CE1: Hands-On Computer Engineering

Research Problems 7

1. Spend some time updating and organizing your lab notebooks. I will most likely walk around and start giving you feedback over the next couple of lab meetings. Try to “flesh” the notebooks out with more details.

2. Go to the office hours of one of your classes and introduce yourself (you can tell them this is an assignment!). Possible topics could be questions about a midterm, what courses you should take next quarter based on your interests, or anything else. Briefly write about the visit. Was anyone else there? Take notes in your lab notebook.

3. Design group project. This week, we will have assigned senior design groups to be interviewed. For this assignment, you should state who is in your team, and when and where the interview will take place. While the interview should be done in a group, each of you will independently write up your own report (due finals week, date to be announced soon). The Fall 2009 CMPE123A site includes pictures and CVs of the students, though we do not have access yet. Engineering is all about designing under constraints. What constraints have the team that you are working with run up against? Engineering is also about working in teams. How has the group organized itself, and how do they deal with ensuring good interfaces between the different parts of the project? Be sure to take notes in your notebook! In the final write-up, be sure to include:
   a. Background on the project. What are their goals?
   b. Background on the team members. What skills does each team member bring to the project?
   c. Discussion of the primary constraints.
   d. Discussion of what approach the team plans to take.
   e. Discussion about the organization of the team, and if it sounds like they have formed a cohesive group.
   f. Would you like to build something like this? Why or why not.

4. Rogue lab
   a. Go through the rogue lab a second time, starting with expanding the archive. You will need a copy of ssh on your machine. On a Mac, you can type “ssh” from a command window, or download an easier to use application, see the class website for details. On a windows machine, you need to download a copy of “ssh”, see the class website for details.
   b. Were you able to complete the lab and modify the code? Did you get a high score?
   c. How many lines of code does rogue have? How many files? What unix commands did you use to figure this out quickly?
   d. What did the tar options x and f do (this should be written down in your notebook from lab)?
   e. Looking back at your lab notebook (and googling about Unix), what do you think are the 5 most important Unix commands, and why?
   f. If you had a few weeks (as well as a few programming classes), how would you like to change rogue to make it more fun?