Message Headers

The HTTP header fields provide information about the request, response, or about the object sent in the message body. HTTP header fields include General Header Fields, Request Header Fields, Response Header Field, and Entity Header Fields.

The format to be followed (taken from RFC 2616):

message-header = field-name ":" [ field-value ]

field-name = token

field-value = \*( field-content | LWS )

field-content = <the OCTETs making up the field-value

and consisting of either \*TEXT or combinations

of token, separators, and quoted-string>

General Header Fields – have general applicability for both request and response messages.

* Cache-control – used to specify directives that must be obeyed by all the caching system.
* Connection – allows the sender to specify options that are desired for a certain connection.
* Date – all data and time should be represented in Greenwhich Mean Time (GMT).
* Pragma – used to include implementation of specific directives that can apply to any recipient along the request and response chain.
* Trailer – general field value indicates that the set of header fields in present in the last part of a message.
* Transfer-encoding – indicates what type of transformation has been made to the message body in order to securely transfer it.
* Upgrade – allows the client to specify additional protocols that it supports and would like to be use.
* Via – must be used by gateways and proxies to indicate the intermediate protocols and recipients.
* Warning – used to carry additional information about the status of a message in which might not be reflected in the message.

Request Header Fields – have applicability for request messages.

* Accept – can be used to specify certain media types to consider whether if it is acceptable for the response.
* Accept-charset – to indicate the character sets that can be accepted for the response.
* Accept-encoding – similar to Accept except it restricts that content-codings that can be accepted in the response.
* Accept-language – similar to Accept except it restricts the set of natural languages that are preferred as a response to the request.
* Authorization – consists of credentials as a mean of authentication information of the user agent.
* Expect – used to indicate that a certain set of server behavior is required and expected by the client.
* From – contains an Internet email address for the user who is controlling the requesting user agent.
* Host – used to specify the Internet host and port number of the requested resource.
* If-match – to perform the requested method if the given value matches the given entity tags.
* If-modified-since – if the requested URL is still not modified since the time specified in this field, the entity will not be returned from the server and a 304 response will be returned.
* If-none-match – requests the server to do the requested method only if one of the given value matches the given entity tags.
* If-range – can be used with a conditional GET to request a portion of the entity that is missing, if it not been changed, and the entire entity has been changed.
* If-unmodified-since – if the requested resource has not been modified since the time specified, the server would perform the requested operation as if this header were not present.
* Max-forwards – provides a mechanism with the TRACE and OPTIONS methods in order to limit the number of proxies or gateways that can forward the request to the next server.
* Proxy-authorization – allows the client to identify itself to a proxy in which requires authentication.
* Range – specified the partial ranges of the content that has been requested from the document.
* Referrer – allows the client to specify the address of the resource from which URL is requested.
* TE – indicates what extension transfer-coding it is willing to accept in the response and if it is willing or not to accept the trailer fields in a chunked transfer-coding.
* User-agent – contains information about the user agent in which where the request is originating.

Response Header Fields – have the applicability for response messages.

* Accept-ranges – allows the server to indicate its range requests acceptance for a resource.
* Age – conveys the sender’s estimate of the time since the response was generated at the server.
* ETag (entity tag) – provides the current value of the entity tag for the requested variant.
* Location – used to redirect the recipient to another location other than the Request-URI.
* Proxy-authenticate – included as part of the 407 response.
* Retry-after – can be used with the 503 response in order to indicate how long the service is expected to be unavailable for the client.
* Server – contains information about the software used by the server in handling requests.
* Vary – specifies that the entity has multiple sources and therefore it can vary accordingly to the specified list of request headers.
* WWW-Authenticate – should consist of at least one challenge that would indicate the authentication schemes and parameters that are applicable to the Request-URI.

Entity Header Fields – define meta information about the entity-body or about the resource identified by the request.

* Allow – lists the methods that are supported by the resource indentified by the Request-URI.
* Content-encoding – a modifier to the media-type.
* Content-language – describe the natural languages of the audience for the enclosed entity, although multiple languages can be listed for multiple languages.
* Content-length – indicates the size of the entity-body.
* Content-location – may be used in order to give the resource location for the entity enclosed in the message when that entity is accessible from a location separate from the requested resource’s URI.
* Content-MD5 (message digest) – used to supply an MD5 digest in order to check the integrity of the message upon receipt.
* Content-range – to specify where in the full entity-body should the partial body be applied.
* Content-type – indicate the media type of the entity-body that has been sent to the recipient.
* Expires – give the date and time in which where the response would be considered stale.
* Last-modified – indicates the date and time at which the server believes the variant was last modified.