Server Code:

package learningLab;

// A Java program for a Server

    import java.net.\*;

    import java.io.\*;

public class socketProgrammingServer {

    public static void main(String[] args) {

        new Server(5000);

    }

}

class Server{

    Server(int port){

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

            System.out.println("Server is listening on port "+ port);

            while(true) {

                Socket socket = server.accept();

                System.out.println("New client connected");

                new ServerThread(socket).start();

            }

        }

        catch(IOException ex) {

            System.out.println("Server exception: "+ex.getMessage());

            ex.printStackTrace();

        }

    }

}

class ServerThread extends Thread{

    private Socket socket;

    ServerThread(Socket socket){

        this.socket=socket;

    }

    public void start() {

        try {

            InputStream input = socket.getInputStream();

            BufferedReader reader = new BufferedReader(new InputStreamReader(input));

            OutputStream output = socket.getOutputStream();

            PrintWriter writer = new PrintWriter(output, true);

            String text="A";

            while (!text.equals("over")&& !text.equals(null)){

                text = reader.readLine();

                String upper=text.toUpperCase();

                System.out.println(upper);

                writer.println(upper);

            }

            socket.close();

        } catch (IOException ex) {

            System.out.println("Server exception: " + ex.getMessage());

            ex.printStackTrace();

        }

    }

}

Client Code:

package learningLab;

// A java program for a client

import java.net.\*;

import java.io.\*;

public class socketProgrammingClient{

    public static void main(String[] args) {

        new Client("127.0.0.1",5000);

    }

}

class Client{

    @SuppressWarnings("deprecation")

    Client(String address, int port){

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

            System.out.println("Connected");

            OutputStream outgoing =socket.getOutputStream();

            PrintWriter write =new PrintWriter(outgoing,true);

            DataInputStream input =new DataInputStream(System.in);

            String text;

            do{

                text=input.readLine();

                write.println(text);

                InputStream incoming = socket.getInputStream();

                BufferedReader reader =new BufferedReader(new InputStreamReader(incoming));

                String output =reader.readLine();

                System.out.println(output);

            }while(!text.equals("over"));

            socket.close();

        }

        catch(UnknownHostException ex) {

            System.out.println("Server not found: "+ ex.getMessage());

        }

        catch(IOException ex) {

            System.out.println("I/O error: "+ex.getMessage());

        }

    }

}

Output:

Graphical user interface, text

Description automatically generated