Programming Assignment #2

CSCE 3530 Spring 2016

Introduction to Computer Networks

100 Points

Due: 03/24/2016, 11:55 PM

Late Due: 03/26/2016, 11:55 PM

The assignment can be completed in a group of **up to two students** in each group. The program assignment has two parts.

The assignment will be graded in the following manner:

- 5% Comments
- 10 % ReadMe file (compile instructions, your approach to the problem, & limitations [if any]). Also, include the name of the group members here!
- 20% Evidence of compilation and execution (Screen Shots, include in ReadMe)
- 25% Compiles and executes for grader with correct results.
- 40% Code

Please create a zip archive of your assignment folder (code, header files and readme) and upload the zip file (only one of the group members)

Multi-threaded Proxy Server

Use the Web Proxy from Programming #1 to build a mutli-threaded proxy server that will have the following features:

1. It should be able to handle multiple requests at the same time.
2. Blocking web sites if they are found in a black list (www.facebook.com, www.youtube.com, www.hulu.com, www.virus.com)
3. Filtering out inappropriate language (http://www.hyperhero.com/en/insults.htm) from a requested site.

(The proxy has all the previous features – it receives an HTTP request for an object from a browser, it generates a new HTTP request for the same object and sends it to a remote server that is hosting the requested object. When the proxy receives the corresponding HTTP response with the object from the remote server, it creates a new HTTP response, including the object, and sends it to the client. If the object is in cache, the request doesn't go to origin server!)

Complete your assignment in **C programming** language!! The programming problem are taken from the textbook, "Compute Networking, A top down approach".

To test your program, use a web browser as a client. The following address format should be used in the address bar:
129.120.151.96:8888/www.cse.unt.edu

- 129.120.151.96 -> ip address of the proxy server
- 8888 -> port number of the proxy server
- www.cse.unt.edu -> the address of the website being accessed on the origin server