WEEK 2 | PROGRAMMING
HTML BASICS II & INTRO TO CSS

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{ } Web Design DeCal
DESIGN MEETS PROGRAMMING

Review

HTML	CSS	Javascript
• Structure • = Skeleton	• Design • = Clothes	• Function • = Muscle

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Review

- What 3 elements are essential in HTML?
  - HTML tags
  - Head tags
  - Body tags
- What is the image element for a file called "panda.png"?
  - *<img src="panda.png">*

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Today's Outline

1. HTML Tables
2. Divs & Spans
3. IDs & Classes
4. Intro to CSS
5. CSS Properties
6. Linking to CSS

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Goal Today:
Style Websites and Make Beautiful Pages

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HTML Tables

HTML Tables

- A **table** is useful for organizing lots of data and content
- *<table>… </table>* tags
- Inside a table, we have rows and columns
  - *<tr>…</tr>* is a row
  - *<td>…</td> is a column*
  - *<th>…</th> is a special column (header column)*
- Each **row** contains several **columns**

HTML Tables

```
<table>
    <tr>
        <th>Name</th>
        <th>Age</th>
        <th>Gender</th>
    </tr>
    <tr>
        <td>Jeff</td>
        <td>22</td>
        <td>Male</td>
    </tr>
</table>
```

Name	Age	Gender
Jeff	22	Male

Divs & Spans

Divs and Spans

- *<div></div>* tags are the primary tags we will use from now on
  - They are essentially tags with no special properties (like *<strong> or <h1>*)
  - You customize them with CSS
  - They are stacked **vertically**, meaning you cannot have two divs side by side unless you alter the CSS
- ** tags are used from time to time
  - Like a div tag, they have no special properties
  - You customize them with CSS
  - They are stacked **horizontally**, meaning you can have two spans side by side

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IDs and Classes

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IDs and Classes

- IDs and Classes are both **attributes** to HTML elements
- They look like this: *<div id="main-content">* or *<p class="intro">*
- **IDs**
  - *Unique* to a single HTML file (no other IDs on page can have the same ID)
- **Classes**
  - There can be one or more of the same class on a given page
- IDs and Classes are important concepts for CSS. This is how CSS will select certain elements and style them

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Intro to CSS

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Intro to CSS

- CSS stands for **Cascading Style Sheets**
- They go in another file with an extension of .css
  - Link to the CSS file from your HTML file (in the *<head></head>* tags)
- Basic Structure of CSS:

SELECTOR
|
p { color: red; font-size: 16px; }
         | |
PROPERTY   VALUE

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Intro to CSS

SELECTOR

p { color: red; font-size: 16px; }

PROPERTY   VALUE

- A "selector" can be the HTML element name, its ID name or Class name
- It is followed by braces **{ }**, with CSS property-value pairs in between
- **Properties** define a CSS style
  - They are followed by a colon **:** and a value
  - Close property-value pairs with a **semicolon ;** (important!!)

Intro to CSS

- Sample CSS Documents


```css
 7  @font-face {
 8      font-family: 'akashiregular';
 9      src: url('../fonts/akashi-webfont.eot');
10      src: url('../fonts/akashi-webfont.eot?#iefi
11          url('../fonts/akashi-webfont.woff') fo
12          url('../fonts/akashi-webfont.ttf') for
13          url('../fonts/akashi-webfont.svg#akash
14      font-weight: normal;
15      font-style: normal;
16  }
17
18  body {
19      background: #2e2e2e url(../images/bg-main.j
20      color: #d6f1ff;
21      font-family: Verdana, Helvetica, sans-serif
22      font-size: 20px;
23      text-align: center;
24  }
25
26  p {
```

```css
untitled          style.css          x
382   .entry-meta {
383       margin-bottom: 15px;
384       -webkit-font-smoothing: antialiased;
385       -moz-osx-font-smoothing: grayscale;
386   }
387   .entry-meta ul {
388       padding: 0;
389       list-style-type: none;
390   }
391   .entry-meta li {
392       float: left;
393       margin-right: 12px;
394   }
395   .entry-meta a {
396       color: #999999;
397   }
```

Intro to CSS

- Selecting elements to style is simple
- Use either the HTML element name, its class or its id
- *<p>Hello World!</p>*
  - Select this element with **p**
  - Style **p**: p { color: red; }
- What if you have **multiple** paragraphs, but want to style just the first one?
- You can use IDs:
  - *<p id="intro">Hello World!</p><p>My name is Bob.</p>*
  - Select the ID *intro:*
    - #intro { color: red; }

Intro to CSS

- Select elements by ID with a pound symbol **#**
  - Example: *#intro { font-size: 16px; }*
- Select elements by Class with a dot symbol **.**
  - Example: *.items { line-height: 26px; }*
- How would you select "Second Paragraph"? What about both divs?

```
<div id="first" class="paragraph">
    First Paragraph
</div>
<div id="second" class="paragraph">
    Second Paragraph
</div>
```

- Answer 1: #second { … }
- Answer 2: .paragraph { … }

CSS Properties

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CSS Properties

- There are **a lot** of properties! We will teach you the most essential
- **color**
  - Changes the color of your text
  - Value is either a default color value (red, blue, etc.), RGB or HEX value (we will go over this next week)

- **background-color**
  - Changes the background color of your HTML element
  - Value is either a default color value (red, blue, etc.), RGB or HEX value (we will go over this next week)

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CSS Properties

- **text-align**
  - Values: left, center, right, justify
- **text-decoration**
  - Values: underline, overline, line-through
- **font-size**
  - Value in px (ex: 16px or 24px)
  - Other ways to define font too (but we won't go over them)
- **font-weight**
  - Values: normal, bold, bolder, or lighter
  - Or use values from 100, 200, …, to 900
    - 400 = normal, 700 = bold

CSS Properties – Font Family

- Before we talk about font-family, let's go over some basics
- There are **2 types** of fonts: **Serif** and **Sans-serif**

CSS Properties – Font Family

- On the web, we call commonly used fonts "**web-safe"**, meaning all browsers can render the fonts without trouble
- Here is a list of web-safe "**serif"** fonts:

Times New Roman, Times New Roman:
abcdefghijklmnopqrstuvwxyz / 1234567890

COPPERPLATE GOTHIC LIGHT
ABCDEFGHIJKLMNOPQRSTUVWXYZ / 1234567890

Georgia, Georgia; Georgia:
abcdefghijklmnopqrstuvwxyz / 1234567890

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CSS Properties – Font Family

- Here is a list of web-safe "**sans-serif"** fonts:

Lucida Sans Unicode, Lucida Sans Unicode;
abcdefghijklmnopqrstuvwxyz / 1234567890

Gill Sans, Gill Sans; Gill Sans:
abcdefghijklmnopqrstuvwxyz / 1234567890

Verdana, Verdana; Verdana:
abcdefghijklmnopqrstuvwxyz / 1234567890

Arial, Arial, Arial, Arial:
abcdefghijklmnopqrstuvwxyz / 1234567890

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CSS Properties – Font Family

- Let's see the CSS property for using a font-family
- **font-family**
  - Example: *font-family: Arial;*
- Usually there are more than one font-family value
  - Example: *font-family: Helvetica, Arial, Verdana, sans-serif;*
  - This means the font-family *Helvetica* will be used
  - If *Helvetica* is not supported by the browser, the next font is used
    - These are called **fallback** fonts
    - The last fallback font in this example is sans-serif (what the browser chooses as the default sans-serif)
- If no fallback fonts or no font defined, default serif font used

CSS Properties – Font Family

```
1. body {   /*the outer layer of the site and global style attributes*/
2.         font-family: "Museo Sans", "Open Sans", "Helvetica Neue", Helvetica, Arial, sans-serif;
3.         margin: 0px;
4. }
5. a {
6.         color: inherit;
7.         text-decoration: none;
8.         outline: none;
9. }
10. .img_scaled {
11.         width: 100%;
12. }
13. #logo {
14.         height: 50px;
15.         float: left;
16. }
17. #header_container {
18.         position: absolute;
19.         height: 80px;
20.         width: 100%;
21.         z-index: 100;
22. }
```

CSS Properties – Font Family

- Lastly, there is border
- **border**
  - Takes in 3 values, space-separated
  - 1st value: border-width in px (pixels)
  - 2nd value: border-style ⟶
  - 3rd value: color
- Example: *border: 1px solid #999;*
  - Thin solid gray border around your element

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Linking to CSS

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Linking to CSS

- 3 ways to style CSS
    - Inline CSS
    - Internal Stylesheet
    - External Stylesheet
- We will only cover the **External Stylesheet**, the most commonly used and *best* way to utilize CSS

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Linking to CSS

- In your HTML file's *<head></head>* tags, include the following line

<link rel="stylesheet" type="text/css" href="/path/to/style.css">

- It is a lot to take in! Thankfully, you can copy this line for all your HTML pages and just change the href attribute to any .css file
- Just know this is a *<link>* tag, linking your HTML page to your CSS file

Summary

- **HTML Tables** are useful for organizing data and content
- **Divs & Spans** are non-special elements that can be customized with CSS
- **IDs** are unique to a page, **Classes** are not
- **CSS** styles require a selector and a property-value pair
- Selecting elements by IDs and Classes, and styling them
- A lot of CSS properties!
- Linking HTML to CSS files

All lecture material, handouts, and homework can be found at:
http://www.thewebdesignworkshop.co

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Bonus Slides!

Font-Face

- Sometimes you may want to use a custom font
- We can use the CSS3 rule **@font-face**
    - Example (put this at the top of your CSS file)
      @font-face {
        font-family: someName;
        src: url(/path/to/font.otf);
        }
    - Name your font in the *font-family* property
    - Put the relative/absolute path to your font in *src* (.ttf, .otf, .woff)
- To use your custom font "**someName**", simply use it as you would any other font
    - Example: *p* { font-family: someName, Arial, sans-serif; }

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Other ways to link CSS

- **Inline CSS**
  - Very poor design choice, but you may see them in old websites (or if the web developer is lazy)
  - They utilize the HTML attribute **style="…"**, and styles are inserted in the attribute
  - Example: *<p style="color: red; font-size: 14px;">Hi!</p>*
- **Internal Stylesheet**
  - A little better than inline CSS
  - Inside the *<head></head>* tags, you insert *<style></style>* tags

```
<style>
    p { color: red; font-size: 14px; }
</style>
```