
# HTML & CSS: LEVEL 1

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# SESSION OVERVIEW

- Week 1 Review and questions
- Web graphics overview
- Optimizing graphics and image formats
- Block vs. Inline Elements
- More HTML elements
- Introduction to CSS and styles

# REVIEW!

# REVIEW: WEBPAGE COMPONENTS

- **HTML** structures and organizes **CONTENT**
- **CSS** stylizes the content and creates layout.
- **Javascript** adds interactivity.

# REVIEW: HTML DOCUMENTS

- **<!DOCTYPE html>** tells the browser it's serving an HTML file
- **<html>** tags wrap the whole document
- **<head>** tags wrap all of the metadata
- **<body>** tags wrap all of the content
- Most HTML elements have **opening and closing tags**, and some have **attributes**

# REVIEW: HTML CONTENT

- **Headings** create an outline: **<h1>… <h6>**
- **Paragraphs and lists** structure text: <p>…<ul>…<ol>
- **Images** embed jpegs, gifs, etc.: **<img src="" alt="">**
- **Links** connect pages: **<a href="“”>…</a>**

# REVIEW: FILE STRUCTURE & ORGANIZATION

- **HTML files** go in the main directory.
- **CSS** and media go in subdirectories.
- Your homepage is **index.html**
- Paths can be **absolute or relative.**
- **Images** embed jpegs, gifs, etc.: **<img src="" alt="">**
- Use relative paths when possible. (img/kittens.png, **not** http://example.com/img/kittens.png)

# REVIEW: FILE NAMING

- **No spaces** in file names.
- **Capitalization** matters.
- Use **letters, numbers, hyphens,** and **underscores** only.
- Filenames always **start with a letter.**

# REVIEW: BEST PRACTICES

- **Standardize** your file structures and filenames.
- **Capitalization** matters.
- Use HTML comments to leave yourself and others notes about your code. **<!-- HTML comments -->**
- Indent code correctly so it is readable.

# QUESTIONS?

# WEB GRAPHICS

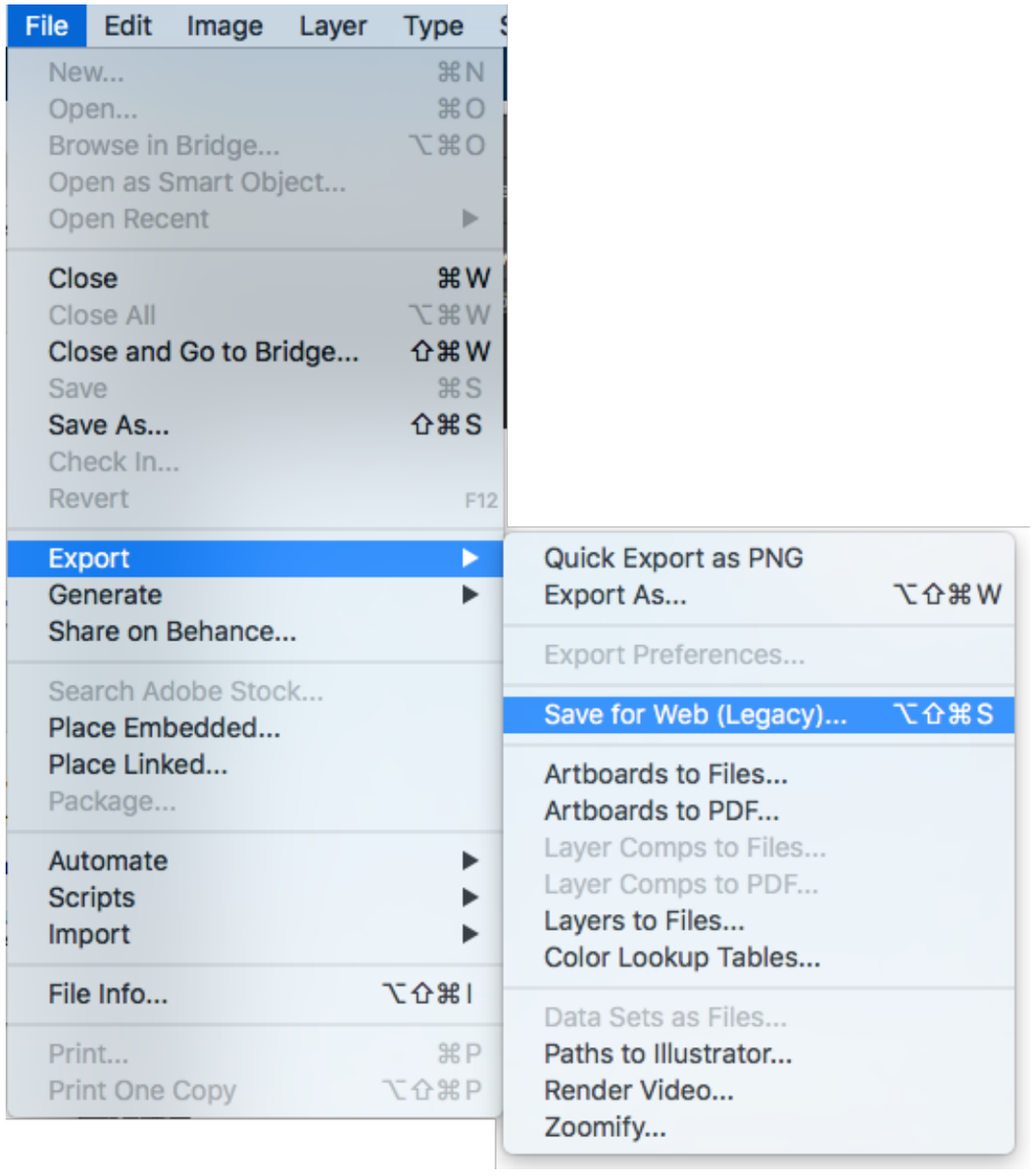
# WEB-READY IMAGES

- Minimize file sizes to help load times in browser.
- **Optimizes images for RGB displays** with correct **resolution** for browsers
- **Flattens** layers and removes metadata from graphics.

# WEB IMAGE TYPES

- **JPG or JPEG (Joint Photographic Experts Group)** is traditional for photos. Millions of colors, no transparency, no animation.
- **GIF (Graphics Interchange Format)** - 256 colors, can be animated, has transparency.
- **PNG 24 (Portable Network Graphic)** - Millions of colors, full alpha transparency, no animation.

# “SAVE FOR WEB” IN ADOBE CS




- Adobe products have a “**Save for Web…**” or “**Save for Web and Devices…**” option.
- Similar products have this option as well.

# “SAVE FOR WEB” IN ADOBE CS

- Click **File > Export > Save for Web…** (or **Export As**)
- Choose a format **(JPEG, PNG 24, or GIF)**
- Adjust image size to max size display
- Save to your images directory.

# SOME “GOTCHAS”

- Best practice to work in 72 PPI in graphic editor programs. (keeps file sizes down)
- Always work in **RGB** n working with graphics for the web**. CMYK** is for print.
- Make your designers stick to these rules!
- Graphics for **Retina devices** need to be saved out at 2X their “normal” size.

# YOUTUBE DEMOS

- Saving for Web in Adobe Photoshop
- Saving for Web in Adobe Illustrator

# BLOCK VS. INLINE ELEMENTS

https://www.impressivewebs.com/difference-block-inline-css/

# <> BLOCK & INLINE ELEMENTS

## Block-level elements

- If no width is set, will expand naturally to fill its parent container
- If no height is set, will expand naturally to fit its child elements (assuming they are not floated or positioned)
- Can have margins and/or padding
- By default, will be placed below previous elements in the markup (assuming no floats or positioning on surrounding elements)
- Ignores the vertical-align property

# <> BLOCK & INLINE ELEMENTS

## Block-level elements we've learned:

- Headings (<h1>, <h2>, etc)
- Paragraphs (<p>)
- Lists (<ul>, <ol>)
- List items (<li>)

# <> BLOCK & INLINE ELEMENTS

## Block-level elements

# <> BLOCK & INLINE ELEMENTS

## Inline elements

- Flows along with text content
- Will ignore top and bottom margin settings, but will apply left and right margins, and any padding
- Will ignore the width and height properties
- If floated left or right, will automatically become a block-level element, subject to all block characteristics
- Is subject to the vertical-align property

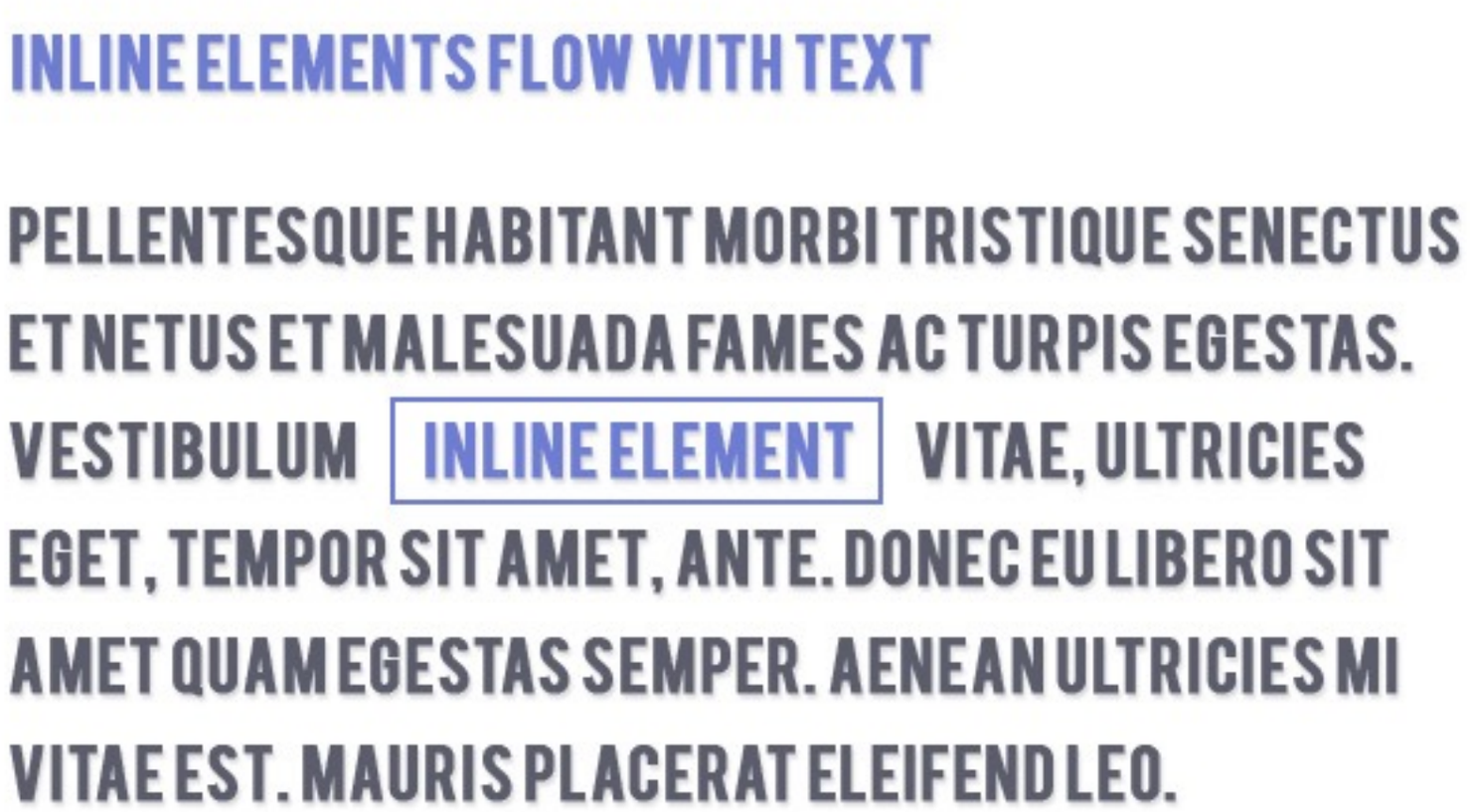
# <> BLOCK & INLINE ELEMENTS

## Inline elements we've learned:

- Links (<a>)
- Coming soon: **, <b>, **

# <> BLOCK & INLINE ELEMENTS

## Inline elements



# <> BLOCK & INLINE ELEMENTS

## “Inline-block” elements

- Inline/Block hybrid.
- Take up width and height like block-level elements.
- Flow with content around them.
- Can have margin and padding.
- Elements we know: **<img>** elements.

<html>

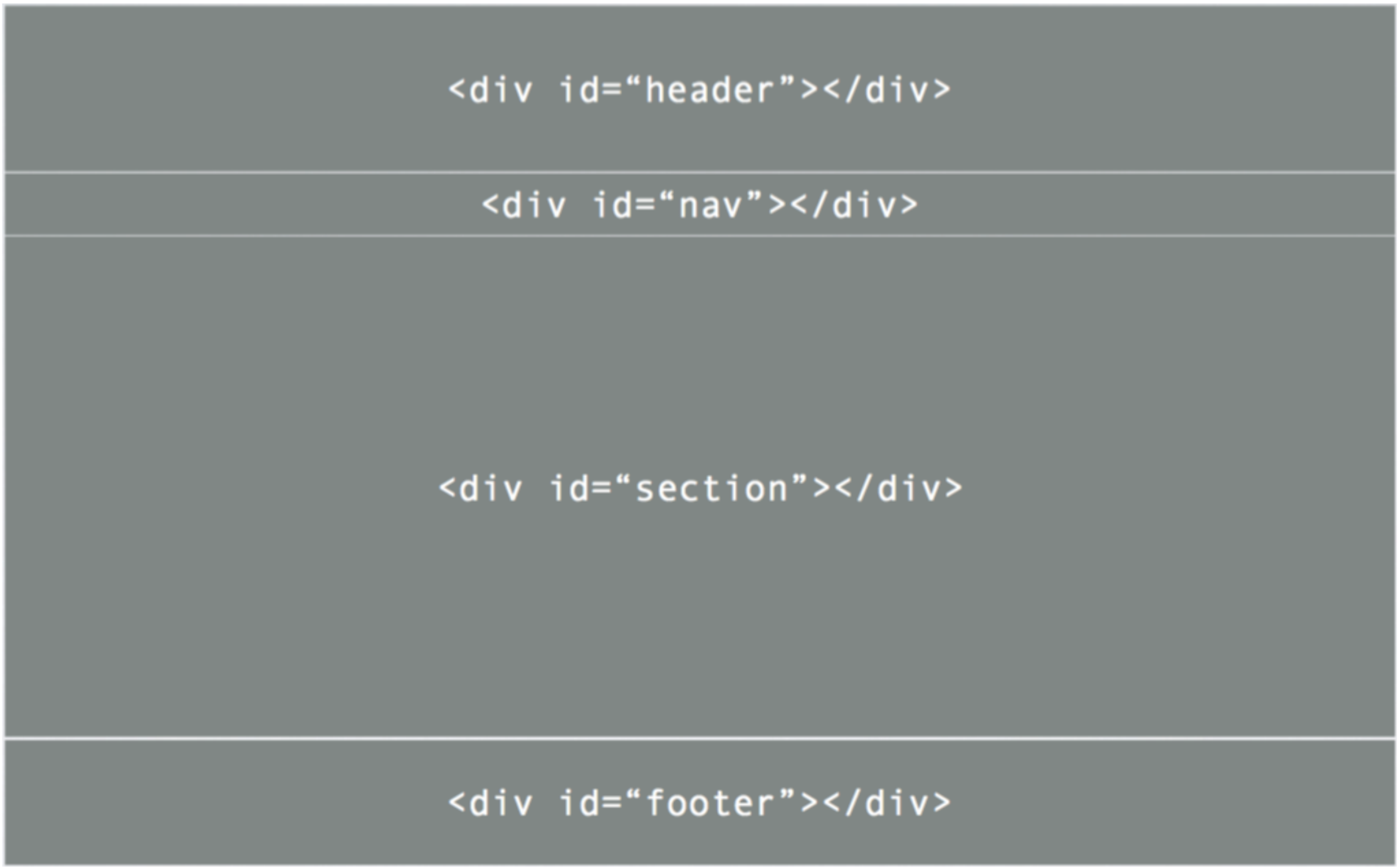
# (MORE) HTML ELEMENTS

# <DIV> ELEMENTS

```
<div></div>
```

-  elements are generic **block elements.**
- Used to create **sections or groups** in HTML for layout.
- Can be used wrappers for other elements (including other divs!) for creating complex layouts.
- Have height and width
- **Building blocks of HTML layouts!**

# <DIV> LAYOUT EXAMPLE



# <SPAN> ELEMENTS

```
<span></span>
```

-  elements are generic **inline elements.**
- Can **nest inside** other block or inline elements.
- Used to **style unique inline content** or **content inside block elements.**
- Flow with content around them.

# <> MORE INLINE ELEMENTS

- **em** elements are used to show *emphasis*. (*like italic*).
- **strong** elements are used to show **importance in context (like bold)**

** **"Oh, great. Someone ate ****my only clean socks****." ** **

** **"Was it ****the cat****?"** **

** **"No, it was ****the dog****.** **


# CSS

# CASCADING STYLE SHEETS

- Language for specifying how documents are presented to users
- We can override the browser's default presentation styles with our own.
- Provides consistent and scalable ways to **style single elements, single pages, or entire websites.**
- **Separates look and feel from content/markup.**

# CASCADING STYLE SHEETS: FAIR WARNING

- There is **A LOT** you can do with CSS.
- We won't get anywhere close to covering everything.
- We will practice the basics before getting into advanced topics.
- We will cover **common CSS** for text styles, colors, positioning, layout, and a couple of extras.

# WHY USE CSS?

- Helps you avoid duplication by keeping styles in one place (one external stylesheet).
- Makes style maintenance easier.
- Allows you to make a site-wide change in one place.
  - e.g. update the font for the whole site in one line of code!

# ANATOMY OF A CSS RULE

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

- **Selector** is the **thing** you want to style.
- **Property** is the **aspect/attribute** you want to style.
- **Value** is how you want to style it.
- **Values** always end in semicolons ( ; )

```
p {font-size: 14px; color: blue;}
```

# EXAMPLE CSS RULE

```
p {font-size: 14px;}
```

- **Selector** is the **p**. (<p> in the HTML)
- **Property** is the **font-size.**
- **Value** is **30px** (30 pixels high).
- All paragraph tags will have a font size of 14px.

# CSS COMMENTS

```
<style>
  /* I am a CSS comment! */

 h1 { /* I am also a CSS comment */
    color: #ff0000;
  }
</style>
```

- Just like HTML, CSS can have **comments.**

# {} COMMON FONT PROPERTIES

- **font-size:** a number followed by a measurement of how tall the element's text is, usually in ems **(em)** or pixels **(px).**
- **font-family:** the name of a typeface.
- **font-style:** (**normal**, or **italic** are most common)
- **font-weight: bold** (can also be values of 100, 200, up to 900 depending on the typeface.
- **line-height:** a number followed by a measurement of how tall the element's line of is, usually in ems (em) or pixels (px) (similar to **leading** in typography)

# {} COLORS

- To set **text color**, the property is **color.**
- To set **background colors**, the property is **background-color.**
- Color **value** can be: **HEX**, **RGB**, or **RGBA.**
  - Hex: **#ffffff**
  - RGB: **rgb(245, 245, 245)**
  - RGBA: **rgba(245, 245, 245, 0.8)** - (0.8 represents alpha/opacity)

```
p {color: #222222;}
div {background-color: rgba(0,0,0,0.5);}
```

# {} WIDTH & HEIGHT

- Block elements have width and height by default, which you can override.
- You can set width and height of images with HTML attributes:

```
<img src="example.jpg" width="300" height="200">
```

- **But** it's recommended to use CSS:

```
img { width: 300px; height: 200px; }

img { width: 300px; height: auto; }
```

# {} MULTIPLE SELECTORS & PROPERTIES

- You can add multiple selectors to a CSS rule.
- You can add multiple properties to a CSS rule.
- Example: style all ordered and unordered lists:

```
ul,
ol {
   font-size: 16px;
   font-weight: bold;
   color: #444444;
}
```

# {} CSS IN MULTIPLE PLACES

- **Inline styles** are applied to only a single element (best practice to avoid this if possible).
- **Internal styles** are added in the **<head>** of a page and style only that page. (what we've done so far)
- **External stylesheets** are called into multiple pages, and are declared in separate **.css** files. *Best practice.

# {} EXTERNAL STYLESHEETS

- Create a **new file** in your text editor.
- **Copy and paste** your styles from inside the **<style>...</style>** element your new file.
- Save your new files as **styles.css**, and save it in your **css** directory/folder.
- Remove the **<style></style>** tags from **index.html**

# {} LINKING TO EXTERNAL STYLESHEET

```
<link href="css/styles.css" rel="stylesheet">
```

- Tells the browser to go find and load the CSS file.
- Goes inside the **<head>** element.
- Should go in every page that should load the styles.

# {} THE "CASCADING" PART

The beauty of CSS is being able to create styles and then override them when you want to customize the look of your pages.

**There are three big rules for determining how styles get applied:**

- Styles are loaded from far to near.
- Styles are loaded from top to bottom.
- Children elements are more specific than parents.

# {} STYLES "LOCATION"

Styles that are "closer" to the elements they style take precedence.

- Browser defaults
- External styles (in a **.css** file)
- Internal styles (in the **<head>**)
- Inline styles (on an element)

**Less Specific**

**Most Specific**

# {} TOP TO BOTTOM

If the same property is styled multiple times for the same selector, **the last one sticks.**

```
p { color: #2f4251; }

ul{ color: #444444; }

/* some other stuff */

p { color: #daa645; } /* this one wins */
```

# {} CHILDREN ARE SPECIFIC

Children elements usually **inherit** styles from their parents but can **override** parents with their own styles

```
body { color: #2f4251; } /* parent */

p { color: #daa645; } /* child */
```

# {} SELECTORS CAN BE MORE SPECIFIC

If one style is **more specific** than another, it takes precedence

```
p { color: #daa645; } /* all paragraphs */

a { color: #e7c0c8; } /* links in general */

p a { color: #c4fe46; } /* a nested in p */

div p a { color: #a5dd5e; } /* a in p in div */
```

# {} WEB INSPECTOR (AGAIN!)

# PRACTICE TIME!

# ASSIGNMENT

- Create the first page of a car review website.
- Use at least 4  tags to create a basic header, navigation, main section, and footer, and give them a background color.
- Place the included logo in the header div.
- Resize the image to 700px in Adobe CS and **Save for Web.**
- Place the image in the main (2nd) div.
- Create a nav of **list** elements in the navigation div.
- Use at least one <h1>, <h2>, <h3> tag.
- Use an **** and **** tag in your design.

# “HOMEWORK”

- Practice!
- Read MDN’s Introduction to CSS
  - https://developer.mozilla.org/en-US/docs/Web/Guide/CSS/Getting_started

# WOW! THAT WAS A LOT!

- QUESTIONS?
  - Email me at: seanmarshallthompson@gmail.com