Overview:

These two programs show how I used both TCP and UDP socket programming to allow two Clients to play the classic game of NIM with one another. The Server is used to arrange a “rendezvous” between the two Clients, and then after the two Clients are paired, they only interact with one another. For instructions on how to play NIM visit <http://en.wikipedia.org/wiki/Nim>.

Compile Instructions:

The easiest way to compile all files is to run "compile\_all.cmd" by typing:

./compile\_all.cmd

Note: if you do not have run permissions, you may have to type:

chmod 775 compile\_all.cmd

If you want to compile the programs individually, you can do so by typing the following:

cc -o Client.exe Client.c

cc -o Server.exe Server.c

Run Instructions:

To run the server type:

./Server.exe [PORT NUMBER]

[PORT NUMBER]: The port on which the server is accepting requests.

To run a client type:

./Client.exe [SERVER NAME] [PORT NUMBER] [MY PORT]

[SERVER NAME]: The server hostname.

[PORT NUMBER]: The port where the server is running.

[MY PORT]: The TCP port where the client is willing to play NIM.

Example:

./Server 10025

./Client.exe 127.0.0.1 10025 10085

Note: You will have to run 2 clients in order to play a game of NIM. Otherwise, 1 client will just be waiting forever to be paired up with another client.