CS359 Lab Assignment 8 Report

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Filename : 1801cs16_Assignment8_Report.pdf

Problem Statement : Implement a simple proxy server over TCP where incoming connection requests from the browser are redirected to the institute proxy (or any other proxy) through a local server over TCP

Prerequisite : Change your browser network settings as shown in following image (Note: Use your own IPv4 address)
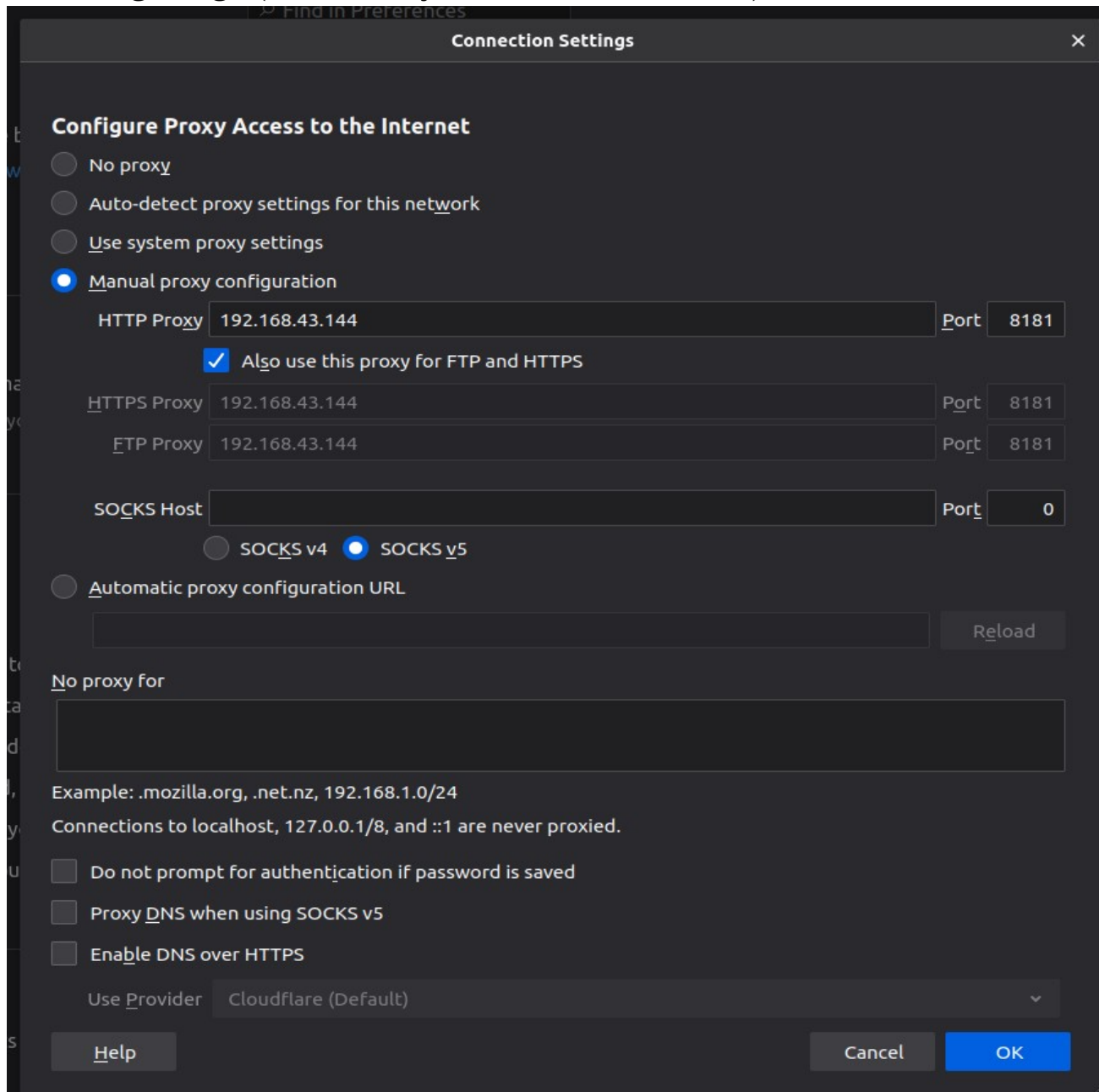
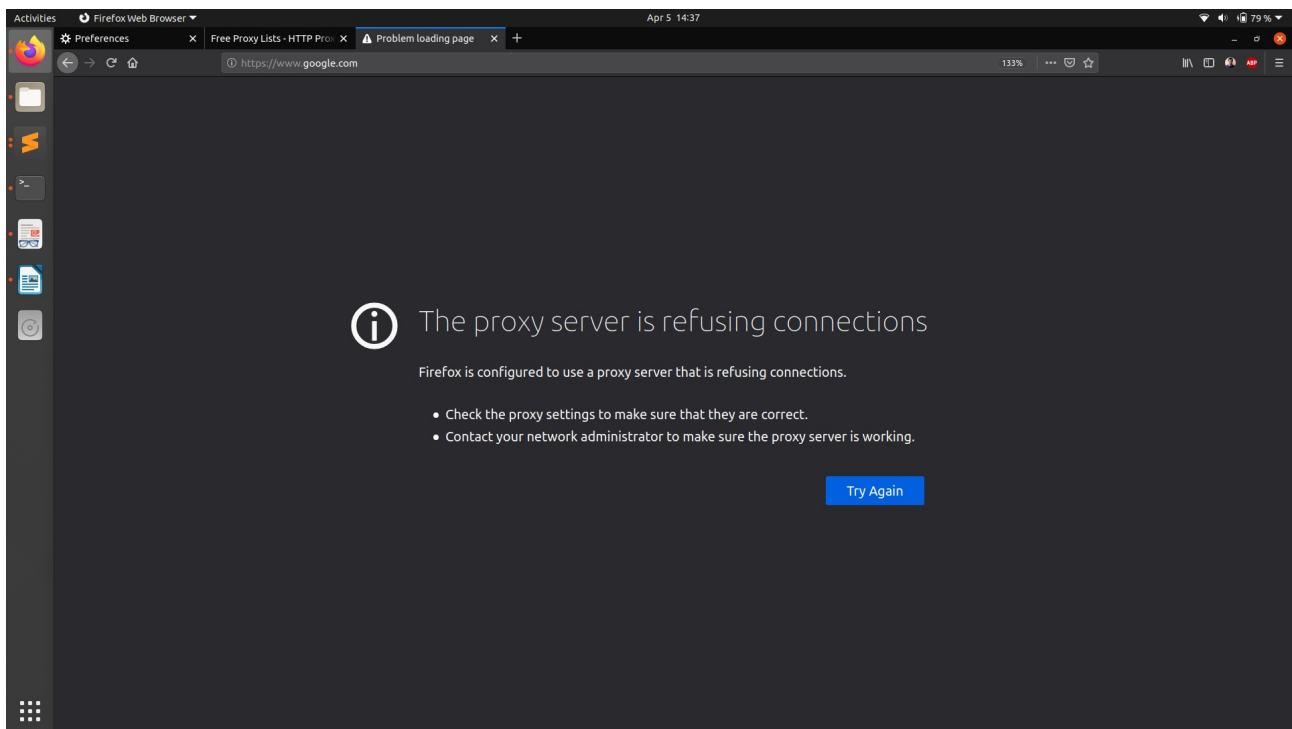# Commands to compile and execute code :

Compilation :
$ gcc proxy.c -o SimProxy

Execution :
$ ./Simproxy <listen_port> <institute_proxy_IP> <institute_proxy_port>

Search result before execution of code and after changing network settings :

Here, we can see that the proxy server is not connecting. As we have not yet executed the program.

Program Execution : (In case of faster proxy)
Here, I have used
listen port = 8181
**institue proxy ip = 186.167.20.211**
institute proxy port = 3128

(http://freeproxylists.net/ contains many proxy servers along with ip and port, I have used one of these with high response and transafer values to avoid timeout)

Execution result :

```
mangesh2102000@Linux-Ubuntu:~/Documents$ gcc proxy.c -o SimProxy
mangesh2102000@Linux-Ubuntu:~/Documents$ ./SimProxy 8181 186.167.20.211 3128
Proxy currently running on PORT 8181
All connections are forwarded to 186.167.20.211:3128
Connection accepted from 0.0.0.0:0
Connection accepted from 192.168.43.144:56424
Connection accepted from 192.168.43.144:56428
Connection accepted from 192.168.43.144:56432
Connection accepted from 192.168.43.144:56436
Connection accepted from 192.168.43.144:56440
Connection accepted from 192.168.43.144:56444
Connection accepted from 192.168.43.144:56448
exit
mangesh2102000@Linux-Ubuntu:~/Documents$
```

Simultaneous Search Result in browser :
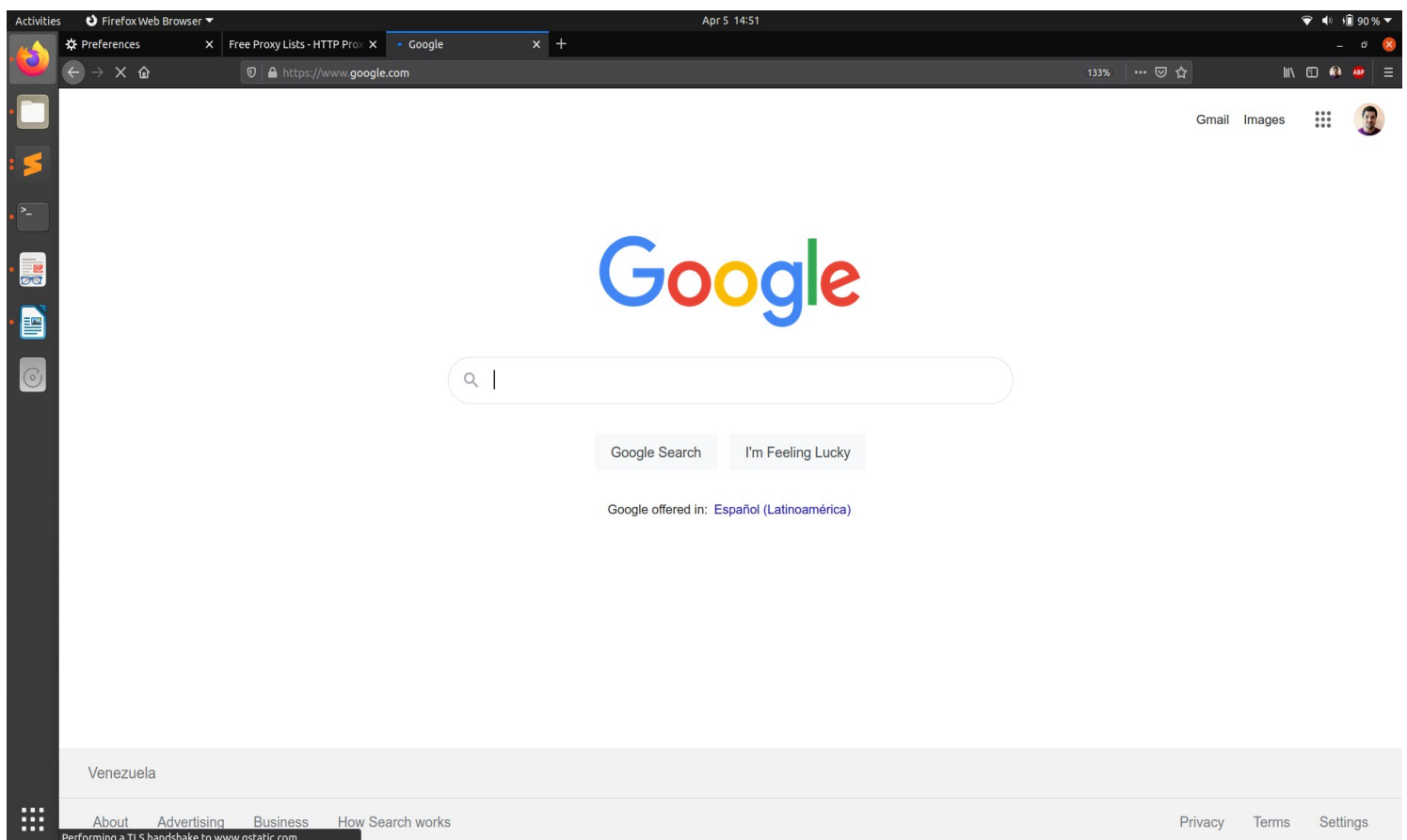
Program Execution : (In case of slower proxy)

Here, I have used

listen port = 8181
institue proxy ip = 172.16.2.30 8080
institute proxy port = 3128

Execution Result :

Simultaneous Search Result in browser :