

Handout #9 — CS 471

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Contents

1 Questions

2

1 Questions

1. What is the general structure of the HTTP response message?

```
HTTP/1.1 200 OK
Access-Control-Allow-Origin: *
Connection: Keep-Alive
Content-Encoding: gzip
Content-Type: text/html; charset=utf-8
Date: Wed, 10 Aug 2016 13:17:18 GMT
Etag: "d9b3b803e9a0dc6f22e2f20a3e90f69c41f6b71b"
Keep-Alive: timeout=5, max=999
Last-Modified: Wed, 10 Aug 2016 05:38:31 GMT
Server: Apache
Set-Cookie: csrftoken=.....
Transfer-Encoding: chunked
Vary: Cookie, Accept-Encoding
X-Frame-Options: DENY
```

(body)

Response headers
Representation headers
General headers

- More information can be found [here](#)

2. What are the four basic components of a cookie system?

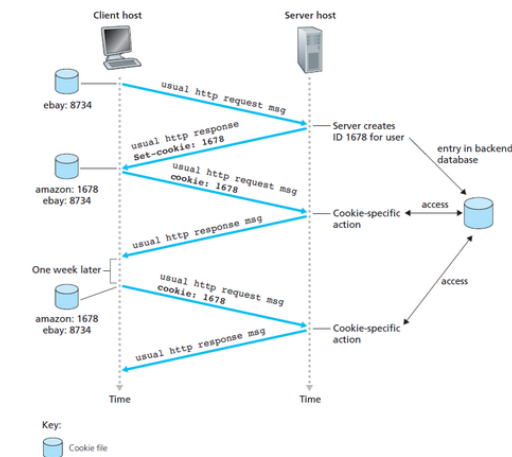


Figure 2.10 • Keeping user state with cookies

- A cookie header line in the HTTP response message
 - A cookie header line in the HTTP request message
 - A cookie file kept on the user's end system and managed by their browser
 - Back-end database at the website
3. Give an example of how web proxies can cheaply speed up internet access
 - Cached data can be quickly dished out to the client and the server does not need to query the destination
 4. Explain how the "If-modified-since" field is used

- It is used to dish out content only if the source material has been altered after a given date. This can be used in conjunction with a proxy server to speedup internet access and information retrieval.
5. FTP control connection is said to be “out-of-band”. What does this mean?
- FTP uses two sockets; one for data transfer and the other to issue commands such as directory changes or file mode changes.
 - The use of the second socket constitutes it’s name “out-of-band”
6. Compare HTTP and FTP
- HTTP is mainly used for static pages with simple text and images. FTP can support file transfers and interaction with the host file system.
7. Give a sequence of FTP commands for retrieving the file “file.txt” from the FTP server. You may assume any username and password.

```
USER username
PASSWORD password
RETR file.txt
```

8. Is FTP stateful or stateless?
- The FTP connection will maintain state, as it needs to know which directory it is in, prior authentication, etc.