1DV701 Assignment 2 Report

Andrei Neagu(an223kj)

Spring 2020

1 Problem 1

My implementation passes all the tests however, when I implemented response 403 Forbidden I allow only responses to be sent if the request specifies the English language en-US into the optional headers. The tests don't pass with the final implementation for problem 2. If you want to test the compliance with Morgan's tests modify line 37 in ServerThread.java, I also added comments there. Otherwise the tests pass successfully as you can see and Problem 1 is complete. I did not include a separate build for Problem 1 and 2 because that would have been counterproductive.

I did not use any http related external packages however I used a simple logger package because it provided better debugging for me and there was no reason to implement my own. I also used a Triplet instead of using a POJO class because I only used it in one place and I hate unnecessary clutter.

2 Problem 2

2.1 302 Found

```
paperman@Paperman-X230:~/Documents/Repos/1DV701/Assignment 2/src/test/java$ curl localhost:8080/index.htm
<!DOCTYPE html>
<html lang="en">
<head>
    <meta charset="UTF-8">
    <title>302 Found</title>
</head>
<body>
<b1>302 Found, search correctly next time.</b1>
</body>
</html>paperman@Paperman-X230:~/Documents/Repos/1DV701/Assignment 2/src/test/java$
```

The implementation for this is that if you request a .htm file or a .PNG file it redirects you to a .html file and a .png file respectively. If you do this on a modern browser it redirects automatically but with curl you see exactly the response given

2.2 403 Forbidden

```
paperman@Paperman-X230:~/Documents/Repos/1DV701/Assignment 2/src/test/java$ curl localhost:8080/index.html
<!DOCTYPE html>
<html lang="en">
<head>
    <meta charset="UTF-8">
    <title>403 Forbidden</title>
</head>
<body>
<b1>403 Forbidden, only english allowed.</b1>
</body>
</html>paperman@Paperman-X230:~/Documents/Repos/1DV701/Assignment 2/src/test/java$
```

The implementation for this is that I only allow the server to send the request if the language from the GET method is Accept-Language: en-US. In the picture the curl command does not have the language specified and the server sends the 403 Forbidden response.

2.3 404 Not Found

Morgan's tests also test the 404 response. I have passed all the tests from Problem 1, meaning my implementation for 404 Not Found is correct.

2.4 500 Internal Server Error

```
paperman@Paperman-X230:~/Documents/Repos/1DV701/Assignment 2/src/test/java$ curl -X POST localhost:8080
<!DOCTYPE html>
<html lang="en">
<head>
    <meta charset="UTF-8">
    <title>500 Internal Server Error</title>
</head>
<body>
<b1>500 Internal Server Error, you crashed the server. Shame!</b1>
</body>
</html>paperman@Paperman-X230:~/Documents/Repos/1DV701/Assignment 2/src/test/java$
```

I did not implement any VG task therefore my server works only with the GET method. If you send any other request such as POST like in the picture you crash the server.

3   Problem 3

```
paperman@Paperman-X230:~$ telnet localhost 8080
Trying 127.0.0.1...
Connected to localhost.
Escape character is '^]'.
GET / HTTP/1.1
Accept-Language: en-US
HTTP/1.1 200 OK
Content-Length: 134
Content-Type: text/html

<html>
<head>
        <title>Main index</title>
</head>
<body>
        <h1>Main index page</h1>
        <p>This is the main index page!</p>
</body>
</html>Connection closed by foreign host.
paperman@Paperman-X230:~$ 
```

Here you can see that I used telnet, I typed the correct method requesting
the root path and the header Accept-Language: because otherwise I would get
forbidden due to the access policies. I get an index.html page.

```
paperman@Paperman-X230:~$ telnet localhost 8080
Trying 127.0.0.1...
Connected to localhost.
Escape character is '^]'.
GET /fun.html HTTP/1.1
Accept-Language: en-US
HTTP/1.1 200 OK
Content-Length: 232
Content-Type: text/html

<html>
<head>
        <title>The "fun" page</title>
</head>
<body>
        <h1>My fun page</h1>
        <p>This is a fun page, with an image!</p>
        <img src="clown.png"/>
        <p>And a link to a page about <a href="clowns.html">clowns</a></p>
</body>
</html>Connection closed by foreign host.
paperman@Paperman-X230:~$
```

Here I request fun.html as required in Problem 3.