Write a program using TCP socket for wired network for following

a. Say Hello to Each other

1)server.java

```java
import java.io.*;
import java.net.*;
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public class Server {
    public static void main(String[] args) {
        int port = 5000;
        try (ServerSocket serverSocket = new ServerSocket(port)) {
            System.out.println("Server is listening on port " + port + "...");

            Socket socket = serverSocket.accept();
            System.out.println("Client connected: " + socket.getInetAddress());

            // Input and output streams
            BufferedReader in = new BufferedReader(new InputStreamReader(socket.getInputStream()));
            PrintWriter out = new PrintWriter(socket.getOutputStream(), true);

            // Read message from client
            String message = in.readLine();
            System.out.println("Client says: " + message);

            // Send Hello back
            out.println("Hello from Server!");
```

```java
            socket.close();

        } catch (IOException ex) {

            ex.printStackTrace();

        }

    }

}


Client. java

import java.io.*;

import java.net.*;


public class Client {

    public static void main(String[] args) {

        String host = "localhost";

        int port = 5000;


        try (Socket socket = new Socket(host, port)) {

            System.out.println("Connected to server.");


            // Input and output streams

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

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


            // Send Hello to server

            out.println("Hello from Client!");


            // Read response

            String response = in.readLine();

            System.out.println("Server says: " + response);
```

```
        } catch (IOException ex) {

            ex.printStackTrace();

        }

    }

}
```

How to Run

1.Compile both files:

javac Server.java

javac Client.java

2.Run the server first (in one terminal):

java Server

3.Then run the client (in another terminal or same machine):

java Client

Output

Server Terminal:

Server is listening on port 5000...

Client connected: /127.0.0.1

Client says: Hello from Client!

Client Terminal:

Connected to server.

Server says: Hello from Server!