URL request processing:-

In an extremely rough and simplified sketch, assuming the simplest possible HTTP request, no proxies and IPv4 (this would work similarly for IPv6-only client, but I have yet to see such workstation):

1. browser checks cache; if requested object is in cache and is fresh, skip to #9
2. browser asks OS for server's IP address
3. OS makes a DNS lookup and replies the IP address to the browser
4. browser opens a TCP connection to server (this step is much more complex with HTTPS)
5. browser sends the HTTP request through TCP connection
6. browser receives HTTP response and may close the TCP connection, or reuse it for another request
7. browser checks if the response is a redirect (3xx result status codes), authorization request (401), error (4xx and 5xx), etc.; these are handled differently from normal responses (2xx)
8. if cacheable, response is stored in cache
9. browser decodes response (e.g. if it's gzipped)
10. browser determines what to do with response (e.g. is it a HTML page, is it an image, is it a sound clip?)
11. browser renders response, or offers a download dialog for unrecognized types

Networking-

Different layers

VPN,- router

MPLS,- router

Firewall

proxy server

Protocol- TCP, UDP

packet timeout

**cookies** store information on the client-side (browser) and **sessions** store information on the server-side.

**Cookies** are stored in browser as a text file format.It is stored limit amount of data. we can accessing the cookies values in easily.So it is **less secure**.

**Sessions** are stored in server side.It is stored unlimit amount of data.It is holding the multiple variable in sessions. we cannot accessing the cookies values in easily.So it is **more secure**.

1. **Cookie is used to store information to track different characteristics related to user, while cache is used to make the loading of web pages faster.**
2. **cookies expire after some time, but cache is kept in the client's machine until they are removed manually by the user.**

Web front- Front end of application

Application server- services to fetch data from database (search, reports)

Database server- All submitted data is stored.

Load balancer to sync data between multiple database (clustering take place- data gets copied at real time to all db’s)