ECE361 – Computer Networks

Wireshark Lab 1: HTTP

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Mark:

	Question	Answer	
1	Is your browser running HTTP version 1.0 or 1.1? What version of HTTP is the server running?	My browswer is runing version 1.1	
Annotated Screenshot (if needed)	Request URI: /wireshark-labs/HTTP-wireshark-file1.html Request Version: HTTP/1.1		
2	What languages (if any) does your browser indicate that it can accept to the server?	My browser indicates it will accept Chinese(zh) and English (en).	
Annotated Screenshot (if needed)	User-Agent: Mozilla/5.0 (Macintosh; Intel Mac OS X 10 Accept: text/html,application/xhtml+xml,application/x Accept-Encoding: gzip, deflate\r\n Accept-Language: zh-CN,zh;q=0.9,en;q=0.8\r\n If-None-Match: "80-5d7a47c34d058"\r\n If-Modified-Since: Thu, 10 Feb 2022 06:59:01 GMT\r\n		
3	What is the IP address of your computer? Of the gaia.cs.umass.edu server?	My computer: 100.65.109.126 Server: 128.119.245.12	
Annotated Screenshot (if needed)	> Ethernet II, Src: Apple_39:9e:64 (50:ed:3c:39:9e:64), Dst: Cisco_c4:55:9f (70:b3:17:c4:55:9f) > Internet Protocol Version 4, Src: 100.65.109.126, Dst: 128.119.245.12 0100 = Version: 4 0101 = Header Length: 20 bytes (5) > Differentiated Services Field: 0x00 (DSCP: CS0, ECN: Not-ECT)		
4	What is the status code returned from the server to your browser?	200	
Annotated Screenshot (if needed)	<pre>Hypertext Transfer Protocol HTTP/1.1 200 OK\r\n Date: Fri, 11 Feb 2022 04:28:37</pre>	⁷ GMT∖r\n	
5	When was the HTML file that you are retrieving last modified at the server?	Thu, 10 Feb 2022 06:59:01	

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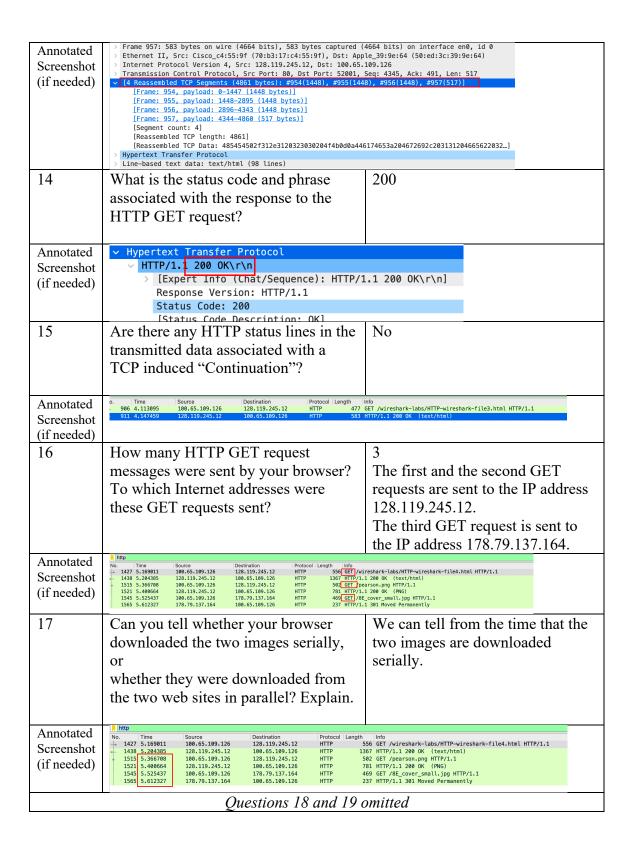
Annotated Screenshot (if needed)	<pre>Hypertext Transfer Protocol HTTP/1.1 200 OK\r\n Date: Fri, 11 Feb 2022 04:28:37 GMT\r\n Server: Apache/2.4.6 (CentOS) OpenSSL/1.0.2k-fips PHP/7.4.2 Last-Modified: Thu, 10 Feb 2022 06:59:01 GMT\r\n ETag: "80-5d7a47c34d058"\r\n Accept-Ranges: bytes\r\n</pre>		
6	How many bytes of content are being returned to your browser?	128	
Annotated Screenshot (if needed)	<pre>Accept-Ranges: bytes\r\n > Content-Length: 128\r\n Keep-Alive: timeout=5, max=10 Connection: Keep-Alive\r\n</pre>	00\r\n	
7	By inspecting the raw data in the packet content window, do you see any headers within the data that are not displayed in the packet-listing window? If so, name one.	NO.	
Annotated Screenshot (if needed)	> Frame 741: 667 bytes on wire (5336 bits), 667 bytes captured (5336 bits) on interface en0, id 0 > Ethernet II, Src: Apple_39:9e:64 (50:ed:3c:39:9e:64), Dst: Cisco_c4:55:9f (70:b3:17:c4:55:9f) > Internet Protocol Version 4, Src: 100.65.109.126, Dst: 128.119.245.12 > Transmission Control Protocol, Src Port: 51591, Dst Port: 80, Seq: 1, Ack: 1, Len: 601 > Hypertext Transfer Protocol		
8	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?	NO	
Annotated Screenshot (if needed)			
9	Inspect the contents of the server response. Did the server explicitly return the contents of the file? How can you tell?	Yes, because we can see that in the line-base text data.	
Annotated Screenshot (if needed)	File Data: 371 bytes Line-based text data: text/html (10 lines) \n <html>\n Congratulations again! Now you've downloaded the file lab2-2.html. \n This file's last modification date will not change. \n Thus if you download this multiple times on your browser, a complete copy \n will only be sent once by the server due to the inclusion of the IN-MODIFIED-SINCE \n field in your browser's HTTP GET request to the server.\n \n </html> \n		
10	Now inspect the contents of the second HTTP GET request from your	Yes. The information is Thu, 10 Feb	

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	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?	2022 06:59:01 GMT\r\n
Annotated Screenshot (if needed)	<pre>GET /wireshark-labs/HTTP-wireshark-file2.html HTTP/1.1\r\n Host: gaia.cs.umass.edu\r\n</pre>	
11	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.	304 not modified The server didn't return the contents of the file. The file is not modified so server doesn't need to send the file again.
Annotated Screenshot (if needed)	No. Time Source Destination Protocol Leng 1731 14.112454 180.65.109.126 128.119.245.12 HTTP 1750 14.145994 128.119.245.12 180.65.109.126 HTTP 2354 18.063437 180.65.109.126 128.119.245.12 HTTP 2355 18.097118 128.119.245.12 180.65.109.126 HTTP	h info 556 GET /wireshark-labs/HTTP-wireshark-file2.html HTTP/1.1 796 HTTP/1.1 200 OK (text/html) 668 GET /wireshark-labs/HTTP-wireshark-file2.html HTTP/1.1 305 HTTP/1.1 304 Not Modified
121	How many HTTP GET request messages were sent by your browser?	1
Annotated Screenshot (if needed)		Info 556 GET /wireshark-labs/HTTP-wireshark-file3.html HTTP/1.1 883 HTTP/1.1 200 OK (text/html)
13	How many data-containing TCP segments were needed to carry the single HTTP response?	4

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¹ Yes, questions 12 through 15 are different in this document than the lab handout. **You must answer the questions found in** *this* **document**.



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