

System Architectures Project

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1 Introduction

My project implements a centralized chat system, similar to Internet Relay Chat (IRC). In such system, each message sent from a client will be passed to the centralized server and be broadcast to all connected clients. Both server and client work with multiplexed, nonblocking TCP socket.

2 Designed system

2.1 Server

The server listens on port 8784 for connecting clients with the hostname is the IP address of the machine. It receives messages from each client, displays the messages on screen then broadcasts the messages to others.

2.2 Client

Client has one separated thread for input from keyboard and a thread for networking. After connecting to server, client waits for input message from keyboard on one thread and sends it to centralized server by another thread.