

Myclient.java

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/* Author: Yang Meng (01679623)
 * DataCommunicationI-ProgrammingAssignment-1 Client
 * Last edit at 10/17/2016
 */
import java.io.*;
import java.net.*;

public class Myclient {

    public static void main(String[] args) throws IOException{
        String filename = null, action = null, host = null;
        int port;

        //Verify the command input by users
        try{
            //Correct format of the command line: myclient Host Port_Number GET Filename
            if(args.length<4)
            {
                throw new IllegalArgumentException("Bad command\n");
            }
            //Obtain the host address
            host = args[0];
            //Obtain the port number
            port = Integer.parseInt(args[1]);
            //Obtain the action command
            action = args[2];
            //Obtain the file name
            filename = args[3];

            OutputStream Client_Login = System.out;
            //Begin to initialize the socket
            //Obtain a network socket connection to host and port
            Socket ClientSock = new Socket(host, port);
            //Obtain input stream of the socket
            InputStream Into_Client = ClientSock.getInputStream();
            //Obtain output stream of the socket
            PrintWriter Out_Client = new PrintWriter(new OutputStreamWriter(ClientSock.getOutputStream()));

            //Begin to execute GET command
            if(action.equals("GET"))
            {
                //Send HTTP command to the web server
                Out_Client.printf(action + " " + filename + " HTTP/1.0\r\n");
                Out_Client.printf("Host: " + host + "\r\n\r\n");
                //Send it
            }
        }
    }
}
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Out_Client.flush();

byte[] buffer = new byte[4896];
int bytes_read;

while((bytes_read = Into_Client.read(buffer)) != -1)
{
    Client_Login.write(buffer, 0, bytes_read);
}

Client_Login.close();
}
else {
    if(action.equals("PUT"))
    {
        //Send file to Service
        InputStream From_File = null;
        File file = new File(filename);
        int ch;
        StringBuffer StringContent = new StringBuffer("");

        try{
            From_File = new FileInputStream(file);

            //Transfer it to char type
            while((ch = From_File.read()) != -1)
            {
                StringContent.append((char)ch);
            }

            From_File.close();
            System.out.println("File: " + StringContent + "has been successfully put");

            //Begin to upload file to the server
            Out_Client.println(action + " " + filename);
            Out_Client.println(StringContent + "\r\n");
            Out_Client.flush();

            From_File.close();
        }
        //If could not find file, throws the FileNotFoundException
        catch(FileNotFoundException e)
        {
            System.out.println("File " + file.getAbsolutePath() + "cannot be found.");
        }
        //Server throws IOException when server failed to read the file
        catch(IOException ioe)
    }
}

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        {
            System.out.println("Exceptino while reading the file" + ioe);
        }
    }
    else{
        System.out.println( action + "is an Invalid HTTP request");
        System.exit(1);
    }
}
//Close PrintWriter & Socket
Out_Client.close();
ClientSock.close();
System.exit(0);
}
catch(UnknownHostException e){
    System.err.println("Cannot understand host: " + host);
    System.exit(1);
}
catch(IOException e){
    System.err.println("Cannot get IO from:" + host);
    System.exit(1);
}
}
}

```