Assignment 1018
OK, back to the usual grind :) This is a selection of exercises meant to reinforce the network concepts that we have discussed so far.

Not for Submission
Read Chapter 4 in the Brookshear book.

For Submission
Submit all work on hardcopy at the beginning of our October 18 class.
1. Perform a “survey” of a network to which you have access (dormitory, workplace, home, public place, etc.). Figure out the following information on your device of choice:
   a. IP address(es) of your device
   b. IP address of the network’s router/gateway
   c. IP address(es) of the domain name servers (DNS) for your device
   d. MAC address(es) of your device
2. Perform a “traceroute” operation between your device and some address of your choice on the Internet. You can use either a built-in “traceroute” program or find one on the Internet that’s easier to use. List the path that your device takes to that address.
   The built-in “traceroute” program in Windows is called `tracert`. To invoke it, you must first run the Command Prompt by choosing Start > Run… then typing `cmd`. On Mac OS X, you can either choose the Network Utility program located in the Applications > Utilities folder, or you can run the Terminal program (also in Applications > Utilities) then invoke the traceroute utility from the command line. For other platforms, look it up or ask me.
3. Figure out the IP addresses of the following host names:
   a. `www.lmu.edu`
   b. `developers.facebook.com`
   c. `wikipedia.org`
   d. `keck.cs.lmu.edu`
4. Time for a little more programming. Go back to the JavaScript scratch page on the course Web site, type the JavaScript program below into the JavaScript scratch page’s large text area, in addition to the default text that starts out there, such that the final, complete program looks like this:

   ```javascript
   /* This first block should already be in the scratch page. */
   // Shortcuts to the input fields.
   var form = document.getElementById("scratch");
   var input1 = form.input1;
   var input2 = form.input2;
   /* The code to add starts here. */
   var message = "You are currently viewing " + location;
   alert(message);
   var newLocation = input1.value;
   message = "You will now visit " + newLocation + "."
   alert(message);
   window.location = newLocation;
   
   To run this program, type a Web address (e.g., "http://www.youtube.com") into the Input 1 entry field, then click on the Run program. What happens when you run this program?

   5. And finally, just so that we don’t forget: do Chapter 4 Review Exercises 12 to 15 in the Brookshear book.