Introduction to Coding
Separation of Content vs. Style

HTML - Content
● Provides structure and content for a page (including text)

CSS - Style
● List of names/attributes and how they should be displayed
Before and After

Without CSS the ILLiad page looks like this:
(Everything is displayed with default settings)
Before and After

CSS lets us add colors, font type, sizes, and positions
HTML-What is it?

- Short for “Hypertext Markup Language”
- Programming language to provides structure and content for a page (including text)

- Generally consists of elements (enclosed in carets) and content.

  `<element>Content</element>`

  Example: `<p>Welcome to IDS Project</p>`

- Other example of HTML structure

  `<element />`

  Example: `<input type="submit" value="Submit Information" />`
Beauty of Elements

- Elements can have *attributes* and *values*
  Example: `<a href="http://idsproject.org">Link to IDS Project</a>`

- Some elements have references to predefined “classes”
  Example: `<input type="submit" name="SubmitButton" value="Submit Information" class="f-submit" tabindex="60" />`

- Some elements have references to self defined “classes” or “IDs”. This is where CSS will come into play.
  Example: `<span class="req">*</span>`
**Commonly Used Elements**

```
<p> - creates paragraphs
<p>Hello!</p>
<p>Welcome to IDS Project User Group Meeting!</p>
```

```
<span> - groups small chunks of code
<span>Go to IDS Project Website</span>
```

```
<div> - container for large chunks of code
<div>Today is a beautiful day.</div>
```

```
Hello!
Welcome to IDS Project User Group Meeting!
```

```
Go to IDS Project Website
```

```
Today is a beautiful day.
```
Commonly Used Elements

<input> - generally for user input (buttons, text fields)
<input type="text">
<input type="submit" value="Submit">

<a> - generally used for links
<a href="http://idsproject.org">Go to IDS Project Website</a>

<ul> initialize an unordered list
<li> creates a list item
<ul>
<li>Item 1</li>
<li>Item 2</li>
</ul>
### Parts of an ILLiad Webpage

#### Include Header HTML

#### Include Menu HTML

- Logoff klidsky
- Main Menu
  - New Request
    - Photocopy
    - Book
    - Book Chapter
    - Conference Paper
    - Patent
    - Report
    - Thesis
    - Standards Document
    - Other (Free Text)
  - View
    - Outstanding Requests
    - Electronically
      - Received Articles
    - Checked Out Items
    - Cancelled Requests
    - History Requests
    - All Requests
    - Notifications
  - Tools
    - Change User Information
    - Change Accounts
    - Change Password
  - About ILLiad

#### View Outstanding Requests HTML

<table>
<thead>
<tr>
<th>Transaction</th>
<th>Type</th>
<th>Title</th>
<th>Author</th>
<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Article</td>
<td>Journal Marine Research: Death of three Loop Current rings</td>
<td>Kirwan, A.D.</td>
<td>Awaiting Document Delivery Processing</td>
</tr>
<tr>
<td>2</td>
<td>Article</td>
<td>Journal Marine Research: Death of three Loop Current Rings</td>
<td>Kirwan, A. D.</td>
<td>Awaiting Document Delivery Processing</td>
</tr>
<tr>
<td>3</td>
<td>Article</td>
<td>Oceans:</td>
<td></td>
<td>Awaiting Request Processing</td>
</tr>
</tbody>
</table>

Copyright © 2011 Atlas Systems, Inc. All Rights Reserved.

#### Include Footer HTML
<ul>
  <li class="first"><a href="#ACTION action="10" form="22">Photocopy</a></li>
  <li><a href="#ACTION action="10" form="21">Book</a></li>
  <li><a href="#ACTION action="10" form="23">Book Chapter</a></li>
  <li><a href="#ACTION action="10" form="24">Conference Paper</a></li>
  <li><a href="#ACTION action="10" form="25">Patent</a></li>
  <li><a href="#ACTION action="10" form="26">Report</a></li>
  <li><a href="#ACTION action="10" form="27">Thesis</a></li>
  <li><a href="#ACTION action="10" form="28">Standards Document</a></li>
  <li class="last"><a href="#ACTION action="10" form="29">Other (Free Text)</a></li>
</ul>
Changed wording from Photocopy to Article

Added three new options

Used <!-- and --> to comment out things I don’t want

Conference Paper, Patent, Report, Thesis, etc. are now hidden in my Main Menu, and the wording for Photocopy and Other (free text) is changed
CSS

- Stands for “Cascading Style Sheets”
- Tells the browser what elements on a web page should look like
- Works in conjunction with HTML
  - HTML is the skeleton, CSS is the skin
- A single CSS file can be used for all of the pages in a site
  - This is super convenient!
- For ILLiad, CSS files live in the css folder
By default, the ILLiad page CSS looks like this:

```css
/*
LEGAL
=====
*/

* {margin: 0; padding: 0}
body {padding: 0 0 20px; color: #333; font: 83%/1.5 arial, tahoma, verdana}

a.offsite:link, .offsite {padding-right: 12px; background: transparent
"images/avoutside.gif") no-repeat 100%; white-space: nowrap;}

.iconlist {list-style: none; margin: 0px; padding: 0px;}

/* LINKS */
a, a:link, a:link, a:link, a:hover {background: transparent; text-decoration:
cursor: pointer}
a:link, a:visited {color: #666666}
a:hover, a:active {color: #069}

/* FORMS */
form {margin: 0 0 1.5em}
input {font-family: arial, tahoma, verdana, sans-serif; margin: 2px 0}
fieldset {border: none}
label {display: block; padding: 5px 0}
label br {clear: left}
```

It only *looks* scary, but there are things that should look familiar, like font names.
Application of CSS

- CSS can be applied using a general rule
  
  ```
  .selector {property: value;}
  ```

- Selector can be either:
  - Single **HTML element** (applies to all instances of that element)
    
    Example:
    
    ```p{background-color:yellow;}``
    
    applies to all `<p></p>` in a HTML document
  - **class** (applies to group of instances)
  - **ID** (applies to single unique instance)

- Classes and IDs are different from HTML element
  - IDs and Classes have to be named in the HTML
  - These are preceded by a `#` (ID) or `. (Class)
  - Classes and IDs must have the same name in both the HTML and CSS
Making Sense of It All (cont’d)

For each selector (ID, Class, or Element), you declare properties.

```css
#header {background:#FFDD99;
    width:100%;
    height:100px;
}
```

This means the ID header will be the full width of its container, 100 pixels tall, and light orange.
Making Sense of It All (cont’d)
This is a basic page layout:
The CSS would look like this:

```css
body {background:#EFEFEF; font-family:sans-serif; }

#wrap {margin:auto 20px; width:95%; background:#000066; height:100%}

#contain {width:95%; margin:auto 20px;}

#header {height:100px; background:#FFAA66; margin-bottom:10px;}

#nav {float:left; width:25%; min-height:200px; background:#FFAA66;}

#content {float:right; width:70%; min-height:200px; background:#FFAA66;}
```
Making Sense of It All (cont’d)

The accompanying HTML would look like this:

```html
<html>
<head>
<link href="test.css" rel="stylesheet" type="text/css">
</head>
<body>
<div id="wrap">
  <div id="contain">
    <div id="header">
      <h1>Header Text</h1>
    </div>
    <div id="nav">
      <li>1</li>
      <li>2</li>
    </div>
    <div id="content">
      <h1>Header Text</h1>
    </div>
  </div>
</div>
</body>
</html>
```
Relationship to HTML

In the `<head>` portion of the page, you will see links to the CSS files that will govern the look and feel of the page.
Relationship to HTML

In the <body> portion, you will see id=”name” and class=”name”, which tells the browser which part of the CSS file to use.
For <div id="header"> on the default ILLiad page, these are all the properties that apply
ID vs. Class

- An ID can be used *once per page*.

- In the CSS IDs are preceded by a #

  - ex: `#header`

- Classes can be used *many times per page*.

- In the CSS classes are preceded by a .

  - ex: `.default-table`
What if I wanted dropshadow on 1000 pictures? I could just make one class called “.dropshadow” and apply that class to every image, instead of writing the style for each image every time.
Basic Properties

background (background color)
color (text color)

width
height
font-family
border
margin (space outside)
padding (space inside)
A Note on Color
In CSS there are several different ways to specify color.

The ILLiad code uses *hexadecimal* display, so this is actually a color: #333399. This color.

Colors can also be written by name or *RGB value*.

W3schools have great resources for color names and values:

http://www.w3schools.com/tags/ref_colornames.asp
Testing and Checking

All major browsers have a built-in tool to see what CSS applies to a given element on the page

**IE:** F12

**Firefox:** Ctrl + Shift + I or Right-click on any page element and select *Inspect Element*

**Chrome:** Right-click on any page element and select *Inspect Element*

**Other resources:**

Firebug Plugin (for Firefox): http://getfirebug.com/
Atlas Resources

For webpage editors:

More Atlas documentation:
https://prometheus.atlas-sys.com/display/illiad/Customizing+the+Web+Interface
Useful Web Resources

W3Schools
http://www.w3schools.com/

Other Resources
Microsoft Expression Web 4 (Free Version):
Stackoverflow http://stackoverflow.com/
Code project http://www.codeproject.com/
http://www.colorzilla.com/gradient-editor/
Useful Programs

For HTML/CSS Editing:
Notepad++ (For Windows) http://notepad-plus-plus.org/

TextWrangler (For Mac)
http://www.barebones.com/products/textwrangler/

For FTP Uploads/Downloads:
Filezilla https://filezilla-project.org/