

Request

```
GET https://www.googleapis.com/books/v1/volumes?q=turing HTTP/1.1
Accept-Encoding: gzip,deflate
Host: www.googleapis.com
Connection: Keep-Alive
User-Agent: Apache-HttpClient/4.1.1 (java 1.5)
```

Request description :

- GET is the verb or the method our client sent to the origin server, “/books/v1/volumes?q=turing” is the resource where we want expect out request to be, and the query “turing” as a parameter in the URL, and “HTTP/1.1” is the protocol/version used in this request.
- Accept Encoding: This header is a message from the client to the server to tell it that it can accept compressed responses, for example gzip is a well known algorithm used to compress files to save bandwidth.
- Host: The domain name part of the request URL
- Connection: used for connection between machine to another, not a client to a server.
- User-Agent: This header let the server know what kind of software is making the HTTP request.

Response

```
HTTP/1.1 200 OK
Expires: Sat, 13 Feb 2016 06:44:09 GMT
Date: Sat, 13 Feb 2016 06:44:09 GMT
Cache-Control: private, max-age=0, must-revalidate, no-transform
Etag: "3z2GbiG39NRdo416x8jooTTBAqY/GkhT97ulmGxG4IjbKgj42QcGxdE"
Vary: Origin
Vary: X-Origin
Content-Type: application/json; charset=UTF-8
X-Content-Type-Options: nosniff
X-Frame-Options: SAMEORIGIN
X-XSS-Protection: 1; mode=block
Content-Length: 33786
Server: GSE
Alternate-Protocol: 443:quic,p=1
Alt-Svc: quic=":443"; ma=604800; v="30,29,28,27,26,25"
```

Response description:

- HTTP/1.1 200 OK: the status code, or the response code
- Etag: or Entity tag, used to determine change in content of a resource at a given URL. The value of the header is an opaque string representing the state of the resource at the time the response was generated.

- Alt-Svc: Alternative Service; when a client uses an alternate service, it MUST emit the Alt-Used header field on every request using that alternate service.
- Vary: allows a cache to determine if a cached (still fresh) response may be returned for a subsequent request, based on whether or not the new request's headers match those that were sent when the previously response was originally cached.
- Content-Type: This is the most famous and probably the most important header; gives the media type of the entity body.
- X-Frame-Options: used to indicate whether or not a browser should be allowed to render a page in a <frame>, <iframe> or <object> . Sites can use this to avoid clickjacking attacks, by ensuring that their content is not embedded into other sites.
- Content-Length: the length of the content in bytes
- X-Content-Type-Options: The only defined value, "nosniff", prevents Internet Explorer and Google Chrome from MIME-sniffing a response away from the declared content-type.
- Cache-Control: Spells out the rules of how the data should be cached and when it should be dumped

Resources:

<https://developer.mozilla.org/en-US/docs/Web/HTTP/X-Frame-Options>

<http://docs.telerik.com/fiddler/KnowledgeBase/VaryResponseHeader>

https://www.owasp.org/index.php/List_of_useful_HTTP_headers