

**Chatserver:**

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

public class ChatServer {
    public static void main(String[] args) {
        int port = 12345;

        try (ServerSocket serverSocket = new ServerSocket(port)) {
            System.out.println("Server started. Waiting for client to connect on port " + port +
                "...");

            Socket socket = serverSocket.accept();

            System.out.println("Client connected: " + socket.getInetAddress());

            BufferedReader in = new BufferedReader(new
                InputStreamReader(socket.getInputStream()));

            PrintWriter out = new PrintWriter(socket.getOutputStream(), true);

            Thread readThread = new Thread(() -> {
                try {
                    String msg;

                    while ((msg = in.readLine()) != null) {
                        System.out.println("Client: " + msg);

                        if (msg.equalsIgnoreCase("bye")) {
                            System.out.println("Client ended the chat.");
                            break;
                        }
                    }
                } catch (IOException e) {
                    System.out.println("Connection closed.");
                }
            });

            readThread.start();
        }
    }
}
```

```
        BufferedReader console = new BufferedReader(new
InputStreamReader(System.in));

        String msgToClient;
        while ((msgToClient = console.readLine()) != null) {
            out.println(msgToClient);
            if (msgToClient.equalsIgnoreCase("bye")) {
                System.out.println("You ended the chat.");
                break;
            }
        }
        socket.close();
        System.out.println("Server socket closed.");
    } catch (IOException e) {
        e.printStackTrace();
    }
}
```

**Chatclient:**

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

public class ChatClient {

    public static void main(String[] args) {
        String serverAddress = "localhost";
        int port = 12345;
        try (Socket socket = new Socket(serverAddress, port)) {
            System.out.println("Connected to server at " + serverAddress + ":" + port);

            BufferedReader in = new BufferedReader(new
InputStreamReader(socket.getInputStream()));

            PrintWriter out = new PrintWriter(socket.getOutputStream(), true);

            Thread readThread = new Thread(() -> {
                try {
```

```
String msg;
while ((msg = in.readLine()) != null) {
    System.out.println("Server: " + msg);
    if (msg.equalsIgnoreCase("bye")) {
        System.out.println("Server ended the chat.");
        break;
    }
}
} catch (IOException e) {
    System.out.println("Connection closed.");
}
});

readThread.start();

BufferedReader console = new BufferedReader(new
InputStreamReader(System.in));

String msgToServer;
while ((msgToServer = console.readLine()) != null) {
    out.println(msgToServer);
    if (msgToServer.equalsIgnoreCase("bye")) {
        System.out.println("You ended the chat.");
        break;
    }
}

socket.close();

System.out.println("Client socket closed.");
} catch (IOException e) {
    e.printStackTrace();
}
}
```

**Output:**

```
Windows PowerShell
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PS C:\Users\Sandhiya> cd "C:\Users\Sandhiya\Downloads"
PS C:\Users\Sandhiya\Downloads> javac ChatServer.java
PS C:\Users\Sandhiya\Downloads> javac ChatClient.java
PS C:\Users\Sandhiya\Downloads> java ChatServer
Server started. Waiting for client to connect on port 12345...
Client connected: /127.0.0.1
Hello
Client: Hi!
How are You
Client: Fine.bue
ok
Client: okey bye
|
```

```
Windows PowerShell
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PS C:\Users\Sandhiya> cd "C:\Users\Sandhiya\Downloads"
PS C:\Users\Sandhiya\Downloads> java ChatClient
Connected to server at localhost:12345
Server: Hello
Hi!
Server: How are You
Fine.bue
Server: ok
okey bye
|
```