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Wireshark Lab 1:

1. The Basic HTTP GET/response interaction

1. Is your browser running HTTP version 1.0 or 1.1? What version of HTTP is the server running?

My browser uses HTTP version 1.1.

2. What languages (if any) does your browser indicate that it can accept to the server?

As it states in Hypertext Transfer Protocol, en-US.

3. What is the IP address of your computer? Of the gaia.cs.umass.edu server?

The IP address of my computer is 192.168.7.161 and the IP address of the gaia server is 128.119.245.12

4. What is the status code returned from the server to your browser?

The status code returned from the server to my browser is 200.

5. When was the HTML file that you are retrieving last modified at the server?

Sat, 01 Oct 2022 5:59:01 GMT

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

128 bytes

2. The HTTP CONDITIONAL GET/response interaction

1. 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?

In the first call of the HTTP get request I see no "IF_MODIFIED_SINCE" line.

2. 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. This is because the server returned a status code 200 OK, this means the request of the server was fulfilled successfully and the data was downloaded.

3. 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?

In the second HTTP GET request I do see the line "IF_MODIFIED_SINCE." I see followed by that header the current date and time, "Sat, 01 Oct 2022 5:5901 GMT."

4. 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.

In the second HTTP GET the server did not explicitly return the contents of the file. This is because we got a status code of 304, which means that the file was not modified. As stated in the gaia page, a complete copy will only be sent once. And since file was not modified since the last download so there was no need to redownload the data.