Handout #9 — CS 471

Jared Dyreson
California State University, Fullerton

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1 Questions

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

   - More information can be found <u>here</u>

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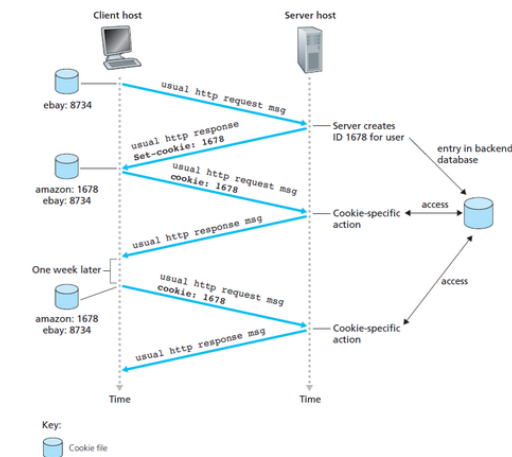

Figure 2.10 ◆ Keeping user state with cookies

   - 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.