Readme file for CSC 5250 - Midterm Project 1

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Instructions for proxy.c

In terminal cd to directory containing proxy.c

type gcc proxy.c -o proxy

type ./proxy &

Open your browser and set the proxy ip to 127.0.0.1 and the port to whatever port the proxy command displayed.

Browse the internet

Instructions for newProxy.cpp

In terminal cd to directory containing newProxy.cpp

type g++ newProxy.cpp -o proxy

type ./proxy

Open your browser and set the proxy ip to 127.0.0.1 and the port to whatever port the proxy command displayed.

Browse the internet.

Troubleshoot:

If you receive the error "Error: Address already in use"

type netstat -tulpn

see if a process is listening and kill it by typing

kill PID <PID # HERE>

More Information:

Which content is cacheable in your proxy cache? and how do you calculate their TTL time?

- I know proxy.c does not have a cache nor does it calculate TTL time. proxy.cpp does not have a cache/TTL calculation either.

A list of files and a 1-line description of the contents of each file.

- proxy.c is the proxy I wrote from scratch that is unable to connect to a host.

- newProxy.cpp is proxy code I found online and modified to work with the requested server output of this midterm.

The responsibility of each group members.

- David Weisberg wrote proxy.c and this README. I also found the code for newProxy.cpp, modified it for the project, and tested all the code.

References to any borrowed code (the source code must also include this information).

- The majority of newProxy.cpp is borrowed code which was found at http://www.blizzhackers.cc/viewtopic.php?t=443832 . The code was modified to match the requested output for this midterm project. proxy.c also has some borrowed code commented out in it because it was not used. It was obtained from http://martinbroadhurst.com/source/tcpproxy.c.html .

A description of any known problems. If you think you know how to solve the problem(s) and simply didn't have time to do so - explain how!

- Known problems for newProxy.cpp include not having a cache or calculating TTL time. Problems also include some pages having "Content Encoding Errors" where the page had an unsupported form of compression. Sometimes the server stops displaying the requests. The server might crash if you kill the client. It also sometimes doesn’t load images.

- Known problems for proxy.c include, pretty much everything, and the inability to connect to the host after extracting the host from the browser request. Even extracting the host from the browser request seems to be the problem, I tried many different ways but none seem to work. newProxy.cpp had this working and I attempted to imitate what it was doing but was unsuccessful. The problem was the gethostbyname() function and setting the server address to the one it should have provided. I tried using getaddrinfo() and this also didn't work.

Anything else you think might be useful to share, such as what you learned, what you had trouble with, if the project was too hard or too easy, etc.

- I had trouble with pretty much everything after displaying the port, IP, and the request. My first big problem occurred with extracting the host from the bowser request but my biggest problem was setting up a new socket for the host to connect on to forward the browser request. I didn't even have time to work on the cache or TTL because of all the problems I had. I would say this project was too hard and very confusing.