

California State University, Monterey Bay

Week 2 – Lab 2

Group 10

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CST311

Introduction to Computer Networks

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Questions and Answers

The following are the list of questions and related answers for this lab.

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 is running 1.1
 - The server is running 1.1
2. What languages (if any) does your browser indicate that it can accept to the server?
 - En-us
3. What is the IP address of your computer? Of the gaia.cs.umass.edu server?
 - IP Address of my computer is 10.32.89.137
 - IP Address of gaia.cs.umass.edu server is 128.119.245.12
4. What is the status code returned from the server to your browser?
 - HTTP/1.1 200 OK
5. When was the HTML file that you are retrieving last modified at the server?
 - Wed, 13 May 2015 05:59:01 GMT
6. How many bytes of content are being returned to your browser?
 - 128
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 all of the headers can be found in the raw data

2. The HTTP CONDITIONAL GET/response interaction

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
9. Inspect the contents of the server response. Did the server explicitly return the contents of the file? How can you tell?
 - Yes because the contents in the Line-based text data field
10. 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?
 - Yes. The information followed is: Wed, 13 May 2015 05:59:01 GMT\r\n which appears to be the date of the last modification of the file from the previous get request.
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.
 - The status code and phrase returned from the server is HTTP/1.1 304 Not Modified. The server didn't return the contents of the file since the browser loaded it from its cache.

3. Retrieving Long Documents

12. How many HTTP GET request messages did your browser send? Which packet number in the trace contains the GET message for the Bill of Rights?
 - There was 1 HTTP GET request
13. Which packet number in the trace contains the status code and phrase associated with the response to the HTTP GET request?
 - There was 4 TCP segments for 1460, 1460, 1460 and 484 that total 4864
14. What is the status code and phrase in the response?
 - 200 OK
15. How many data-containing TCP segments were needed to carry the single HTTP response and the text of the Bill of Rights?
 - None

4. HTML Documents with Embedded Objects

16. How many HTTP GET request messages did your browser send? To which Internet addresses were these GET requests sent?
 - 4 HTTP GET requests (ignoring the favicon)
 - a. 128.119.245.12
 - b. 165.193.140.14
 - c. 128.119.240.90
 - d. 128.119.240.90
17. Can you tell whether your browser downloaded the two images serially, or whether they were downloaded from the two web sites in parallel? Explain.
 - A quick of the TCP ports can reveal if the files were downloaded serially or in parallel.
 - In my case they were serially

5. HTTP Authentication

18. What is the server's response (status code and phrase) in response to the initial HTTP GET message from your browser?
 - Status code: 401 , Phrase: Authorization Required
19. When your browser's sends the HTTP GET message for the second time, what new field is included in the HTTP GET message?
 - Authorization: Basic ZXRoLXN0dWRIbnRzOm5ldHdvcmtz\r\n