

<https://github.com/ETSmith24/CS380/tree/master/Exercises/Exercise%201>

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import java.io.BufferedReader;
import java.io.InputStreamReader;
import java.io.PrintWriter;
import java.net.ServerSocket;
import java.net.Socket;

public final class EchoServer {

    public static void main(String[] args) throws Exception {
        try (ServerSocket serverSocket = new ServerSocket(22222)) {
            while (true) {
                try {
                    Socket socket = serverSocket.accept();
                    String address = socket.getInetAddress().getHostAddress();
                    System.out.printf("Client connected: %s\n", address);
                    EchoHelper eh = new EchoHelper(socket);
                    eh.start();
                } catch (Exception e) {
                    System.out.println(e);
                }
            }
        }
    }

    static class EchoHelper extends Thread {
        Socket client;
        String address;
        EchoHelper(Socket socket) {
            this.client = socket;
        }

        public void run() {
            try {
                PrintWriter pw = new PrintWriter(client.getOutputStream(), true);
                BufferedReader br = new BufferedReader(new
InputStreamReader(client.getInputStream()));
                String inputLine;
                while ((inputLine = br.readLine()) != null) {
                    if (inputLine.equalsIgnoreCase("exit")) {
                        System.out.printf("Client disconnected: %s\n", address);
                        break;
                    }
                    pw.println("Server> " + inputLine);
                }
            } catch (Exception e) {
                System.out.println(e);
            } finally {
                try {
                    client.close();
                } catch (Exception e) {
                    System.out.println(e);
                }
            }
        }
    }
}
```

```

    }
}
}
}
}

```

```

import java.io.InputStreamReader;
import java.io.PrintWriter;
import java.net.Socket;

public final class EchoClient {

    public static void main(String[] args) throws Exception {
        try (Socket socket = new Socket("localhost", 22222)) {
            PrintWriter pw = new PrintWriter(socket.getOutputStream(), true);
            BufferedReader br = new BufferedReader(new
InputStreamReader(socket.getInputStream()));
            BufferedReader stdBR = new BufferedReader(new
InputStreamReader(System.in));

            String userInput;
            System.out.print("Client> ");
            while ((userInput = stdBR.readLine()) != null) {
                pw.println(userInput);
                if (userInput.equalsIgnoreCase("exit")) {
                    pw.close();
                    stdBR.close();
                    socket.close();
                    System.exit(0);
                }
                System.out.println(br.readLine());
                System.out.print("Client> ");
            }
        }
    }
}

```