University of Science and
Technology of Hanoi

Distributed System

Practical Work I

TCP File Transfer

Author:
Nguyen Duc Dan Nguyen
Tri Huan
Nguyen Huu Chi Dat
Pham Minh Giang
Nguyen Xuan Duy Anh

Lecturer:
Dr. Tran Giang Son

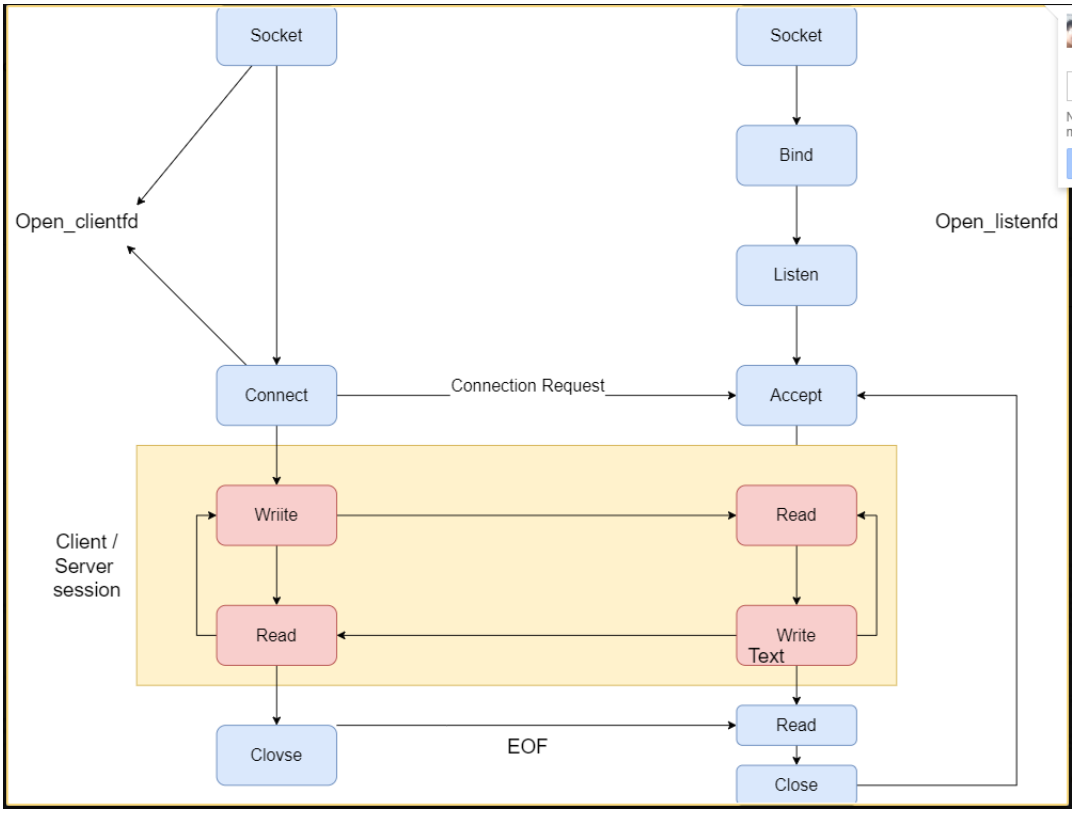
March 4, 2020


TRƯỜNG ĐẠI HỌC KHOA HỌC VÀ CÔNG NGHỆ HÀ NỘI
UNIVERSITÉ DES SCIENCES ET DES TECHNOLOGIES DE HANOI
USTH
VIETNAM FRANCE UNIVERSITY

Contents

1 Protocal Design

1.1 Figure



2 System Organizing

2.1 Open Session

- The server socket will be bound to port 4333 after created
- The server socket then listening to any message/data received

2.2 End open listen of server

- After getting the server socket to listening, the client socket will try to connect to the server

2.3 End open client socket

- In client/Server session, both client and server sending each other message alternatively until ones decided to close.

3 Code

3.1 Client

```
import java.io.FileOutputStream;
import java.io.IOException;
import java.io.InputStream;
import java.net.Socket;

public class client {
public static void main(String[] args) throws
   IOException {
byte[] b = new byte[20002];
Socket sr = new Socket("localhost", 4333);
InputStream is = sr.getInputStream();
FileOutputStream fr = new
   FileOutputStream("labwork1/src/test_tcp_result.txt");
is.read(b, 0, b.length);
fr.write(b, 0, b.length);
                }
}
```

3.2 Server

```
import java.io.FileInputStream;
import java.io.IOException;
import java.io.OutputStream;
import java.net.ServerSocket;
```

```
import java.net.Socket;

public class server {
public static void main(String[] args) throws
   IOException {
ServerSocket s = new ServerSocket(4333);
Socket sr = s.accept();
FileInputStream fr = new
   FileInputStream("labwork1/src/test_tcp_input.txt");
byte[] b = new byte[20002];
fr.read(b, 0, b.length);
OutputStream os = sr.getOutputStream();
os.write(b, 0, b.length);
                }
}
```

4 Group participation

- Nguyen Duc Dan - BI8028 : Complete and implement the code
- Nguyen Xuan Duy Anh - BI8014 : System Organizing
- Nguyen Tri Huan - BI8069 : System Organizing
- Pham Minh Giang - BI8054 - : Draw Figure
- Nguyen Huu Chi Dat - BI8040: Summarize and write the Report