

# Lecture 5

## Web Presentation (CSS) for Formatting

# Progressive Enhancement

- Web pages are often visualized as being made up of layers:
  - Content - the foundational layer
    1. Structure
    2. Presentation
    3. Behavior
- Each layer enhances the base content in some way
- Technology
  - Content - MS Word (?) ...anything
  - Structure - HTML
  - Presentation - CSS
  - Behavior - JavaScript

# CSS is used for multiple things

## 1. Formatting

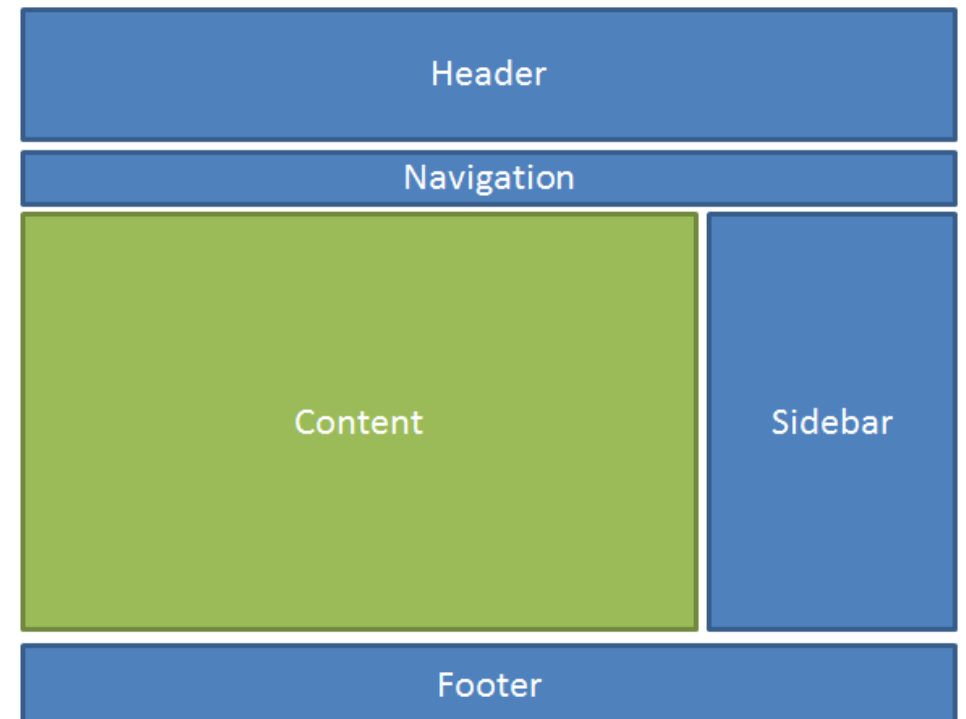
- Fonts, colors, backgrounds, borders and other embellishments

## 2. Layout

- Positioning content – non “natural document flow”
- Columnar layouts, e.g. the “c-clamp”

## 3. Navigation

- Also layout, but in a much smaller area

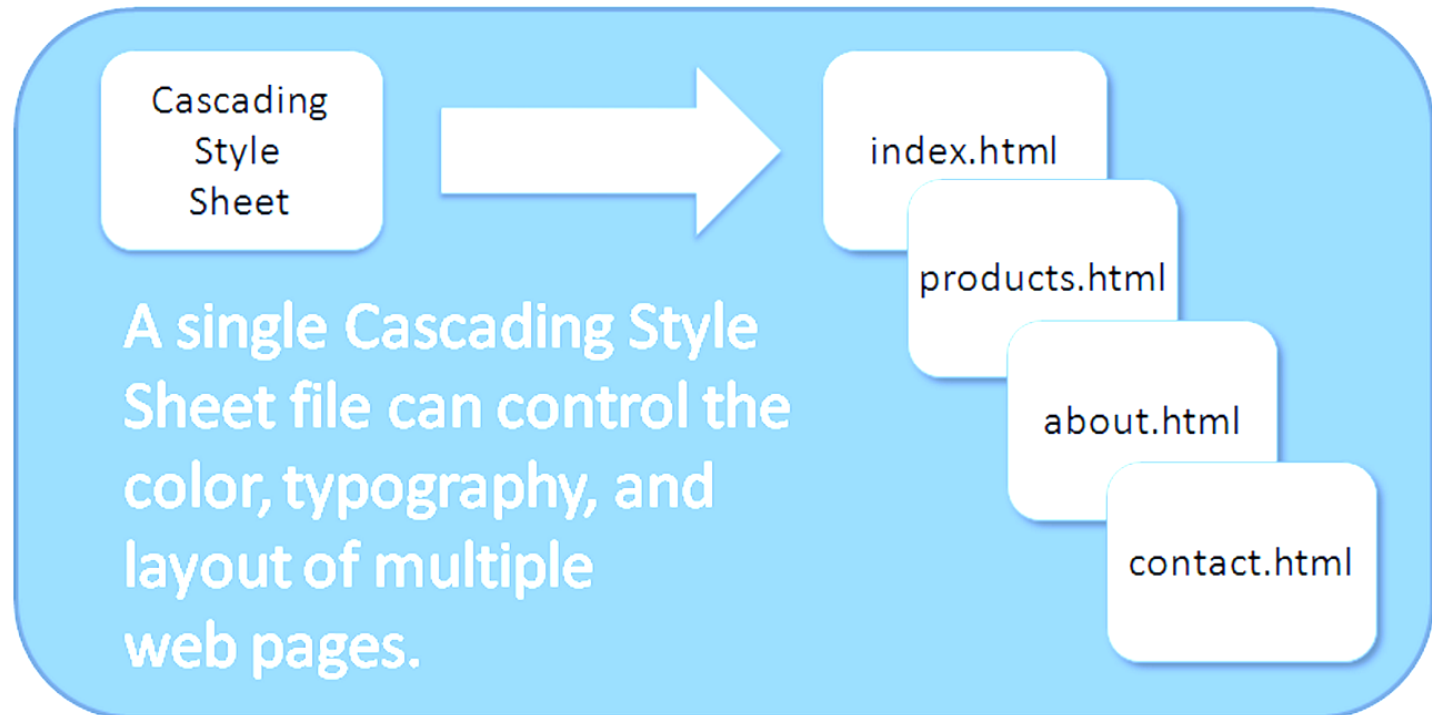


# Overview of Cascading Style Sheets (CSS)

- Style Sheets
  - From Desktop Publishing
  - Typographical styles and spacing
- CSS
  - Functionality of style sheets (and much more) for the Web
  - A flexible, cross-platform, standards-based language
  - Developed by the W3C

# The "cascade"

- All the pages in a website inherit styles from an attached stylesheet
- Nested HTML tags inherit styles from their parents
- Styles mix with each other as they appear in the stylesheet

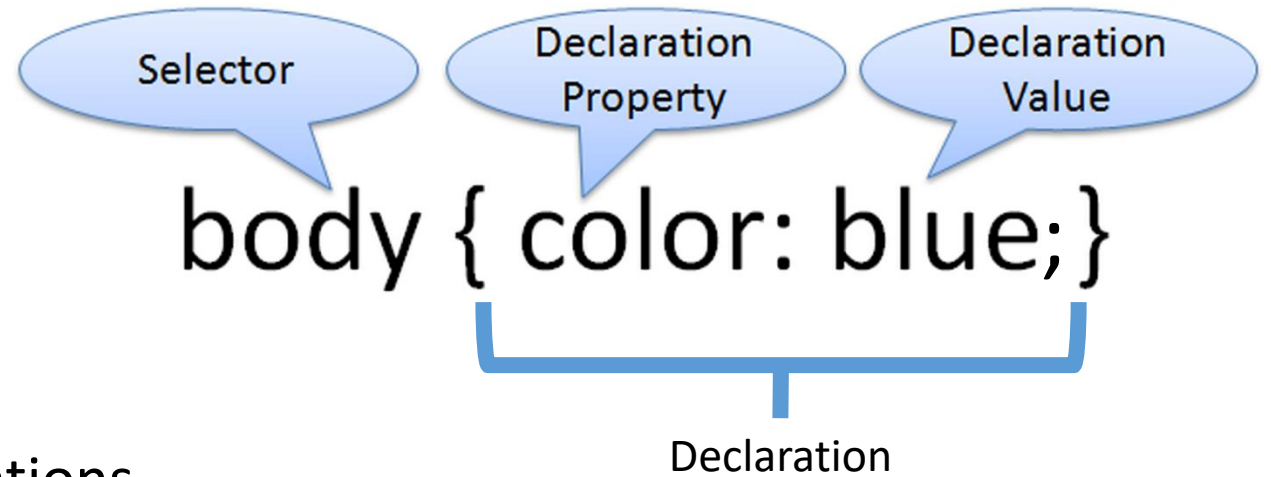


# CSS Syntax

- Each Rule contains a Selector and a Declaration
- White space
  - One line for one declaration
  - Multiple lines for multiple declarations

```
h2 { color: blue; }
```

```
p{  
  color: blue;  
  background-color: yellow;  
}
```



# Common CSS properties

font-weight: \_\_\_\_

font-style: \_\_\_\_

font-size: \_\_\_\_

font-family: \_\_\_\_

color: \_\_\_\_ (huh?)

width: \_\_\_\_

margin: \_\_\_\_

padding: \_\_\_\_

background-color: \_\_\_\_

line-height: \_\_\_\_

text-align: \_\_\_\_

text-decoration: \_\_\_\_

*...and many, many more*

# The *font-family* Property


```
p { font-family: Arial, Verdana, sans-serif; }
```

- The user's web browser looks for a loaded font
- font-family uses a "font-stack"
  - Fallbacks
  - Ends with `serif` or `sans-serif`



# Keywords and other values

## Example - color

- `color: red;`
  - `color: #FF0000;`
  - `color: rgb(255, 0, 0);`
  - `color: hsl(0, 100%, 50%);`
- 

## Example - font-size

- `font-size: medium;`
- `font-size: 16px;`
- `font-size: 1em;`
- `font-size: 12pt;`

## Example - font-weight

- `font-weight: bold;`
- `font-size: 700;`

Look at: [developer.mozilla.org/en-US/docs/Web/CSS/color\\_value](https://developer.mozilla.org/en-US/docs/Web/CSS/color_value)

# CSS shortcuts

- Many ways to code the same thing

**Lorem Ipsum**

```
h2 {  
    border-width: 2px;  
    border-style: solid;  
    border-color: #ff0000;  
}
```

-- or --

```
h2 { border: 2px solid #ff0000; }
```

...simpler to type

# CSS directional styles

Lorem ipsum dolor sit amet, consectetur adipisicing elit. Numquam, quidem asperiores at explicabo ducimus vero quaerat eos alias itaque distinctio labore odio illum voluptas soluta culpa vitae porro adipisci beatae.

```
p {  
  padding-top: 10px;  
  padding-right: 10px;  
  padding-bottom: 10px;  
  padding-left: 10px;  
}
```

-- or --

```
p { padding: 10px; }
```

...simpler to type

```
p {  
  padding-top: 0;  
  padding-right: 7px;  
  padding-bottom: 20px;  
  padding-left: 3px;  
}
```

...for more specificity

-- or --

```
p { padding: 0 7px 20px 3px; }
```

Note: The property: `margin` works the same way

# More CSS directional styles

**Lorem Ipsum**

---

```
h2 { border: 2px solid #ff0000; }
```

-- or --

```
h2 {  
  border-top: 2px solid #ff0000;  
  border-right: 2px solid #ff0000;  
  border-bottom: 2px solid #ff0000;  
  border-left: 2px solid #ff0000;  
}
```

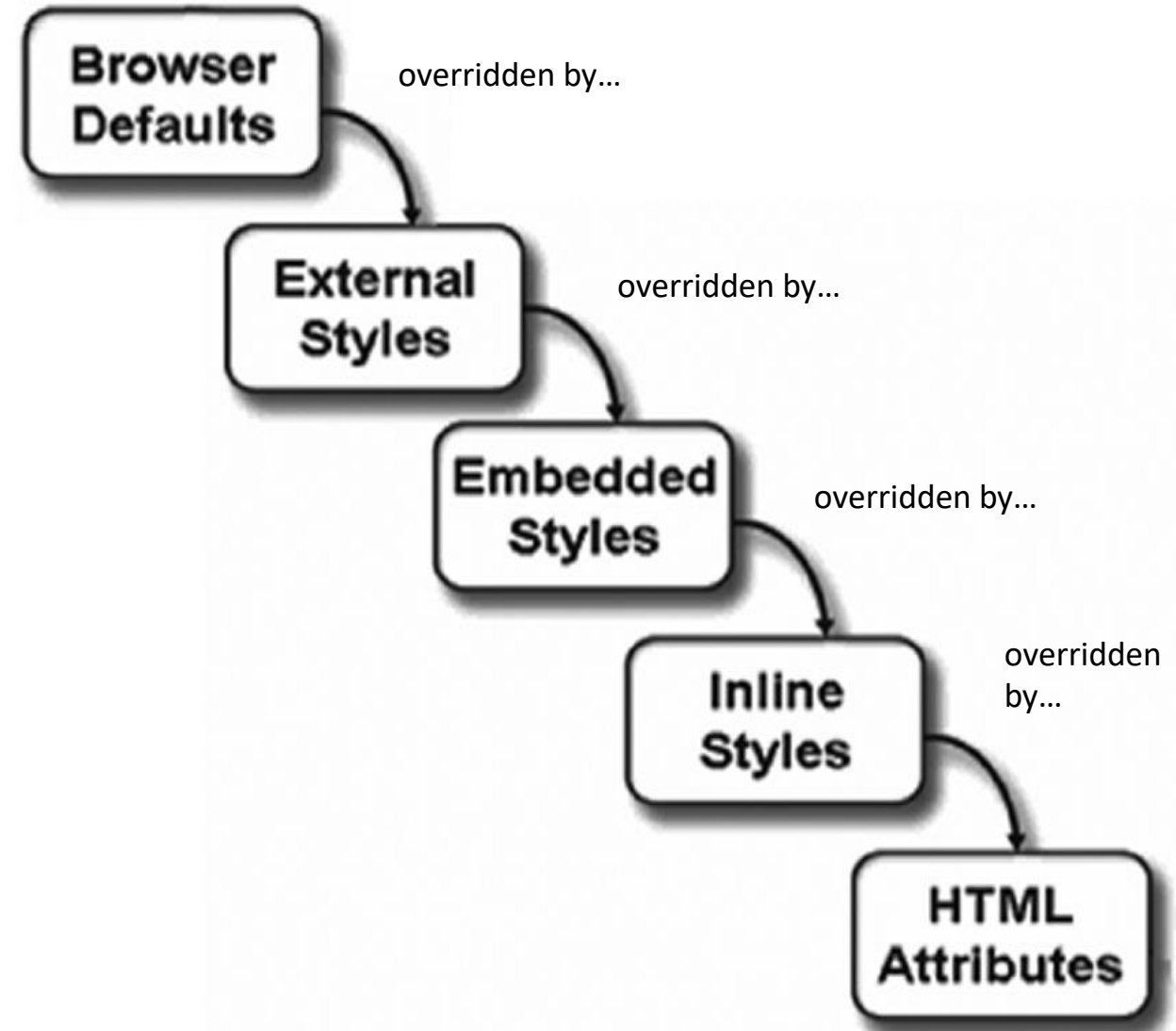
-- or just --

```
h2 { border-bottom: 2px solid #ff0000; } ...for more specificity
```

Note: each value can be different

# Places to put CSS

- The Built-in Browser Stylesheet
- External Styles
  - Separate text file with .css file extension
  - Associate with a HTML link element in the head section of a web page
- Embedded Styles
  - head section
  - HTML style element
  - apply to the entire web page document
- Inline Styles
  - body section
  - HTML style attribute
  - apply only to the specific element
- ~~HTML Attributes~~



# W3C CSS Validation

- <http://jigsaw.w3.org/css-validator/>

