Sample Program : Server-Client Communication with Acknowledgment

**Server Program**

import java.io.\*;

import java.net.\*;

public class AckServer {

    public static void main(String[] args) {

        int port = 12345;

        try (ServerSocket serverSocket = new ServerSocket(port)) {

            System.out.println("Server listening...");

            Socket clientSocket = serverSocket.accept();

            System.out.println("Connected to client!");

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

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

            // Send data to client

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

            // Wait for acknowledgment

            String ack = in.readLine();

            if ("ACK".equals(ack)) {

                System.out.println("Acknowledgment received from client!");

            }

        } catch (IOException e) {

            e.printStackTrace();

        }

    }

}

**Client Program :**

import java.io.\*;

import java.net.\*;

public class AckClient {

    public static void main(String[] args) {

        String host = "127.0.0.1";

        int port = 12345;

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

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

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

            String fromServer = in.readLine();

            System.out.println("Received from server: " + fromServer);

            // Send acknowledgment

            out.println("ACK");

        } catch (IOException e) {

            e.printStackTrace();

        }

    }

}