HTTP

HTTP Cheat Sheet

Example Request & Response

```
GET /hello.txt HTTP/1.1
Host: www.example.com
User-Agent: Mozilla/5.0
Accept-Language: en, nl
```

```
HTTP/1.1 200 OK
Date: Mon, 27 Jul 2020 12:28:53 GMT
Server: Apache/2.2.22
Content-Length: 12
Content-Type: text/plain

Hello World!
```

Methods

Method	Description
GET (safe, idempotent)	Transfer a current representation of the resource
HEAD (safe, idempotent)	Same as GET, but without transferring content
POST	Process the content of the request
PUT (idempotent)	Update the resource with the content of the request
DELETE (idempotent)	Remove all current representations of the resource
CONNECT	Establish a tunnel to the server
OPTIONS (safe, idempotent)	Describe the communication options for the target resource
TRACE (safe, idempotent)	Perform a message loop-back test along the path to the resource

"Safe" methods are read-only and should not change the server state. "Idempotent" methods can be called multiple times without different outcomes. See RFC 9110 for detailed information about each method.

Request Headers

Header	Description
Referer: <url>	The referring web page URL
User-Agent: <ua>	Information about the client making the request
Authorization: <scheme> <params>	Authenticate using the specified scheme and credentials
Accept: <media-types>	The media types that the client can understand
Accept-Encoding: <algorithms>	The encoding algorithms the client understands
Accept-Language: <langs>	The languages that the client can understand

Response Headers

Header	Description
Location: <url>	The URL of the new resource or redirect target
Allow: <methods>	The methods supported by the resource
Server: <name>	Information about the server software
Retry-After: <s>	Time to wait before a new request
Age: <s>	The age of the cached response (in sec)
Cache-Control: <directives>	Directives for caching mechanisms
Expires: <date>	Date/time after which the response expires

See RFC 9111 for detailed information about caching.

Status Codes

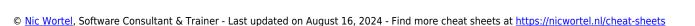A detailed list of status codes can be found in RFC 9110.

Status Codes: Informational

Code	Description
100 Continue	The server has received the request headers and the client should proceed
101 Switching Protocols	The server will switch protocols to those defined by the response's Upgrade header field

Status Codes: Success

Code	Description
200 OK	The request has succeeded
201 Created	A new resource has been created
202 Accepted	The request was accepted but processing has not been completed
203 Non-Authoritative Information	The response content has been modified by a proxy
204 No Content	The request was fulfilled but no content is returned
205 Reset Content	Request fulfilled; the user agent should reset the view
206 Partial Content	The server has fulfilled a partial GET request

Status Codes: Redirection

Code	Description
300 Multiple Choices	The requested resource corresponds to any one of a set of representations
301 Moved Permanently	The requested resource has been assigned a new permanent URI
302 Found	The requested resource resides temporarily under a different URI

Status Codes: Redirection (cont.)

Code	Description
303 See Other	A different resource can provide an indirect reponse
304 Not Modified	The resource has not been modified since the last request
307 Temporary Redirect	Temporary redirect; client must not change the request method
308 Permanent Redirect	Permanent redirect; client must not change the request method

Status Codes: Client Error

Code	Description
400 Bad Request	The server cannot / will not process the request due to a client error
401 Unauthorized	The request requires user authentication
403 Forbidden	The server understood but refuses the request
404 Not Found	No resource was found for the request URI
405 Method Not Allowed	The method is not allowed for the resource
406 Not Acceptable	No representation matches the `Accept-*` headers
407 Proxy Authentication Required	The client must authenticate with the proxy server
408 Request Timeout	The server timed out waiting for the request
409 Conflict	The request conflicts with the current resource state
410 Gone	The requested resource is permanently unavailable
411 Length Required	The server requires a `Content-Length` header
412 Precondition Failed	One or more conditions evaluated to false
413 Content Too Large	The request content is too large
414 URI Too Long	The target URI was too long

Status Codes: Client Error (cont.)

Code	Description
415 Unsupported Media Type	The requested media type is not supported
416 Range Not Satisfiable	The request Range header is not satisfiable
417 Expectation Failed	The server cannot meet the `Expect` header
421 Misdirected Request	The request was directed at a server that is not able to produce a response for this request
422 Unprocessable Content	The server understands the content type but cannot process the content
426 Upgrade Required	The client should switch to a different protocol

Status Codes: Server Error

Code	Description
500 Internal Server Error	The server encountered an unexpected error
501 Not Implemented	The server does not support the functionality required to fulfill the request
502 Bad Gateway	The upstream server returned an invalid response
503 Service Unavailable	The server is currently unable to handle the request
504 Gateway Timeout	The upstream server did not respond in time
505 HTTP Version Not Supported	The server does not support the HTTP version