Congratulations!

• You now know more than the average web developer. (Really!)
• You know an introductory amount about many topics/languages
• You're capable of teaching yourself more...
Learn more about HTML5

- **semantic** tags: nav, aside, header, footer, section, aside, article
- **Forms 2.0**: sliders, search bars, color/number/email/url/date/time, placeholders, ...
- **audio** and **video** tags for embedding multimedia
  
  ```html
  <video src="video.ogv" width="425" height="350"></video>
  ```

- **canvas** tag for drawing 2D shapes in HTML/JS
  (like DrawingPanel) (ref 1, 2, 3)
Learn more about HTML5, continued

• **semantic web** / **microdata** attributes: `rel="..."`, `itemscope`, `itemtype`, `itemprop`

• **accessibility** features ("ARIA")
• embedding of rich XML-like formats such as **SVG** vector graphics
• other stuff: offline apps, **geolocation**, cross-document messaging, MIME type registration, history management, ...
Learn more about **CSS3**

- new **selectors**: nth-child, inline-block, :not, +
- ability to **embed fonts** in a page *(yay)*
- easy built-in support for **multi-column layouts**

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| This page demonstrates CSS3 multi-columns, rounded corners, text & box shadows, HSL/HSLA colour selection, nth-* | be floated or positioned ([Bug 238072](http://http://). Column text flow is much improved and border-radius is now antialiased. | of the CSS2 or CSS3 specifically tested. Lack of support for position:fixed and PNG alpha transparency renders the header and footer |

- **transparency/opacity**, color **gradients**, **shadows**
- **animations** and transitions (like Scriptaculous)
- **affine transformations** (scaling, rotation, perspective)
Learn more about JavaScript

- JavaScript objects/OOP; JS form validation; more JS syntax
- JS libraries such as jQuery or Yahoo! UI (YUI)
- JS site frameworks such as Backbone.js or Twitter Bootstrap
- Yahoo! web developer videos featuring Douglas Crockford
- JS on the server, such as Node.js
Learn more about other topics

- Web design and usability
- PHP objects/OOP
- PHP web frameworks such as Zend, CakePHP
- Supplemental book chapters on Taking a web site "live", Database Design, IE Hacks
- Macromedia Flash: tutorial 1, tutorial 2, tutorial 3
- server-side web programming in Java
  - JSP / servlets (#1, #2), applets (#1, #2)
Courses to take

- **CSE 143** - learn more about structuring data and algorithms (if you haven't taken it yet!)
- **INFO 343 / 344 / 340** - web design, web tools/development, databases
- **ENTRE 475/476** - business aspects of web development
- **CSE 403** - software engineering (large software projects)
- **CSE 490H** - distributed systems
- **CSE 498/499** - senior capstones and project courses
Revisiting past homework assignments

• come up with your own web project and build it (anything!)
• create a personal web site with info about you, your resume, etc.
• try writing extensions to the assignments from this course:
  • HW1-3: Pick other web sites and try to mimic them
  • HW4: implement persistent dating data, uploading of images, a login system, cookies/localStorage
  • HW5: add use Scriptaculous/jQuery to add effects; save to-do items using Ajax
  • HW5: add use Scriptaculous/jQuery to add effects; save to-do items using Ajax
  • HW6: implement the real 6 degrees of Kevin Bacon as seen at oracleofbacon
  • HW7: write code to read/write ASCII art to the server using Ajax
  • HW8: use Scriptaculous/jQuery to add effects and animate the tiles
  • HW9: write the PHP that reads names.txt and feeds XML/JSON to client
• make your assignments compatible w/ IE, Opera, Safari, etc.
• go back and look at the "extra session" notes
Sharing your work with others

• show off your awesome programs to your friends!
• put your web dev skillz (and links to your programs) on your resume!
• set up your UW web space
• your UW web site will be at http://students.washington.edu/YOUR_UWNETID
• Suggestion: put this line at the top of your PHP code:

```php
<?php
error_reporting(E_ALL); // makes UW server show error messages
...
```
Protecting web resources

- Please don't post your HW solutions on the web unprotected! (we want to be able to assign some of these programs again)
- posting resources with a shared password:
  - create files named `.htaccess` and `.htpasswd` with proper contents and put them in your HW root folder on UW
  - doesn't require a UW NetID
  - can give password to friends / family / employers
Example .htaccess, .htpasswd files

```
.htaccess:

AuthUserFile full/path/to/.htpasswd
AuthName "Restricted Access"
AuthType Basic
require user username
```

```
.htpasswd:

username:encryptedPassword
```

• place these files in the top folder of the content you want to protect
• [htpasswd generator](#) (gives you the text to copy-paste into your .htpasswd file)
• or from *nix terminal: `htpasswd -c .htpasswd username`
Getting Ajax to work

- Ajax (XMLHttpRequest, Ajax.Request) can only connect to the same server as where your .html and .js files are located
- If you put your work up on UW, your Ajax code will be unable to reach Webster!
- Solution: Put proxy.php in the same folder as your UW code, and change any Ajax URLs
  - if URL has parameters, encode the query string with JS escape function
MySQL on UW

- How to use MySQL on UW
- download our databases: simpsons.sql, world.sql, imdb_small.sql, imdb.sql
- importing a database into MySQL from a file:
  - upload one of the above .sql files to your UW space
  - open an SSH terminal window on UW server and type:
    ```bash
    mysql -u username -p databaseName < filename.sql
    ```
- exporting a database from MySQL to a .sql file:
  ```bash
  mysqldump -u username -p databaseName > filename.sql
  ```
Setting up your own web server

• why?
  • test your web apps locally without needing to upload them to Dante
  • host your own projects from your house and connect to them
  • other useful services: SSH, VNC, SMB (Samba), CVS, ...

• how?
  • Linux: [Linux (LAMP) server tutorial](#)
  • Windows: [XAMPP server software download](#)
  • getting the helpful orange PHP error messages: [Xdebug](#)
Taking a web site "live"

- buy your own domain name (e.g. allisonobourn.com): DreamHost
- learn about (stalk) your users with Google Analytics

<table>
<thead>
<tr>
<th>Top search queries</th>
<th>Average top position</th>
</tr>
</thead>
<tbody>
<tr>
<td>cellarspot</td>
<td>1</td>
</tr>
<tr>
<td>henri boillot</td>
<td>11</td>
</tr>
<tr>
<td>bossi siens</td>
<td>1</td>
</tr>
<tr>
<td>les charmes chardonnay</td>
<td>2</td>
</tr>
</tbody>
</table>

- improve your page / improve PageRank: SEO, meta tags
- make a few bucks with ads: Google AdSense
- get the word out: Google AdWords, Webmaster Tools