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CSC 138
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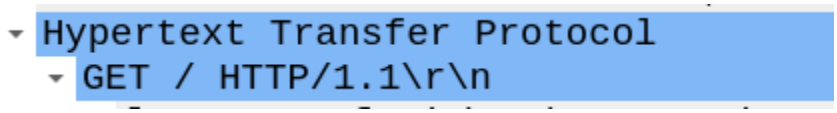
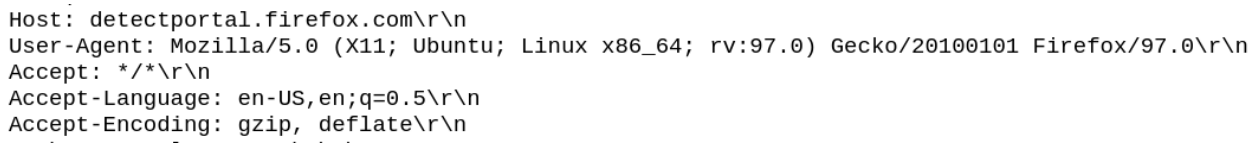
Lab 2: Exploring the HTTP Protocol

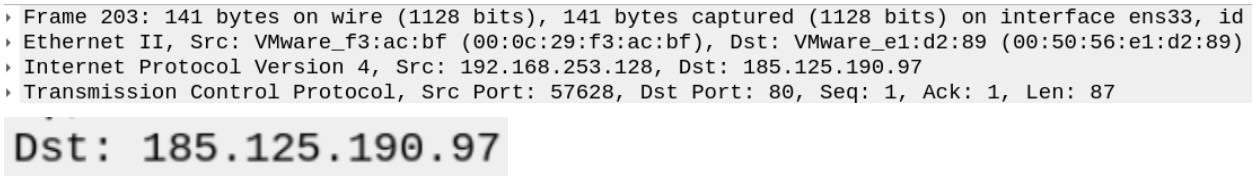
1. HTTP 1.1 is the version my browser is running.



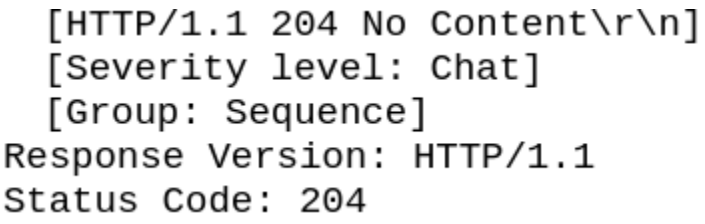
2. The question asked if I had any languages on the browser that can be accepted to the server. The only accepted language on the server I had was US.



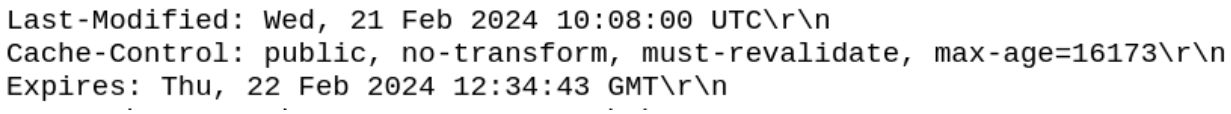
3. The Ip address of the gaia.cs.umass.edu server was 185.125.190.97



4. The status code returned from the server to the browser was 204 for me.



5. The HTML file was last modified on the server on February Wednesday the 21st of 2024.



6. The number of bytes I had was 85 regarding the content being returned to the browser.

```
▾ Content-Length: 85\r\n
    [Content length: 85]
  Connection: keep-alive\r\n
  Pragma: no-cache\r\n
  Cache-Control: no-cache\r\n
```

7. No, I don't see the "IF-MODIFIED-SINCE"" line in the HTTP GET request.

```
Server: nginx\r\n
Content-Type: application/ocsp-response\r\n
▸ Content-Length: 503\r\n
ETag: "59D69F16AC8FA84960416DDE725E4A43637B23E481E748E929AA76F62DCE03BF"\r\n
Last-Modified: Wed, 21 Feb 2024 10:08:00 UTC\r\n
Cache-Control: public, no-transform, must-revalidate, max-age=16173\r\n
Expires: Thu, 22 Feb 2024 12:34:43 GMT\r\n
Date: Thu, 22 Feb 2024 08:05:10 GMT\r\n
Connection: keep-alive\r\n
```

8. No, the server didn't return the contents of the file because the file has not been modified.

```
Accept: */*\r\n
Accept-Language: en-US,en;q=0.5\r\n
Accept-Encoding: gzip, deflate\r\n
Content-Type: application/ocsp-request\r\n
▾ Content-Length: 85\r\n
    [Content length: 85]
Connection: keep-alive\r\n
Pragma: no-cache\r\n
Cache-Control: no-cache\r\n
\r\n
```

9. Yes, I see the "IF-MODIFIED-SINCE" line in the HTTP in the GET request. The information that follows the header was the date and time of the last modification.

```
If-Modified-Since:
```

10. The HTTP status code is 200. The server didn't return the information of the file due to the browser being retrieved from the contents of cache. If the file was modified since the last use the contents of the file would have returned. But it simply told the browser to retrieve the file

from the cache memory.

```
Status Code: 200
[Status Code Description: OK]
```

11. The browser sent 1 HTTP GET request to the server. The packet that contained the GET message was packet number 178.

```
178 0.98232… 192.168.253… 34.107.221.… HTTP 355 GET /success.txt?ipv4 HTTP/1.1
```

12. The packet that contains the status code and phrase which the server sent in response to the GET message packet number was 141.

```
141 0.85817… 34.107.221.… 192.168.253… HTTP 352 HTTP/1.1 200 OK (text/html)
```

13. The code and phrase in the response was 200 OK

```
[Expert Info (Chat/Sequence): HTTP/1.1 200 OK\r\n]
  [HTTP/1.1 200 OK\r\n]
```

14. The data needed to carry the single HTTP response and text of the Bill of Rights was five.

```
Transmission Control Protocol, Src Port: http (80), Dst Port: 55990 (55990), Seq: 4381, Ack: 420, Len: 398
[5 Reassembled TCP Segments (4778 bytes): #234(1423), #237(1460), #239(1460), #235(37), #241(398)]
```

15. My browser sent me 3 http GET messages requests. One from the initial, pearson logo, and book.

```
473 GET /wireshark-labs/HTTP-wireshark-file4.html HTTP/1.1
515 GET /assets/hip/us/hip_us_pearsonhighered/images/pearson_logo.gif HTTP/1.1
474 GET /~kurose/cover_5th_ed.jpg HTTP/1.1
```

16. I think the browser downloaded the two images serially because both images were sent at different times. Had they been both sent at the same time which would mean that they were running both parallel. In this situation only the second image was requested after the first image was being sent.

17. The server's initial response was 401 authentication required.

```
22 22:05:11.489552000 10.36.40.181 128.119.245.12 HTTP 488 GET /wireshark-labs/protected_pages/HTTP-wiresharkfile5.html HTTP/1.1
```

18. The new field included in the HTTP GET message is in the authorization field. I am unable to find the credentials in the second GET “Request” probably because of the different field throughout the HTTP.