

Server Code : -

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

class Server{
    ServerSocket server;
    Socket socket;
    BufferedReader br;
    PrintWriter out;

    public Server(){
        try{
            server = new ServerSocket(7777);
            socket = server.accept();
            System.out.println("...");
            br = new BufferedReader(new InputStreamReader(socket.getInputStream()));
            out = new PrintWriter(socket.getOutputStream());
            startReading();
            startWriting();
        }catch(Exception e){
            System.out.println(e);
        }
    }

    public void startReading(){
        Runnable r1 = ()->{
            while(true){
                try{
                    String msg = br.readLine();
                    if(msg.equals("...")){
                        System.out.println("Client terminated the chat");
                        break;
                    }
                    System.out.println("Client: "+msg);
                }catch(Exception e){
                    System.out.println(e);
                }
            }
        };
        new Thread(r1).start();
    }

    public void startWriting(){
        Runnable r2 = ()->{
            while(true){
                try{
```

```

        BufferedReader br1 = new BufferedReader(new InputStreamReader(System.in));
        String content = br1.readLine();
        out.println(content);
        out.flush();
    } catch (Exception e) {
        System.out.println(e);
    }
}

};
new Thread(r2).start();
}
public static void main(String[] args) {
    System.out.println("This is server ");
    new Server();
}
}

```

Client Code :-

```

import java.net.ServerSocket;
import java.net.Socket;
import java.util.*;
import java.io.*;

class Client {
    Socket socket;
    BufferedReader br;
    PrintWriter out;

    public Client() {
        try {
            socket = new Socket("127.0.0.1", 7777);
            System.out.println("...");
            br = new BufferedReader(new InputStreamReader(socket.getInputStream()));
            out = new PrintWriter(socket.getOutputStream());
            startReading();
            startWriting();
        } catch (Exception e) {
            System.out.println(e);
        }
    }

    public void startReading() {
        Runnable r1 = () -> {
            while (true) {

```

```

        try{
            String msg = br.readLine();
            if(msg.equals("...")){
                System.out.println("Server terminated the chat");
                break;
            }
            System.out.println("Server: "+msg);
        }catch(Exception e){
            System.out.println(e);
        }
    }
};
new Thread(r1).start();
}

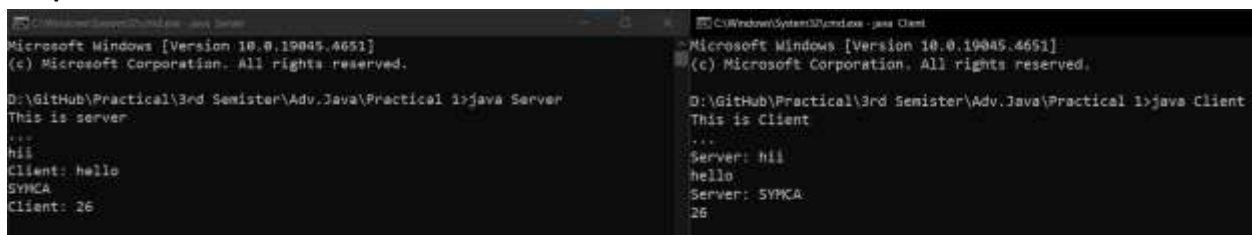
public void startWriting(){
    Runnable r2 = ()->{
        while(true){
            try{
                BufferedReader br1 =new BufferedReader(new InputStreamReader(System.in));
                String content = br1.readLine();
                out.println(content);
                out.flush();
            }catch(Exception e){
                System.out.println(e);
            }
        }
    };
    new Thread(r2).start();
}

public static void main(String[] args){
    System.out.println("This is Client ");
    new Client();
}

}

```

Output :-



The image shows two terminal windows side-by-side. The left window is titled 'C:\Windows\System32\cmd.exe - java Server' and shows the output of the 'Server' program. The right window is titled 'C:\Windows\System32\cmd.exe - java Client' and shows the output of the 'Client' program. The interaction is as follows:

```

Server Output:
D:\GitHub\Practical\3rd Semister\Adv.Java\Practical 1>java Server
This is server
...
Client: hello
SYMCA
Client: 26

Client Output:
D:\GitHub\Practical\3rd Semister\Adv.Java\Practical 1>java Client
This is Client
...
Server: hi
hello
Server: SYMCA
26

```