CSC 262
Homework #3
Due at start of class on Wednesday, February 21.

File Systems. The purpose of this question is to get you to spend a little time poking around some of the most common file systems in use today.

a. Using your course accounts, determine and record the default execution path on one of the CS Unix machines and one of the lab computers running Windows. In Unix, this will be recorded in the $PATH environment variable. (Use the **`echo`** command to see its value.) On Windows, the execution path may be found (and modified) within the **System** control panel, under **Advanced … Environment Variables**.

b. How many disk volumes are mounted on the CS Unix filesystem, according to **mount**? Use the **`df`** command to determine the volume on which each of the directories in your path is stored. What is the total storage capacity, and which volume is most full? Least full?

c. Draw a diagram of the directory tree on one of the CS Unix machines, starting at the root. (Use the course accounts provided to you for this purpose.) Include all the top-level directories, and enough of their subdirectories to show everything in the $PATH environment variable. Draw enclosures around all the directories that share each volume.

d. Indicate the purpose of as many of the top-level directories as you can figure out. (Hint: there are sites on the web that will help with this.)

e. Pick a file, for example **/bin/mail**. How much of the auxiliary information maintained by the operating system can you view? Use the **`ls`** and **stat** commands with various flag options to collect as much information about the file itself (as opposed to its contents) as you can.