

CS 118: Project 1

Web Server

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CS 118 Project 1 Report

High Level Description of Server

The details of the server are created, such as the interface and the port the server will wait for client requests to come on. The server is then set to run on an infinite loop with a sleep of 1 second to ensure that it does not consume all CPU power. Once it is put to sleep, it will wait for a client request.

Once a request is received, the request handler reads data from the client. It then checks the data to ensure that it is a valid request. If it is valid, it will open the file and check the file extension. Currently, only JPEG, GIF, and HTML files are supported by the server. Upon verification that the requested resource is a valid file, the server will respond to the client with the file.

Difficulties

There was some difficulty in getting the files to open. Some further research solved the problems.

Manual for Web Server

Instructions to compile and run the webserver:

1. Go to the directory of "CS-118-Project-1"
2. Compile with
`$ make`
3. Run using
`$./webserver`
4. Once done with the server, you can run
`$ make clean`
to remove the webserver

Sample Outputs

HTTP Request

To see an HTTP Request, connect to the server from a browser using the URL

```
http://<machine name>:5000
```

The browser should say not found, but in the terminal you can see the HTTP request and some other information such as browser, OS, etc.

HTML

To see the HTML output, connect to the server from a browser using the URL

`http://<machine name>:5000/test.html`

A “Hello world!” message should appear in the browser.

JPEG

To see the JPEG output, connect to the server from a browser using the URL

`http://<machine name>:5000/maru.jpg`

A cat in a box should appear in the browser.

GIF

To see the HTML output, connect to the server from a browser using the URL

`http://<machine name>:5000/maru.gif`

A cat with its head in a brown bag and tail wagging should appear in the browser.