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CSE 156: Network Programming

Lab 1: Documentation

Here is a brief description of the logic and structure within the source code.

The file client.h contains a variety of libraries and macro definitions that are commonly used in socket programming. Most of these were taken directly from unp.h which is included in the Textbook for this course.

Most of the error handling was done with a redefinition of the err_sys function, which in this case prints out the usage, the error, and returns a value of 1 for the main return. This error handling manages any errors produced by wrong input, connection failures, and socket errors.

Since the program only has one possible option -h, it was easier to check that specific entry in the last argument rather than using the getopt function.

The second argument (IP address, port number, and web page) were split using regular expressions, which did the job much more efficiently.

In the while loop that read through the tcp socket input, there was occasionally a chance that the socket would become idle rather than sending a read return of 0. For this, I created a break case if the buffer wasn't used in its entirety in the last read.

For the actual socket only six functions - albeit in a very simple implementation - were used: socket, connect, inet_pton, connect, send, and read.