**Difference between HTTP1.1 vs HTTP 2**

**What is HTTP, HTTP1.1 and HTTP2?**

**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.

**Why there is a difference between HTTP1.1 and HTTP2?**

HTTP 1.1 uses plain text to encode and transmit data. Though it is easy for humans to read and understand the data, it can be less efficient than a binary protocol. HTTP 2 uses a series of binary codes to encode and transmit data rather than plain text.

**Other major difference between HTTP1.1 and HTTP2:**

**Multiplexing:** HTTP/1.1 loads resources one after the other, so if one resource cannot be loaded, it blocks all the other resources behind it. In contrast, HTTP/2 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.

**Server push:**  Typically, a server only serves content to a client device if the client asks for it. However, this is not always practical for modern webpages, which often involve several dozen separate resources that the client must request. HTTP/2 solves this problem by allowing a server to "push" content to a client before the client asks for it.

**Header compression:**  Small files load more quickly than large ones. To speed up web performance, both HTTP/1.1 and HTTP/2 compress HTTP messages to make them smaller. However, HTTP/2 uses a more advanced compression method called HPACK that eliminates redundant information in HTTP header packets.

**HTTP1.1 vs HTTP2:**

| **HTTP/1.1** | **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. |