**HTTP1.1 vs HTTP2.0**

**INTRODUCTION TO HTTP**

* For a simple introduction HTTP (HyperText Transfer Protocol) is a client server protocol which is used to fetch data from the server .The protocol is mainly used to exchange files such as HTML documents in early stages .
* HTTP was  developed by Tim Berners-Lee and his team between 1989-1991.Over the years HTTP versions has been evolved by different versions. Lets look at the evolutions of HTTP versions .

**EVOLUTION OF HTTP VERSIONS**

* HTTP/0.9 - 1991
* HTTP/1.0 - 1996
* HTTP/1.1 - 1997
* HTTP/2.0 - 2015
* HTTP/3.0 - 2019

**Difference between HTTP 1.1 and HTTP 2.0**

**HTTP 1.1**

* It Is the 1st standardized communication protocol for the world wide web developed by Tim Berners Lee in 1991.
* In this protocol a client should send a text based request to a server by GET or POST method and the the server send a data in HTML format back to the client or browser.
* It keeps all the request and responses in a plain text format where HTTP 2.0 is a binary protocol which th requests are in binary commands for security ,compression and multiplexing.
* In 1.1 version, the client had to break and remake the tcp connection with every new request a costly affair in terms of both time and resources.
* In this version ,flow control relies on the underlying TCP connection.
* In case if the resources cant be loaded ,it blocks all the upcoming resources as it loads resources one after another .

**HTTP 2.0**

* HTTP 2.0 was established in 2015 ,it was the major update since 1997 to make them faster and more secure .
* The major advantage for this update is to improvise speed and security over HTTP 1.1
* HTTP 2.0 is a binary protocol ,instead of textual meaning it is more compact and travel faster on the wire .
* It is fully multiplexed as it send multiple requests between browers and servers at the same time over a single TCP connection.
* It allows servers to push responses proactively into browser caches instead of waiting for a new request for each resources . by doing this the server speculatively sends data which it anticipates the browser needs.
* It reduces additional round trip times which means the websites load faster than the older version with less optimization.

**SOME MAJOR DIFFERENCE BETWEEN HTTP1.1 VS HTTP2.0**

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| **HTTP1.1** | **HTTP2.0** |
| * Slower | * Faster than HTTP1.1 |
| * It load single request for every TCP connection. | * Loads multiple request from a single TCP connection to avoid network delay |
| * textual | * binary |
| * less secure than HTTP2.0 | * more secure than HTTP 1.1 |