Welcome to GitHub Pages

Temporary While I figure out how to add a nav bar.

Week 3 Lecture 2

HTTP (HyperText Tranfer Protocol)

Web Terminology

- Webpage (document): Consists of objects

- Objects: files (html, jpeg, mp3, mp4 etc) that are addressable by a single url.

- If a web page contains html text and five images, then the webpage has 6 objects

- http://www.someschool.edu/someDepartment/picture.gif

- www.someschool.edu : the hostname

- /someDepartment/picture.gif : path name

- Web browsers implement the client side of HTTP (so web browser = client)

- Socket: Acts like a door between the client process and the TCP or UDP etc connection. Also door between the server and the TCP connection.

- HTTP is implemented in two programs: The Client and the Server. They communicate with each other through HTTP messages. HTTP defines the structure of these messages.

- User requests a web page, browser sends HTTP request message for the objects on a webpage, server receives the requests and responds with a HTTP response message containing the objects.

- The client and server send the HTTP requests and responses into their socket information.

- Since TCP provides reliable data transfer service to HTTP, the request or response will eventually arrive intact on the other side without needing to worry about it.

- HTTP is a stateless protocol as it maintains no information about clients. e.g. If a client request the same objects again after a couple seconds the server will resend the entire object without remembering it already did that a second ago.

Non-Persistent and Persistent Connections

Usually a client and server are connected for a long period of time, and the client often makes a lot of requests to the server etc. The series of requests may be made back-to-back, periodically or intermittently (it depends on the application). The application developer needs to make the decision about whether each request/response is sent over different TCP connections or over the same one?

- non-persistent connections: Each request/response is sent over a different TCP or UDP connection.
- persistent connections: Each of them are sent over the same connection.

Non-Persistent