The Hypertext Transfer Protocol, or HTTP, is an application protocol that has been the de facto standard for communication on the World Wide Web since its invention in 1989.

HTTP1.1

1. Published in 1997.
2. Head of line Blocking [Pipelining]– As multiple requests are sent in the same connection takes longer return as it needs to wait for the all requests to complete.
   1. If any one request fails all subsequent connection in the same connection get impacted.
3. To prevent the above challenge, we can use Concatenating, Inlining etc.
4. Redundancy in Request Header.
5. To keep loading at an acceptable level, browsers keep multiple TCP connection to the same server and send requests to the server in parallel.

HTTP/2

1. Published in 2015, it introduced HTTP Streams where multiple streams of requests are send to the same server on a single TCP connection.
2. Unlike in HTTP1.1, each stream is independent of each other, and it doesn’t need to be send/received in order.
3. It prevents the Head of line Blocking [Pipelining] in the application layer.
4. Allows to compress HTTP Headers. Compression works at the connection level, so that headers can be shared among requests.
5. HTTP/2 introduces a Push capability allowing the Servers to send updates to the client whenever new data is available with that requiring a client to pull.