Course Notes

+ Homework assignment 4 is complete!

+ Homework assignment 5 is due by 12 noon on Monday, December 12, 2011.
+ Recommend reading includes Chapter 11 in *Computers Are Your Future*, 11th Edition.

+ Includes a post on the CS-E1 blog & a Scratch Project (more on that later).

Course Notes

+ The Final Exam (2) is scheduled for Tuesday, December 6th, 2011 from 5:30pm - 7:30pm.

+ Final Project specifications have been posted, due by 12 noon on Monday, December 19th, 2011.

+ Consists mainly of a CS-E1 blog post and a Google iSite with 3+ pages (as well as a number of other details).

Client-Server

+ HTTP (*Hyper Text Transfer Protocol)* is stateless.

+ Client initiates a *request* to a server which provides a *response*.

+ HTTP/1.0 & HTTP/1.1 are the most common versions. Read about the differences on StackOverflow.

+ *Cookies* are transfered via headers.

< *tags* >

HTML: Tags

+ Letters or words surrounded by carrots <>, can be an open tag, close tag, or self-closing tag. Common tags include *p, div,* and *span*.

+ Check out W3Schools for a list of tags and their functions.

+ Can contain any number of *attributes*, key-value pairs in the following format: key="value"

+ Contained in a hierarchy where tags can be *nested* inside of other tags indefinitely.

Example Tags

+ <p>Lorem ipsum sit doler...</p>

+ Google

+

+

+ <script type="text/javascript" src="jquery.js"></script>

Links

+ Represented with the *a* (anchor) tag, with an *href* attribute (formally know as *hyper-reference*).

+ The *href* attribute must contain a valid URL.

+ The *target* attribute can specify whether the link should lead to a new tab, window, etc.

+ The content inside the tag is displayed (often as blue,   underlined text) and when clicked takes the user to
    to the specified web page.

Images

+ Denoted using the *img* tag with the *src* attribute pointing to a valid location of an image.

+ Other useful attributes: *width, height,* and *alt*. The former are self-explanatory, the later is for alternate text to be displayed in case the image cannot be rendered (or the user is visually-impaired).

+ Modern browsers support GIF, PNG, and JPG (some even support SVG)!

CSS

+ Short for *Cascading Style Sheet*.

+ Designed to give a web page built in HTML style in the form of colors, sizes, positions, etc.

+ Reference specific HTML tags using their tag name, *class*, *id*, or some other identifier.

+ Can be included in-line or linked to a separate .CSS file using the *style* or *link* tags.
+ Step-by-step guide from W3C.

CSS (Cont)

+ Syntax includes a *reference* followed by curly-braces {}, with *property-value* pairs inside separated by semi-colons ;

+ Example (this would make paragraphs large & blue):

```
p {
  text-size:36pt;
  color:blue;
}
```

+ As with HTML whitespace does not matter.

JavaScript

+ Gives a page dynamic features; allows for click handling, repositioning, color changing, etc.

+ Like CSS can be in-line or linked using the *script* tag.

+ Includes AJAX (*Asynchronous JavaScript and XML*) which allows a page to retrieve updates and make HTTP requests to a server, transparent to the user.

+ Basic info from WebTeacher.

JavaScript (Cont)

+ A programming language (unlike HTML or CSS) that includes all of the standard utilities like variables, control flow statements, loops, etc.

+ Provides access to the DOM (*Document Object Model*) for manipulating tags.

+ More on this when we cover programming.

Live Demo

Building a Website

Google iSites

+ A free, simplified web host from Google.

+ Allows you to design HTML pages for the world to see (or privately), at https://sites.google.com/site/ followed by a path of yours choosing.

+ Linked to your Google account, so if you already have one just log in, otherwise register.

+ Required for the Final Project.

Live Demo

Creating a Google iSite

Wrap-Up

+ HTML documents are transfered from a server via HTTP to a client's web browser where they are then rendered.

+ HTML documents are created using *tags* nested in such a way to present visitors with content.

+ Certain tags have certain functions, primarily for images, links, and external CSS/ JS files.

+ HTML documents can be styled with CSS and manipulated with (JS) JavaScript.

Questions?

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