

HTTP Request

When you type a URL in address bar, your browser sends a HTTP request to the web server and it looks like

- ❖ **Part1.** A request lines
- ❖ **Part2.** Zero or more header (General | Request | Entity) fields
- ❖ **Part3.** An empty line [indicating the end of the header fields]
- ❖ **part4.** optionally a message-body

For ex: Through GET/POST method

(Request Line)

Method Request URI HTTP-version

GET https://www.linkedin.com/ HTTP/2.0

POST /cgi-bin/process.cgi HTTP/1.1

Method: There could 8 methods available

POST, GET, DELETE, HEAD, CONNECT, PUT, OPTIONS, TRACE

Request URI: "*" | absoluteURI | abs_path

HTTP-version: HTTP/1.1, HTTP/2.0

(HTTP headers)

[For GET method]-

Host: "www.linkedin.com"

User-Agent: "Mozilla/5.0 (Macintosh; Intel... Gecko/20100101 Firefox/54.0"

Accept: "text/html,application/xhtml+xml,application/xml;q=0.9,*/*;q=0.8"

Accept-Language: "en-US,en;q=0.5"

Accept-Encoding: "gzip, deflate"

Connection: "keep-alive"

Upgrade-Insecure-Requests: "1"

[For POST method]-

Host: "www.linkedin.com"

User-Agent: "Mozilla/5.0 (Macintosh; Intel... Gecko/20100101 Firefox/54.0"

Accept: "text/html,application/xhtml+xml,application/xml;q=0.9,*/*;q=0.8"

Accept-Language: "en-US,en;q=0.5"

Accept-Encoding: "gzip, deflate"

Connection: "keep-alive"

Upgrade-Insecure-Requests: "1"

Request header fields: It allows client to pass additional information about the request, and about the client itself, to the server.

- Accept-charset
- Accept-encoding
- Accept-language
- Authorization
- Expect
- From
- Host
- If-Match
- If-Modified-Since
- If-None-Match
- If-Range
- If-Unmodified-Since
- Max-Forwards
- Proxy-Authorization
- Range
- Referrer
- TE
- User-Agent

Entity Header Field: It defines meta information about the entity body.

- Allow
- Content-Encoding
- Content-Language
- Content-Length
- Content-Location
- Content-MD5

- Content-Range
- Content-Type
- Expires
- Last-Modified
- Extension-Header

General Header Field: There are a few header fields which have general applicability for both request/response message, but which don't apply to the entity being transferred.

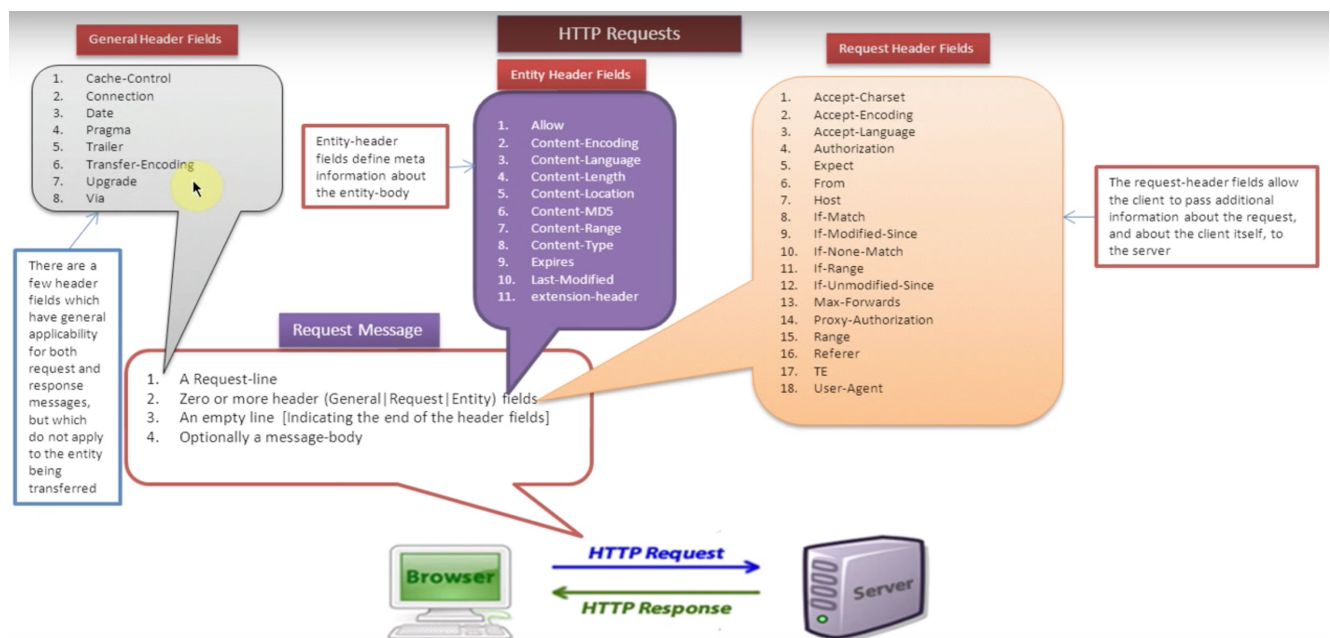
- Cache-Control
- Connection
- Date
- Pragma
- Trailer
- Transfer-Encoding
- Upgrade
- Via

(Blank Line)

(Message-Body)

[For POST method]

licenseID=string&...



HTTP Response

HTTP response looks like:

- ❖ **Part1.** Status Line
- ❖ **Part2.** Zero or more header (General | Response | Entity) fields
- ❖ **Part3.** An empty line [indicating the end of the header fields]
- ❖ **Part4.** optionally a message-body

For ex:

(Status Line)

<HTTP-version> <Status-Code> <Reason-Phrase>

HTTP/2.0 200 OK

Status-Code: There are 5 types of status codes are present.

- 1xx: Informational- This means request received and continuing process
- 2xx: Success- This means the action was successfully received, understood, and accepted.
- 3xx: Redirection- this means further action must be taken in order to complete the request.
- 4xx: Client Error- It means the request contains bad syntax or can't be fulfilled.
- 5xx: Server Error- The server failed to fulfill an apparently valid request.

(Http headers)

Vary: "User-Agent,Accept-Encoding"

Server: "Play"

Date: "Fri, 25 Aug 2017 11:19:14 GMT"

Content-Length: "9863"

Set-Cookie: "JSESSIONID=ajax:3502022292662...domain=.linkedin.com; Path=/"

Cache-Control: "no-cache, no-store"

Response header field: this field allow the server to pass additional information about the response which can't be placed in the status-line. This gives information about server and about further access to the resource identified by Request-URI.

- Accept-Range
- Age
- Etag
- Location
- Proxy-Authentication
- Retry-After
- Server
- Vary
- WWW-Authenticate

Entity Header field: Defines the meta information about the entity-body

- Allow
- Content-Encoding
- Content-Language
- Content-Length
- Content-Location
- Content-MD5
- Content-Range
- Content-Type
- Expires
- Last-Modified
- extension-header

General Header Field: There are a few header fields which have general applicability for both request/response message, but which don't apply to the entity being transferred.

- Cache-Control
- Connection
- Date
- Pragma
- Trailer
- Transfer-Encoding
- Upgrade
- Via

(Blank Line)

(Content)

```
<meta charset="UTF-8"/>
<title>LinkedIn&#58; Log in or Sign Up
</title>
```

