CS 380

Exercise 0

My repository for this class is under CS 380 – Computer Networks

<https://github.com/jarodNakamoto/College-CS-Courses.git>

Source Code Below:

Client.java

import java.io.InputStream;

import java.io.BufferedReader;

import java.io.InputStreamReader;

import java.io.OutputStream;

import java.io.PrintStream;

import java.net.Socket;

import java.util.Scanner;

public final class EchoClient {

public static void main(String[] args) throws Exception {

try (Socket socket = new Socket("localhost", 22222)) {

InputStream is = socket.getInputStream();

InputStreamReader isr = new InputStreamReader(is, "UTF-8");

//recieves messages

BufferedReader br = new BufferedReader(isr);

//my changes start here

//sends stuff to server

OutputStream os = socket.getOutputStream();

PrintStream out = new PrintStream(os, true, "UTF-8");

String address = socket.getInetAddress().getHostAddress();

//User input messages

Scanner sc = new Scanner(System.in);

String input = "";

do

{

//client

System.out.print("Client> ");

//get user input

input = sc.nextLine();

if(input.equalsIgnoreCase("exit"))

{

out.println("exit");

socket.close();

break;

}

//send to server

out.println(input);

//System.out.println("B4 Receiving from Server");

//receive server message

System.out.println("Server> " + br.readLine());

}while(!input.equalsIgnoreCase("exit"));

}

}

}

Server.java

import java.io.InputStream;

import java.io.BufferedReader;

import java.io.InputStreamReader;

import java.io.OutputStream;

import java.io.PrintStream;

import java.net.ServerSocket;

import java.net.Socket;

import java.util.Scanner;

import java.io.IOException;

public final class EchoServer {

public static volatile Socket socket;

public static void main(String[] args) throws Exception {

Runnable clientHandler = () -> {

String address = socket.getInetAddress().getHostAddress();

System.out.printf("Client connected: %s%n", address);

try{

InputStream is = socket.getInputStream();

InputStreamReader isr = new InputStreamReader(is, "UTF-8");

BufferedReader br = new BufferedReader(isr);

OutputStream os = socket.getOutputStream();

PrintStream out = new PrintStream(os, true, "UTF-8");

while(!socket.isClosed())

{

String msg = br.readLine();

if(msg.equals("exit"))

socket.close();

else

out.println(msg);

}

System.out.printf("Client disconnected: %s%n", address);

}

catch(Exception e)

{

System.out.println(e.toString());

}

};

try (ServerSocket serverSocket = new ServerSocket(22222)) {

while (true) {

try {

socket = serverSocket.accept();

}

catch(IOException ioE)

{

System.out.println(ioE.toString());

}

Thread client1 = new Thread(clientHandler);

client1.start();

Thread.sleep(1000);

}

}

}

}