Techtonic Group Pre-Work: Technical Writing Assignment

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How the Web Functions

When we type a URL in the address bar of our favorite browser and hit go, there are a great number of actions that take place behind the scenes that all play a part in getting us what we are seeking. By entering https://www.techtonicgroup.com, we're telling our browser that we would like to communicate with a remote server via HTTP (Hypertext Transfer Protocol), sort of like our language. Our browser looks this specific URL up in the DNS (domain name system) in order to find the corresponding IP address which is a unique identifier for the server we're trying to reach. Once we have the correct IP address, the browser sends an HTTP request to the server. At this point, the server may check to see if we have the proper credentials for access. Since this is a dynamic website, the server will send this request along to the web application which will pull information from it's connected database as necessary. The web application will send us an HTTP response containing the webpage we're trying to access. The data that is sent is actually broken down and transmitted via small chunks called packets. Once this data is received on our end, the browser reassembles the data chunks and then parses/reads the content and displays the webpage appropriately; in this case, the homepage or directory for www.techtonicgroup.com. The files are not stored on our local machine, but rather are only displayed while we are navigating the site and updated from the server as necessary. The time it takes for this whole process to take place is called "runtime".

- Our browser renders HTML that is received from the server and formats the HTML with any CSS that is sent along as well.

- Server-side code's main function is to deliver content.
- Client-side code's main function is to run/display a rendered page.
- As far as I can tell, one instance of each client-side asset is created each time we get our response from the server.
- Also, as far as I can tell, there is only one instance of server-side code files. These same files can be sent to multiple clients' browsers.
- I believe there is also one instance of each DB that is connected to the server/web app. Each time the server sends the http response containing the webpage information, it will first call upon the database(s) to include any necessary content that is stored there.

Sources:

http://www.20thingsilearned.com/en-US/home

https://marksheet.io/web.html

https://developer.mozilla.org/en-US/docs/Learn/Server-side/First_steps/Client-Server_overview

http://www.techtonicgroup.com/

https://developer.mozilla.org/en-US/docs/Learn/Server-side/First_steps/Introduction