

LIS508

Technology for Information Management

2012-01-06

See <http://openlib.org/home/krichel/courses/lis508p12w> for the latest online version of this file.

Course Description

This course introduces basic concept of information technology typically used in an information management setting as understood in a library and information science program. We will look at two pieces of technology that are commonly used in such a system. The other is a generic library web site. The course will discuss both pieces. Students will set up both on rented machines. With this practical implementation students will understand basic concepts of computer software. Some protocols such as http will also be discussed. The course will only have a cursory look at hardware issues.

Objectives

After taking this course all students

- will be able to understand the basic concepts of computer hardware
- will have seen the most basic concepts on files, directories, symbolic links
- will be able to manipulate a simple text file editor
- will have a hands-on start in the running Unix-based systems such as i.e. Mac OS 10, Linux or FreeBSD, issuing a basic set of commands
- will have standard output and error, redirections and pipes
- will have basic concepts of networking including IP addresses, domain names, routers and ports
- will have an understanding of client/server protocols and seen application of client server protocols, including web, mail, and database
- will understand the compound structure of computer software systems
- will have seen basic concepts of databases administration
- will have been introduced to the components of an integrated library system.
- will be able to retrieve information from the web about system administration problems.

The Palmer School Student Learning Objectives covered by the course are

- 2.D Students will evaluate information systems and technologies based on functionality, usability, cost, and quality.

Prerequisites

There are no formal prerequisites for this course. People should be curious about the potential of information technology, and be ready to be surprised how easy it is to run a completely independent web presence without professional IT support. Prior knowledge of the MARC format and of HTML is desirable but not required.

What to bring

If you have a laptop please bring it to class. This will be your client machine. You will need your myLIU id to connect to the network via the wireless. If you have a Ethernet network cable (RJ-45), bring it with you as this will give you the option to connect to a socket in the classroom. This will afford a better local connection than the wireless. If the machine run the Windows operating system, you may come with putty and WinSCP installed. I suggest to avoid the beta test version of WinSCP. You can also install the *Cyberduck*¹. On Macs no additional software is required but you may still want to get the *Cyberduck*.

You can download the operating system onto your own machine. Your own machine can be an spare old machine that you (or your neighbor friend, etc) thought of tossing out. Or it can be a machine that I can give you, but I need to be given advance notice. There are constraints on using your own machine within the context of the university network. Therefore you would have to host it at home. To avoid this hassle, I strongly suggest you rent a server. Renting will cost about \$30 or \$40. You should get a Debian machine, preferably with XEN rather than OpenVZ vitalization. The <http://wiki.debian.org/DebianHosting> lists many of them, look at the section called “Virtual Dedicated Server”. You could also get a “Dedicated Server” but this will be more expensive.

Here are some virtual dedicated server deals I have seen, they should work

<https://www.seven1.net/cheap-dedicated-server> choose “Celeron \$40” or more expensive

<http://www.ramhost.us/?page=vps/kvm-los-angeles-west> choose “standard” or better

<http://www.vpsfarm.com> choose “IAD.1G” or better. This look like openVZ rather than XEN

<http://vpslink.com/debian-vps/> choose “Link-4”

Students have previously worked with the last company.

Once you have a machine, send me the IP address, as well as a name for the machine. The machine can be anything you like as long as it has just one word. Thus “snoopy” or “me” is fine but “mikey mouse” is not. Send me the IP address (a sequence of 4 numbers, each between 0 and 255, separated by dots) as well as the name you want to have. Don’t send me the root password.

Instructor

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Private contact details may be obtained from the online CV at </home/krichel/cv.html>.

Class structure

Classes will be held in the doctoral lab in the Palmer School between 10:00 and 16:00.

Class details:

2012–01–09	10:00 to 16:00	background to the course, choosing a provider, basic concepts, some command line computing
2012–01–10	10:00 to 16:00	basic concepts of networks, basic concepts of the computer operating system, more command line computing
2012–02–11	10:00 to 16:00	the Debian operating system, installation of packages
2012–02–12	10:00 to 16:00	installing information systems
2012–02–13	10:00 to 16:00	presentations on installed systems and installation of integrated library system

Mailing list

There is a mailing list for the course at <https://lists-1.liu.edu/mailman/listinfo/cwp-lis508-krichel>. All students are encouraged to subscribe. As a rule, answers to email sent to the instructor are copied to the list. There are exceptions to this rule

- if the question writer requests the answer not to be posted;

¹<http://cyberduck.ch>

- if the question is a purely private matter.

Readings

There is no textbook. Thomas Krichel makes slides and instructions available. There are presentations and the instructions on the `course resource page`². All other resources are available on the web.

Assessment

Each student installs a package for information management and reports to class on the last day. The presentation should be sufficient for the other students to follow the presenter and install the package themselves. Package examples are Mailman, WordPress, Drupal, OSQA, MediaWiki; but many more are available. The instructor will demonstrate the installation of the Koha integrated library system on that day. The student presentations will count for 50% of the final grade. Students will upload the supporting material into their web directories at wotan, using a file name `user_id_software.ext` where `user_id` is the student's user id on wotan, `software` is the name of the software package discussed, and `ext` is a commonly used file name extension that gives the file name.

The remainder of the assessment is an information system evaluation. This assessment is to be handed one week after the last class. The assessment has to consist of roughly 2000 words. There are two ways to conduct the evaluation. Students choose one of them, and do only one.

First there is the comparative evaluation of Koha vs the ILS that is used in an institution that students work in. Since an ILS is a complicated system, the evaluation of the system quality needs to focus on an aspect to be agreed to with the instructor in advance. The evaluation should contain an assessment of

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Second there is the evaluation of a service piece of software installed on the rented server within an organizational context. The evaluation is most likely potential, since the time from class to when the evaluation is handed in before a serious implementation can be done. However the organizational setting has to be real.

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The essay has to be uploaded `user_id_software.ext` where `user_id` is the student's user id on wotan, `software` is the name of the software package discussed, and `ext` is a commonly used file name extension that gives the file name. The essay assesses objective 2D.

References

²[/home/krichel/courses/lis508](http://home/krichel/courses/lis508)