**HTTP 1.1 vs HTTP 2**

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Welcome to my blog. I thought of explaining the difference between HTTP 1.1 vs HTTP 2 in this blog in a simple way and easy to understand and light note of next version HTTP 3.

**What is HTTP?**

It is nothing but 'Hypertext Transfer Protocol', used to transmit hypermedia documents like HTML files. It helps exchanging files on the web.

**What is HTTP 1.1?**

* It is version of hypertext transfer protocol.
* It provides faster delivery of html pages than original version of HTTP and reduces web traffic.
* Every single request and response there is TCP connection established between client and server.
* It transfers all requests and responses in the plain text message form.
* All the information related to header file is repeated in every request.

**What is HTTP 2?**

* HTTP 2 is major revision of HTTP. It is also referred as HTTP 2.0
* It is used to send multiple requests and receive multiple responses. This approach reduces additional time that it takes to establish a new connection to server for each requests.
* It significantly improves both site performance and server efficiency.
* It works on binary framing layer instead of textual. It converts all the messages in binary format.
* Single TCP connection is used for multiple requests.
* It uses HPACK to split data from header.
* Server sends required JS and CSS files without request of the client using the PUSH frame.

**Difference between HTTP 1.1 vs HTTP 2.0?**

* HTTP 1.1 works on textual format whereas HTTP 2 works on the binary protocol
* There is head of line blocking that blocks all the requests behind it until it doesn't get its all resources by HTTP 1.1 but in HTTP 2, using multiplexing, one TCP connection is required for multiple requests.
* HTTP 1.1 uses requests resource in lining for getting multiple pages unlike HTTP 2 as it uses PUSH frame by server that collects all multiple pages.
* HTTP 2 uses HPACK for data compression but HTTP 1.1 compresses data by itself.

**What is HTTP 3?**

* It is next proposed version of the HTTP.
* It is not adopted widely yet
* Key difference between HTTP 3 with previous versions of the protocol is HTTP 3 runs over QUIC protocol instead of TCP.
* QUIC is faster and more secure transport layer protocol.