Linnéuniversitetet
Kalmar Växjö

Report

Assignment 2

1DV701

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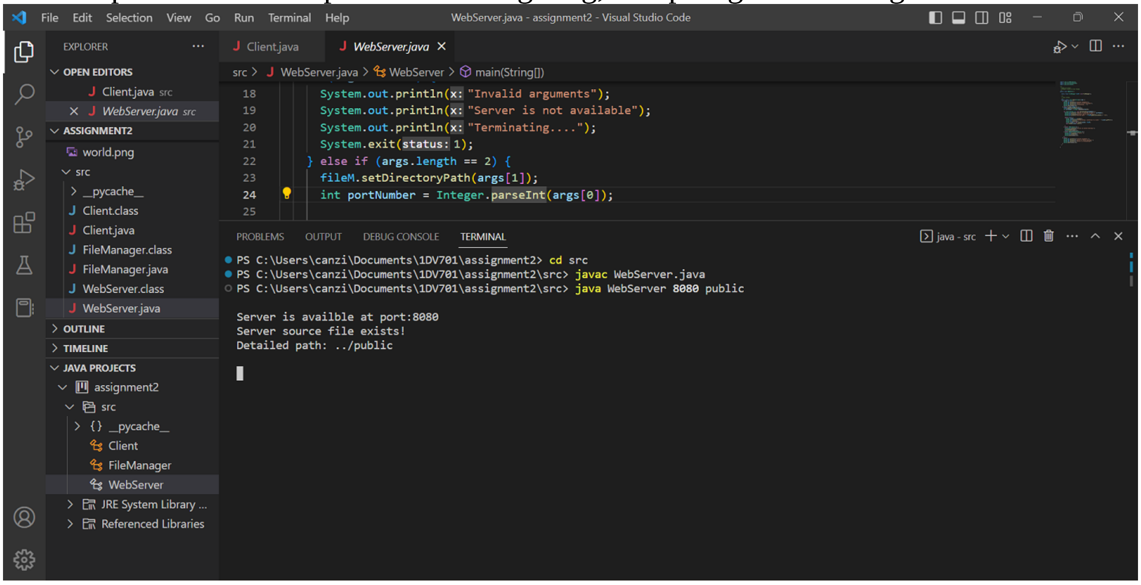
Contents

1 Problem 1

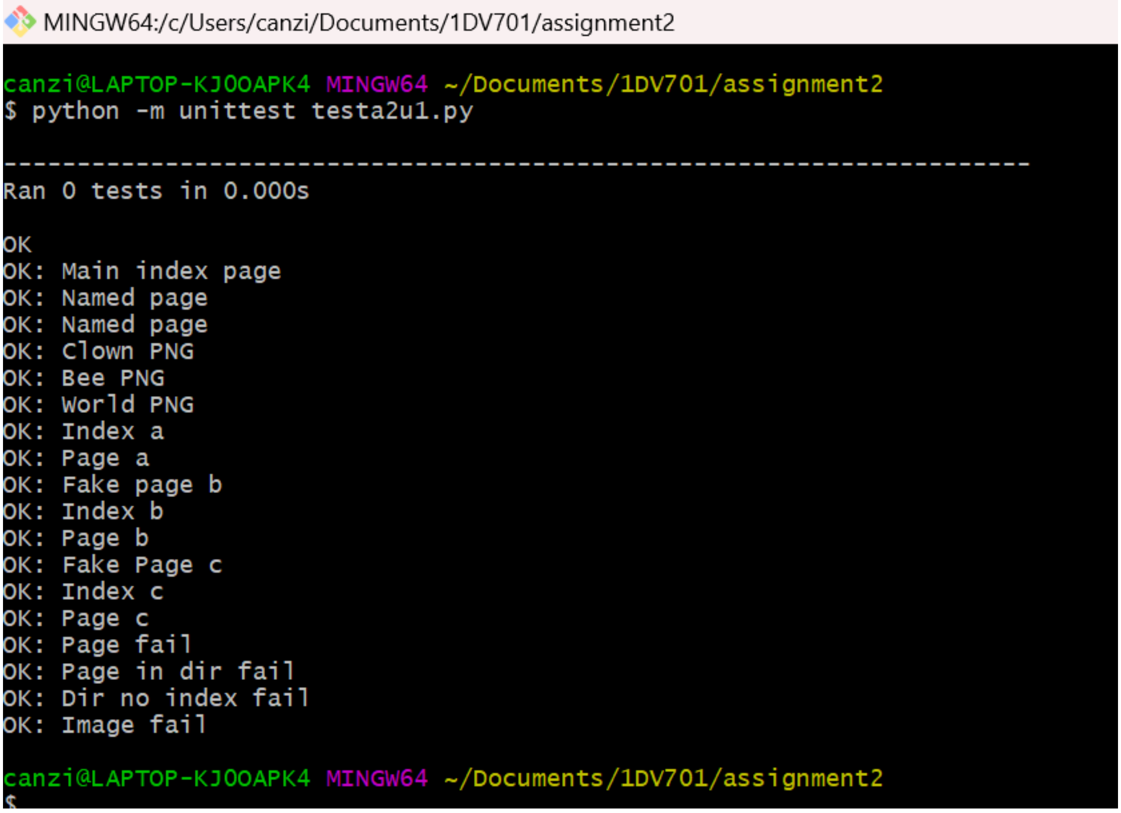
This snapshot shows the process of navigating, compiling and running the server.



```java
            System.out.println(x: "Invalid arguments");
            System.out.println(x: "Server is not available");
            System.out.println(x: "Terminating....");
            System.exit(status: 1);
        } else if (args.length == 2) {
            fileM.setDirectoryPath(args[1]);
            int portNumber = Integer.parseInt(args[0]);
```

```
PS C:\Users\canzi\Documents\1DV701\assignment2> cd src
PS C:\Users\canzi\Documents\1DV701\assignment2\src> javac WebServer.java
PS C:\Users\canzi\Documents\1DV701\assignment2\src> java WebServer 8080 public

Server is availble at port:8080
Server source file exists!
Detailed path: ../public
```

After applying python test, we got the following content.



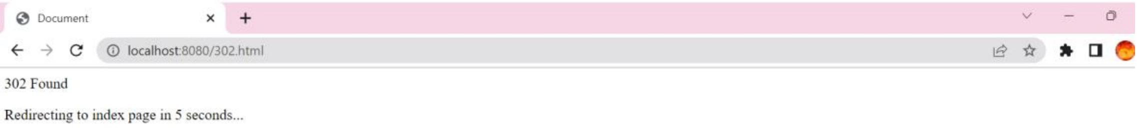
```
canzi@LAPTOP-KJOOAPK4 MINGW64 ~/Documents/1DV701/assignment2
$ python -m unittest testa2u1.py

----------------------------------------------------------------------
Ran 0 tests in 0.000s

OK
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

canzi@LAPTOP-KJOOAPK4 MINGW64 ~/Documents/1DV701/assignment2
$
```

1.1 Discussion

The server is initialized with a designated port and directory from which it serves files. Note: Detailed instructions on how to run the program is available in ReadMe.text file. The code is designed to handle most of the potential errors that could occur during file handling. For example, the FileManager class verifies whether a provided argument is a directory or file when the server starts. If an error occurs, it is caught as an exception, and the error message is printed. Similarly, the WebServer class captures any IOExceptions that may occur when an operation fails or is interrupted. The ServerSocket, which is of the IO type, is also designed to catch any errors.

When launching the server, the code can identify invalid arguments entered by the user. If an error occurs, the application stops, and an error message is printed. Additionally, if a valid port number or directory argument is not provided, a NumberFormatException is caught.
The code has different sections that are designed to catch any errors related to the data being transmitted to or from the client, in case of failed input or output.
SocketExceptions may also occur if the client terminates the connection before a request is completed.
Most file-related errors are handled in the code because file managing has its own class.

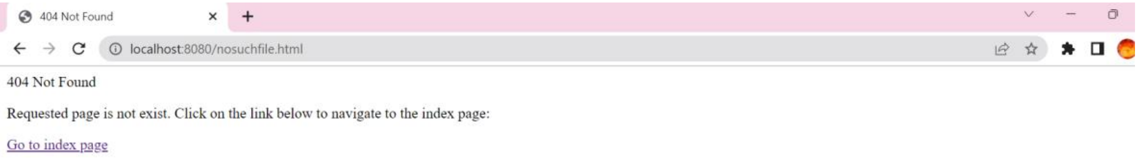
2 Supporting HTTP response 302, 404 and 500



302 Found

Redirecting to index page in 5 seconds...

Figure 1. Response type 302

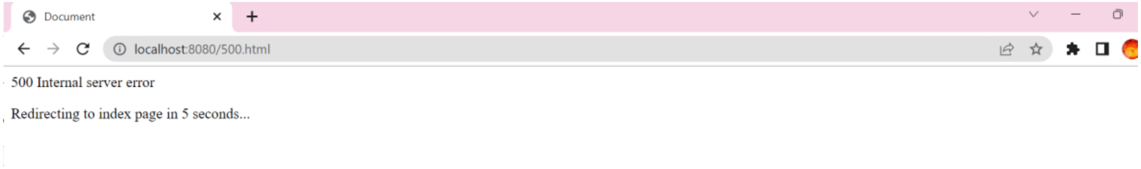


404 Not Found

Requested page is not exist. Click on the link below to navigate to the index page:

Go to index page

Figure 2. Response type 404.



500 Internal server error

Redirecting to index page in 5 seconds...

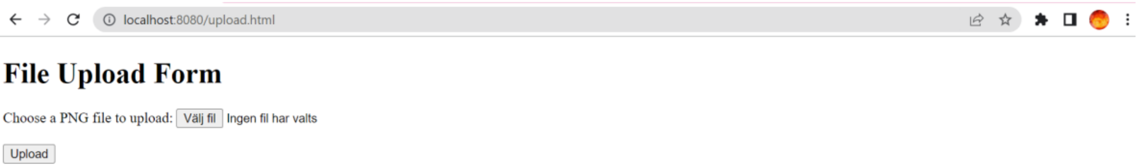
Response type 500

1.2 Discussion.

The implementation is done in sendResonse function in Client class and supported by 302.html in public folder.
If a path is requested that does not end with "html" or "png" and the file is located in the server directory, a temporary site will be displayed with a 302-error message for 3

seconds, after which the site will be updated to display the requested file. However, if the requested path is not found or the file is not in the directory, a 404-error message will be displayed.
Actually, we have an issue in 302 response
The last one 404 not found is attached to 404.html file which includes a hyper link.
If a request with headers other than "GET" or "POST" is sent to the server, it will display a 500-error, and the last snapshot demonstrates the expected behavior, where the user will be automatically redirected to index.html.

3 Problem



localhost:8080/upload.html

File Upload Form

Choose a PNG file to upload:

Figure 1.

3.1 Discussion

To upload a file, you can navigate to the upload.html page on your web browser and select the file you want to upload by clicking on the "choose file" button. Once you have selected the file, click on the "Upload" button, and the file will be sent to the server and saved in the "uploaded" folder, which is located in the main directory.