**Net centric computing**

**CPT411**

**ASSIGNMENT**

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**Question: A list of all http request header lines**

**List of HTTP header fields**

**HTTP header fields** are components of the header section of [request](https://en.wikipedia.org/wiki/HTTP_request) and response messages in the [Hypertext Transfer Protocol](https://en.wikipedia.org/wiki/Hypertext_Transfer_Protocol) (HTTP). They define the operating parameters of an HTTP transaction.

**General format**

The header fields are transmitted after the request or response line, which is the first line of a message. Header fields are colon-separated name-value pairs in clear-text [string](https://en.wikipedia.org/wiki/String_%28computer_science%29) format, terminated by a [carriage return](https://en.wikipedia.org/wiki/Carriage_return) (CR) and [line feed](https://en.wikipedia.org/wiki/Line_feed) (LF) character sequence. The end of the header section is indicated by an empty field(line), resulting in the transmission of two consecutive CR-LF pairs. In the past, long lines could be folded into multiple lines; continuation lines are indicated by the presence of a space (SP) or horizontal tab (HT) as the first character on the next line. This folding is now deprecated.[[1]](https://en.wikipedia.org/wiki/List_of_HTTP_header_fields#cite_note-1)

**Field names**

A core set of fields is standardized by the [Internet Engineering Task Force](https://en.wikipedia.org/wiki/Internet_Engineering_Task_Force) (IETF) in RFCs 7230, 7231, 7232, 7233, 7234, and 7235. The [permanent registry of header fields](http://www.iana.org/assignments/message-headers/message-headers.xml#perm-headers) and [repository of provisional registrations](http://www.iana.org/assignments/message-headers/message-headers.xml#prov-headers) are maintained by the [IANA](https://en.wikipedia.org/wiki/Internet_Assigned_Numbers_Authority). Additional field names and permissible values may be defined by each application.

[HTTP/2](https://en.wikipedia.org/wiki/HTTP/2) makes some restrictions on specific header fields (see below).

Non-standard header fields were conventionally marked by prefixing the field name with X- but this convention was deprecated in June 2012 because of the inconveniences it caused when non-standard fields became standard.[[2]](https://en.wikipedia.org/wiki/List_of_HTTP_header_fields#cite_note-2) An earlier restriction on use of Downgraded- was lifted in March 2013.[[3]](https://en.wikipedia.org/wiki/List_of_HTTP_header_fields#cite_note-3)

**Field values**

A few fields can contain comments (i.e. in User-Agent, Server, Via fields), which can be ignored by software.[[4]](https://en.wikipedia.org/wiki/List_of_HTTP_header_fields#cite_note-4)

Many field values may contain a quality (*q*) key-value pair, specifying a weight to use in [content negotiation](https://en.wikipedia.org/wiki/Content_negotiation).[[5]](https://en.wikipedia.org/wiki/List_of_HTTP_header_fields#cite_note-5)

**Size limits**

The standard imposes no limits to the size of each header field name or value, or to the number of fields. However, most servers, clients, and proxy software impose some limits for practical and security reasons. For example, the Apache 2.3 server by default limits the size of each field to 8,190 bytes, and there can be at most 100 header fields in a single request.[[6]](https://en.wikipedia.org/wiki/List_of_HTTP_header_fields#cite_note-6)

**Request fields**

| **Header field name** | **Description** | **Example** | **Status** |
| --- | --- | --- | --- |
| Accept | [Media type(s)](https://en.wikipedia.org/wiki/Media_type) that is(/are) acceptable for the response. See [Content negotiation](https://en.wikipedia.org/wiki/Content_negotiation). | Accept: text/plain | Permanent |
| Accept-Charset | Character sets that are acceptable. | Accept-Charset: utf-8 | Permanent |
| Accept-Encoding | List of acceptable encodings. See [HTTP compression](https://en.wikipedia.org/wiki/HTTP_compression). | Accept-Encoding: gzip, deflate | Permanent |
| Accept-Language | List of acceptable human languages for response. See [Content negotiation](https://en.wikipedia.org/wiki/Content_negotiation). | Accept-Language: en-US | Permanent |
| Accept-Datetime | Acceptable version in time. | Accept-Datetime: Thu, 31 May 2007 20:35:00 GMT | Provisional |
| Access-Control-Request-Method, Access-Control-Request-Headers[[7]](https://en.wikipedia.org/wiki/List_of_HTTP_header_fields#cite_note-CORS-7) | Initiates a request for [cross-origin resource sharing](https://en.wikipedia.org/wiki/Cross-origin_resource_sharing) with [Origin](https://en.wikipedia.org/wiki/List_of_HTTP_header_fields#origin-request-header) (below). | Access-Control-Request-Method: GET | Permanent: standard |
| Authorization | Authentication credentials for [HTTP authentication](https://en.wikipedia.org/wiki/Basic_access_authentication). | Authorization: Basic QWxhZGRpbjpvcGVuIHNlc2FtZQ== | Permanent |
| [Cache-Control](https://en.wikipedia.org/wiki/Cache-Control) | Used to specify directives that *must* be obeyed by all caching mechanisms along the request-response chain. | Cache-Control: no-cache | Permanent |
| Connection | Control options for the current connection and list of hop-by-hop request fields.[[8]](https://en.wikipedia.org/wiki/List_of_HTTP_header_fields#cite_note-rfc7230_connection-8)  Must not be used with HTTP/2.[[9]](https://en.wikipedia.org/wiki/List_of_HTTP_header_fields#cite_note-rfc7540_connection-9) | Connection: keep-alive  [Connection: Upgrade](https://en.wikipedia.org/wiki/HTTP/1.1_Upgrade_header) | Permanent |
| Cookie | An [HTTP cookie](https://en.wikipedia.org/wiki/HTTP_cookie) previously sent by the server with [Set-Cookie](https://en.wikipedia.org/wiki/List_of_HTTP_header_fields#innerlink_set-cookie) (below). | Cookie: $Version=1; Skin=new; | Permanent: standard |
| Content-Length | The length of the request body in [octets](https://en.wikipedia.org/wiki/Octet_%28computing%29) (8-bit bytes). | Content-Length: 348 | Permanent |
| Content-MD5 | A [Base64](https://en.wikipedia.org/wiki/Base64)-encoded binary [MD5](https://en.wikipedia.org/wiki/MD5) sum of the content of the request body. | Content-MD5: Q2hlY2sgSW50ZWdyaXR5IQ== | Obsolete[[10]](https://en.wikipedia.org/wiki/List_of_HTTP_header_fields#cite_note-tools.ietf.org-10) |
| Content-Type | The [Media type](https://en.wikipedia.org/wiki/Media_type) of the body of the request (used with POST and PUT requests). | Content-Type: application/x-www-form-urlencoded | Permanent |
| Date | The date and time that the message was originated (in "HTTP-date" format as defined by [RFC 7231 Date/Time Formats](http://tools.ietf.org/html/rfc7231#section-7.1.1.1)). | Date: Tue, 15 Nov 1994 08:12:31 GMT | Permanent |
| Expect | Indicates that particular server behaviours are required by the client. | Expect: 100-continue | Permanent |
| Forwarded | Disclose original information of a client connecting to a web server through an HTTP proxy.[[11]](https://en.wikipedia.org/wiki/List_of_HTTP_header_fields#cite_note-11) | Forwarded: for=192.0.2.60;proto=http;by=203.0.113.43 Forwarded: for=192.0.2.43, for=198.51.100.17 | Permanent |
| From | The email address of the user making the request. | From: [user@example.com](mailto:user@example.com) | Permanent |
| Host | The domain name of the server (for virtual hosting), and the [TCP port](https://en.wikipedia.org/wiki/List_of_TCP_and_UDP_port_numbers) number on which the server is listening. The [port](https://en.wikipedia.org/wiki/Port_%28computer_networking%29) number may be omitted if the port is the standard port for the service requested.  Mandatory since HTTP/1.1.[[12]](https://en.wikipedia.org/wiki/List_of_HTTP_header_fields#cite_note-12) If the request is generated directly in HTTP/2, it should not be used.[[13]](https://en.wikipedia.org/wiki/List_of_HTTP_header_fields#cite_note-rfc7540_Request_Pseudo_Header_Fields-13) | Host: en.wikipedia.org:8080  Host: en.wikipedia.org | Permanent |
| If-Match | Only perform the action if the client supplied entity matches the same entity on the server. This is mainly for methods like PUT to only update a resource if it has not been modified since the user last updated it. | If-Match: "737060cd8c284d8af7ad3082f209582d" | Permanent |
| If-Modified-Since | Allows a *304 Not Modified* to be returned if content is unchanged. | If-Modified-Since: Sat, 29 Oct 1994 19:43:31 GMT | Permanent |
| If-None-Match | Allows a *304 Not Modified* to be returned if content is unchanged, see [HTTP ETag](https://en.wikipedia.org/wiki/HTTP_ETag). | If-None-Match: "737060cd8c284d8af7ad3082f209582d" | Permanent |
| If-Range | If the entity is unchanged, send me the part(s) that I am missing; otherwise, send me the entire new entity. | If-Range: "737060cd8c284d8af7ad3082f209582d" | Permanent |
| If-Unmodified-Since | Only send the response if the entity has not been modified since a specific time. | If-Unmodified-Since: Sat, 29 Oct 1994 19:43:31 GMT | Permanent |
| Max-Forwards | Limit the number of times the message can be forwarded through proxies or gateways. | Max-Forwards: 10 | Permanent |
| Origin[[7]](https://en.wikipedia.org/wiki/List_of_HTTP_header_fields#cite_note-CORS-7) | Initiates a request for [cross-origin resource sharing](https://en.wikipedia.org/wiki/Cross-origin_resource_sharing) (asks server for [Access-Control-\*](https://en.wikipedia.org/wiki/List_of_HTTP_header_fields#access-control-response-headers) response fields). | Origin: <http://www.example-social-network.com> | Permanent: standard |
| Pragma | Implementation-specific fields that may have various effects anywhere along the request-response chain. | [Pragma: no-cache](https://en.wikipedia.org/wiki/List_of_HTTP_header_fields#Avoiding_caching) | Permanent |
| Proxy-Authorization | Authorization credentials for connecting to a proxy. | Proxy-Authorization: Basic QWxhZGRpbjpvcGVuIHNlc2FtZQ== | Permanent |
| Range | Request only part of an entity. Bytes are numbered from 0. See [Byte serving](https://en.wikipedia.org/wiki/Byte_serving). | Range: bytes=500-999 | Permanent |
| [Referer](https://en.wikipedia.org/wiki/HTTP_referer) [[*sic*](https://en.wikipedia.org/wiki/Sic)] | This is the address of the previous web page from which a link to the currently requested page was followed. (The word “referrer” has been misspelled in the RFC as well as in most implementations to the point that it has become standard usage and is considered correct terminology) | Referer: http://en.wikipedia.org/wiki/Main\_Page | Permanent |
| TE | The transfer encodings the user agent is willing to accept: the same values as for the response header field Transfer-Encoding can be used, plus the "trailers" value (related to the "[chunked](https://en.wikipedia.org/wiki/Chunked_transfer_encoding)" transfer method) to notify the server it expects to receive additional fields in the trailer after the last, zero-sized, chunk.  Only trailers is supported in HTTP/2.[[9]](https://en.wikipedia.org/wiki/List_of_HTTP_header_fields#cite_note-rfc7540_connection-9) | TE: trailers, [deflate](https://en.wikipedia.org/wiki/Deflate) | Permanent |
| User-Agent | The [user agent string](https://en.wikipedia.org/wiki/User_agent_string) of the user agent. | User-Agent: Mozilla/5.0 (X11; Linux x86\_64; rv:12.0) Gecko/20100101 Firefox/12.0 | Permanent |
| [Upgrade](https://en.wikipedia.org/wiki/Upgrade_header) | Ask the server to upgrade to another protocol.  Must not be used to upgrade to HTTP/2.[[9]](https://en.wikipedia.org/wiki/List_of_HTTP_header_fields#cite_note-rfc7540_connection-9) | Upgrade: HTTPS/1.3, IRC/6.9, RTA/x11, websocket | Permanent |
| Via | Informs the server of proxies through which the request was sent. | Via: 1.0 fred, 1.1 example.com (Apache/1.1) | Permanent |
| Warning | A general warning about possible problems with the entity body. | Warning: 199 Miscellaneous warning | Permanent |

**Common non-standard request fields**

| **Field name** | **Description** | **Example** |
| --- | --- | --- |
| X-Requested-With | Mainly used to identify [Ajax](https://en.wikipedia.org/wiki/Ajax_%28programming%29) requests. Most [JavaScript frameworks](https://en.wikipedia.org/wiki/JavaScript_framework) send this field with value of XMLHttpRequest | X-Requested-With: XMLHttpRequest |
| [DNT](https://en.wikipedia.org/wiki/Do_Not_Track)[[14]](https://en.wikipedia.org/wiki/List_of_HTTP_header_fields#cite_note-14) | Requests a web application to disable their tracking of a user. This is Mozilla's version of the X-Do-Not-Track header field (since [Firefox 4.0](https://en.wikipedia.org/wiki/Mozilla_Firefox_4) Beta 11). [Safari](https://en.wikipedia.org/wiki/Safari_%28web_browser%29) and [IE9](https://en.wikipedia.org/wiki/Internet_Explorer_9) also have support for this field.[[15]](https://en.wikipedia.org/wiki/List_of_HTTP_header_fields#cite_note-15) On March 7, 2011, a draft proposal was submitted to IETF.[[16]](https://en.wikipedia.org/wiki/List_of_HTTP_header_fields#cite_note-16) The [W3C](https://en.wikipedia.org/wiki/World_Wide_Web_Consortium) Tracking Protection Working Group is producing a specification.[[17]](https://en.wikipedia.org/wiki/List_of_HTTP_header_fields#cite_note-17) | DNT: 1 (Do Not Track Enabled)  DNT: 0 (Do Not Track Disabled) |
| [X-Forwarded-For](https://en.wikipedia.org/wiki/X-Forwarded-For)[[18]](https://en.wikipedia.org/wiki/List_of_HTTP_header_fields#cite_note-18) | A [*de facto* standard](https://en.wikipedia.org/wiki/De_facto_standard) for identifying the originating IP address of a client connecting to a web server through an HTTP proxy or load balancer. Superseded by *Forwarded* header. | X-Forwarded-For: client1, proxy1, proxy2  X-Forwarded-For: 129.78.138.66, 129.78.64.103 |
| X-Forwarded-Host[[19]](https://en.wikipedia.org/wiki/List_of_HTTP_header_fields#cite_note-19) | A [*de facto* standard](https://en.wikipedia.org/wiki/De_facto_standard) for identifying the original host requested by the client in the Host HTTP request header, since the host name and/or port of the reverse proxy (load balancer) may differ from the origin server handling the request. Superseded by *Forwarded* header. | X-Forwarded-Host: en.wikipedia.org:8080  X-Forwarded-Host: en.wikipedia.org |
| X-Forwarded-Proto[[20]](https://en.wikipedia.org/wiki/List_of_HTTP_header_fields#cite_note-20) | A [*de facto* standard](https://en.wikipedia.org/wiki/De_facto_standard) for identifying the originating protocol of an HTTP request, since a reverse proxy (or a load balancer) may communicate with a web server using HTTP even if the request to the reverse proxy is HTTPS. An alternative form of the header (X-ProxyUser-Ip) is used by Google clients talking to Google servers. Superseded by *Forwarded* header. | X-Forwarded-Proto: https |
| Front-End-Https[[21]](https://en.wikipedia.org/wiki/List_of_HTTP_header_fields#cite_note-21) | Non-standard header field used by Microsoft applications and load-balancers | Front-End-Https: on |
| X-Http-Method-Override[[22]](https://en.wikipedia.org/wiki/List_of_HTTP_header_fields#cite_note-22) | Requests a web application to override the method specified in the request (typically POST) with the method given in the header field (typically PUT or DELETE). This can be used when a user agent or firewall prevents PUT or DELETE methods from being sent directly (note that this is either a bug in the software component, which ought to be fixed, or an intentional configuration, in which case bypassing it may be the wrong thing to do). | X-HTTP-Method-Override: DELETE |
| X-ATT-DeviceId[[23]](https://en.wikipedia.org/wiki/List_of_HTTP_header_fields#cite_note-23) | Allows easier parsing of the MakeModel/Firmware that is usually found in the User-Agent String of AT&T Devices | X-Att-Deviceid: GT-P7320/P7320XXLPG |
| X-Wap-Profile[[24]](https://en.wikipedia.org/wiki/List_of_HTTP_header_fields#cite_note-24) | Links to an XML file on the Internet with a full description and details about the device currently connecting. In the example to the right is an XML file for an AT&T Samsung Galaxy S2. | x-wap-profile: <http://wap.samsungmobile.com/uaprof/SGH-I777.xml> |
| Proxy-Connection[[25]](https://en.wikipedia.org/wiki/List_of_HTTP_header_fields#cite_note-25) | Implemented as a misunderstanding of the HTTP specifications. Common because of mistakes in implementations of early HTTP versions. Has exactly the same functionality as standard Connection field.  Must not be used with HTTP/2.[[9]](https://en.wikipedia.org/wiki/List_of_HTTP_header_fields#cite_note-rfc7540_connection-9) | Proxy-Connection: keep-alive |
| X-UIDH[[26]](https://en.wikipedia.org/wiki/List_of_HTTP_header_fields#cite_note-26)[[27]](https://en.wikipedia.org/wiki/List_of_HTTP_header_fields#cite_note-27)[[28]](https://en.wikipedia.org/wiki/List_of_HTTP_header_fields#cite_note-28) | Server-side [deep packet insertion](https://en.wikipedia.org/wiki/Deep_packet_inspection) of a unique ID identifying customers of [Verizon Wireless](https://en.wikipedia.org/wiki/Verizon_Wireless); also known as "perma-cookie" or "supercookie" | X-UIDH: ... |
| X-Csrf-Token[[29]](https://en.wikipedia.org/wiki/List_of_HTTP_header_fields#cite_note-29) | Used to prevent [cross-site request forgery](https://en.wikipedia.org/wiki/Cross-site_request_forgery). Alternative header names are: X-CSRFToken[[30]](https://en.wikipedia.org/wiki/List_of_HTTP_header_fields#cite_note-30) and X-XSRF-TOKEN[[31]](https://en.wikipedia.org/wiki/List_of_HTTP_header_fields#cite_note-31) | X-Csrf-Token: i8XNjC4b8KVok4uw5RftR38Wgp2BFwql |
| X-Request-ID[[32]](https://en.wikipedia.org/wiki/List_of_HTTP_header_fields#cite_note-stackoverflow1-32)[[33]](https://en.wikipedia.org/wiki/List_of_HTTP_header_fields#cite_note-33),  X-Correlation-ID[[*citation needed*](https://en.wikipedia.org/wiki/Wikipedia:Citation_needed)] | Correlates HTTP requests between a client and server. | X-Request-ID: f058ebd6-02f7-4d3f-942e-904344e8cde5 |