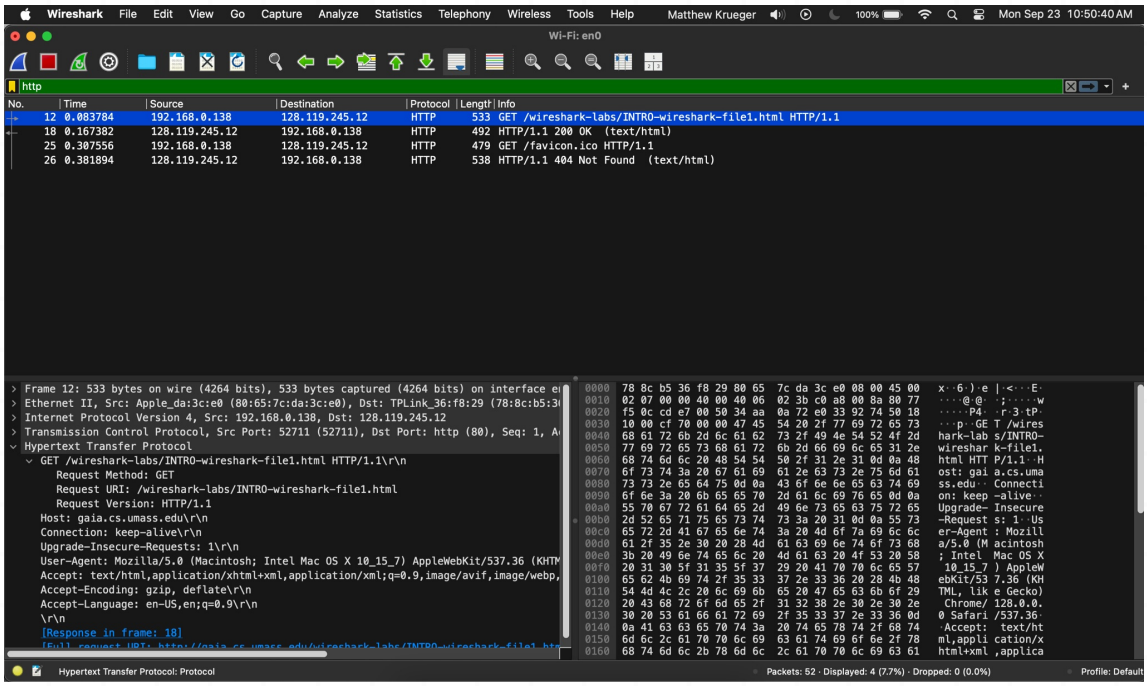
Course: Communication Networks

Date: 9/23

Topics Covered: PART A Q's

- MATTHEW KRUEGER -

1.



2.

2.1: Internet control Protocol

2.2: Transmission Control Protocol

2.3: Hypertext Transfer Protocol

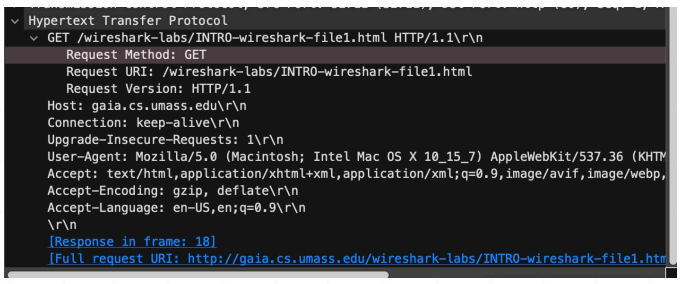
3. 0.167382 - 0.083784 = 0.083598 seconds

4. gaia: 128.119.245.12

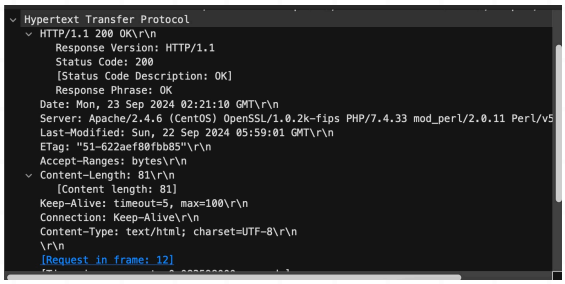
my computer: 192.168.0.138

5.

Source to Destination



Destination to source



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Date: 9/23
Topics Covered: PART B Q's

- MATTHEW KRUEGER -

1. HTTP 1.1

```
http
No.  Time      Source          Destination     Protocol Length Info
12   0.083784  192.168.0.138   128.119.245.12  HTTP     533  GET /wireshark-labs/INTRO-wireshark-file1.html HTTP/1.1
18   0.167382  128.119.245.12  192.168.0.138   HTTP     492  HTTP/1.1 200 OK  (text/html)
25   0.307556  192.168.0.138   128.119.245.12  HTTP     479  GET /favicon.ico HTTP/1.1
26   0.381894  128.119.245.12  192.168.0.138   HTTP     538  HTTP/1.1 404 Not Found  (text/html)
```

2. en - US (English)

```
Hypertext Transfer Protocol
  GET /wireshark-labs/INTRO-wireshark-file1.html HTTP/1.1\r\n
  Host: gaia.cs.umass.edu\r\n
  Connection: keep-alive\r\n
  Upgrade-Insecure-Requests: 1\r\n
  User-Agent: Mozilla/5.0 (Macintosh; Intel Mac OS X 10_15_7) AppleWebKit/537.36 (KHTML, like Gecko) Chrome/128.0.0.0 Safari/537.36\r\n
  Accept: text/html,application/xhtml+xml,application/xml;q=0.9,image/avif,image/webp,image/apng,*/*;q=0.8,application/signed-exchange;v
  Accept-Encoding: gzip, deflate\r\n
  Accept-Language: en-US,en;q=0.9\r\n
  \r\n
  [Response in frame: 18]
```

3. Source (gaia...) : 192.168.0.138 port 52711
Destination : 128.119.245.12 port 80

```
Source Address: 192.168.0.138
Destination Address: 128.119.245.12
```

4. "OK"

```
12  0.083784  192.168.0.138   128.119.245.12  HTTP  533  GET /wireshark-labs/INTRO-wireshark-file1.html HTTP/1.1
18  0.167382  128.119.245.12  192.168.0.138   HTTP  492  HTTP/1.1 200 OK  (text/html)
```

5. 9/22/24 (First retrieval)

```
HTTP/1.1 200 OK\r\n
  Response Version: HTTP/1.1
  Status Code: 200
  [Status Code Description: OK]
  Response Phrase: OK
Date: Mon, 23 Sep 2024 02:21:10 GMT\r\n
Server: Apache/2.4.6 (CentOS) OpenSSL/1.0.2k-fips PHP/7.4.33 mod_perl/2.0.11 Perl/v5.16.3\r\n
Last-Modified: Sun, 22 Sep 2024 05:59:01 GMT\r\n
ETag: "51-622aef80fbb85"\r\n
```

6. 81 bytes

```
HTTP/1.1 200 OK\r\n
  Response Version: HTTP/1.1
  Status Code: 200
  [Status Code Description: OK]
  Response Phrase: OK
Date: Mon, 23 Sep 2024 02:21:10 GMT\r\n
Server: Apache/2.4.6 (CentOS) OpenSSL/1.0.2k-fips PHP/7.4.33 mod_perl/2.0.11 Perl/v5.16.3\r\n
Last-Modified: Sun, 22 Sep 2024 05:59:01 GMT\r\n
ETag: "51-622aef80fbb85"\r\n
Accept-Ranges: bytes\r\n
Content-Length: 81\r\n
  [Content length: 81]
```

7. I DO NOT SEE "IF" statement... should I be seeing one? →

```
Hypertext Transfer Protocol
  GET /wireshark-labs/INTRO-wireshark-file1.html HTTP/1.1\r\n
    Request Method: GET
    Request URI: /wireshark-labs/INTRO-wireshark-file1.html
    Request Version: HTTP/1.1
  Host: gaia.cs.umass.edu\r\n
  Connection: keep-alive\r\n
  Upgrade-Insecure-Requests: 1\r\n
  User-Agent: Mozilla/5.0 (Macintosh; Intel Mac OS X 10_15_7) AppleWebKit/537.36 (KHTM
  Accept: text/html,application/xhtml+xml,application/xml;q=0.9,image/avif,image/webp,
  Accept-Encoding: gzip, deflate\r\n
  Accept-Language: en-US,en;q=0.9\r\n
  \r\n
  [Response in frame: 18]
  [Full request URI: http://gaia.cs.umass.edu/wireshark-labs/INTRO-wireshark-file1.htm
```

8. Yes, the HTML code is explicitly given

```
File Data: 81 bytes
Line-based text data: text/html (3 lines)
  <html>\n
  Congratulations!  You've downloaded the first Wireshark lab file!\n
  </html>\n
```

9. Yes : IF Modified Since present : with date of initial retrieval

```
Host: gaia.cs.umass.edu\r\n
Connection: keep-alive\r\n
Cache-Control: max-age=0\r\n
Upgrade-Insecure-Requests: 1\r\n
User-Agent: Mozilla/5.0 (Macintosh; Intel Mac OS X 10_15_7) AppleWebKit/537.36 (KHTML, like Gecko) Chrome/128.0.0.0 Safari/537.36\r\n
Accept: text/html,application/xhtml+xml,application/xml;q=0.9,image/avif,image/webp,image/apng,*/*;q=0.8,application/signed-exchange;v
Accept-Encoding: gzip, deflate\r\n
Accept-Language: en-US,en;q=0.9\r\n
If-None-Match: "173-622c315e3e193"\r\n
If-Modified-Since: Mon, 23 Sep 2024 05:59:01 GMT\r\n
\r\n
```

10. 404 Not Found, with explicit HTML error MSG

```
Line-based text data: text/html (7 lines)
  <!DOCTYPE HTML PUBLIC "-//IETF//DTD HTML 2.0//EN">\n
  <html><head>\n
  <title>404 Not Found</title>\n
  </head><body>\n
  <h1>Not Found</h1>\n
  <p>The requested URL /favicon.ico was not found on this server.</p>\n
  </body></html>\n
```

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Date: 9/29

Topics Covered: PART C Q's

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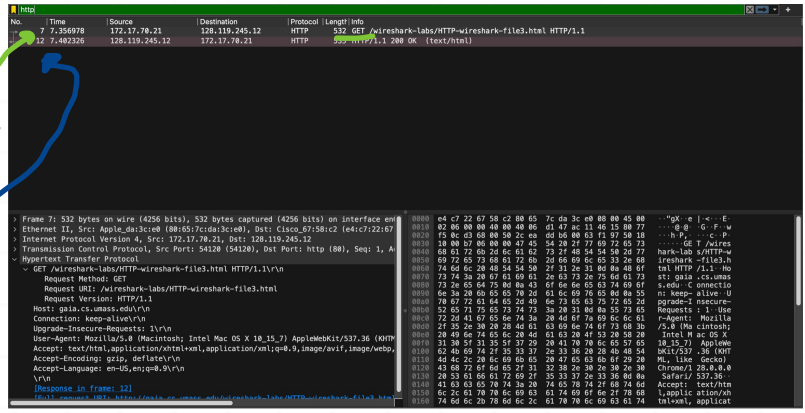
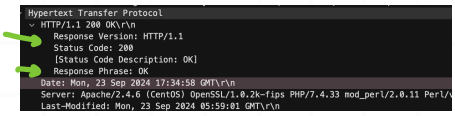
11. browser sent only 1 "HTTP GET" MSG with packet # 7 containing R.O.R GET *SEE IMG*



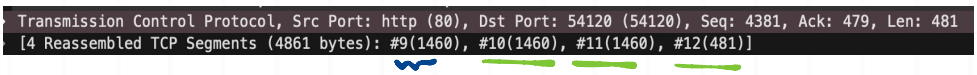
12. packet # 12

13. code: 200
phrase: "OK"



14. 3 data packets

#10
#11
#12

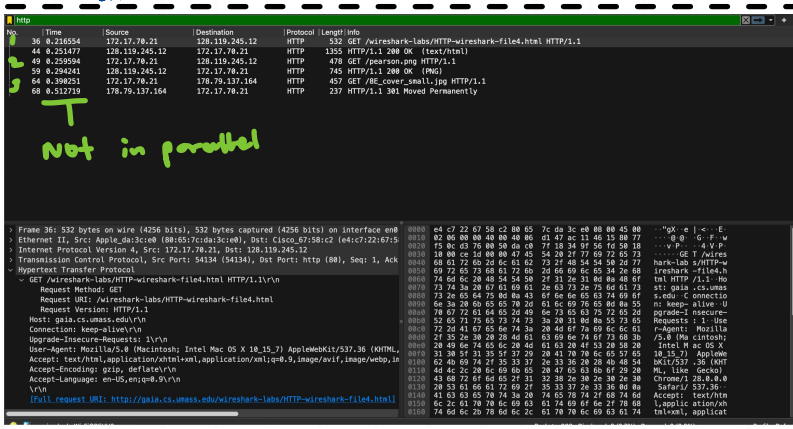


header NOT BOR DATA!

---

15. 3 GET MSGs:

	Source	Destination
GET 1:	172.17.70.2	128.119.245.12
GET 2:	128.119.245.12	128.119.245.12
GET 3:	170.17.70.21	178.79.137.164



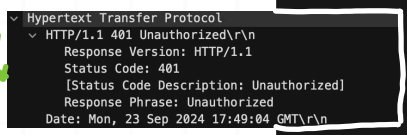
T
Not in parallel

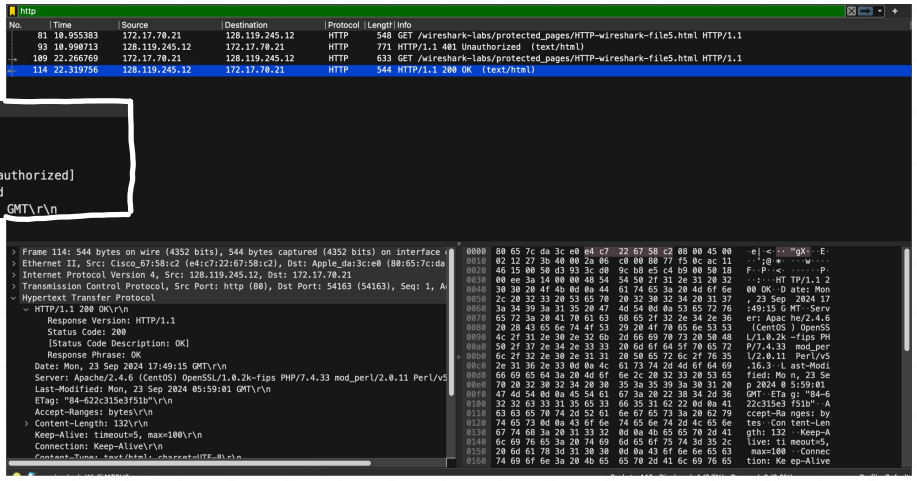
---

16. Based on the "time" & "packet NO." columns, The process are NOT concurrent, but one after another. Therefore serially.

---

17. code: 401
phrase: unauthorized





18. "Authorization" field is now included