

CSS Basics

Harry J. Wang, Ph.D.

University of Delaware

Fall 2017

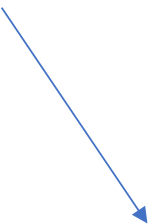
CSS Basics Review

- This set of slides are quick reviews based on the first two modules from this course: <https://www.codecademy.com/learn/learn-html-css>
- You need to understand all tags covered in these modules and are able to write similar HTML pages using Atom with Linting

CSS Selector and Embedded CSS

- Use <style> to include CSS code in HTML files.
- To style an HTML element using CSS, you must first select that element in the CSS file (selector is discussed later in this lecture)

```
<head>
  <title>Animals Around the World</title>
  <style>
    h1 {
      font-family: Arial;
    }
  </style>
</head>
<body>
<h1>BREAKING NEWS</h1>
```




Separation of CSS and HTML

- The mixture of HTML and CSS can result in code that is difficult to read and maintain
- Link CSS files with HTML using <link> tag (URL vs. relative link paths)

Animals.html:

```
<head>
  <title>Animals Around the World</title>
  <link href="https://www.codecademy.com/stylesheets/style.css" type="text/css" rel="stylesheet">
  <link href="/animals.css" type="text/css" rel="stylesheet">
</head>
```

Animals.css:

A screenshot of a code editor window titled 'animals.css' with a close button 'x' in the top right corner. The editor contains three lines of CSS code: 'h1 {' on line 1, 'font-family: Arial;' on line 2, and '}' on line 3.

```
1  h1 {
2  font-family: Arial;
3  }
```

Selector Anatomy

- The entire snippet of code in the example below is known as a *CSS rule*.



Multiple Element Selectors and Comments

- Universal selector: *

```
h1, h2, p {  
  color: Green;  
}
```

- CSS Comments:

```
/* This is a comment in CSS! */
```

- Recall HTML Comments:

```
<!-- This is a comment that the browser will not  
display. -->
```

Color

- Foreground vs Background colors
- In CSS, these colors are technically known as **named colors**. There are a total of 147 named colors (see [the color list](#)), such as Red, Blue, Aqua, etc.
- **RGB (Red, Green, Blue) color** works by mixing together different amounts of red (R), green (G), and blue (B). Each color can take on 1 of a possible 256 values, such as `rgb(54, 74, 101)`
- **Hexadecimal color** (Hex Color), such as `color: #09AA34`: 09 refers to the value for red, AA for green, and 34 for blue.
- **Opacity** is a measure of how transparent a color is: use Alpha value in `rgba()` to specify the opacity of a color, such as `rgba(54, 74, 101, 0.5)`
- Browser Support

In CSS, the latter of multiple declarations takes priority

```
h1 {  
  color: rgb(22, 34, 88);  
  color: rgba(22, 34, 88, 0.4);  
}
```

Font Family/Typeface

```
h1 {  
  font-family: "Courier New";  
}
```

- The default typeface for all HTML elements is **Times New Roman**.
- Typography: Serif vs Sans-Serif

SERIF

Serif fonts have extra details on the ends of the main strokes of the letters. These strokes are called serifs.

im

Serif fonts are traditionally used in print designs, as they have been considered easier to read in long paragraphs of text

SANS SERIF

Sans serif fonts lack those extra strokes on the ends of letters and have flat ends. This gives them a cleaner, more modern look.

im

Since screens have a lower resolution than print, sans serifs can look better and be easier to read.

Fallback Fonts

- The fonts specified in the stylesheet must be installed on their computer in order for their browser to display that font.
- Most computers have a small set of typefaces pre-installed: the small set includes serif fonts and sans-serif fonts, like **Times New Roman and Arial**, respectively.
- Fallback fonts can be specified:

```
h1 {  
  font-family: Garamond, Times, serif;  
}
```

Remote Fonts

- You can link to the remotely hosted fonts, such as Google Fonts

```
<head>
  <link href="https://fonts.googleapis.com/css?
family=Raleway" type="text/css" rel="stylesheet"
>
</head>
```

```
h1 {
  font-family: Raleway, Georgia, serif;
}
```

- For font name with spaces

```
<link href="https://fonts.googleapis.com/css?
family=Playfair+Display" type="text/css"
rel="stylesheet">
```

Font Size

- There are three units of measurement for font size:
 - px : unit of *pixels*, exact size measurement, MBP has 227 pixels per inch
 - em - a relative unit of measurement, which changes the size of text relative to the parent element's size of text.
 - % - a relative unit of measurement.
 - The default size of text in web browsers is 16 pixels, or 16px

```
p {  
  font-size: 18px;  
}
```

```
p {  
  font-size: 1.3em;  
}
```

```
p {  
  font-size: 150%;  
}
```

Line Height

- Text on a web page must also be easy to read. When text is styled to appear larger, the vertical spacing between lines of text can decrease, creating text that is difficult to read, particularly in paragraphs.



- em is preferred because it offers a spacing relative to the size of the text on the page

```
p {  
  line-height: 1.5em;  
}
```

Spacing, Font Weight and Style

- Word spacing: the default amount of space between words is usually 0.25em
- Letter spacing – similar to word spacing but between letters
- Font weight can be set to 100 (thin), 200, 300, 400 (normal), 500, 600, 700, 800, 900 (bold)

```
h1 {  
  word-spacing: 0.3em;  
}
```

```
p {  
  font-weight: bold;  
}
```

```
h3 {  
  font-style: italic;  
}
```

Text Transformation and Alignment

- Text transformation: uppercase and lowercase
- Text alignment: left, center, right

```
h1 {  
  text-transform: uppercase;  
}
```

```
h1 {  
  text-align: right;  
}
```

Questions?