Server side

```
import java.io.*;
import java.net.*;
import java.util.*;

public class TCPChatServer {
    private static List<PrintWriter> clientWriters = new ArrayList<>();

    public static void main(String[] args) throws IOException {
        int port = 12345; // Choose a suitable port

        ServerSocket serverSocket = new ServerSocket(port);
        System.out.println("Chat server listening on port " + port);

        while (true) {
            Socket clientSocket = serverSocket.accept();
            System.out.println("Client connected: " + clientSocket.getInetAddress());

            PrintWriter out = new PrintWriter(clientSocket.getOutputStream(), true);
            clientWriters.add(out);

            new ClientHandler(clientSocket).start();
        }
    }

    private static class ClientHandler extends Thread {
        private Socket clientSocket;
        private BufferedReader in;

        public ClientHandler(Socket socket) throws IOException {
            clientSocket = socket;
            in = new BufferedReader(new InputStreamReader(clientSocket.getInputStream()));
        }

        public void run() {
            try {
                String message;
                while ((message = in.readLine()) != null) {
                    System.out.println("Received: " + message);
                    for (PrintWriter writer : clientWriters) {
                        writer.println(message);
                    }
                }
            } catch (IOException e) {
                e.printStackTrace();
            }
        }
```

```
    }
}
```

Client side

```
import java.io.*;
import java.net.*;
import java.util.Scanner;

public class TCPChatClient {
    public static void main(String[] args) throws IOException {
        String serverAddress = "localhost"; // Change to the server's IP or hostname
        int serverPort = 12345; // Change to the server's port

        Socket socket = new Socket(serverAddress, serverPort);

        BufferedReader serverIn = new BufferedReader(new
InputStreamReader(socket.getInputStream()));
        PrintWriter out = new PrintWriter(socket.getOutputStream(), true);

        new Thread(() -> {
            try {
                String serverMessage;
                while ((serverMessage = serverIn.readLine()) != null) {
                    System.out.println("Server: " + serverMessage);
                }
            } catch (IOException e) {
                e.printStackTrace();
            }
        }).start();

        Scanner scanner = new Scanner(System.in);
        String clientMessage;
        while (true) {
            clientMessage = scanner.nextLine();
            out.println(clientMessage);
        }
    }
}
import java.io.*;
import java.net.*;
import java.util.Scanner;

public class TCPChatClient {
```

```
    public static void main(String[] args) throws IOException {
        String serverAddress = "localhost"; // Change to the server's IP or hostname
        int serverPort = 12345; // Change to the server's port

        Socket socket = new Socket(serverAddress, serverPort);

        BufferedReader serverIn = new BufferedReader(new
InputStreamReader(socket.getInputStream()));
        PrintWriter out = new PrintWriter(socket.getOutputStream(), true);

        new Thread(() -> {
            try {
                String serverMessage;
                while ((serverMessage = serverIn.readLine()) != null) {
                    System.out.println("Server: " + serverMessage);
                }
            } catch (IOException e) {
                e.printStackTrace();
            }
        }).start();

        Scanner scanner = new Scanner(System.in);
        String clientMessage;
        while (true) {
            clientMessage = scanner.nextLine();
            out.println(clientMessage);
        }
    }
}
```