

Lab2

Exercise 3

Question 1:

The status code and phrase returned:

```
HTTP/1.1 200 OK\r\n
```

Question 2:

The last modified date of the HTML file been retrieved from the server:

```
Last-Modified: Tue, 23 Sep 2003 05:29:00 GMT\r\n
```

Yes, there is date header:

```
Date: Tue, 23 Sep 2003 05:29:50 GMT\r\n
```

The difference between these two fields:

The last-modified date is a field that contains the date and time the resource was last modified.

The date field is the data and time that the resource was created.

Question 3:

The connection established between the browser and the server is persistent; because in the header of the response there is a line has:

```
Keep-Alive: 300\r\n
```

```
Connection: keep-alive\r\n
```

Keep-alive connection is persistent connection.

Question 4:

There are 73 bytes of content are being returned to the browser:

```
Content-Length: 73\r\n
```

Question5:

```
Congratulations. You've downloaded the file lab2-1.html!\n
```

Exercise 4:

Question 1:

NO, in the content of the first HTTP GET request from the browser to the server, I did not see an "IF-MODIFIED-SINCE" line.

Question 2:

Yes, the response indicates the last time that the requested file was modified.

```
Last-Modified: Tue, 23 Sep 2003 05:35:00 GMT\r\n
```

Question 3:

Yes, in the content of the second HTTP GET request from the browser to the server, I do see an "IF-MODIFIED-SINCE" and "IF-NONE-MATCH" line.

```
If-Modified-Since: Tue, 23 Sep 2003 05:35:00 GMT\r\nIf-None-Match: "1bfef-173-8f4ae900"\r\n
```

"IF-MODIFIED-SINCE": it provides the date that the resource's last modification and it allow a 304 NOT MODIFIED to be returned if content is unchanged.

"IF-NONE-MATCH": it checks whether the resource matches and it allows a 304 NOT MODIFIED to be returned if the content is unchanged.

Question 4:

The status code and phrase returned:

```
HTTP/1.1 304 Not Modified\r\n
```

No, the server did not explicitly return the contents of the file.

Because there is no line-based data shown as below in the wireshark; besides, it should not return any content since the resource is NOT MODIFIED.

Question 5:

The value of the e-tag is:

```
ETag: "1bfef-173-8f4ae900"\r\n
```

It is an identifier for a specific version of a resource, often a message digest.

It does not change since the 1st response message was received; because they are refer to the same resource.

