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ECCS 3631: Networks and Data Communications
Section 2: 12 pm
Lab 10: HTTP Protocol Analysis

TASK 1: TAKING WIRESHARK FOR A TEST RUN

IP Address => 192.168.179.137

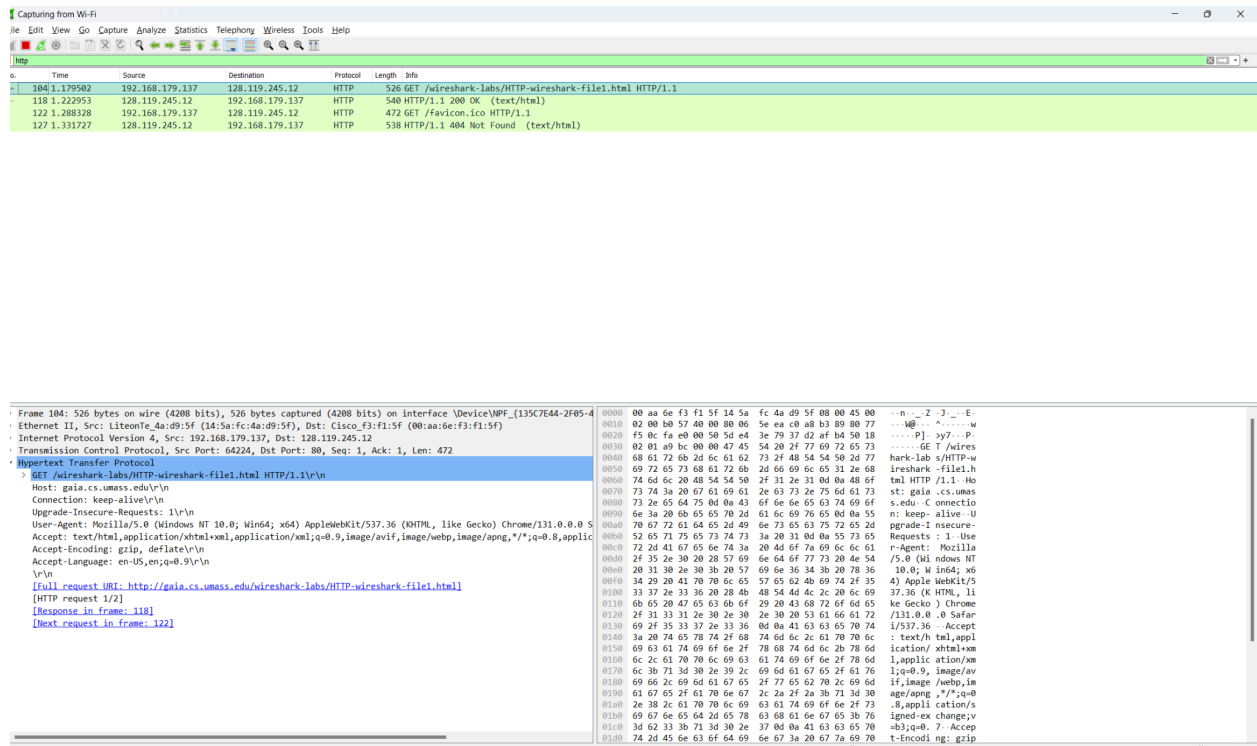# TASK 2: THE HTTP GET/RESPONSE INTERACTION

Figure 1: First HTTP Request Packets for the First File

Questions:

1. Is your browser running HTTP version 1.0 or 1.1? What version of HTTP is the server running?
   ➢ Both the browser and the server are running on version 1.1
2. What languages (if any) does your browser indicate that it can accept to the server?
   ➢ The browser indicates that I am using United States English (en-US)
3. What is the IP address of your computer? And of the gaia.cs.umass.edu server?
   ➢ 192.168.179.137 AND 128.119.245.12
4. What is the status code returned from the server to your browser?
   ➢ Status code 200 OK!
5. When was the HTML file that you are retrieving last modified at the server? What is the time zone?
   ➢ November 20th, 2024 at 6:59 GMT

6. How many bytes of content are being returned to your browser?
   ➢ 540 Bytes

TASK 3: THE HTTP CONDITIONAL GET/RESPONSE INTERACTION
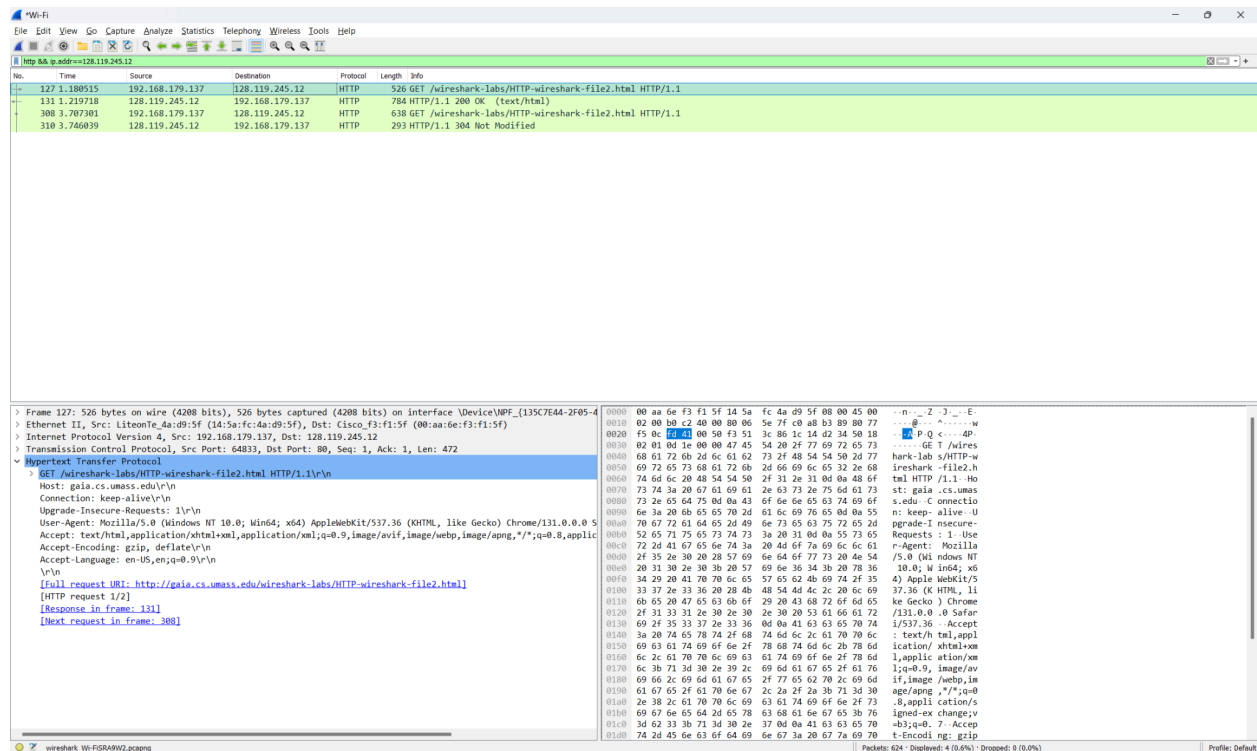

Figure 2: Second HTTP Request Packets for the Second HTML File

Questions:
7. Inspect the contents of the first HTTP GET request from your browser to the server. Do you see an "IF-MODIFIED-SINCE" line in the HTTP GET?
   ➢ Yes there is.
8. Inspect the contents of the server response. Did the server explicitly return the contents of the file? How can you tell?
   ➢ The server did return the contents of the file because it returned a 200 OK status.
9. Now inspect the contents of the second HTTP GET request from your browser to the server. Do you see an "IF-MODIFIED-SINCE:" line in the HTTP GET? If so, what information follows the "IF-MODIFIED-SINCE:" header?
   ➢ No information other than the ending character follows the If-Modified-Since line.
10. What is the HTTP status code and phrase returned from the server in response to this second HTTP GET? Did the server explicitly return the contents of the file? Explain.
    ➢ The second time the server did not return anything special on the refresh because it gave a 304 Not Modified status code, which means that the current webpage is up-to-date and the HTML file does not need to be updated.