Technical Writing Assignment

- When we hit https://www.techtonicgroup.com/ what happens? Don't focus too much on architecture (Monolithic, SOA, Microservices, etc.). Try to focus more on how the web functions.

The URL is made up of a scheme, and a hostname. HTTP is the scheme, and "www.techtonicgroup.com" is the hostname. When I click on the link, I am directed to the Techtonic Group website. The computer makes a connection to the server that contains data, and sends a request for that data. Then the data is received back again. The data responds to the URL.

- From start to finish how does that data reach you to be rendered in the browser?

The first step would be to type a URL into the address bar, and that forms an HTTP request. Once the browser receives data from the server, it starts parsing the HTML, creating a Document Object Model (DOM). Styles are loaded, and then form the CSS Object Model (CSSOM). A rendering tree is then created, and sets objects to be rendered. The render tree describes the visual representation of a DOM. A layout is then created. The final step is a process called "painting", and is displayed in the browser window.

- What code is rendered in the browser?

Different codes that are rendered in the browser are HTML, CSS, and Javascript. HTML makes up things such a font, color, or a graphic on a page. CSS is the layout and style of a webpage. Javascript is used for dynamics and interactive activity.

- What is the server-side code's main function?

The server-side code's main function is to send a document back over to the user. Operations formed by the server and the client are performed server-side because they require access to information that is not available to the client. The client makes a request to the server, then the web server processes a script. That content is returned to the browser, then rendered.

- What is the client-side code's main function?

The client-side main function is to run a script. Client-side code is scripting that happens in the browser on the client's computer. A program such as Javascript then delivers that information to the browser on the computer. The computer will then be able to run the script.

- How many instances of the client-side assets (HTML, CSS, JS, Images, etc.) are created?

When having an instance you have a specific set of data matching the attributes of a class. The number of instances vary based on the runtime of a program

- How many instances of the server-side code are available at any given time?

Similar to client-side instances, the number of instances vary based on the runtime of a program.

- What is runtime?

Runtime is the amount of time when a program is running. It starts when a program is opened and ends when the program is closed.

- How many instances of the the databases connected to the server application are created?

Based on my research, server databases are ran by a single server. You can view and control each individual instance that you are running in your service console.