Cascading Style Sheets

Fall 2018 RCSA WebDev

Complete Version:
https://docs.google.com/presentation/d/1cVZ0ecjSYbwphm
Spb8uNNbGoZ5-dFXTf63XZ0DF7dJg/edit?usp=sharing

What is CSS and Why do we use it?

- Mechanism for adding style (e.g., fonts, colors, spacing) to Web documents
- Works in conjunction with HTML
- Can control style of every single page of a website within a single style-sheet
- **Generalization:** can specify default behavior to avoid repetition in coding individual objects

CSS vs HTML

	CSS *would have corresponding code linking it to the HTML (shown later)	HTML
Background color	```body { Background-color: light-grey; } h1 { color: blue; } p { color:green; }```	```<body style="color: light-grey"> This is a Blue Heading This is my paragraph. It talks about how much I love cupcakes. </body>```
	-simpler for multiple uses, ie: make all of my headers blue	-simpler for one time use, ie: make **this** header blue

CSS vs HTML

	CSS	HTML

Font	h1 {
	    color: blue;
	    font-family: verdana;
	    font-size: 12px;
	}
	p {
	    color: red;
	    font-family: courier;
	    font-size: 18px;
	}
		<h1 style= "font-family:ultra; color:green; font-size=12px;">
		This is some text!
		</h1>
		<p style= "font-family:courier; color:red; font-size=18px;">
		This is my paragraph. It talks about how much I love cupcakes.
		</p>

Div Class

```
<div class="quoteBox">

       "This is an example  quote."

</div>

<div class="specialQuote">

       "This is a special  Quote."

</div>
```

- Div's are special elements which you can style via CSS and then implement/link via HTML wherever you want that style to occur
- At left we have the HTML showing how to connect the CSS of two different div's to your webpage
- If you only create the CSS and don't connect it to your HTML somewhere, it basically doesn't exist.

Div Class: Quote Box

```
<div class="quoteBox">

        "This is an example  quote."


</div>
```

```css
.quoteBox {

        font-family: times;
        font-size: 24px;
        color: #ccc;
        background: turquoise;
        padding: 10px;
        border: 4px #ccc;

}
```

> "This is an example quote."

Selectors

- Select HTML elements by tag, class, or ID.
- Multiple classes can be applied to a HTML element
- The more specific the selector the higher the precedence tag < class < ID
- Multiple selectors can be chained together raising specificity

```css
1
2  h1{
3      color: maroon;
4  }
5
6  .title {
7      color: teal;
8  }
9
10  h2.destination{
11      font-family: cursive;
12
13  }
14
15  .description h5{
16      color: teal;
17
18  }
19
20  h5,p {
21      font-family: Georgia;
22  }
23
24  #banner{
25      color: red;
26  }
```

```html
1   <!DOCTYPE html>
2   <html>
3
4   <head>
5       <link href="./style.css" type="text/css" rel="stylesheet">
6       <title>This title is teal!</title>
7   </head>
8
9   <body>
10      <h1>Hello World is Maroon</h1>
11      <h5>The font is Georgia</h5>
12      <p>This font is also Georgia</p>
13
14      <h2 class="destination">This is in cursive.</h2>
15      <div class="description"> A random description.
16          <h5>This text is teal</h5>
17      </div>
18
19      <p id="banner"> This paragrah is red for some reason</p>
20  </body>
21
22  </html>
23
```

```css
1
2  h1{
3      color: maroon;
4  }
5
6  .title {
7      color: teal;
8  }
9
10  h2.destination{
11      font-family: cursive;
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15  .description h5{
16      color: teal;
17
18  }
19
20  h5,p {
21      font-family: Georgia;
22  }
23
24  #banner{
25      color: red;
26  }
```

Hello World is Maroon

The font is Georgia

This font is also Georgia

This is in cursive.

A random description.

This text is teal

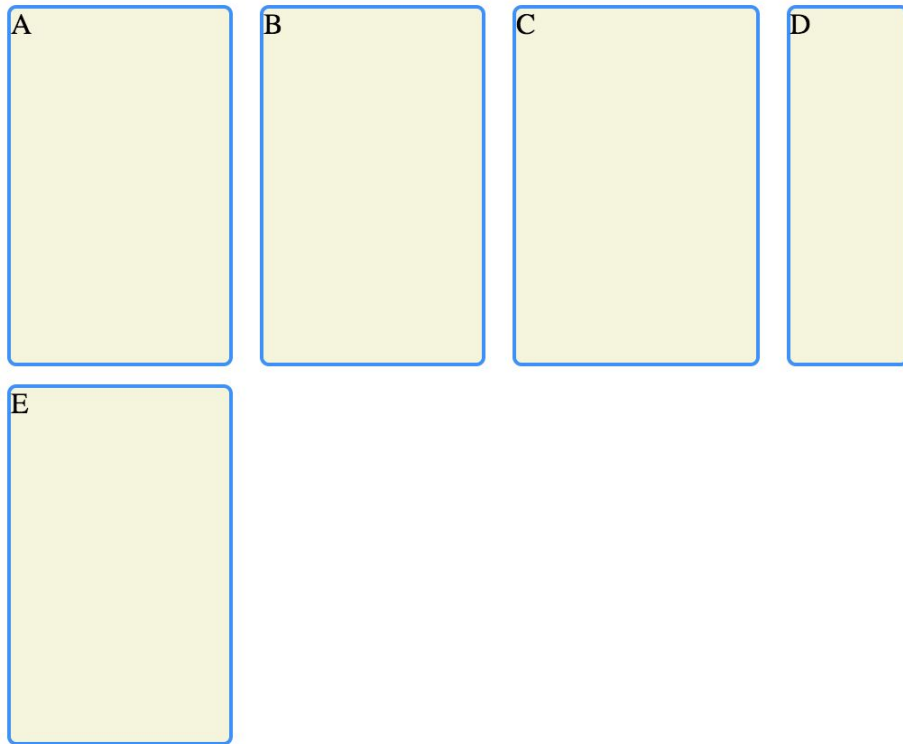This paragrah is red for some reason

Positioning

- **position: static;** default, positioned according to normal flow of page
- **position: relative;** may be positioned using top, left, bottom, right properties
- **position: fixed;** same position in any viewport even if scrolling, may use top, left, bottom, right properties
- **position: absolute;** same position relative to nearest ancestor, may use top, left bottom, right
- **position: sticky;** positioned relative until user offset makes it become fixed
- **z-index: n;** integer value, larger will be be more in foreground

Grid

```html
<body>
  <div class="grid">
    <div class="box a">A</div>
    <div class="box b">B</div>
    <div class="box c">C</div>
    <div class="box d">D</div>
    <div class="box e">E</div>
  </div>
</body>
```

```css
.grid {
  height: 500px;
  width: 500px;
  display: grid;
  grid-template-columns: 25% 25% 2fr 1fr;
  grid-template-rows: 200px 200px;
  grid-gap: 10px 15px;
}
```

Examples

1. HTML only
2. HTML + CSS
3. Inspect!

Useful Links

- Demos / Tutorials:
  https://www.w3schools.com/Css/
  https://www.codecademy.com/learn/learn-css

- If for some reason you want to be extra:
  https://www.w3.org/Style/CSS/learning

Any Questions?