HTML, CSS
HyperText MarkUp Language

- HTML: Describes the content and structure of information on a web page (not style).

- An HTML document is made up of elements that are delineated by tags:

  - syntax: `<element>[content]</element>` example: `<p>This is a paragraph</p>`

- In this course, we’ll primarily use HTML5.
History

- First conceived in 1990 based on SGML
- 1995 Browser wars
  - browser specific elements `<blink>..</blink>`
  - HTML became fragments
  - bad grammar
- Apps - Java, Flash
- 2007 work on HTML 5 began
HTML5

- HTML5: Fifth and current version published by the W3C in October 2014.

- Designed to support modern multimedia (e.g. `<video>`, `<canvas>`), semantic formatting, cross-mobile applications, and JS APIs.
<!DOCTYPE html>
<html>
  <head>
    <meta charset="utf-8">
    <title>Hello World</title>
  </head>
  <body>
    <h1>Hello CSC309</h1>
    <a href="https://csc309-fall-2016.github.io/">web page</a>
  </body>
</html>

Bold tags are required components of a valid page
CSS

• CSS describes the appearance, layout, and presentation of information on a web page.

• Describes how information is to be displayed, not what is being displayed.

• Can be embedded in HTML document using the `<style>` element or placed in separate `.css` file (recommended).
A CSS file consists of one or more rules. Each rule starts with a selector, which specifies an HTML element(s) and then applies style properties to them.

```css
selector {
  property: value;
  property: value;
}

p {
  font-family: sans-serif;
  color: red;
}
```
CSS code can be embedded within the head of an HTML page or placed inline in an element.

Bad style and should be avoided when possible (why?)

```html
<head>
  <style type="text/css">
    p { font-family: sans-serif; color: red; } h2 { background-color: yellow; }
  </style>
</head>
<body>
  <p style="display: inline;">[content]</p>
</body>
```
Properties of an element cascade together in this order of precedence:

- browser's default styles
- external style sheet files (in a `<link>` tag)
- embedded/internal style sheets (inside a `<style>` tag in the page's header)
- inline style (the style attribute of the HTML element)
- adding `!important` can override the order
Validate your document!

**HTML validator:**

https://validator.w3.org/

**CSS validator:**

https://jigsaw.w3.org/css-validator/