

Summary of implementation:

I set up an infinite program loop in main to run indefinitely. I opened a socket file descriptor for listening on the port entered in the command line. I used `Accept()` to accept any incoming requests on the port. Then I initialized a `rio` to assist with reading the request. I read the first line of the request. I checked if it was a GET request. I parsed the URI to get the host name, the port number, and the query. I then used the info to build a header string that could be sent to the server. I included the 4 required fields in the header string, and any other fields that were provided by the client. I made sure to include a `\r\n` at the end of the header. I opened a server socket with the provided host name and port number. I wrote the header string to the server socket. I read the response from the server, and wrote it back to the client socket. I made sure to close all socket file descriptors to avoid memory leaks. I also implemented robust error handling to ensure my proxy would not crash on unexpected behavior.

Why are some urls inaccessible:

https urls (plus http urls that redirect to https) are inaccessible because my proxy does not have functionality to support secured requests.