**COMP 3540 Advanced Web Design and Programming**

**Seminar/Lab 1.**

**Lab Environment**

1. **Objectives**

* Get yourselves familiar with the *Linux* environment that is usually used for hosting web server and web applications.
* Transfer files between computers.
* Prepare directories and files so that your web applications can be browsed from other computers using web browsers.

1. **Test environment**
2. The web server, *Apache*, is running on the *Ubuntu* Linux system, cs.tru.ca. Your accounts are created on cs.tru.ca, and you can access to cs.tru.ca with your account using ***PuTTY*** with port number 424. Or you can ***WinSCP*** with the same port number to transfer/download/edit/manipulate(create/delete) files and directories.
   * Example of account name and password for David Williams – dwilliamsw8, dwilliamsw8424
3. Here are some useful commands, when you use *PuTTY*:

* **passwd** change password
* **ls** list
* **mkdir** public\_html make a directory
* **chmod** 711 public\_html change the access mode of a directory
* **chmod** 644 index.html change the access mode of a file
* **cd** public\_html change the working directory
* **ls** -l list
* pico index.html text editor pico
* **chmod** 644 index.html change the mode
* **rmdir** remove directory
* **rm** remove file
* pwd print working directory
* **exit**
* Note that
  + **~** home directory
  + **.** current directory
  + **..** parent directory

1. Task 1 – What to do with *PuTTY* today
   * Connect to cs.tru.ca with your account. The port number is 424.
   * Change your password
     + passwd
   * Create public\_html
     + mkdir public\_html
   * Change the access mode for ~ and public\_html (~ means your home directory) to 711.
     + chmod 711 ~
     + chmod 711 ~/public\_html
   * Move to public\_html
     + cd public\_html
   * Create Week1 and Week2
     + mkdir Week1
     + mkdir Week2
   * Change the access mode for Week1 to 711.
     + chmod 711 Week1
2. A file transfer application, *WinSCP*, might be a more convenient way to use cs.tru.ca for all the assignments and project in this course.
3. In order to access web applications,
   * All the web applications should be placed under **~*your\_username*/public\_html** directory.
   * Your home directory and the directory public\_html should have the mode **711** (or 755) so that *Apache* can access the directory.
   * All the subdirectories of public\_html should have the similar access mode 711.
   * All the web applications should have the mode **644** (or 755) for the same reason.
   * 711 for directories, and 644 for files.
4. Task 2 – What to do today
   * Write a simple web document, test.html, on Windows. This test.html includes a heading and a paragraph, e.g., “What a wonderful world!”.
   * Upload test.html to ~*your\_username*/public\_html/Week1, so that you can view the document using a web browser.
   * **Make sure of the access mode of your home directory, public\_html, test.html.** You can use *WinSCP* to change the access mode as well. Select a target directory or file, press the right button and select Properties.
   * What is the URL of your test.html on cs.tru.ca?
     + http://cs.tru.ca/~.../Week1/test.html
   * Test if you can browse your test.html.
5. Task 3 – What to do today
   * Write a simple PHP program, test.**php**, on Windows. This test.php includes a heading and a paragraph like test.html.
   * Upload test.php and test.
6. **Assignment**
   * No submission