AREP 3th Laboratory

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1 Introduction

This laboratory intended us to create a java http server that is able to receive get petitions of hmtls, png, jpg or other types of files, and return the client the requested file, if it exists and is a supported media type.

2 Design

2.1 HTTPServer

This challenge was accomplished creating an httpserver that receives a http petition. It analyzes the petitions and sends back an answer through the client socket with a bufferedreader to read the response files and a outputstream to send back the data through the client socket

3 Structure

3.1 Java http server

The java http server opens a server port and waits for a client to ask something to that port. When it receives a petition, the server reviews the petition. If it is a get petition, the server proceeds to see if the requested file is from a supported media file.

```
 if (header[0].equals("GET")) {
    File rFile = null;
    if (header[1].equals(" ") ||header[1].equals("") ||header[1].equals("/")) {
            rFile = new File(ROOT, DEFAULT);
            respond(out, dataOut, rFile, "text/html", "200",ROOT+ DEFAULT,outS);
```

If it is, it then tries to search for it, if it finds it, the server will give the client that file.

```
if (s[0].equals("ok")) {
    rFile = new File(ROOT+ s[1] + header[1]);
    if (rFile.exists()) {
        respond(out, dataOut, rFile, s[2], "200",ROOT+ s[1] + header[1],outS);
    }
```

If the file does not exists, the server will return the "notFound.html".

```
else {
    rFile = new File(ROOT, FILE_NOT_FOUND);
    respond(out, dataOut, rFile, "text/html", "404",ROOT+ FILE_NOT_FOUND,outS);
}
```

If the requested file is from a non supported media type, it will return the "notSupportedMedia.html" file.

```
 else {
    rFile = new File(ROOT, UNSUPPORTED_MEDIA_TYPE);
    respond(out, dataOut, rFile, "text/html", "415",ROOT+ UNSUPPORTED_MEDIA_TYPE,outS);
```

Finally if it isn not a get petition, the server will return the $method_not_supported.html$.

```
 else {

    File f = new File(ROOT, METHOD_NOT_ALLOWED);
    respond(out, dataOut, f, "text/html", "405",ROOT+METHOD_NOT_ALLOWED,outS);

}
```

4 Conclusions

This first challenge completed. laboratory helped us to better understand how frameworks such as spring or spark work. It also teach us how to make information exchange between a client and a server and how to send various kinds of data through sockets.

5 Bibliography

http://campusvirtual.escuelaing.edu.co/moodle/pluginfile.php/128612/mod$_resource/content/0/ClientesSer$

http://campusvirtual.escuelaing.edu.co/moodle/mod/page/view.php?id=75151