Memo

Introduction

We use a node class which keeps track of up address, port, sockets, etc. To run it, we go compile server.cpp and run it with an IP address 127.0.0.1. When someone create aliases 127.0.0.3 in a different terminal and call client on it, the client will send the call to the server. The call will have the up address which the server stores and the server sends back all the up address to the client. The basic functions of server and client are shown below:

Server:

- Create the socket with the IP address of the client
- Bind the socket to the IP address
- Stores the address in a string array and the file descriptor of the connection in a int array

Client:

- The client passes in the address and stores it as its own.
- The client connects to the server by storing it's IP address.
- Binding to the socket that they create then calling connect, then sends the up address to the server once it connects.

Challenge

The problem we faced was that first-time connections of clients result in storage of address, but second connections of clients do not result in IP address coming back. The second problem that we had the idea for was to have each client not only connect to another client but accept connections to other server.

Issue to be solved

The process for server is to first create a socket to bind its own up address to. Then it should create a listener. Once this happens, you have to call accept method to create the connection.