Http1 vs http2

Developed by Timothy Berners-Lee in 1989 as a communication standard for the World Wide Web, HTTP is a top-level application protocol that exchanges information between a client computer and a local or remote web server. In this process, a client sends a text-based request to a server by calling a *method* like `GET` or `POST`. In response, the server sends a resource like an HTML page back to the client.

while HTTP/1.1 transfers these in plain-text messages, HTTP/2 encodes these into binary, allowing for significantly different delivery model possibilities.

http\1
The first response that a client receives on an HTTP `GET` request is often not the fully rendered page. Instead, it contains links to additional resources needed by the requested page.

Http\2
In HTTP/2, the binary framing layer encodes requests/responses and cuts them

into smaller packets of information, greatly increasing the flexibility of data tra

Http version history

HTTP (HyperText Transfer Protocol) is the underlying protocol of the World Wide Web. Developed by Tim Berners-Lee and his team between 1989-1991, HTTP has seen many changes, keeping most of the simplicity and further shaping its flexibility. HTTP has evolved from an early protocol to exchange files in a semi-trusted laboratory environment, to the modern maze of the Internet, now carrying images, videos in high resolution and 3D.

Tim Berners-Lee wrote a proposal to build a hypertext system over the Internet. Initially calling it the *Mesh*, it was later renamed to *World Wide Web* during its implementation in 1990. Built over the existing TCP and IP protocols, it consisted of 4 building blocks:

- A textual format to represent hypertext documents, the *HyperText Markup Language* (HTML).
- A simple protocol to exchange these documents, the *HypertText Transfer Protocol* (HTTP).
- A client to display (and accidentally edit) these documents, the first Web browser called *WorldWideWeb*.
- A server to give access to the document, an early version of *httpd*.
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Differences in nodeJs and browserJs

1.	Javascript is a programming language that is used for writing scripts on the website.	NodeJS is a Javascript runtime environment.
2.	Javascript can only be run in the browsers.	NodeJS code can be run outside the browser.

3.	It is basically used on the client-side.	It is mostly used on the server-side.
4.	Javascript is capable enough to add HTML and play with the DOM.	Nodejs does not have capability to add HTML tags.
5.	Javascript can run in any browser engine as like JS core in safari and Spidermonkey in Firefox.	Nodejs can only run in V8 engine of google chrome.
//6.	Javascript is used in frontend development.	Nodejs is used in server-side development.
//7.	Some of the javascript frameworks are RamdaJS, TypedJS, etc.	Some of the Nodejs modules are Lodash, express etc. These modules are to be imported from npm.

/	It is the upgraded version	
/	of ECMA script that uses	Nodejs is written in C, C++
8	Chrome’s V8 engine	and Javascript.
.	written in C++.	

** what happens when you type url in brower -

1.Browser checks cache for DNS entry to find the corresponding IP address of the website. It looks for the following cache, If not found in one It continues checking to next until found. - Browser cache, -OS Cache, Router Cache, ISP Cache.

2.If not found in cache, ISP’s DNS server initiates a DNS query to find IP address. The requests are send in small pockets that contains information content of request & IP address.

3.Browser initiates the TCP connection with server using Synchronize(SYN) and acknowledge (ACK) message.

4.Browser sends a HTTP request to server. GET or POST request.

5.Server on the host computer handles the request and sends back response in some format like JSON,XML and HTML.

6.Server sends out an HTTP response along with status response.

7.Browser display HTML content.

8.Finally done.