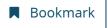


HKUSTx: ELEC1200.3x A System View of Communications: From Signals to Packets (Part 3)



- Pre-courseMaterials
- Topic 1: Course Overview
- ► Topic 2: The Link Layer
- Topic 3: The Network Layer
- ▶ Topic 4: Routing
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Topic 7: The Application Layer > 7.4 Lab 4 - Application Layer > Lab 4 - Task 2



In this task, we will download a very short HTML file that contains no embedded object in order to study the GET/response interaction between your browser and a web server.

- 1. Start your web browser. Make sure your cache is cleared.
- 2. Restart packet capture in Wireshark. If a pop-up dialog box appears, click "Continue without Saving".
- 3. Enter the following URL to your browser

http://hkustx-elec1200.ust.hk/3x_lab4/ELEC1200_3x_Lab4_Task2.htm

Your browser should display a very simple, one-line HTML file.

4. Stop Wireshark packet capture.

The packet-listing window should show the GET message (from your browser to the web server) and the response message from the server to your browser. The packet-contents window shows details of the selected message. As the HTTP message was carried inside a TCP segment, which was carried inside an IP datagram, which was carried within an Ethernet frame, Wireshark displays the Frame, Ethernet, IP and TCP packet information.

▼ Topic 7: The **Application Layer**

7.1 Application Layer

Week 4 Quiz due Feb 15, (d) 2016 at 15:30 UTC

7.2 Hypertext Transfer Protocol (HTTP)

Week 4 Quiz due Feb 15, 2016 at 15:30 UTC

7.3 Domain Name System (DNS)

Week 4 Quiz due Feb 15, 2016 at 15:30 UTC

7.4 Lab 4 - Application Layer

Lab due Feb 15, 2016 at 15:30 UTC

- ▶ Topic 8: Course Review
- MATI AB download and tutorials

Lab 4 Task 2 Question 1

(1/1 point)

What is the version of HTTP that the server using??

1.1 ▼

✓ Answer: 1.1

You have used 1 of 2 submissions

Lab 4 Task 2 Question 2

(1/1 point)

What is the IP address of the hkustx-elec1200.ust.hk server?

143.89.190.130 **▼**

Answer: 143.89.190.130

You have used 1 of 2 submissions

Lab 4 Task 2 Question 3

(1/1 point)

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

200 ▼



Answer: 200

You have used 1 of 3 submissions

Lab 4 Task 2 Question 4

(1/1 point)

What is the time difference between the time that the document was downloaded and the time that the document was Last-Modified

Within one minute ▼

✓ Answer: Within one minute

EXPLANATION

Under the packet header window under the details of the Hypertext Transfer Protocol for the response from the server, the "Date:" field shows the time the document was downloaded. The "Last-Modified:" field shows the time the document was last modified.

Remark: In your answer, you might have been surprised to find that the document you just retrieved was last modified within a minute before you downloaded the document! That is because (for this particular file), the web server is setting the file last-modified time to be the current time, and is doing so once per minute. Thus, if you wait a minute between accesses, the file will appear to have been recently modified, and your browser will download a "new" copy of the document.

You have used 1 of 2 submissions

Lab 4 Task 2 Question 5

(1/1 point)

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

39607 **Answer: 39607** 39607 You have used 1 of 3 submissions Lab 4 Task 2 Question 6 (1/1 point) Based on the "Time" column (in unit sec) in the packet-listing window, what is the time difference between the HTTP GET message and the HTTP response message? Within a few minutes ▼ **✓ Answer:** Within a few minutes You have used 2 of 2 submissions

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