HTML & CSS: LEVEL 1

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SESSION OVERVIEW

- Week 1 Review and questions
- Finish Week 1 - Images, Links, Organization, File Paths
- 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 ser in an file usin standards
- `<html>` wraps the whole do ument
- `<head>` wraps all o the metadata
- `<body>` wraps all o the isible ontent
- Most HTML elements have **opening** and **closing** **ta s** and some ha e **attributes**

REVIEW: HTML CONTENT

- **Headings** create an header/outline

```
<h1>  <h6>
```

- **Paragraphs** and **lists** structure text

```
<p>
<ul>
<ol>
```

- **ma es** and **lin s** both re uire **attributes** to wor

IMAGES

```
<img src="kitten.jpg" alt="picture of a kitten" />
```

- oes not have a closing tag
- wo required **attributes**:
    - **src** is where the file lives (local or external)
    - **alt** is a description of the image (used for screen readers, search engines, etc)

LINKS

```
<a href="http://google.com">Google</a>
```

- reates a lin to other pages or websites
- he `href` attribute says where the link should o
- Anything inside `<a>` tags is clickable

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

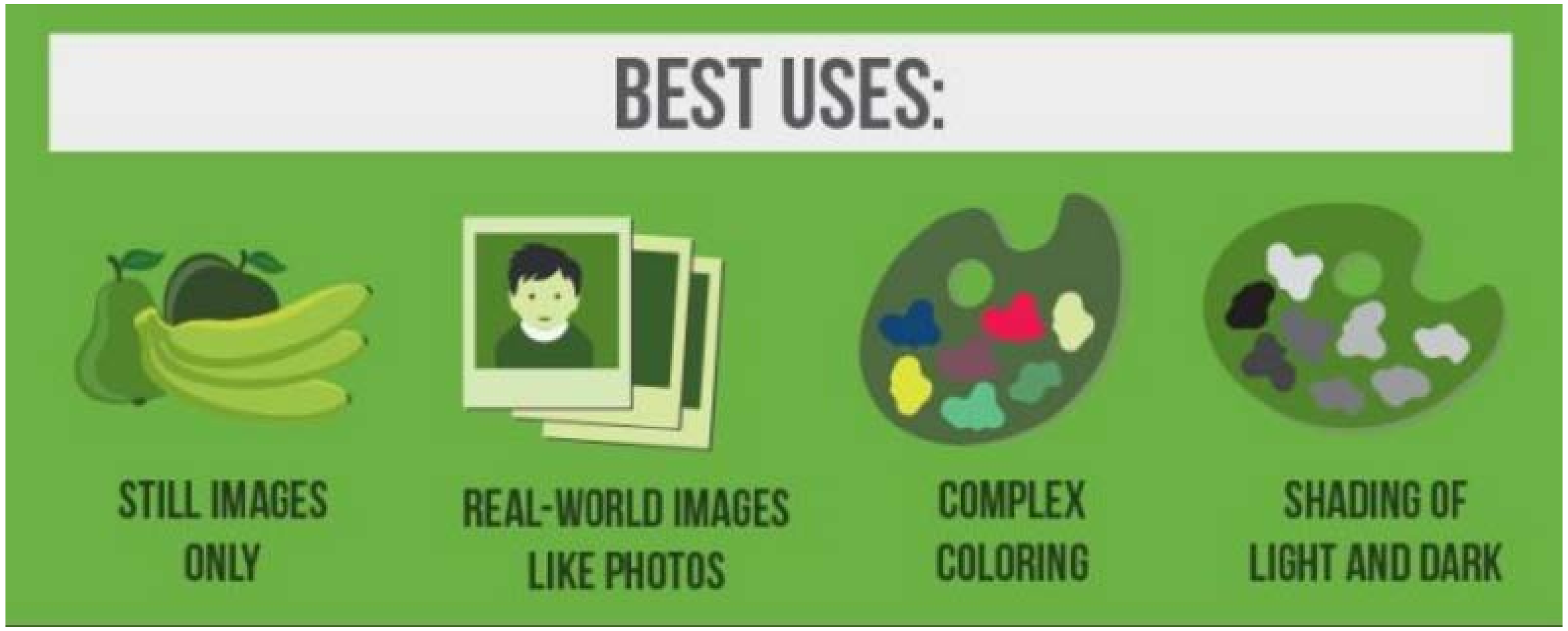
- **JPG/JPEG** allows millions of colors, but no transparency and no animation

- **GIF** only permits 256 colors, but can be animated with transparency

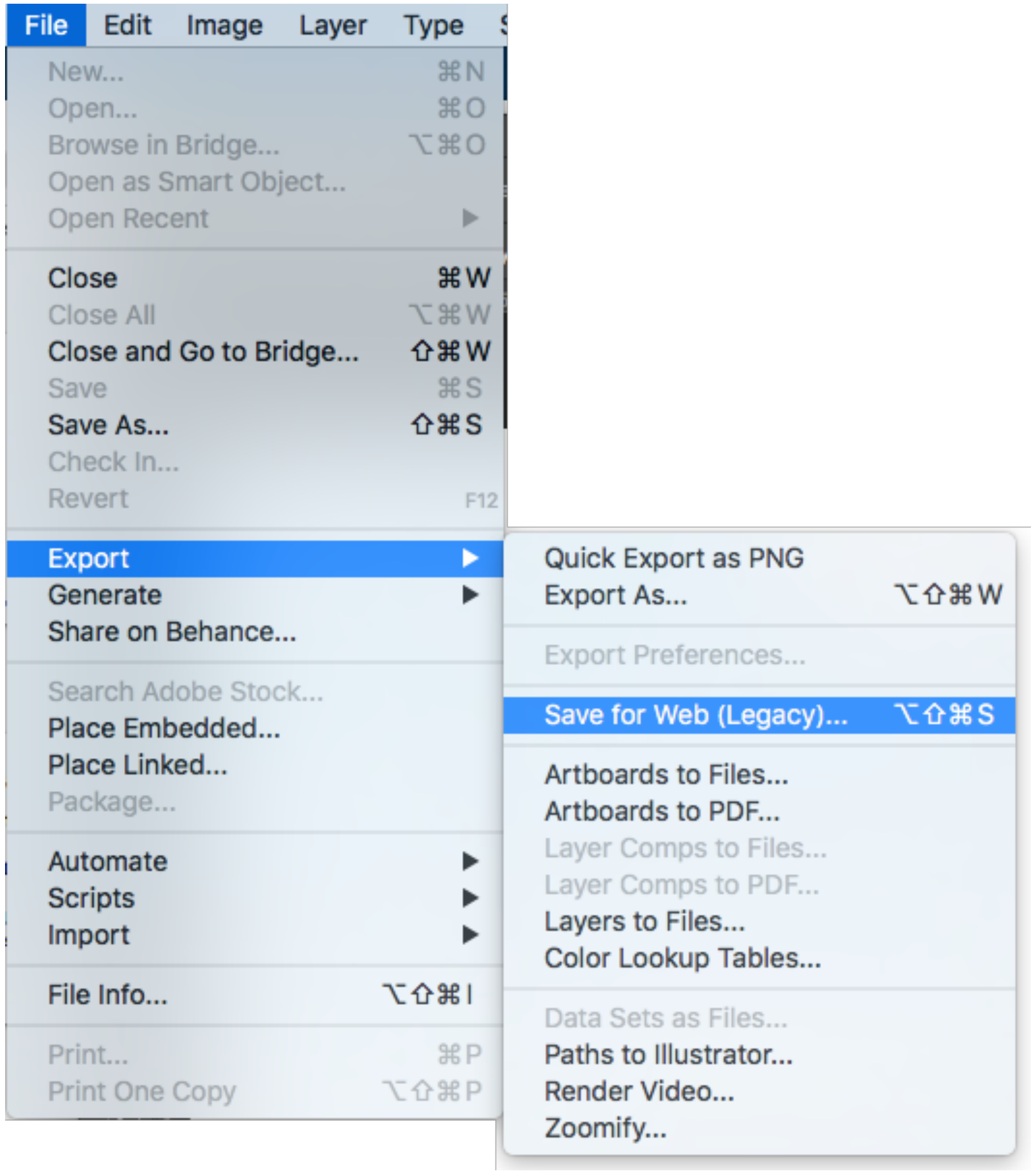
- **PNG** has millions of colors and full alpha transparency, but no animation.

JPGS

JPGs


BEST USES:
STILL IMAGES ONLY
REAL-WORLD IMAGES LIKE PHOTOS
COMPLEX COLORING
SHADING OF LIGHT AND DARK

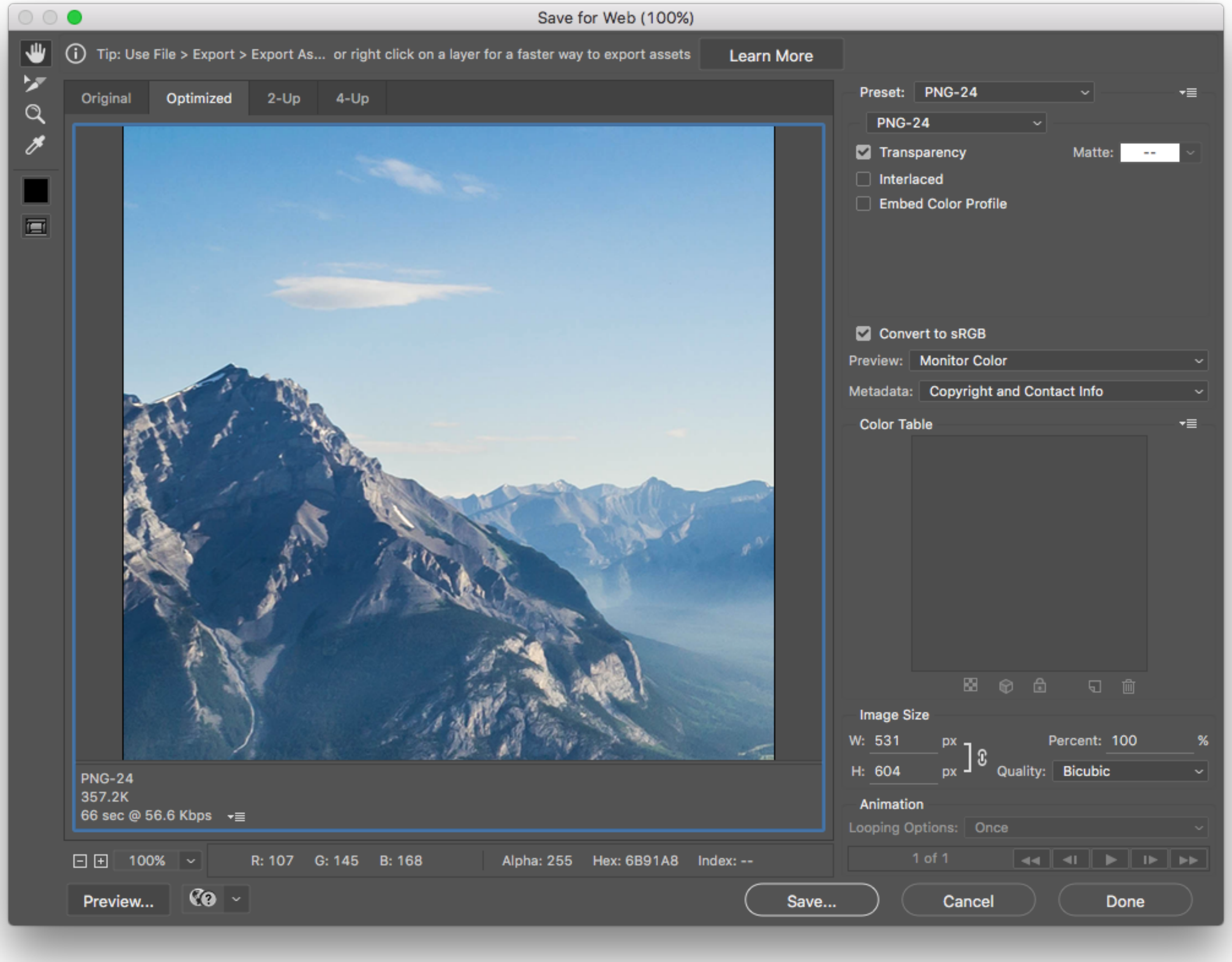
"SAVE FOR WEB" IN ADOBE CS



Adobe products have a "**Save for Web...**" or "**Save for Web and Devices...**" option

“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.



Save for Web (100%)

Tip: Use File > Export > Export As... or right click on a layer for a faster way to export assets

Preset: PNG-24

PNG-24

☑ Transparency Matte: --

☐ Interlaced

☐ Embed Color Profile

☑ Convert to sRGB

Preview: Monitor Color

Metadata: Copyright and Contact Info

Color Table

Image Size

W: 531 px Percent: 100 %

H: 604 px Quality: Bicubic

Animation

Looping Options: Once

1 of 1

PNG-24
357.2K
66 sec @ 56.6 Kbps

100% R: 107 G: 145 B: 168 Alpha: 255 Hex: 6B91A8 Index: --

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.

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 <div> 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.
- 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 **<em>** and **<strong>** 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