HTML/CSS 1

Uchicago Techteam

What are HTML/CSS?

- HTML, HyperText Markup Language
 - gives content structure and meaning by defining that content as...
 - headings, paragraphs, images, videos, etc.
- CSS, Cascading Style Sheets
 - presentation language created to style the appearance of content
 - fonts, colors, etc.
- HTML: elements, CSS: style of a web page

Common HTML terms

- Element: each component that defines the content and structure of a web page
 - h1, h2, ... h6: headings
 - p : paragraphs
 - img : images
- Tags: define the scope of each element
 - Opening tag: <h1>, Closing tag: </h1>
 - Some elements do not have a closing tag.
- Attributes: additional info about the element (in the opening tag)

```
<a href=<u>https://www.google.com</u>>Google</a>
```

```
<img src="../image.jpg">
```

Basic HTML structure

```
<!DOCTYPE html>
<html lang="en">
<head>
        <meta charset="utf-8">
        <title>Hello World</title>
        </head>
        <body>
        <h1>Hello World</h1>
        This is a web page.
        </body>
        </html>
```

*Note the indentations to visualize the nested structure

Try HTML on your own!

- Change the content of the <title> tag
- Inside the <body> section, change the content of h1 and p
- Add new <h2> and elements below the existing content
- Within the second , create a new <a> element that links to a website of your choice
 - (you need to add the "href" attribute in the opening tag)
- Below the existing content, add an
 - (you need to add the "src" attribute in the opening tag)

Common CSS terms

- Selectors: selects which HTML element to apply a certain style
- Properties: defines which style property to edit
- Values: defines how to change the style property

```
p {
     color: red;
     font-size: 13px;
}
```

Working with selectors

- Type, Class, ID selectors
- Help choose the right HTML elements to apply a style
- Class selectors: if you want to apply a style to multiple elements
- ID selectors: if you want to apply a style to a single element (rarely used)

```
Hello World!
 color: black;
Hello World!
.main {
 color: blue;
Hello World!
#highlight {
 color: red;
```

Connecting HTML and CSS

```
<!DOCTYPE html>
<html lang="en">
<head>
<meta charset="utf-8">
<title>Hello World</title>
link rel="stylesheet" href="main.css"> -> add this tag!
</head>
<body>
<h1>Hello World</h1>
This is a web page.
</body>
</html>
```

Try CSS on your own!

- Create a .css file called "main.css" in the folder where your .html file is.
- Try setting the color of h1 to blue
- Try setting the font-size of h2 to 20px
- Try setting the entire body section's background-color to yellow
- Set the letter-spacing property of h1, h2, p to 2px

"Cascading" Style Sheet

 If the same HTML element is applied the same style twice, the style located on the lower section of .css file takes precedence

```
h1 {
    color: blue;
}

h1 {
    color: red;
}

The color of  would be red
(Try adding the second bracket at the bottom of your .css)
```

```
body {
    background-color: yellow;
}

p {
    background-color: red;
}

On top of the yellow background
The  elements would have red backgrounds
(Try this too)
```

Breaking the cascade

ID selectors > Class selectors > Type selectors

```
<h1 class="main" id= "highlight">Hello</h1>
```

```
#highlight {
    color: black;
}
.main {
    color: green;
}
h1 {
    color: red;
}
```

Although the color of <h1> should be red according to the cascade, it is colored in black

In your <h1> tag, insert the two attributes, class and id.

Try adding .main {...} at the beginning of your .css file, and then add #highlight {...} above that.

You'll see the class and id selectors breaking the cascade and updating h1's color.

CSS Resets

- The default style of each element may differ across browsers (Chrome, Safari, Internet Explorer, Firefox, etc)
- A CSS Reset explicitly sets the default styles, so that every browser shows the same style (even if we do not set our own style for some elements)
- You can either 1) copy&paste or 2) add another link> element that links your HTML file with a .css file from outside source

```
/* HTML5 display-role reset for older
http://meyerweb.com/eric/tools/css/reset/
                                              browsers */
  v2.0 | 20110126
                                              article, aside, details, figcaption, figure,
  License: none (public domain)
                                              footer, header, hgroup, menu, nav, section
                                                            display: block;
html, body, div, span, applet, object,
                                              body {
iframe.
h1, h2, h3, h4, h5, h6, p, blockquote, pre,
                                                            line-height: 1;
a, abbr, acronym, address, big, cite, code,
del, dfn, em, img, ins, kbd, q, s, samp,
                                              ol, ul {
small, strike, strong, sub, sup, tt, var,
                                                            list-style: none;
b, u, i, center,
dl, dt, dd, ol, ul, li,
                                              blockquote, q {
fieldset, form, label, legend,
                                                            quotes: none;
table, caption, tbody, tfoot, thead, tr, th, td,
article, aside, canvas, details, embed,
                                              blockquote:before, blockquote:after,
figure, figcaption, footer, header, hgroup,
                                              q:before, q:after {
menu, nav, output, ruby, section,
                                                            content: ";
summary,
                                                            content: none;
time, mark, audio, video {
              margin: 0;
                                              table {
                                                            border-collapse: collapse;
              padding: 0;
              border: 0;
                                                            border-spacing: 0;
              font-size: 100%;
              font: inherit;
              vertical-align: baseline;
```

Want more?

- Using Chrome, on any web page, right-click and select "view page source"
- You could also click on the links on the <head> section to view the .css files that were used.

```
- o ×
    <!> view-source:learn.shayho ×
         To view-source:learn.shayhowe.com/html-css/building-your-first-web-page/
                                                                                                                                                                                                                                                                                                                                                                                   ☆ 四 :
  👯 Apps 🕒 CMSC 154 🔀 API Overview 🚯 Linear Regression LO 🛙 🕅 Cross Validation for 🖂 🔞 Pólya's Urn Process 🕒 R Library: Matrices an 🔠 Stat 📒 RA 🖊 Cognitive bias cheat : 📋 STAT 251 🕒 University of Chicago
                                                                                                                                                                                                                                                                                                                                                                            Other bookmarks
       <html lang='en'>
               <meta charset='utf-8'>
               <meta content='IE=edge,chrome=1' http-equiv='X-UA-Compatible'>
               <meta content='width=device-width, initial-scale=1' name='viewport'>
               (meta content="Before learning HTML and CSS it is important to understand the differences between the two languages (content vs. style), their syntax, and some common terminology.' name='description's (meta content="html and css terminology syntax introducing programming basics' name='terminology states terminology syntax introducing programming basics' name='terminology states the states are not states and the states are not states are 
               <title>Building Your First Web Page - Learn to Code HTML & Down; CSS</title>
               <script src='/assets/javascripts/vendor/modernizr-2.8.1.js'></script>
               k href='//cloud.typography.com/6623692/607644/css/fonts.css' rel='stylesheet'>
               k href='https://fonts.googleapis.com/css?family=Source+Code+Pro' rel='stylesheet'>
               k href='/assets/stylesheets/main.css' rel='stylesheet'>
            <body class='html-css html-css_building-your-first-web-page html-css_building-your-first-web-page_index'>
              <aside class='aside'>
                          <header class='primary-header' role='banner'>
                             <h1 class='primary-logo'>
                                 <a href='/html-css/':
                                    (span)Learn to Code(/span)
                                     <abbr title='Hyper Text Markup Language'>HTML</abbr>
                                    <abbr title='and'>&amp;</abbr>
                                    <abbr title='Cascading Style Sheets'>CSS</abbr>
                             <a class='primary-nav-btn' data-js='primary-nav-btn' href='#' rel='nofollow'>Navigation</a>
                          <div class='aside-macro'>
                             (div class='aside-micro')
                                 <nav class='primary-nav' role='navigation'>
                                       <a href='/html-css/building-your-first-web-page/'>
                                                <strong>Lesson 1</strong>
                                               Building Your First Web Page
                                         class='getting-to-know-html'>
                                            <a href='/html-css/getting-to-know-html/'>
                                               <strong>Lesson 2</strong>
                                               Getting to Know HTML
                                         class='getting-to-know-css'>
                                            <a href='/html-css/getting-to-know-css/'>
Ask me anything
```

Thanks!

You can review the materials at http://learn.shayhowe.com/html-css/building-your-first-web-page/