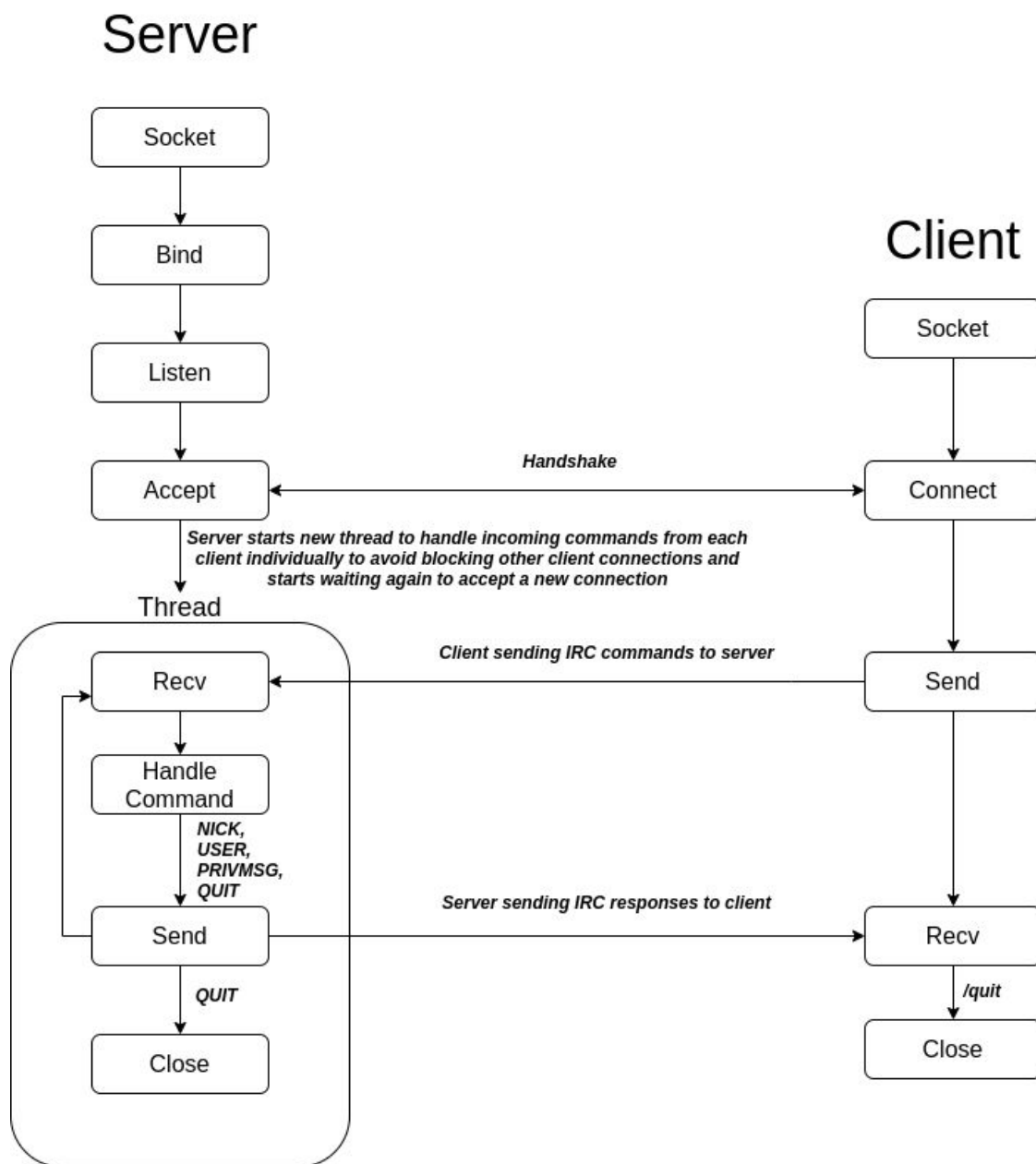


Comp 445 Assignment 2 Design Document

Karl-Joey Chami 27736657
Nicolas Zito 40029473

Design overview



Implementation Flow

- Server instance starts
 - Create a socket
 - Bind socket to a hostname (localhost in this case) and port number (specified in script parameters)
 - Socket starts listening for new connections constantly even if new connections are received
- Client instance starts
 - Create a socket
 - Connect socket to the server by providing server's hostname and port number
- Handshake
 - Handshake between server and client sockets to establish a connection
- Thread (Server-Side)
 - New thread starts that handles incoming commands from the client to the server
 - Server receives command
 - Command is parsed through regex to verify validity
 - Command is treated
 - NICK, USER, PRIVMSG, QUIT
 - NICK, USER : Create new user connection object and add user to a list of connected users
 - PRIVMSG : Broadcast messages to the list of connected users except sender
 - QUIT : Removes user from connected users list, closes client side socket (server socket stays on) and stops running thread.
 - Following IRC implementations and standards
 - Server sends a response to client
- Client receiving responses
 - Client receives server response, decodes and displays formatted message on the console
 - Waits for user input after receiving
- Any abrupt console interruption on the client side will clear the client connection and stop the thread on the server side