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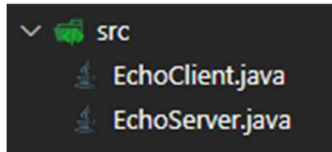
NIM : 21/472698/PA/20322

Class : IUP CS B

### Activity 8.1 – Socket Programming with Java

1. Copy the same program in the Youtube video and modify it such that the client will send "yourName" and the server will reply with "Hello yourName." Replace yourName with your nickname. Upload the codes and the execution screenshots.

Step 1: Create 2 Java files (EchoClient.java and EchoServer.java)



Step 2: Implement the code from the video both for Client and Server

#### EchoServer.java

```
src > EchoServer.java > ...
1 // Ramzy Izza Wardhana
2 // 21/472698/PA/20322
3 // IUP CS B - Lab Computer Networking
4 // Activity 8.1 - Socket Programming with Java
5
6 import java.io.*;
7 import java.net.ServerSocket;
8 import java.net.Socket;
9
10 public class EchoServer {
11     Run | Debug
12     public static void main(String[] args){
13         try {
14             System.out.println(x: "Waiting for clients...");
15             ServerSocket ss = new ServerSocket(port: 9806);
16             Socket soc = ss.accept();
17             System.out.println(x: "Connection established");
18             BufferedReader in = new BufferedReader(new InputStreamReader(soc.getInputStream()));
19             String str = in.readLine();
20             PrintWriter out = new PrintWriter(soc.getOutputStream(), autoFlush: true);
21             out.println("Hello " + str);
22             ss.close();
23         }
24         catch(Exception e){
25             e.printStackTrace();
26         }
27     }
28 }
```

## EchoClient.java

```
1 // Ramzy Izza Wardhana
2 // 21/472698/PA/20322
3 // IUP CS B - Lab Computer Networking
4 // Activity 8.1 - Socket Programming with Java
5
6 import java.net.Socket;
7 import java.io.*;
8
9 public class EchoClient{
10     public static void main(String[] args){
11         try {
12             System.out.println(x: "Client started");
13             Socket soc = new Socket(host: "localhost", port: 9806);
14             BufferedReader userInput = new BufferedReader(new InputStreamReader(System.in));
15             System.out.println(x: "Enter your name");
16             String str = userInput.readLine();
17             PrintWriter out = new PrintWriter(soc.getOutputStream(), autoFlush: true);
18             out.println(str);
19             BufferedReader in = new BufferedReader(new InputStreamReader(soc.getInputStream()));
20             System.out.println(in.readLine());
21             soc.close();
22         }
23
24         catch(Exception e){
25             e.printStackTrace();
26         }
27     }
28 }
```

Step 3: Run both program from client side and server side

## Output of EchoServer.java

```
Waiting for clients...
Connection established
```

## Output of EchoClient.java

```
Client started
Enter your name
Ramzy
Hello Ramzy
```

Source Code can be accessed through this link:

<https://drive.google.com/file/d/17j5LhtHbHtAbH1qTlrrPFW55uoSng1tT/view?usp=sharing>

## Reference

Redkar, Abhay. "Java Socket Programming." *YouTube*, uploaded by Abhay Redkar, June 6<sup>th</sup> 2018,

<https://www.youtube.com/playlist?list=PLoW9ZoLJX39Xcdaa4Dn5WLREHblolbj4>