**Difference between HTTP1.1 and HTTP2:**

**HTTP1.1:**

When a user or client request a Http1.1 data to a server by using GET method in response the server sends the resource page back to the client. Not all of the resources are returned to the client in the first call for data. The requests and responses will go back and forth between the server and client until the web browser has received all the resources necessary to render the contents of the HTML page on your screen. While inlining a resource it increases the size of the HTML document for non text files which will eventually increase the latency of the process.

**HTTP2:**

Developed to reduce the web page low latency, by using concepts like Binary farming layer that is to cut the information into smaller packets of information to increase the flexibility of data transfer, and stream prioritizing that is to give weight to each data to ensure which data performs first and so on. Using server push method inlining resource mechanism can be done without latency

**History of World Wide Web:**

HTTP was invented in the year 1991 on August 6th by Tim Berners Lee.

First version of HTTP was called as no version or HTTP0.9 which is a one line protocol

Next version is HTTP1.0 which increased the extensibility.

Next version is HTTP1.1 which is a standardized protocol for 15 years.

Next version is HTTP2 build for a greater performance from the previous version.

Upcoming version is HTTP3 which will use QUIC instead of (transmission control protocol)TCP.

**Difference between js and node js**

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| --- | --- |
| JavaScript is a programming language. It running in any web browser with a proper browser engine. | It is an interpreter and environment for JavaScript with some specific useful libraries which JavaScript programming can use separately. |
| Mainly using for any client-side activity for a web application, like possible attribute validation or refreshing the page in a specific interval or provide some dynamic changes in web pages without refreshing the page. | It mainly used for accessing or performing any non-blocking operation of any operating system, like creating or executing a shell script or accessing any hardware specific information or running any backend job. |
| JavaScript running any engine like Spider monkey (FireFox), JavaScript Core (Safari), V8 (Google Chrome). | Node JS only run in a V8 engine which mainly used by google chrome. And javascript program which will be written under this Node JS will be always run in V8 Engine. |
| JavaScript is normally following java programming language, standard. There may have some different way of writing code but at the same time, we can say it following Java Programming language standard. | Node JS is written in C++, and provide V8 engine base browser javascript running engine which helps us to run written javascript program in any browser environment. |
| For accessing any operating system specific non-blocking task JavaScript has some specific object but all of them are operating system specific. An example is ActiveX Control which is only running in Windows. | Node JS is given utility to run some operating system specific non-blocking tasks from any JavaScript programming. It doesn’t have any operating system specific constant. Node JS is very much familiar to create a specific binding with the file system, and also allowing developer for reading or sometimes write on disk. |

**What happens when you type a URL in web browser:**

The URL is first initially transferred into a IP address through DNS(domain name server)

Since it is a http call it has to follow the protocols of TCP(Transmission control protocol)

After this we will get the server response.

After the server response it will pass the html document it will pass the css style sheet and once it is passed the DOM tree and SOM tree is formed.

After which rendering tree or Layout tree is formed. And proceed to that the painting process will happen.

In the painting process all the information will be converted into the webpage.