Client

import java.net.\*;

import java.io.\*;

import java.util.Scanner;

public class client {

public static void main(String[] args) {

try {

Socket client = new Socket("localhost", 5000);

System.out.println("Client is connected to Server");

ObjectOutputStream out = new ObjectOutputStream(client.getOutputStream());

ObjectInputStream in = new ObjectInputStream(client.getInputStream());

Scanner input = new Scanner(System.in);

int num1;

//noinspection InfiniteLoopStatement

while(true) {

System.out.println("Enter your Message");

num1 = input.nextInt();

out.writeObject(num1);

String message = ( String ) in.readObject();

System.out.println ("Data from Server: " + message);

switch (num1) {

case 1 -> {

int num2 = input.nextInt();

int num3 = input.nextInt();

out.writeObject(num2);

out.writeObject(num3);

int result = (int) in.readObject();

System.out.println("Data from Server: " + result);

}

case 2 -> {

double num4 = input.nextDouble();

out.writeObject(num4);

double squareAns = (double) in.readObject();

System.out.println("Data from Server: " + squareAns);

}

case 3 -> {

int num5 = input.nextInt();

int num6 = input.nextInt();

out.writeObject(num5);

out.writeObject(num6);

int powerAns = (int) in.readObject();

System.out.println("Data from Server: " + powerAns);

}

case 0 -> {

out.writeObject(num1);

System.out.println("Connection closing, Goodbye");

client.close();

}

default -> throw new IllegalStateException("Unexpected value: " + num1);

}

}

}

catch(Exception ex){

System.out.println("Error");

}

}

}

Server

import java.net.\*;

import java.io.\*;

public class server {

public static void main(String[] args) {

try {

ServerSocket server = new ServerSocket(5000, 10); // create ServerSocket

System.out.println("Server is Running on port 5000");

Socket connection = server.accept();

ObjectOutputStream out = new ObjectOutputStream(connection.getOutputStream());

ObjectInputStream in = new ObjectInputStream(connection.getInputStream());

String message;

int num1;

//noinspection InfiniteLoopStatement

while (true) {

num1 = (int) in.readObject();

switch (num1) {

case 1 -> {

message = "Please enter 2 numbers";

out.writeObject(message);

int num2 = (int) in.readObject();

int num3 = (int) in.readObject();

int result;

result = num2 + num3;

out.writeObject(result);

break;

}

case 2 -> {

message = "Please enter 1 numbers";

out.writeObject(message);

double num4 = (double) in.readObject();

double squareAns = Math.sqrt(num4);

out.writeObject(squareAns);

break;

}

case 3 -> {

message = "Please enter 2 numbers";

out.writeObject(message);

int num5 = (int) in.readObject();

int num6 = (int) in.readObject();

int powerAns = (int) Math.pow(num5, num6);

out.writeObject(powerAns);

break;

}

case 0 -> {

out.writeChars("Connection closing, Goodbye");

connection.close();

}

default -> throw new IllegalStateException("Unexpected value: " + num1);

}

}

}

catch (Exception ex) {

System.out.println("Error");

}

}

}



