LIS650

Web Site Architecture and Design

2003–10–22

See the course web site at http://openlib.org/home/krichel/courses/lis650w03a for the latest online version of this file.

Course Description
This course focuses on the construction of a web site. Students will learn how web sites work, and how to design good web sites. Students will be provided with free web space where they can design their own sites. This web space will be available even after the course ends.
The course will not be conducted using an application package to generate pages. Instead, students will be taught how to hand-code the pages. The emphasis is on the use of standard compliant HTML 4.01 and CSS level 2.0. Validity control will be an integral part of the composition process. Students are allowed whatever tool they wish to use to create their sites, but final project sites must be standards compliant.
In addition, the course will cover the base ground of background knowledge that is required to understand how the web really works. Students will listen to presentations about http and URIs, as well as on the apache web server.
Finally students will be introduced to the subject of information architecture.

Course objectives
After taking this course students

- they will be able to interact with a UNIX based server for storage and retrieval of pages;
- they will understand fundamental concepts of http;
- they will have sufficient knowledge of HTML in order to create simple pages;
- they will have sufficient knowledge of CSS in order to create simple style sheets;
- they will have a grounding in information architecture and web usability

Prerequisites
There are no other formal prerequisites for this course. However this course is not suitable for technophobes. Students should be familiar with the World Wide Web, and should be able to use a MS Windows computer, i.e. click on an icon to run a program. Students should also be familiar with basic concepts of computer hardware and software, concepts like files, memory, as well as an understand of the Internet and of client/server architecture. Everything that goes beyond that will be explained in class or by personal tuition from the instructor. No prior knowledge of HTML and CSS is assumed.

Instructor
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Class structure
Classes will be held in the computing lab of the of the Westchester graduate center between 12:00 and 17:00. Each class will have a lengthy presentation by the instructor. For some small part of class time the students will work directly with their computers under the supervision of the instructor. Students may stay in the lab after the end of the class for supervised practice, but this will only be possible until the end of the opening time of the lab. The instructor will stay as long as there are students who want to work and as long as the lab is open. In addition, the instructure will be in the lab one hour before each class to answer questions.
Class details:

0	2003–11–01, 12:00 to 17:00	introduction to web design
1	2003–11–08, 12:00 to 17:00	HTML I
2	2003–11–15, 12:00 to 17:00	HTML II
3	2003–11–22, 12:00 to 17:00	CSS I
4	2003–12–06	*snow, class cancelled*
5	2003–12–14, 9:00 to 18:00	CSS II, http, URIs

Slides for all classes are downloadable from the course web site.

Readings
As far as the design of web sites is concerned, Krug (2000) and Nielsen (2000) are classic references. Morville and Rosenfeld (2002) is a good book on information architecture.
The technical specifications of HTML and CSS are on the web. HTML 4.01 is defined in Raggett, Le Hors, and Jacobs (1999). CSS level 2 is defined in Bos, Lie, Lilley, and Jacobs (1998). http is defined in Fielding, Gettys, Mogul, Frystyk, Masinter, Leach, and Berners-Lee (1999). URLs are defined in Berners-Lee, Masinter, and McCahill (1994), but that definition was updated in Berners-Lee, Fielding, and Masinter (1998). MIME types are documented in IANA (2001). The documentation of apache is online at http://www.apache.org.
If students want a textbook on HTML and CSS, they are spoiled for choice. Castro (2002) is a widely used and reasonably priced book for beginners. Werbach (2002) is a good online source. A book that the instructor likes a lot is Musciano and Bill (2002). But it is expensive.

Assessment
Before each class except the first, there will be a quiz on the issued covered in the previous class. The average of all the quiz results will count for 50% of the assessment. On the second class meeting, the students will hand in a one-page typed statement about the web site that they want to build. This statement should cover both the purpose of the web site and the site's architecture. The assessment of this statment will count for the 10% of the grade.
The remaining 40% will be assessed through the student's ability to build a web site. The site must validate against the *strict* version of the HTML 4.01 specification. The site must have a style sheet with the main presentational elements. The site should provide an information source about a topic, though it need not to be comprehensive by any means. The informational contents should go beyond simple link collections or pathfinders. The total amount of information contained should roughly be equivalent to a conventional student essay. The web site will count for 40% of the final grade. It has to be finalized one week after the last class.

Student sites
`Angela Cornwell`[1]
`Alice DeWaters`[2]
`Gloria Meisel`[3]
`Mary Anne Franco`[4]
`Janet Ranucci`[5]

[1] http://dlib.info/home/acornwell/hunt.html
[2] http://dlib.info/home/adewaters/homepage.html
[3] http://dlib.info/home/gmeisel/home.gbm.html
[4] http://dlib.info/home/mamfranco/mamftest1.html
[5] http://dlib.info/home/jranucci/Website%20project/home_page.html

Erin J. Senig[6]
Linda Higham[7]
Marie.Sciangula[8]
Steven Lippman[9]
Christina Pusatere[10]

References

Berners-Lee, Tim, Roy T. Fielding, and Larry Masinter (1998). Uniform Resource Identifiers (URI): Generic Syntax. RFC 2396 available at http://www.ietf.org/rfc/rfc2396.txt.

Berners-Lee, Tim, Larry Masinter, and Mark McCahill (1994). Uniform Resource Locators (URL). RFC 1738 available at http://www.ietf.org/rfc/rfc1738.txt.

Bos, Bert, Håkon Wium Lie, Chris Lilley, and Ian Jacobs (1998). Cascading Style Sheets, level 2. available at http://www.w3.org/TR/REC-CSS2.

Castro, Elizabeth (2002). *HTML for the World Wide Web, Fifth Edition with XHTML and CSS: Visual QuickStart Guide*. Peachpit Press. described at http://www.cookwood.com/html/.

Fielding, Roy T., James Gettys, Jeffrey C. Mogul, Henrik F. Frystyk, Larry Masinter, Paul J. Leach, and Tim Berners-Lee (1999). Hypertext Transfer Protocol – HTTP/1.1. RFC 2616 available at http://www.ietf.org/rfc/rfc2616.pdf.

IANA (2001). Media Types. available at http://www.iana.org/assignments/media-types/.

Krug, Steve (2000). *DON'T MAKE ME THINK! A Common Sense Approach to Web Usability*. New Riders.

Morville, Robert and Louis Rosenfeld (2002). *Information Architecture for the World Wide Web*. O'Reilly. described at http://www.oreilly.com/catalog/infotecture2/.

Musciano, Chuck and Kennedy Bill (2002). *HTML and XHTML: The Definitive Guide, 5th Editon*. O'Reiley.

Nielsen, Jakob (2000). *Designing Web Usability: The practice of Simplicity*. New Riders.

Raggett, Dave, Arnaud Le Hors, and Ian Jacobs (1999). HTML 4.01 Specification. available at http://www.w3.org/TR/html4/.

Werbach, Kevin (2002). Bare Bones Guide to HTML. available at http://werbach.com/barebones/.

[6] http://dlib.info/home/esenig/homepage.html
[7] http://dlib.info/home/lhigham/hphome.html
[8] http://dlib.info/home/msciang/home.html
[9] http://dlib.info/home/lippman/homepage.html
[10] http://dlib.info/home/butler/ultimate.html