

* HTTP Headers -

① **Connect** :- Define whether connectⁿ is persistent or non-persistent
value = (keep alive) \rightarrow value = (close)
 \hookrightarrow default is [HTTP/1.1] \hookrightarrow Default in [HTTP/1.0]

② **Keep-alive** : [param]

param = timeout = 5 , max
 \downarrow
sec

timeout :- Specifying in sec , host should retain a connectⁿ after timeout sec.

max :- maximum connectⁿ no. of req. made on this connectⁿ

③ **Transfer Encoding** : [params]
It's hop-by-hop header

H, want to compress data over whole connectⁿ use "Content encoding"

On "HEAD" method, indicate that, if "GET" applied, then should be applied.

params = chunked, compress, deflate, gzip

* **Chunked**:- Data chunked format transfer
 "Content-length" omitted. Add length
 of each chunk in hexadecimal format
 followed by '\r\n'.

"^{hex} (chunksize) \r\n (chunk) \r\n"

④ **Expires** :- <http-date>

ex:- Wed, 21 OCT 2015 07:30:00 GMT

Specifies when response considered expires.

⑤ **Last modified**: <day-name> <day> <month> <year> <hr> <min>
 : <sec> <g>

The http-date timestamp helps origin server that resource was last modified.

Less secure than E-TAG

Used in "If-modified-since"
 "If-unmodified-since"

string of ASCII character
weak entity tag

ETAG = W/"<etag-value>" or "<etag-value>"

ETAG like fingerprints; they're cached to save bandwidth.

IF etag is not modified so server not need to resend full response.

Method by which etag generated is not specified

It might be hash of last modification timestamp. or just revision no.

⑦ IF match: - For GET & HEAD, server return requested resource only if it matches with one of listed ETAG. For PUT & other method, upload resource within it.

⑧ IF None match: - Single etag or list of etags.

Use of ETag with IF-match & IF-none-match

- ① IF ETag matched with one of IF match
- IF match {
- a) IF req. are GET, HEAD \Rightarrow Result Fetched.
 - b) IF req. are PUT & other \Rightarrow Upload result to resource

2) ~~IF ETag~~

- IF none match {
- c) IF, req. are GET, HEAD \Rightarrow "304" returned
 - d) Not posted result(data) to server in PUT & other
 \rightarrow losing data of previous PUT.

② IF ETag don't match.

① IF match. ~~IF~~

- a) GET, HEAD method \Rightarrow "416" returned.
 \hookrightarrow Used with "Range header"
- b) "412" : (Precondition Failed) is return case of PUT

② IF none match :-

- a) GET, Head method \Rightarrow Result Fetched with "200" code
- b) PUT method \Rightarrow Result upload Successfully.