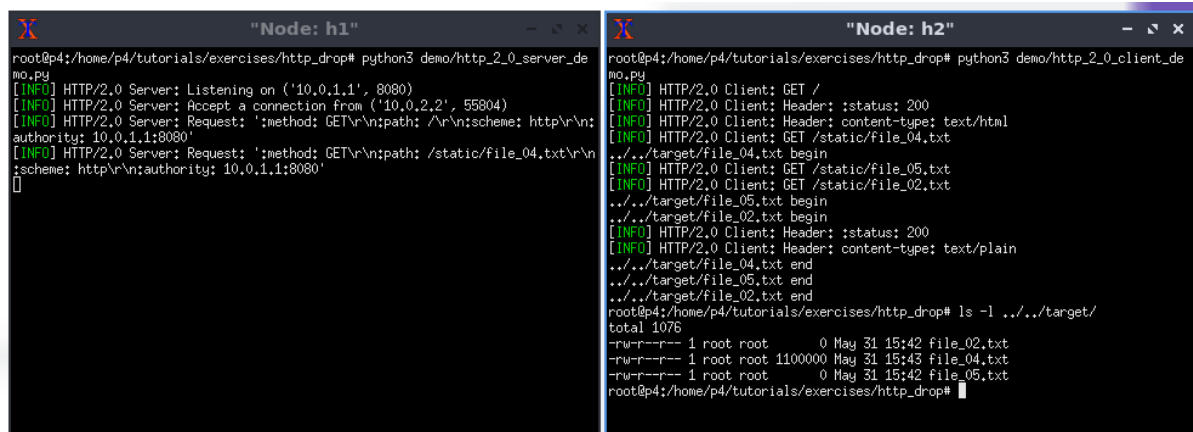


Network Systems Capstone Homework 6 Report

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Test: HTTP/2 Under Dropped Packets



```
root@p4:/home/p4/tutorials/exercises/http_drop# python3 demo/http_2_0_server_demo.py
[INFO] HTTP/2.0 Server: Listening on ('10.0.1.1', 8080)
[INFO] HTTP/2.0 Server: Accept a connection from ('10.0.2.2', 55804)
[INFO] HTTP/2.0 Server: Request: 'method: GET\r\npath: /\r\nscheme: http\r\nauthority: 10.0.1.1:8080'
[INFO] HTTP/2.0 Server: Request: 'method: GET\r\npath: /static/file_04.txt\r\nscheme: http\r\nauthority: 10.0.1.1:8080'

root@p4:/home/p4/tutorials/exercises/http_drop# python3 demo/http_2_0_client_demo.py
[INFO] HTTP/2.0 Client: GET /
[INFO] HTTP/2.0 Client: Header: :status: 200
[INFO] HTTP/2.0 Client: Header: content-type: text/html
[INFO] HTTP/2.0 Client: GET /static/file_04.txt
[INFO] HTTP/2.0 Client: GET /static/file_04.txt begin
[INFO] HTTP/2.0 Client: GET /static/file_05.txt
[INFO] HTTP/2.0 Client: GET /static/file_02.txt
[INFO] HTTP/2.0 Client: GET /static/file_05.txt begin
[INFO] HTTP/2.0 Client: GET /static/file_02.txt begin
[INFO] HTTP/2.0 Client: Header: :status: 200
[INFO] HTTP/2.0 Client: Header: content-type: text/plain
[INFO] HTTP/2.0 Client: GET /static/file_04.txt end
[INFO] HTTP/2.0 Client: GET /static/file_05.txt end
[INFO] HTTP/2.0 Client: GET /static/file_02.txt end
root@p4:/home/p4/tutorials/exercises/http_drop# ls -l ../target/
total 1076
-rw-r--r-- 1 root root 0 May 31 15:42 file_02.txt
-rw-r--r-- 1 root root 1100000 May 31 15:43 file_04.txt
-rw-r--r-- 1 root root 0 May 31 15:42 file_05.txt
root@p4:/home/p4/tutorials/exercises/http_drop#
```

Since HTTP/2 uses TCP sockets, and TCP does not allow out-of-order packets. That is, when one of the packets at the front didn't reach the other end, the subsequent packets will never be accepted even if they arrived normally.

Test: HTTP/3 Under Dropped Packets

Unable to finish :(