# Exercise 3

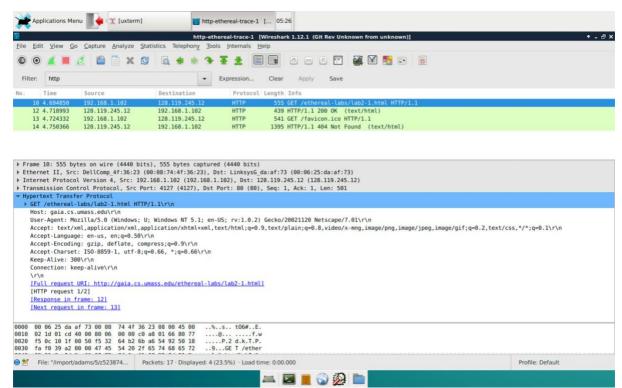


Figure 3.1

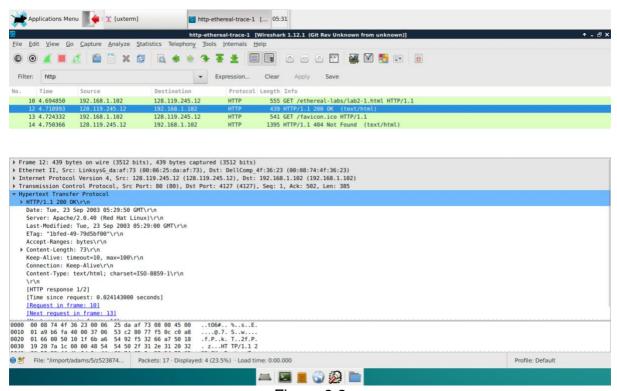


Figure 3.2

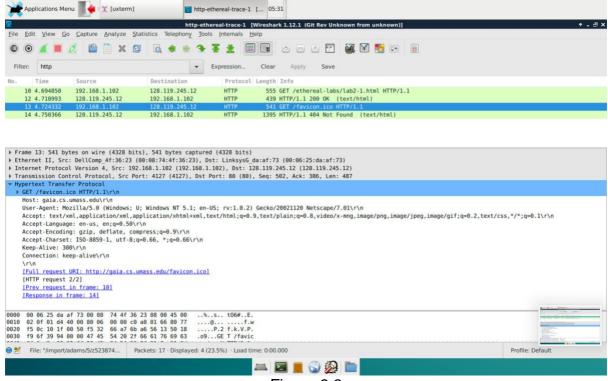


Figure 3.3

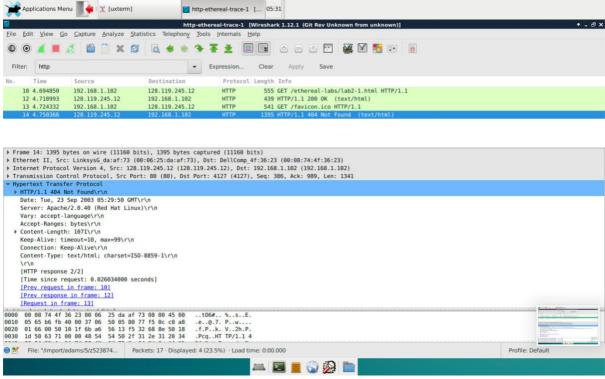


Figure 3.4

## Q1:

From figure 3.1 and figure 3.2, the status code and phrase returned from the server to the client browser is 200 and OK.

# Q2:

From figure 3.2, the HTML file that the browser is retrieving last modified at the server is Tue, 23 Sep 2003 05:29:00 GMT.

From figure 3.2, the response also contains a DATE header and the difference is that response has a DATE header, which shows the header line indicates the date and time that the server generated and sent the response message, and requests doesn't have a DATE header.

# Q3:

The connection established between the browser and the serve is persistent. Because from all of these figures, their connection is keep-Aliver.

# Q4:

From figure 3.2, according to the content-length, there are 73 bytes of content being returned to the browse.

# Q5:

From figure 3.2, according to the content-Type, the data contained inside the HTTP response packet is text/html.

## Exercise 4

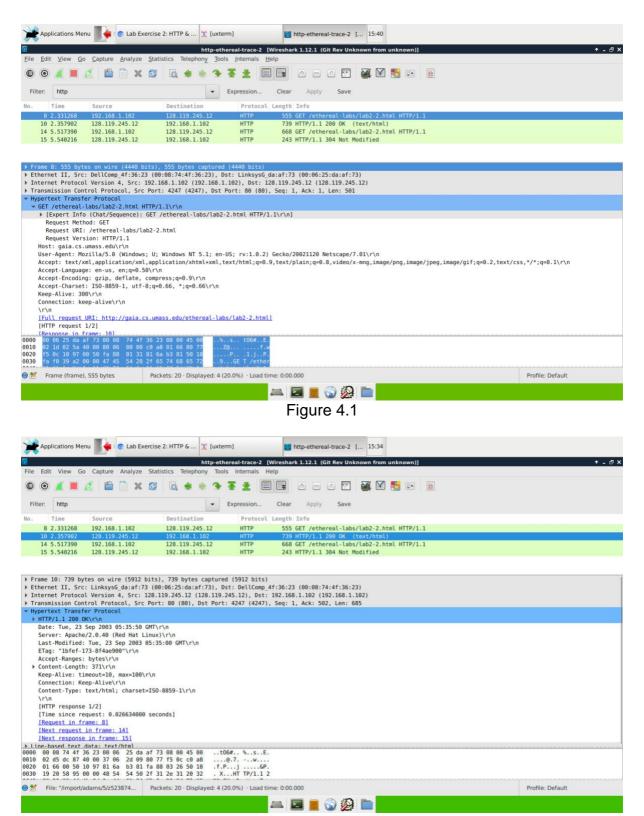


Figure 4.2

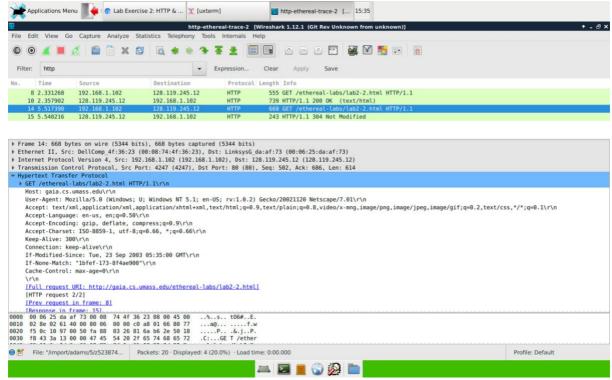


Figure 4.3

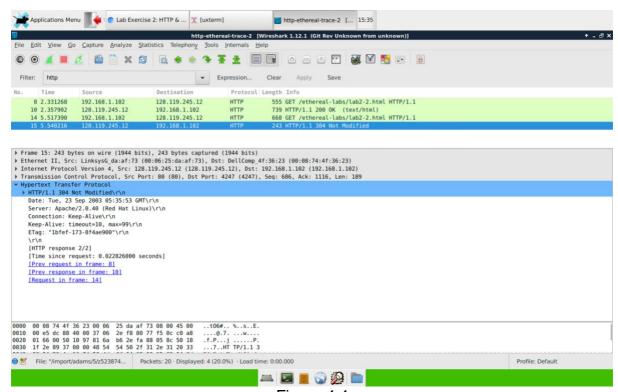


Figure 4.4

From the contents of the first HTTP GET request from the browser to the server. (figure 4.1). "IF-MODIFIED-SINCE" is not in line in the HTTP GET.

## Q2:

From the figure 4.2, the response indicates the last time that the requested file was modified. The Last-Modified time is Tue, 23 Sep 2003 05:35:00

## Q3:

From the figure 4.3, "IF-MODIFIED-SINCE:" and "IF-NONE-MATCH" lines are in the HTTP GET.

"IF-MODIFIED-SINCE:" indicates the day that the server have send response of The Last-Modified time in message, which means the day and the time of the modification of the object being request. The value equal to last modified time.

"IF-NONE-MATCH" contains a Etag, which shows an identifier for the resources

## Q4:

From the figure 4.4, the HTTP status code and phrase returned from the server in response to this second HTTP GET is 304 and Not modified.

The server doesn't explicitly return the contents of the file. Because 303 Not modified means the web cache can use this object and proxy server can sent it to client. If the server returns the contents of the file. It will waste wideband and increase the response time to the client.

## Q5:

From figure 4.4, the value of the Etag field in the 2nd response message is 1bfef -173-8f4ae900 and it is used to shows an identifier for the resources.

The value has not changed since the 1st response message was received.

#### Exercise 5

The report is figure 5.1



