CECS 472 **Homework 3** **Fall 2013**

Purpose: This is designed to familiarize you with the primitive client and server. It basically forces you to read it through carefully.

Running: For your server, use the machine you are on; for your client use any other machine. The easy way to do this is to open a separate virtual session (alt-F2) and ssh or telnet to the client machine.

Discussion: This requirement will mean that each of you is running their server on a different machine, so there will be no conflict between your servers. To do this you will need to do a little modification of the hexidecimal constant of the client given in the lecture. It is 0x868bf811; the last two digits need to be changed. This constant applies if your are on the machine 134.139.248.17; the last two hex digits (11) are equal to 17 in decimal. Hence if you are on 134.139.248.99, you need the last two hex digits to be 63 (the hexidecimal equivalent to 99). You can tell the internet number of the machine you are on by looking at the label on the front of the machine. If you have trouble with the decimal to hexadecimal conversion, let me know, I'll assist you.

This project consists of adding several "upgrades" to the client and server and observing some output.

Client upgrades:
1) What socket do you get? (printf the descriptor number)
2) What value is returned by the connect, read and write calls (printf).
3) Send a second message to the server, `"Message 2"`.
4) Receive a second reply.
5) Print the replies you receive from the server (printf).

Server upgrades:
1) What sockets (master/client) do you get?
2) What value is returned by the bind, listen, read and write calls.
3) Receive a second message from the client.
4) Send a second reply `"Reply 2"`.
5) Print the messages you receive from the client (printf).

`~volper/classes/472/shells` contains copies of the primitive client and server from lecture (you don't have to retype them).

Call your finished client `primitive_client.c` and your finished server `primitive_server.c`.