**HTTP 1.1 VS HTTP 2**

* HTTP (Hypertext Transfer Protocol) is the set of rules for transferring files such as text, images, sound, video and other multimedia files over the web and it is used in client-server communication
* In this user sends the request to the server and the server sends the response to the user.
* HTTP is an application protocol that runs on top of the TCP/IP suite of protocols, which forms the foundation of the internet

**HTTP 1.1**

* Version 1.1 was released in 1997 and became the Internet Standard
* HTTP is a top-level application protocol that exchanges information between a client computer and a local or remote web server
* This version added many performance enhancements, including keep alive connections, caching mechanisms, request pipelining, transfer encodings, and byte-range requests
* HTTPS is the use of Secure Sockets Layer (SSL) or Transport Layer Security (TLS) as a sublayer under regular HTTP application layering
* A client sends a text-based request to a server by calling a method like GET or POST.
* HTTP 1.1 works on the textual format
* It compresses data by itself.
* In response, the server sends a resource like an HTML page back to the client.
* It uses requests resource In lining for use getting multiple pages
* When you navigate to the URL, the web browser on your computer sends an HTTP request in the form of a text-based message

**HTTP Requests:**

This is when a client device, such as an internet browser, asks the server for the information needed to load the website. The request provides the server with the desired information it needs to tailor its response to the client device.

1. URL
2. HTTP method
3. HTTP request headers
4. HTTP body

**HTTP Responses:**

The HTTP response message is the data received by a client device from the web server. As its name suggests, the response is the server's reply to an HTTP request. The information contained in an HTTP response is tailored to the context the server received from the request

1. Status code[200,300,401,403,404,500]
2. Response headers

**HTTP 2.0**

* HTTP/2 is a major revision of the HTTP network protocol used by the World Wide Web
* HTTP/2 is based on Google’s SPDY Protocol (originally designed to speed up the serving of web pages)
* It was released in 2015 by the Internet Engineering Task Force (IETF)
* HTTP/2 is defined both for HTTP URIs and HTTPS URIs
* It Maintains high-level compatibility with HTTP/1.1 (for example with methods, status codes, URIs, and most header fields)
* Decrease latency to improve page load speed in web browsers
* 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 and It uses HPACK for data compression
* The server sends files like CSS & JS without the request of the client using the PUSH frame

**The key difference between HTTP 2.0 over HTTP 1.1**

* It is binary instead of textual
* It is fully multiplexed, instead of ordered and blocking
* It can use one connection for parallelism
* It uses header compression to reduce overhead
* It allows Server Pushing to add responses proactively into the Browser cache