**Task 1, Day 1**

**Date 6th Jan 2021**

**HTTP version history**

* The HTTP was invented by Tim Berners Lee in 1991. The first version of HTTP has only one method named as GET method, which would request a page from a server.TT
* On August 6th 1991, Tim Berners-Lee's post on the public alt.hypertext newsgroup is now considered as the official start of the World Wide Web as a public project.
* The HTTP protocol used in those early phases was very simple, later dubbed HTTP/0.9, and sometimes as the one-line protocol.

**Version of HTTP**

1. **HTTP/0.9 – One- line protocol**
   * HTTP/0,9 is very simple, request consist of single line, and the default method used in HTTP/0.9 is GET method followed by the path of the resource.
   * The response was also simple, it only had file which was requested.
   * In HTTP/0.9 only HTML files can be transferred, not other type of documents.
   * There was no status or error details were shown in case of a problem. a specific HTML file was sent back with the description of the problem contained in it, for human consumption.
2. **HTTP/1.0 – Building extensibility**
   * + HTTP/0.9 was very limited and both browsers and servers quickly extended it to be more versatile.
     + HTTP header is introduced at both request and response end.
     + With the help of HTTP header, now we can able to transfer other document types rather than HTML files.
3. **HTTP/1.1 – The Standardized protocol**
   * + The first standardized version of HTTP, HTTP/1.1 was published in early 1997, only a few months after HTTP/1.0.
     + In HTTP/1.1 the resource path can be saved and reused or reopened may times to display the resource document.
     + User can send 2nd request before the result of first request is fully transmitted to user.
     + Latency of communication is lesser compare to previous versions.
     + Cache controlled Mechanism is introduced in HTTP/1.1.
     + Since HTTP1.1 is extremely stable, this protocol has been used more than 15 years.
4. **HTTP/2 – A protocol for greater performance**
   * + HTTP/2 officially standardized in May 2015.
     + HTTPS/2 protocol is a binary protocol rather than text. It can no longer be read and created manually.
     + It is a multiplexed protocol. Parallel request can be handled over the same connection, removing the order and blocking constraints of the HTTP/1.x protocol.
     + It compresses headers. As these are often similar among a set of requests, this removes duplication and overhead of data transmitted.
     + It allows a server to populate data in a client cache, in advance of it being required, through a mechanism called the server push.
5. **HTTP/3 – HTTP over QUIC**
   * + The next major version of HTTP, HTTP/3, will use QUIC instead TCP/TLS for the transport layer port.