1DV701 Assignment 2 Resubmission - Web Server

Authors: Henry Shafer, Elias Michalsky

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Email: hs223nr@student.lnu.se, em223qw@student.lnu.se

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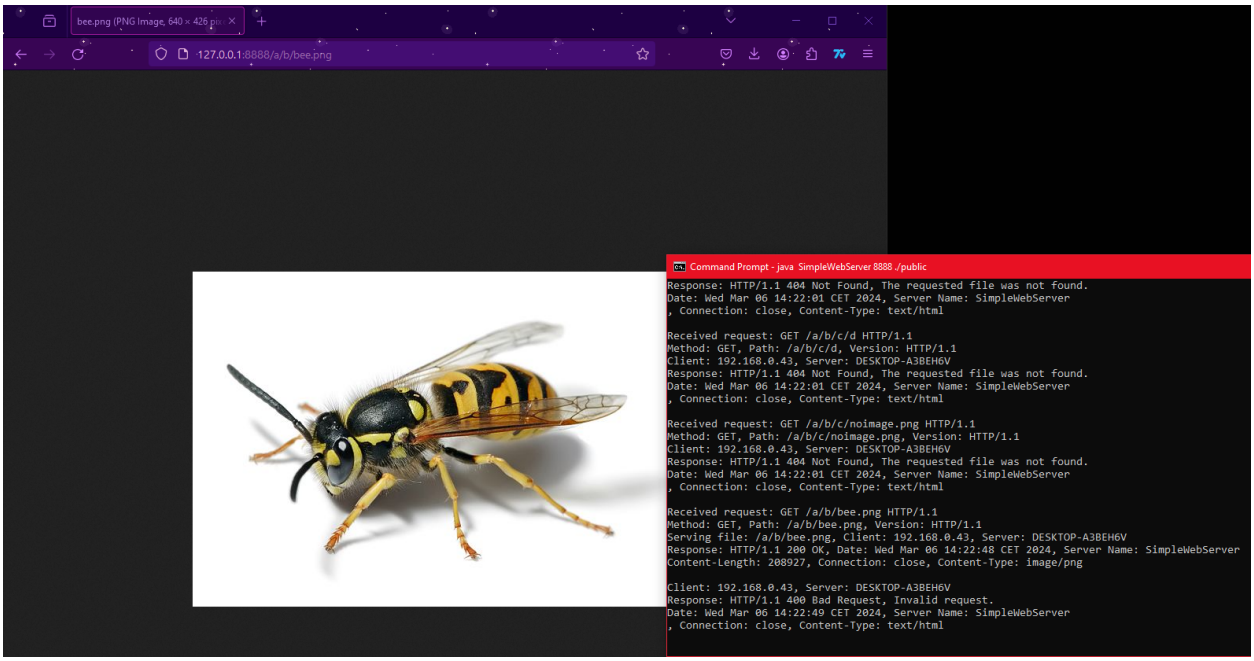
1 Problem 1

```
PS D:\Programmering\network\assignment2> & C:/Users/Elias/AppData/Local/Microsoft/WindowsApps/python3.10.exe d:/Programmering/network/assignment2/testa2u1.py
OK: Main index page
OK: Named page
OK: Named page
OK: Clown PNG
OK: Bee PNG
OK: World PNG
OK: Index a
OK: Page a
OK: Fake page b
OK: Index b
OK: Page b
OK: Fake Page c
OK: Index c
OK: Page c
OK: Page fail
OK: Page in dir fail
OK: Dir no index fail
OK: Image fail
PS D:\Programmering\network\assignment2>
```

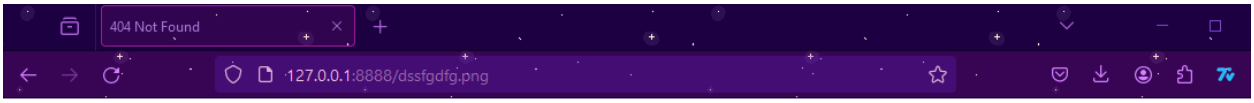
```
D:\Programmering\network\assignment2>javac SimpleWebServer.java

D:\Programmering\network\assignment2>java SimpleWebServer 8888 ./public
Listening for connection on port 8888, serving files from ./public
Received request: GET / HTTP/1.1
Method: GET, Path: /, Version: HTTP/1.1
Serving file: /index.html, Client: 192.168.0.43, Server: DESKTOP-A3BEH6V
Response: HTTP/1.1 200 OK, Date: Wed Mar 06 14:22:00 CET 2024, Server Name: SimpleWebServer
Content-Length: 142, Connection: close, Content-Type: text/html

Received request: GET /named.html HTTP/1.1
Method: GET, Path: /named.html, Version: HTTP/1.1
Serving file: /named.html, Client: 192.168.0.43, Server: DESKTOP-A3BEH6V
Response: HTTP/1.1 200 OK, Date: Wed Mar 06 14:22:00 CET 2024, Server Name: SimpleWebServer
Content-Length: 161, Connection: close, Content-Type: text/html

Received request: GET /named.html HTTP/1.1
Method: GET, Path: /named.html, Version: HTTP/1.1
Serving file: /named.html, Client: 192.168.0.43, Server: DESKTOP-A3BEH6V
Response: HTTP/1.1 200 OK, Date: Wed Mar 06 14:22:00 CET 2024, Server Name: SimpleWebServer
Content-Length: 161, Connection: close, Content-Type: text/html
```



1.1 Discussion

The first screenshot shows that the Python test script is OK for all tests. The second shows how to start the server using two paramets, port and path. The console output provides all the requests and otherwise good information for debugging etc. In the third screenshot, we are using the provided public folder and a ‘GET’ request to display the bee picture.

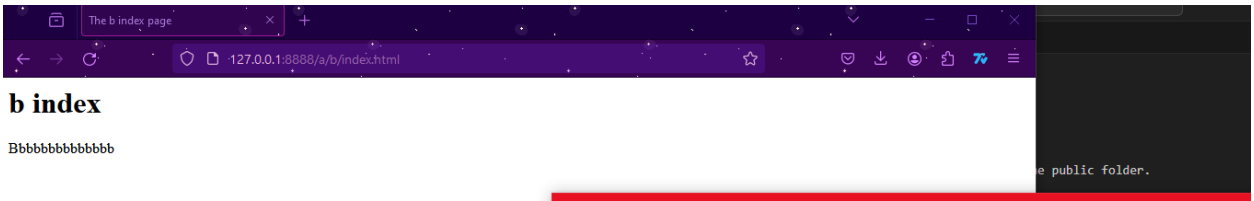
2 Problem 2



404 Not Found

The requested file was not found.

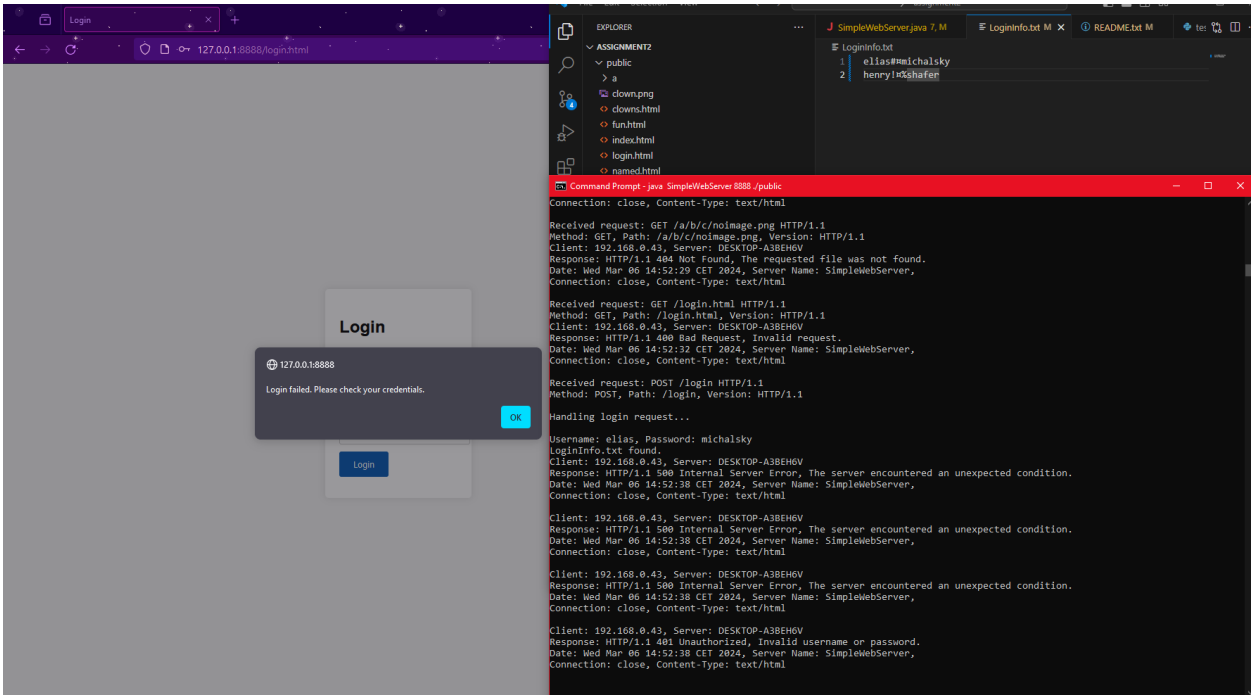
```
Command Prompt - java SimpleWebServer 8888 ./public
Response: HTTP/1.1 404 Not Found, The requested file was not found.
Date: Wed Mar 06 14:22:01 CET 2024, Server Name: SimpleWebServer
, Connection: close, Content-Type: text/html

Received request: GET /a/b/c/noimage.png HTTP/1.1
Method: GET, Path: /a/b/c/noimage.png, Version: HTTP/1.1
Client: 192.168.0.43, Server: DESKTOP-A3BEH6V
Response: HTTP/1.1 404 Not Found, The requested file was not found.
Date: Wed Mar 06 14:22:01 CET 2024, Server Name: SimpleWebServer
, Connection: close, Content-Type: text/html

Received request: GET /a/b/bee.png HTTP/1.1
Method: GET, Path: /a/b/bee.png, Version: HTTP/1.1
Serving file: /a/b/bee.png, Client: 192.168.0.43, Server: DESKTOP-A3BEH6V
Response: HTTP/1.1 200 OK, Date: Wed Mar 06 14:22:48 CET 2024, Server Name: SimpleWebServer
Content-Length: 208927, Connection: close, Content-Type: image/png

Client: 192.168.0.43, Server: DESKTOP-A3BEH6V
Response: HTTP/1.1 400 Bad Request, Invalid request.
Date: Wed Mar 06 14:22:49 CET 2024, Server Name: SimpleWebServer
, Connection: close, Content-Type: text/html

Received request: GET /dssfgdfg.png HTTP/1.1
Method: GET, Path: /dssfgdfg.png, Version: HTTP/1.1
Client: 192.168.0.43, Server: DESKTOP-A3BEH6V
Response: HTTP/1.1 404 Not Found, The requested file was not found.
Date: Wed Mar 06 14:29:22 CET 2024, Server Name: SimpleWebServer
, Connection: close, Content-Type: text/html
```



b index

Bbbbbbbbbbbbb

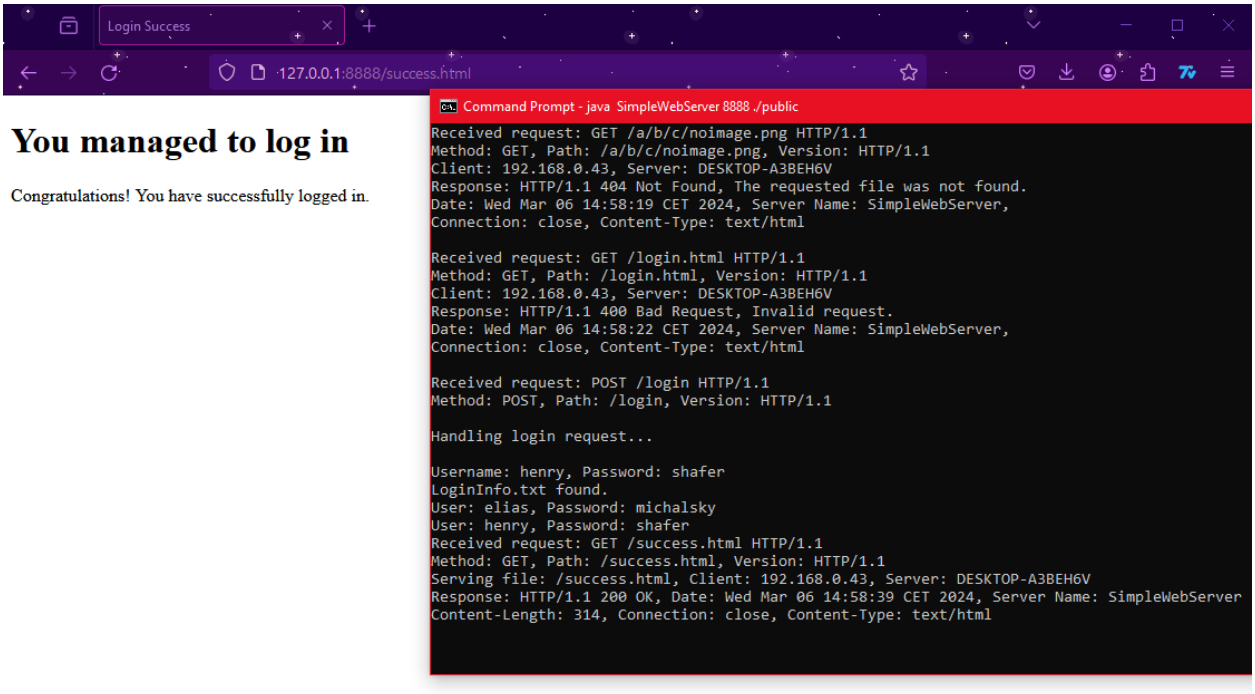
```
e public folder.

Command Prompt - java SimpleWebServer 8888 ./public
Date: Wed Mar 06 14:29:22 CET 2024, Server Name: SimpleWebServer
, Connection: close, Content-Type: text/html

Received request: GET /redirect HTTP/1.1
Method: GET, Path: /redirect, Version: HTTP/1.1
Client: 192.168.0.43, Server: DESKTOP-A3BEH6V
Response: HTTP/1.1 302 Found, Date: Wed Mar 06 14:30:37 CET 2024, Server Name: SimpleWebServer
Redirecting to: /a/b/index.html

Serving file: /a/b/index.html, Client: 192.168.0.43, Server: DESKTOP-A3BEH6V
Response: HTTP/1.1 200 OK, Date: Wed Mar 06 14:30:37 CET 2024, Server Name: SimpleWebServer
Content-Length: 154, Connection: close, Content-Type: text/html

Received request: GET /a/b/index.html HTTP/1.1
Method: GET, Path: /a/b/index.html, Version: HTTP/1.1
Serving file: /a/b/index.html, Client: 192.168.0.43, Server: DESKTOP-A3BEH6V
Response: HTTP/1.1 200 OK, Date: Wed Mar 06 14:30:37 CET 2024, Server Name: SimpleWebServer
Content-Length: 154, Connection: close, Content-Type: text/html

Received request: GET /a/b/bee.png HTTP/1.1
Method: GET, Path: /a/b/bee.png, Version: HTTP/1.1
Serving file: /a/b/bee.png, Client: 192.168.0.43, Server: DESKTOP-A3BEH6V
Response: HTTP/1.1 200 OK, Date: Wed Mar 06 14:30:37 CET 2024, Server Name: SimpleWebServer
Content-Length: 208927, Connection: close, Content-Type: image/png
```



2.1 Discussion

As shown in the first screenshot, our 404 seems to work fine. You can simply try to access any file not provided in the public folder, and you will get a 404 response. The second screenshot shows the 302 redirect response. To get it, I browsed to ‘127.0.0.1:8888/redirect’ which directed me to /a/b/index.html. The last screenshot shows a 500 reponse which is harder to replicate. I replicated it by changing the format in the LoginInfo.txt file, which caused both a 500 reponse and a 401 unauthorized response.

3 Problem 3



3.1 Discussion

The screenshot shows a successful login with POST. If the login was successful after pressing the login button, it redirects you to success.html which is a simple page says they managed to log in.