

CS-103: Introduction to Internet Technologies and Web Programming
Homework 4

Questions 1-3 submitted on paper; Question 4 online
All questions due at beginning of class Wed Oct 4, 2006

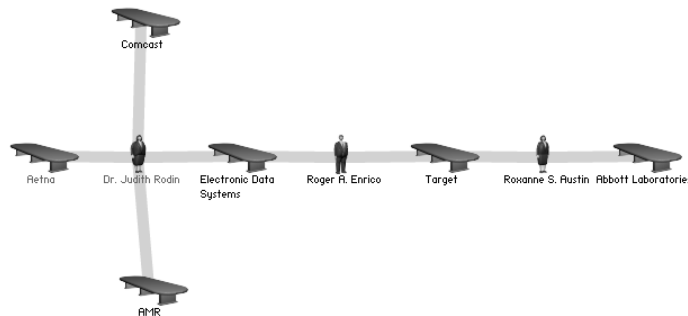
Read Web 101 Ch 4.6
Read Six Degrees Ch 3, 4
See class notes at <http://cs103.pbwiki.com>

Homework collaboration policy: You must write answers in your own words and do computer exercises on with your own hands at your preferred Internet connection. **You may collaborate provided that you write the full names of your collaborators on your submitted homework.**

Go to <http://theyrule.net>. Once you are in (after clicking past the intro screens) select “find connection” and choose two companies that relate somehow to your blog. Do not choose Aetna and Abbott—they are used in the example below. If the website says “sorry, no significant connection” then try another pair of companies until the website displays a path on screen. The path will look something like this:



The path shows connections between companies based on people who are on multiple boards of directors. Fatter-looking people sit on more boards than skinny-looking people. Put your mouse over the fattest-looking person on your path (call this person x) and select “companies.” After you drag vertices around to tidy things up, you will get a map that looks something like this:



1. Draw your network map on paper, either neatly by hand (including full names of each vertex) or by copying and pasting your web image into a document that you print.
2. Using explicit set notation described in class, write the set V of vertices and the set E of edges for the map you have drawn.
3. Complete the following statements as they apply to your graph
 - a. $|V| = \underline{\hspace{2cm}}$
 - b. $|E| = \underline{\hspace{2cm}}$
 - c. $\text{degree}(x) = \underline{\hspace{2cm}}$ (recall that x is the fat person you selected)
 - d. $\text{neighborhood}(x) = \underline{\hspace{4cm}}$
4. Write a blog post about why you chose the two companies you did and what you notice about the path connecting them.