Write a blog on Difference between HTTP1.1 vs HTTP2

# INTRODUCTION

* HTTP stands for hypertext transfer protocol & it is used in client-server communication.
* By using HTTP user sends the request to the server & the server sends the response to the user.
* There are several stages of development of HTTP but we will focus mainly on HTTP/1.1 which was created in 1997 & the new one is HTTP/2 which was created in 2015.

HTTP1.1

* For better understanding, let’s assume the situation when you make a request to the server for the geeks for geeks.
* Html page & server responds to you as a resource geeksforgeeks.html page.
* Before sending the request and the response there is a TCP connection established between client & server.
* 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 HTTP/2: The first problem is HTTP/1.1 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.

HTTP/ 2

* HTTP/2 was developed over the SPDY protocol.
* HTTP HTTP/2 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.
* HTTP/2 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.

## HTTP1.1 VS HTTP/2

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| HTTP1.1 | HTTP/2 |
| It works on the textual format. | It 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. | It allows multiplexing so one TCP connection is required for multiple requests. |
| It uses requests resource Inlining for use getting multiple pages | It uses PUSH frame by server that collects all multiple pages |
| It compresses data by itself | It uses HPACK for data compression. |