**Blog on difference between HTTP1.1 and HTTP2**

Hypertext Transfer Protocol (HTTP) is an application protocol that is, currently, the foundation of data communication for the World Wide Web.

The first usable version of Introduction of HTTP was created in 1997. Because it went through several stages of development, this first version of HTTP was called HTTP1.1. This version is still in use on the web. In 2015, a new version of HTTP called HTTP2 was created.

* HTTP1.1 loads resources one after the other, so if one resource cannot be loaded, it blocks all the other resources behind it. In contrast, HTTP2 is able to use a single TCP connection to send multiple streams of data at once so that no one resource blocks any other resource.

**HTTP1.1:** For better understanding, let’s assume the situation when you make a request to the server for the welcome (https://www.guvi.com) page & server responds to you as a resource welcome (https://www.guvi.com) page. Before sending the request and the response there is a TCP connection established between client & server. Again you make a request to the server for image img.jpg & the server gives a response as an image img.jpg. The connection was not lost here after the first request because we add a keep-alive header which is the part of the request so there is an open connection between the server & client. There is a persistent connection which means several requests & responses are merged in a single connection. These are the drawbacks that lead to the creation of HTTP2: The first problem is HTTP1.1 transfer all the requests & responses in the plain text message form. The second one is head of line blocking in which TCP connection is blocked all other requests until the response does not receive. All the information related to the header file is repeated in every request.

**HTTP2:** HTTP2 was developed over the SPDY protocol. HTTP2 works on the binary framing layer instead of textual that converts all the messages in binary format. It works on fully multiplexed that is one TCP connection is used for multiple requests. HTTP2 uses HPACK which is used to split data from header. It compresses the header. The server sends all the other files like CSS & JS without the request of the client using the PUSH frame.

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

**HTTP1.1:**

* It works on the textual format.
* There is head of line blocking that’s blocks all the requests behind it until it doesn’t
* Get it all resources.
* It uses requests resource Inlining for use getting multiple pages.
* Its compresses the data by itself.

**HTTP2:**

* It works on the binary protocol.
* It allows multiplexing so one TCP connection is required for multiple requests.
* It uses PUSH frame by server that collects all multiple pages
* It uses HPACK for data compression.