## CS 3031: Telecommunications

Assignment #1: A Web Proxy Server

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Blah blah

library used: tcdlib from CS2031

Web proxy client class:

The client operates on port 2000

The client takes in an input to be the client number which makes it operate on port: 2000+client\_no.

Due to this multiple clients can operate simultaneously.

My client class takes in a string which becomes the payload of the message being send to the server.

Proxy server class:

The gateway operates on port 4000.

The server is threaded, allowing many clients to operate simultaneously.

eroute the packet and send it to its correct destination.

Management console class:

Operates on port 2000.

The main objective of this is to implement a persistent ban list, which is stored as a txt file.

It can dynamically add websites to the ban list as well as check if a website is banned.

It displays each http request on the console.

LRUcache & LRUnode class:

Implements a least recently used cache to cache requests locally to save bandwidth.

Packet content class:

My packet content class serves as an interface. It possesses the toString() and toDatagramPacket() methods. It also holds the length of the header as HEADERLENGTH.

String content class:

String content implements the packet content class. It returns the string and makes a datagram packet through.

Node class:

The listener function in the node class listens for incoming packets on a datagram socket and informs registered receivers about incoming packets. It listens for incoming packets and informs receivers upon arrival.

**CODE dump:**