**Lab 2**

**Exercise 3**

## Question 1: What is the status code and phrase returned from the server to the client browser?



* Status code: 200, phrase: OK

## Question 2: When was the HTML file that the browser is retrieving last modified at the server? Does the response also contain a DATE header? How are these two fields different?

* Last modified date is:



* Date header:



* Why different?

Last modified date is the last modified date and time of the requested object,

DATE is the date and time the response was originated

## Question 3: Is the connection established between the browser and the server persistent or non-persistent? How can you infer this?

* It is persistent. Since the ‘connection header’ show ‘keep-Alive’, which means the connection is persistent and not closed.



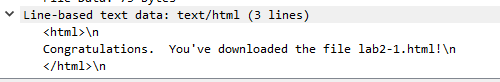
## Question 4: How many bytes of content are being returned to the browser?

* 73 bytes



## Question 5: What is the data contained inside the HTTP response packet?

* The data is



**Exercise 4**

## Question 1: Inspect the contents of the first HTTP GET request from the browser to the server. Do you see an “IF-MODIFIED-SINCE” line in the HTTP GET?

* No

## Question 2: Does the response indicate the last time that the requested file was modified?

* Yes



## Question 3: Now inspect the contents of the second HTTP GET request from the browser to the server. Do you see an “IF-MODIFIED-SINCE:” and “IF-NONE-MATCH” lines in the HTTP GET? If so, what information is contained in these header lines?

* Yes.
* The information is:



## Question 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.

* It is 304, Not modified



* Not, the server did return the content of the file. Status code 304 means there is no need to retransmit the requested resources. It is an implicit redirection to a cached resource. Since we have the header ‘IF-modified-Since’ and ‘If-None-Match’ in request, and the conditions is match, so the server just redirection to a cached resource, not need to retransmit.

## Question 5: What is the value of the Etag field in the 2nd response message and how it is used? Has this value changed since the 1 st response message was received?

* The ETag is:



ETag is an identifier for a specific version of a resource. Like ID

* The ETag values in 2nd and 1st response are the same, not change.