Design:

This program is designed to take a "GET" request from a user and return the result from the server of the website requested. It only takes "GET" request, so if you'd like to use "POST", "DELETE", et al. you'll need to use a different program. The proxy receives the request, then passes it as an url connection. It then takes each byte from the web server and returns them to the client requesting a particular website.

Testing:

When testing this, you will want to utilize port 8080 on localhost. In doing so, you will receive back the html of the website requested. You may also test utilizing the telnet localhost 8080 in the terminal. If you have a bad request, a 404 will be returned; if you request something other than "GET", such as: "PUT", "DELETE", etc. you will receive a 501, unimplemented response. Otherwise, you will receive a 200 response, saying that your request is valid and the html will be returned to you.

Output:

The output of this program is the html of the given website requested and a 200 response if done correctly. If not, a 404 or a 501 response will be supplied.