Nathan Bender

CS 283: Systems Programming

L4– Lab 4: HTTP Client and Server

1. General Description of Assignment

We were asked to create two programs, one for a client test web server and one for a server test web server. The client program takes three arguments, the hostname, port, and file. The client program establishing a connection with a server using the given hostname and port. The program then builds a GET request string using the provided filename, sends the request to the server, reads the response from the server, and write the response to the screen. The server program takes a single argument, the port number. The server opens a listening socket using the given port number, and waits for connections. When a connection is made, the server reads the request from the client, parses the request, opens the requested file, and writes the file to the client.

1. Hardware/Software Used

This assignment was developed on a mac running Mac OS Sierra, but was tested on tux.

1. Review

Overall, this assignment was not extremely difficult. My server was very similar to that of tiny. Of course, my server can not server dynamic content, and only writes the file back to the client. Unlike tiny, my server does add any extra headers for the browser.

1. Improvements

I don’t think there are any real improvements that can be made to this assignment. The purpose was to gain some experience using the tools mentioned, and this assignment successfully fulfilled that purpose. I now have a better understanding of these tools and will be able to use them in assignments in the future.