**HTTP Version History:**

* HTTP 0.9 (1991)
* HTTP 1.0 (RFC 1945, May 1996)
* HTTP 1.1 (RFC 2068 Jan 1997, RFC 2616 June 1999)
* RFC 7230-7235 (June 2014)
* HTTP 2 (RFC 7540 May 2015)

- HTTP is a stateless communications protocol and servers do not keep information about client’s in-between requests.

* HTTP provides support for other functionalities such as:
* Cache control
* Content media type (MIME) Specification
* Language and character set specification

**HTTP Resource Addressing**

* HTTP resources are identified using URLs (RFC 3986)
* Scheme (http or https)
* Authority is a user information or authentication credentials
* Domain name (resolved to an IP address using) of the server where the resource resides

**HTTP Request Message**

Request Line

* Method
* Request Target
* Protocol version

**HTTP Response Message**

**Status Line:**

* Protocol version
* Status code
* Reason Phrase

**Message Headers:**

* General Header Fields
* Request Header Fields
* Entity Headers Fields
* Response Header Fields

**Standard Methods:**

GET – acquire Resource

HEAD – identical to GET. Retrieve metadata

POST– HTML form data, data is too long so use this

DELETE – remove resource

OPTIONS – communications available for the resource

TRACE – request a remote, loop-back, response

CONNECT – establish tunnel between server and client.

* Encryption

**Method Properties:**

Safe Methods

* Read-only
* GET, HEAD, OPTIONS, TRACE
* No change of state on the origin server

Idempotent Methods

* Intended effect on the server of multiple
* GET, HEAD, OPTIONS, TRACE, PUT, DELETE
* Same as the effect of a single request
* Change in server with confirmation