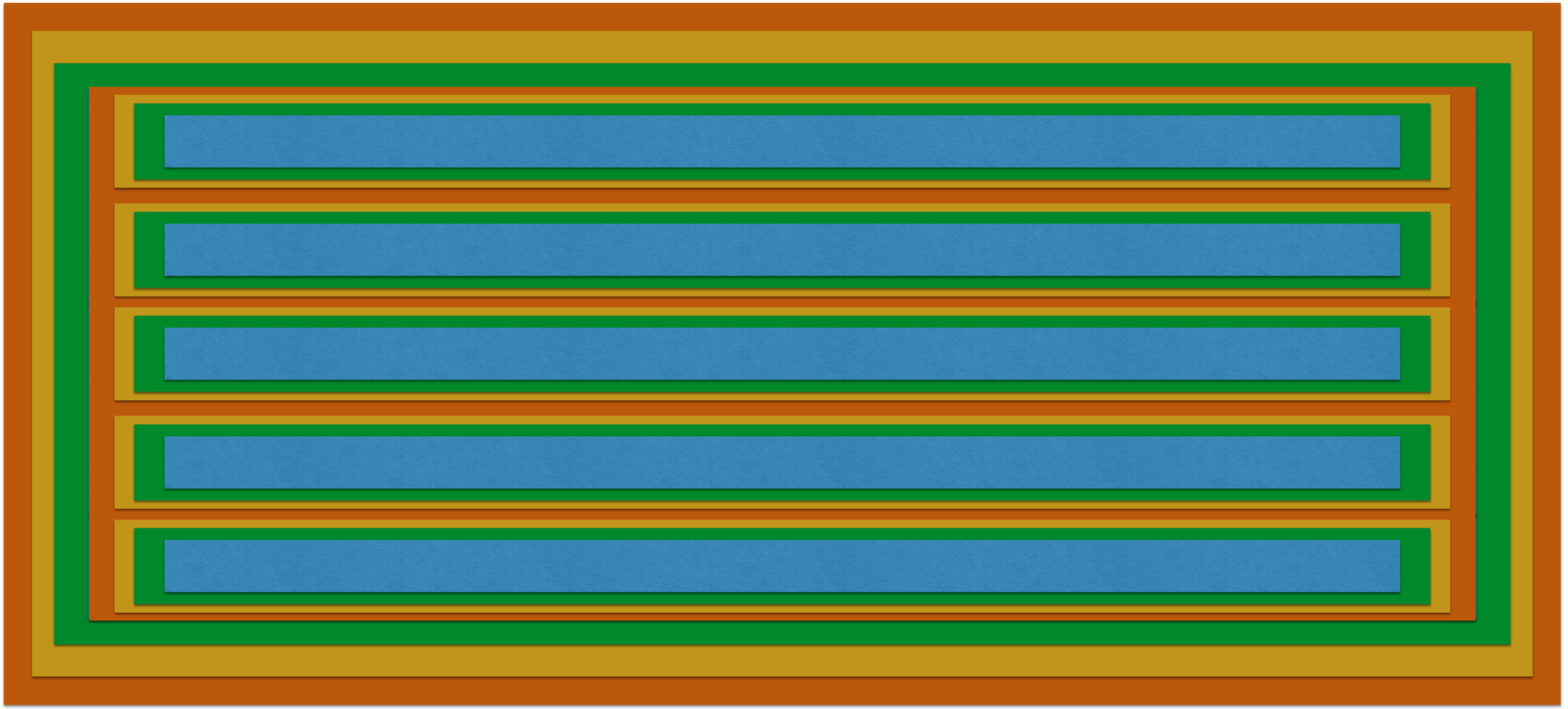
BOX MODEL











RESPONSIVE

I heard you want to be a web developer
Here are a few devices to test your site

RESPONSIVE DESIGN

- Website is fully functional for all screen sizes, resolutions and orientations
- Born out of necessity (see previous slide)
- Developers and designers should cater to the user's environment, not the other way around

MEDIA QUERIES

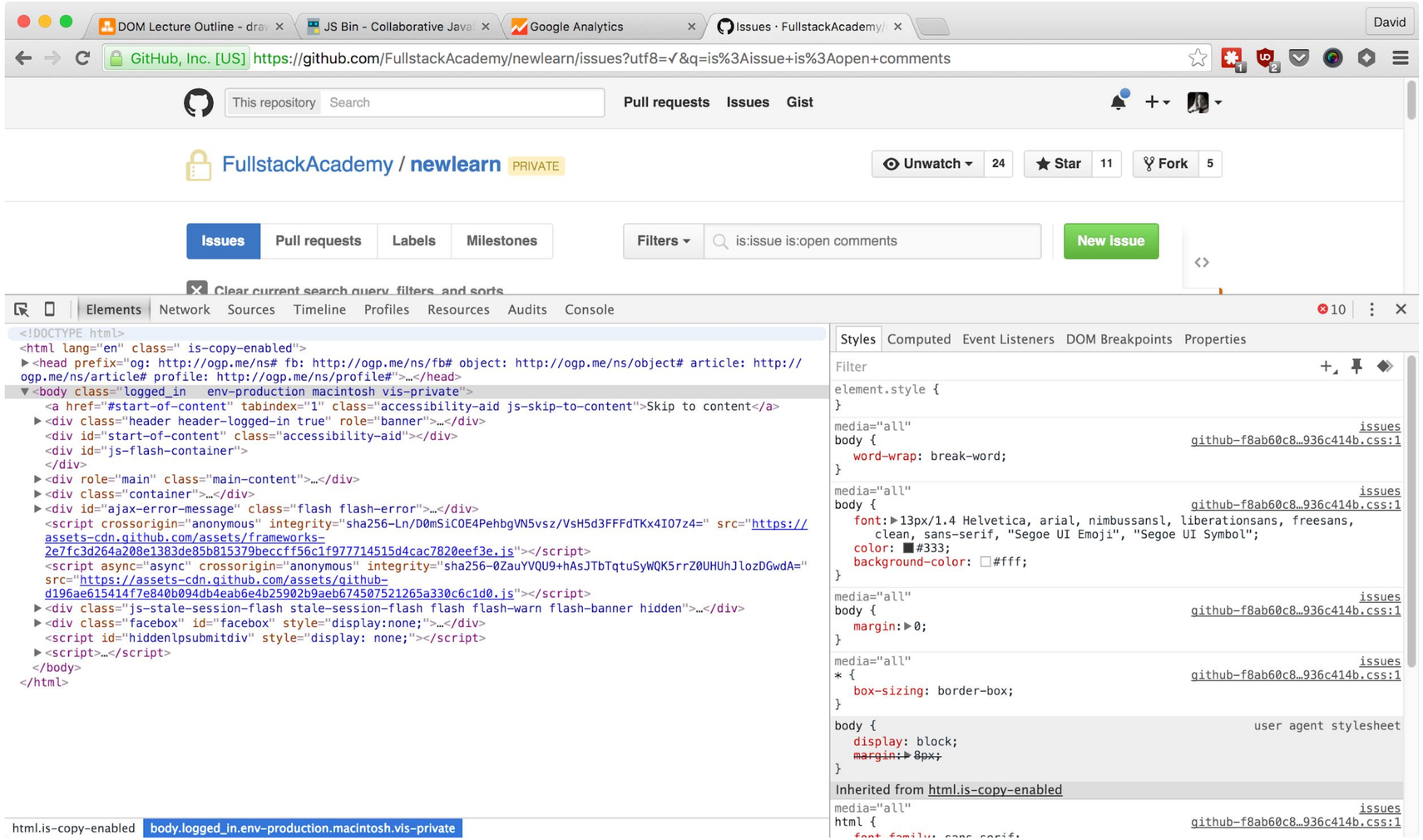
- Uses @media rule to conditionally apply CSS properties

MEDIA QUERY

```
@media only screen and (max-width: 400px) {
    body {
      background-color: blue;
    }
}
```

If the browser window is 400px or smaller, the background color will be blue

Developer Tools



CSS
Global
HD