## Assignment 1

January 28, 2021 3:16 PM

1.

- 1. Both my browser and the server are running HTTP version 1.1
- 2. The accepted languages are: en-US and en
- 3. Computer IP: 192.168.0.158 Server IP: 130.113.68.10
- 4. Status code is 200 OK
- 5. Last-Modified: Sun, 10 Jan 2021 18:05:48 GMT (13:05:48 EST)
- 6. File Data: 88 bytes
- 7. It is missing: Upgrade-Insecure-Requests, User-Agent, Accept, Accept-Encoding, Accept-Language

2.

- 8. The 'If-Modified-Since' line is not in the 1st HTTP GET request
- 9. In the first response, the server did return the contents of the file but
- 10. The 'If-Modified-Since' line is included in the 2st HTTP GET request. This header is follow up by: Sun, 10 Jan 2021 18:05:48 GMT\r\n. The GET command is instructing the server to not send another copy of the html file unless there has been a modification to the file since the given date and time.
- 11. The server responded with a 304 Not Modified code and did not return the html file again. Because the GET command included the 'If-Modified-Since' header, it checked if the file had been changed since the date and time given in that header and because the file had not changed since then, no html file was returned.

3.

- 12. Only one HTTP GET was sent to the server from my computer. The packet number is 39
- 13. Packet number 57
- 14. The status code that was received was 200 OK
- 15. 4 TCP packets were sent to carry the HTTP response

4

- 16. 3 HTTP GET requests were sent out. They were sent out to the following addresses:
  - www.cas.mcmaster.ca/~rzheng/course/wireshark/HTTP/HTTP-wireshark-file4.html
  - manic.cs.umass.edu/~kurose/cover\_5th\_ed.jpg
  - <u>www.pearsonhighered.com/etc/clientlibs/platform/aem-core/components/content/pearson-banner/assets/images/pearson-logo.png</u>
- 17. The two images received were sent in parallel because the order of messages were the two outbound HTTP GET request and then followed by the two replies the images.

5.

- 18. The status code for the initial HTTP GET is 401 Authorization Required.
- 19. The Authorization Header field is now present in the second HTTP GET message.