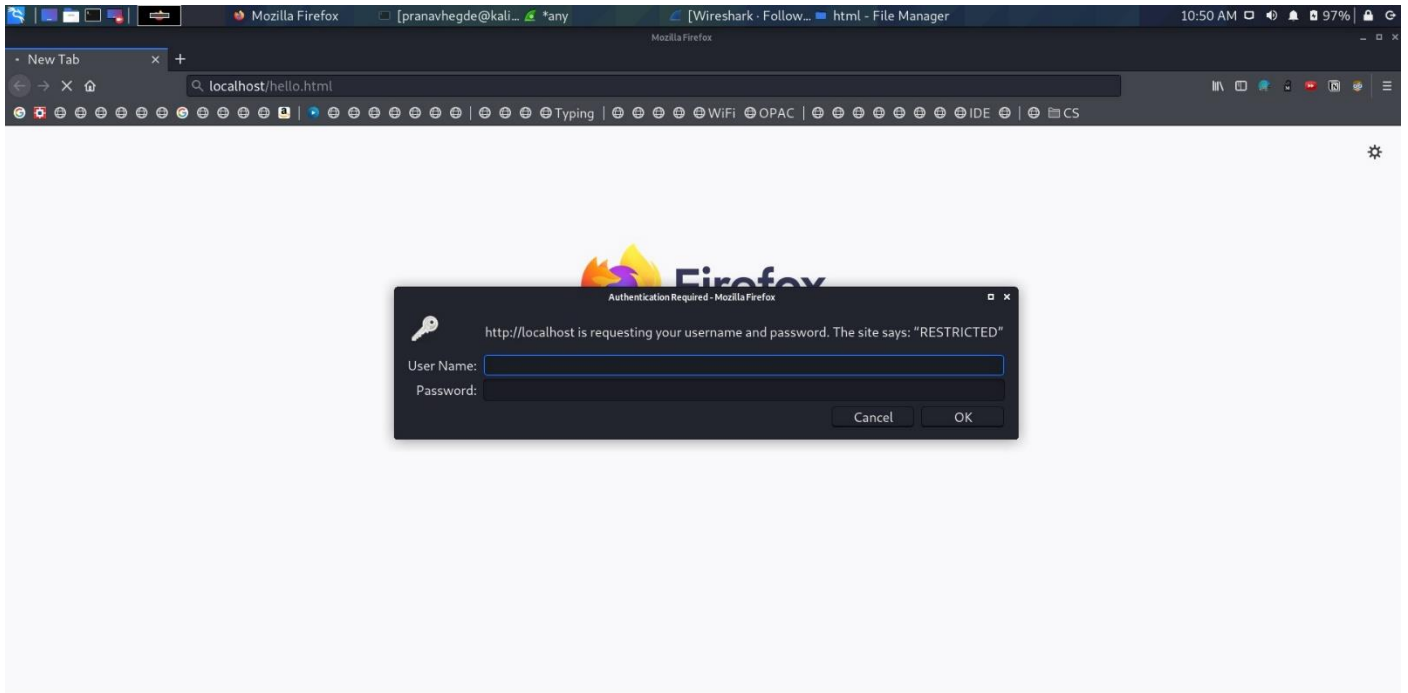


Computer Networks Lab week 3

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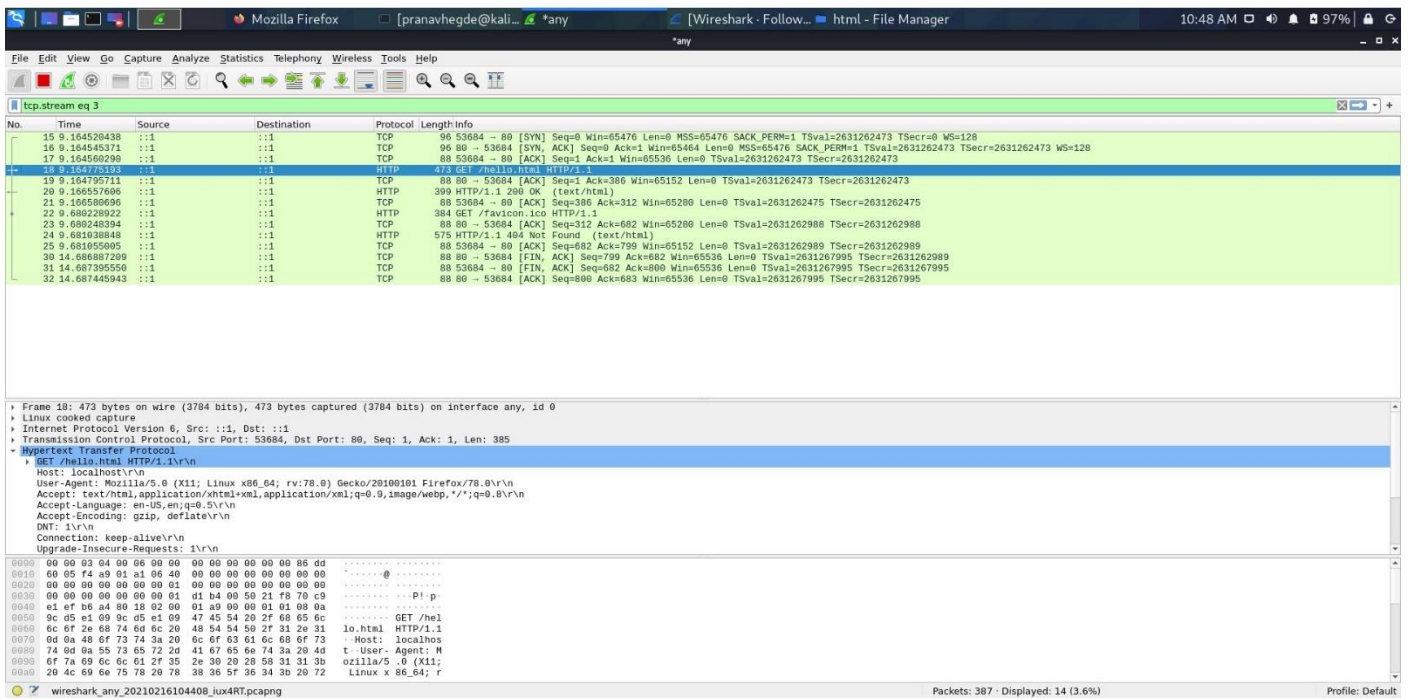
HTTP authorization



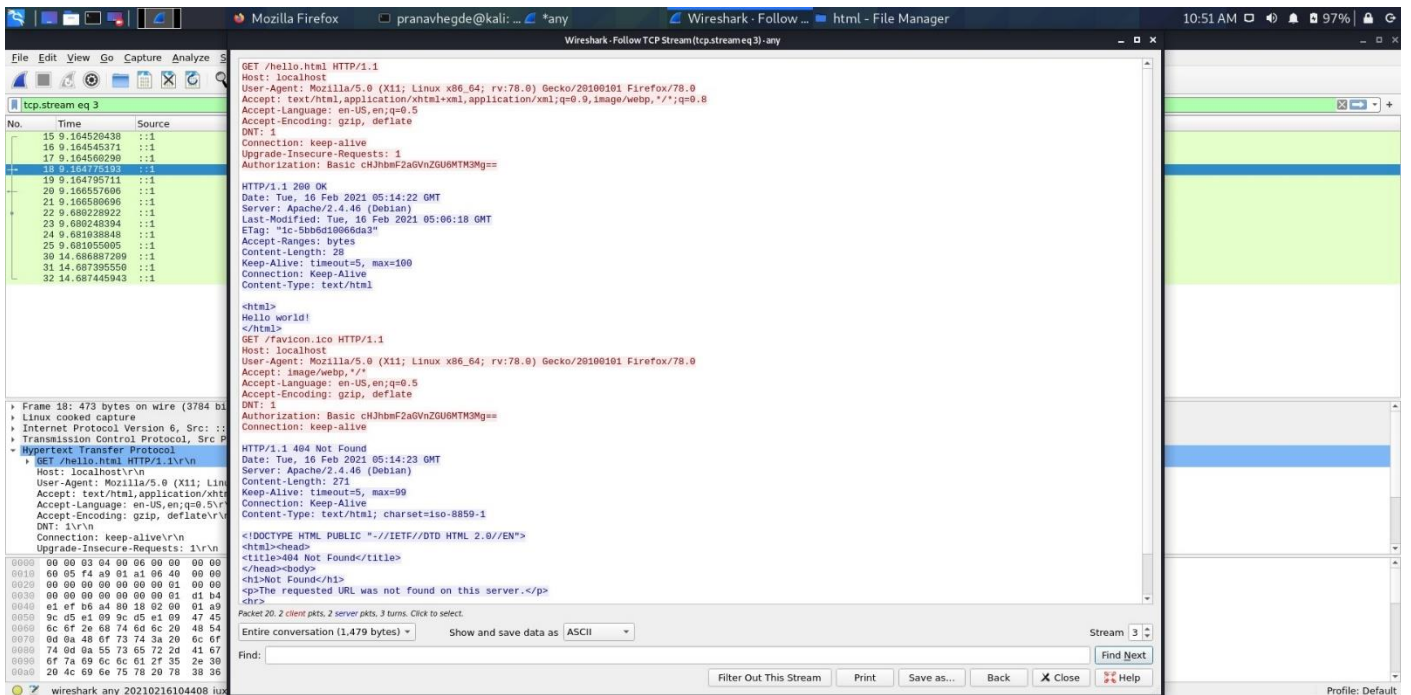
Accessing a restricted webpage locally hosted on apache2 server.



Website accessed after entering the credentials.

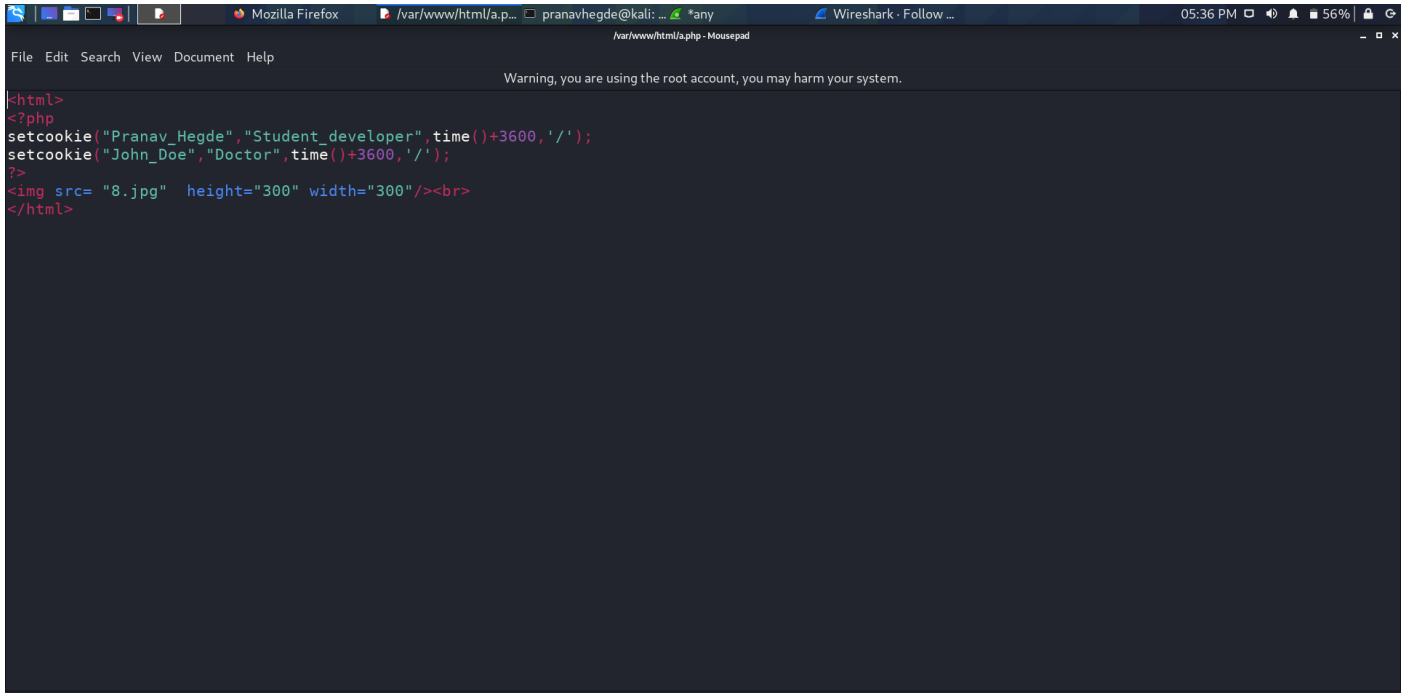


This is the image of the Wireshark HTTP PDU capture depicting the instances of accessing the above-mentioned webpage.



Restricted. This is the TCP stream follow up of Wireshark analysis of accessing the restricted webpage.

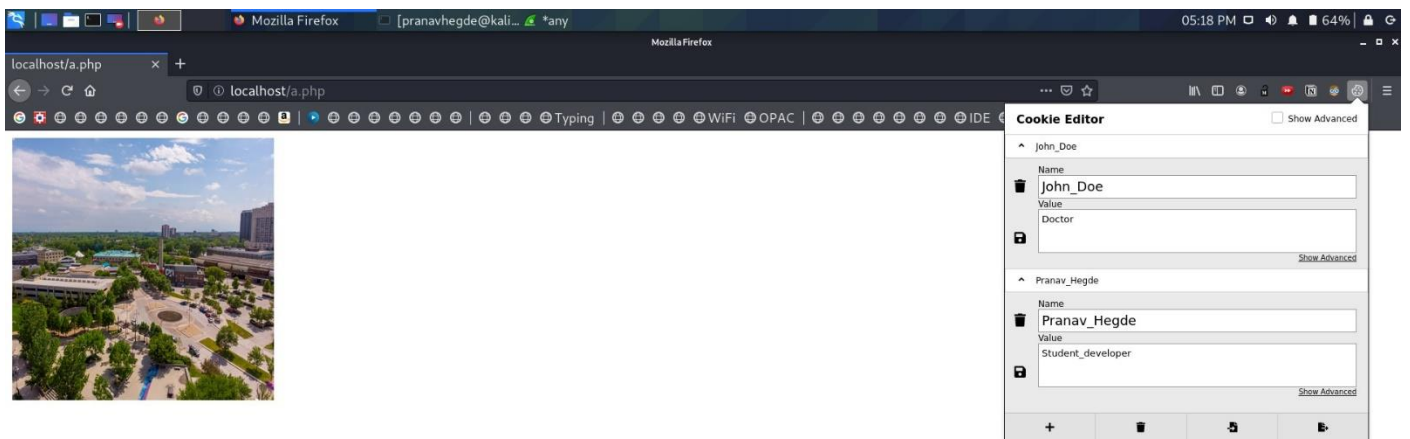
Cookie setting



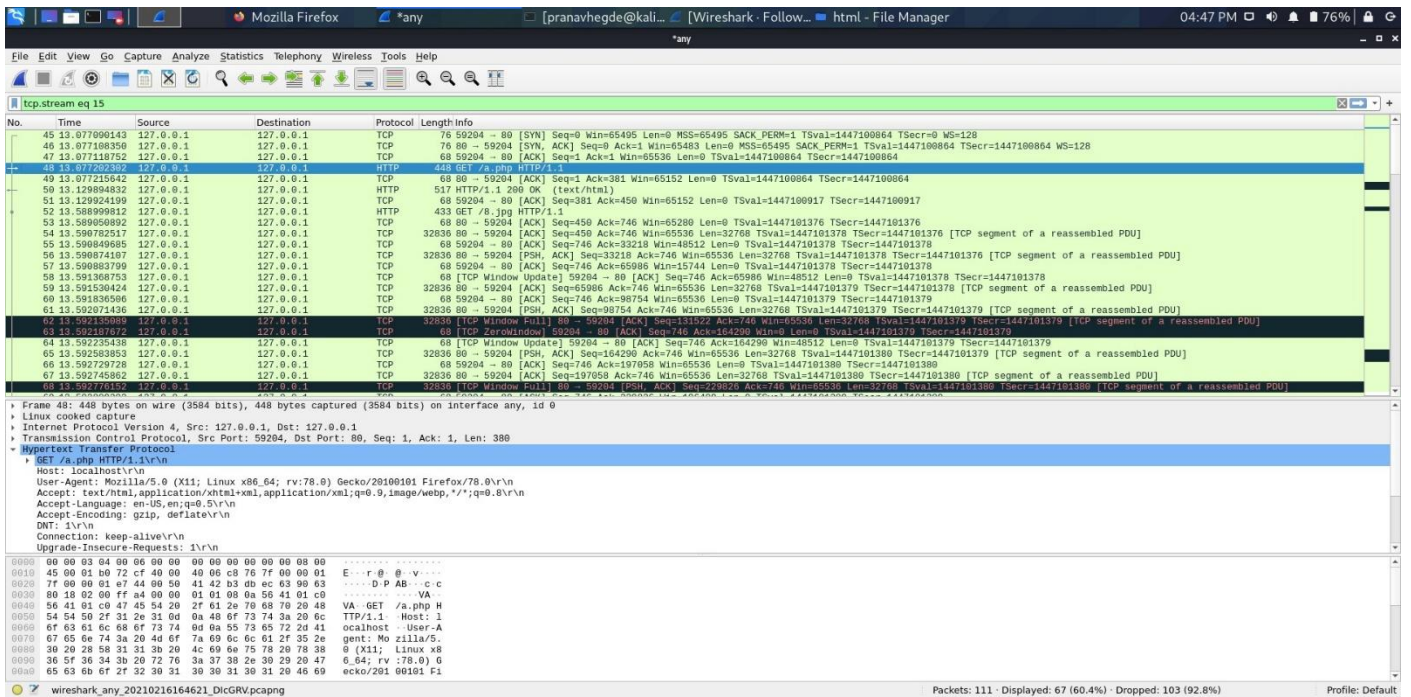
```
<html>
<?php
setcookie("Pranav_Hegde","Student_developer",time()+3600, '/');
setcookie("John_Doe","Doctor",time()+3600, '/');
?>
<img src= "8.jpg" height="300" width="300"/><br>
</html>
```

The screenshot shows a terminal window with a dark background. The code is written in a monospaced font with syntax highlighting: HTML tags are in red, PHP code is in green, and the image tag is in blue. A warning message at the top of the terminal reads: "Warning, you are using the root account, you may harm your system."

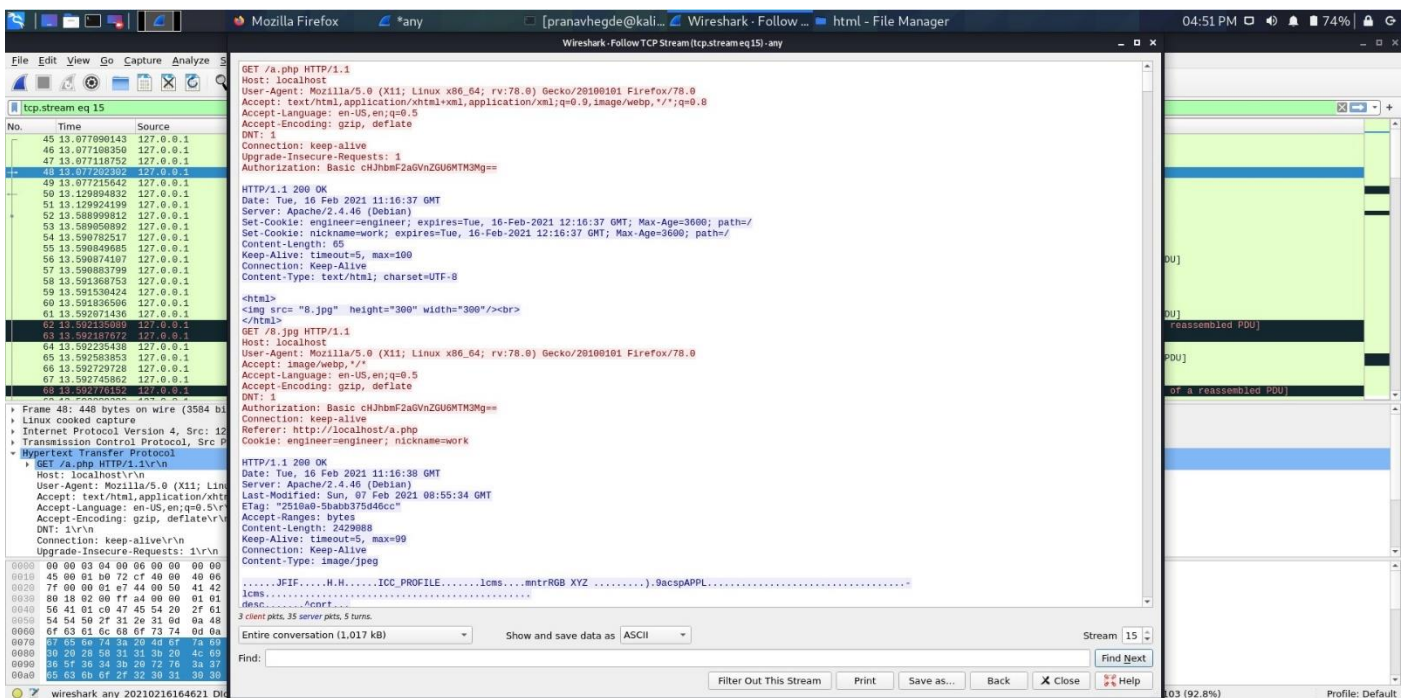
Setting cookies to the php webpage.



The a.php webpage accessed via authorization.

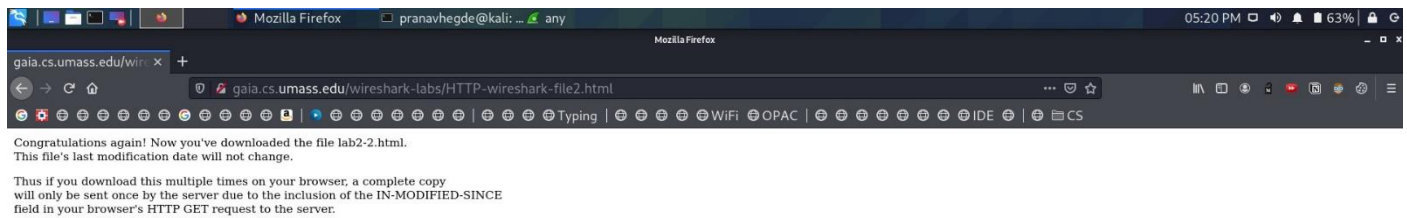
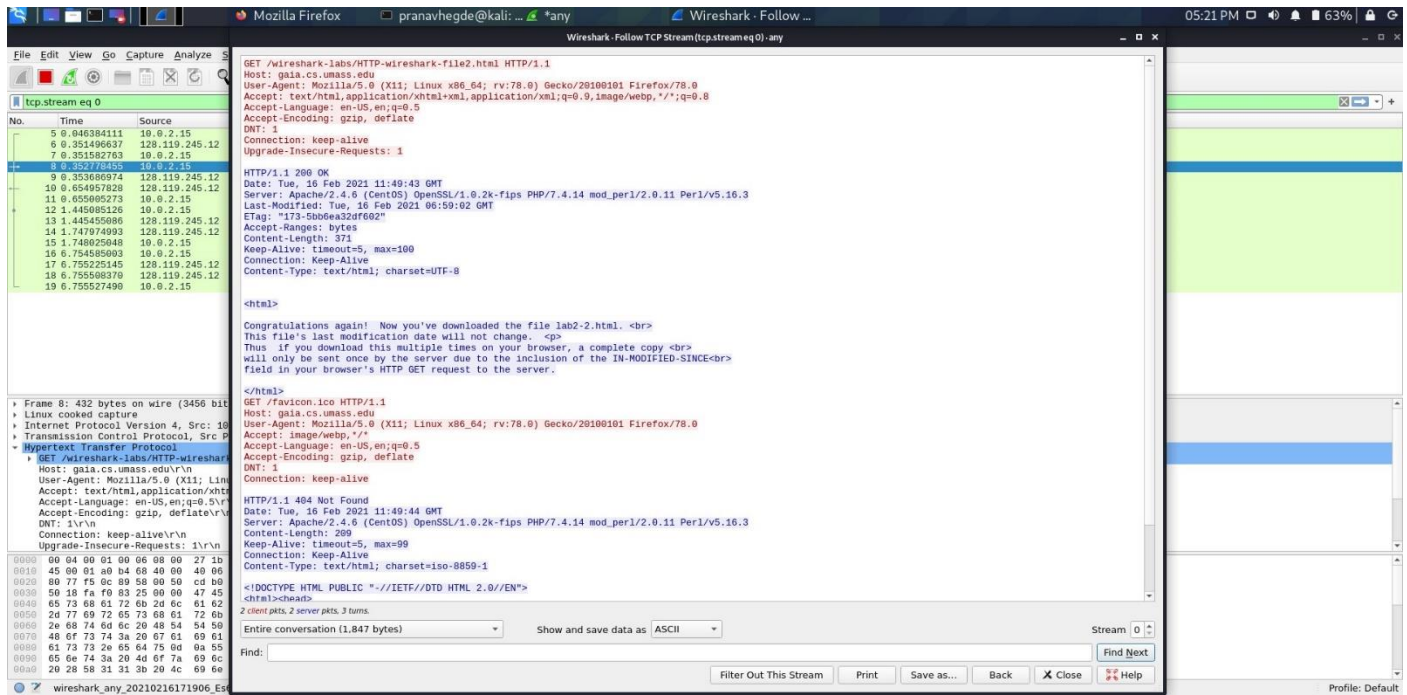


Wireshark HTTP capture of the a.php file.



Following up TCP stream of the php page.

Conditional get: If modified since



While accessing the webpage for the first time we do not see “If not modified” in the Wireshark TCP stream follow up.

However, when we access the webpage for the second time, we do see a “If not modified” in the Wireshark TCP stream follow up.

No.	Time	Source	Destination	Protocol	Length	Info
8	0.352778455	10.0.2.15	128.119.245.12	HTTP	432	GET /wireshark-labs/HTTP-wireshark-file2.html HTTP/1.1
10	0.654957828	128.119.245.12	10.0.2.15	HTTP	785	HTTP/1.1 200 OK (text/html)
12	1.445085126	10.0.2.15	128.119.245.12	HTTP	313	GET /favicon.ico HTTP/1.1
14	1.747974993	128.119.245.12	10.0.2.15	HTTP	549	HTTP/1.1 404 Not Found (text/html)

Filter: http

Protocol: Hypertext Transfer Protocol: Protocol

Packets: 19 · Displayed: 4 (21.1%)

Profile: Default

Observations

- While accessing the webpage for the first time we do not see “If not modified” in the Wireshark TCP stream follow up. However, when we access the webpage for the second time, we do see a “If not modified” in the Wireshark TCP stream follow up.
- The server does explicitly return the HTML contents of the file, while encrypting the authorization in the BASE64 encryption.
- The information that follows the “If modified since” header is the date and time the webpage was last modified.
- The server doesn’t send the data explicitly the second time. Instead sends the last modified data.

Decryption of the base64 encoding: pranavhegdehere