

**COSC 4333 Distributed Systems**

**Group Project**

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This Java project is divided into two primary components: the ChatroomClient for user interactions and the ChatroomServer for handling multiple client connections and messages.

The ChatroomClient establishes a connection to the server using sockets, targeting 'localhost' on port 54221. It leverages a PrintWriter to send and a BufferedReader to receive messages, while user inputs are gathered via a Scanner . The client process involves prompting for a chat room name upon execution, initiating a listening thread for incoming messages, and maintaining a main thread for user message input to the server.

On the server side, the ChatroomServer awaits client connections on port 54221. It spins off a ClientHandler thread for each new client to handle the exchange of messages. This handler adds clients to chat rooms, creating new ones as needed, and broadcasts messages to all clients within the same room.