Extending the simple web server

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24 September 2015

Introduction Implemention

At the first I create a Java class as an external process. This Java class, named `Sum`, takes in input two integer value and gives in output the sum of this two integer value. After to obtain that the server was able to read and launch an external process, for example `Sum.java`, I modified the code in `TinyHttpdConnection.java`. To do this after the following code:

```
String req = d.readLine();
    System.out.println("Request: " + req);
    StringTokenizer st = new StringTokenizer(req);
    if ((st.countTokens() >= 2) && st.nextToken().equals("GET")) {
        if ((req = st.nextToken()).startsWith("/")){
            req = req.substring(1);
    }
    ...
}
```

I added a piece of code that at the first checks whether the url begins with the keyword process/ and then through:

- `Process p = Runtime.getRuntime().exec("Java Sum");` to launch the process, in this case the Java class named `Sum`;

- `String output ="";` to collect the lines, returned by the command, to send to the browser;

- `output = line;+` to concatenate the lines.

To verify if there are errors I add:

- `while ((line = bre.readLine()) != null)` that checks if there are errors;

- `output = line;+` to concatenate possible lines of error.

At the end through `new PrintStream(out).println(output);` I transmit the result to the browser. I decided to leave the following code in case it is required `index.html` or any web page.

```
else if (req.endsWith("/") || req.equals("")){
    req = req + "index.html";
}
```

Deployment

To start the program, after opening Eclipse or something like that, it is necessary to execute `Sum.java` which is located in `\src\`. Then it is necessary to copy the `Sum.class` located in `1st_week_assignment\bin` and paste it and overwrite it in `1st_week_assignment`. After doing this it is necessary to execute `TinyHttpd.java` located in `\src\tinyhttpd`. When we see in the Eclipse console that Server is ready it is necessary to open the browser and write `http://localhost:8000/process/`.

Comments and notes

During the implementation I have a problem, in fact, when, after starting the server, I go on the browser and write `http://localhost:8000/process/` it can not find the class `Sum`. The error that we see in the Eclipse console and in the web page is:

```
Error: Could not find or load main class Sum
404 Not Found: process/
```