Michael Hedrick

S# 107045292

CSCI 3916 - Web API

Homework 1: postman request and response header interpretation

**Request and response headers for each GET request:**

GET https://www.googleapis.com/books/v1/volumes?q=Turing

11:01:31.027

* Request Headers:
  + cache-control:"no-cache"
  + postman-token:"9c6eec0a-ace2-441a-8832-4105ca88b1dd"
  + user-agent:"PostmanRuntime/7.1.1"
  + accept:"\*/\*"
  + host:"www.googleapis.com"
  + accept-encoding:"gzip, deflate"
* Response Headers:
  + expires:"Thu, 01 Feb 2018 18:01:31 GMT"
  + date:"Thu, 01 Feb 2018 18:01:31 GMT"
  + cache-control:"private, max-age=0, must-revalidate, no-transform"
  + etag:""f6QLsd8inUgRKJVNBqJ8xHnPb0w/GYpVixjIJyN6xOoxasepBIwQu\_8""
  + vary:
    - 0:"Origin"
    - 1:"X-Origin"
  + content-type:"application/json; charset=UTF-8"
  + content-encoding:"gzip"
  + x-content-type-options:"nosniff"
  + x-frame-options:"SAMEORIGIN"
  + x-xss-protection:"1; mode=block"
  + server:"GSE"
  + alt-svc:"hq=":443"; ma=2592000; quic=51303431; quic=51303339; quic=51303338; quic=51303337; quic=51303335,quic=":443"; ma=2592000; v="41,39,38,37,35""
  + transfer-encoding:"chunked"

GET https://www.googleapis.com/books/v1/volumes/VlC5MkVIwqkC

11:01:31.729

Request Headers:

* cache-control:"no-cache"
* postman-token:"7587ad62-f7ff-4d22-85d1-36156d00c0ea"
* user-agent:"PostmanRuntime/7.1.1"
* accept:"\*/\*"
* host:"www.googleapis.com"
* accept-encoding:"gzip, deflate"

Response Headers:

* expires:"Thu, 01 Feb 2018 18:01:32 GMT"
* date:"Thu, 01 Feb 2018 18:01:32 GMT"
* cache-control:"private, max-age=0, must-revalidate, no-transform"
* etag:""f6QLsd8inUgRKJVNBqJ8xHnPb0w/8WOtpmWpuZ8E4S5b-mekAzzIYlM""
* vary:
  + 0:"Origin"
  + 1:"X-Origin"
* content-type:"application/json; charset=UTF-8"
* content-encoding:"gzip"
* x-content-type-options:"nosniff"
* x-frame-options:"SAMEORIGIN"
* x-xss-protection:"1; mode=block"
* server:"GSE"
* alt-svc:"hq=":443"; ma=2592000; quic=51303431; quic=51303339; quic=51303338; quic=51303337; quic=51303335,quic=":443"; ma=2592000; v="41,39,38,37,35""
* transfer-encoding:"chunked"

**Header Interpretations:** (source: <https://en.wikipedia.org/wiki/List_of_HTTP_header_fields>;

<https://www.getpostman.com/>;

https://developer.mozilla.org)

Request Headers:

* cache-control: Specifies directives that **must** be obeyed by all caching mechanisms along the request-response chain, in this case there are none.
* postman-token: To bypass a bug in Chrome, this unique token is sent with each request to ensure to the correct response. Otherwise, if Chrome receives simultaneous requests with the same parameters then it returns the same response for both each rather than the desired unique responses.
* user-agent: A string containing the name and version of the application; PostmanRuntime/7.1.1.
* accept: Indicates which content types will be allowed in the requests, in this case all content types are allowed.
* host: The domain name of the server; www.googleapis.com.
* accept-encoding: A list of accepted encodings (types of compression); gzip and deflate are allowed.

Response Headers:

* expires: The date and time at which the response is considered old or “stale” expressed in “HTTP-date” format as defined by RFC 7231.
* date: The date and time at which the message was sent, also in “HTTP-date” format as defined by RFC 7231.
* cache-control: Tells all caching mechanisms along the path how long they may cache the object, in our request there is no caching (private, Max-age=0).
* etag: A unique identifier for a specific version of a resource.
* vary: Tells downstream proxies how to match future request headers to decide whether they can use the cached response, or they must request a new response from the server.
* content-type: The “MIME” (media) type of this content. In this case it is a JSON application using UTF-8.
* content-encoding: The type of encoding (compression) used on the data. In this case gzip was used.
* x-content-type-options: Only one value is defined for this key (nosniff), which prevents browsers from MIME-sniffing the response away from the declared content type.
* x-frame-options: Used to prevent “click-jacking” attacks. In our case “SAMEORIGIN” means that no clicks are rendered if there is an origin mismatch.
* x-xss-protection: A cross-site scripting (XSS) filter. The parameters 1 and block respectively enable XSS protection and tell the browser to block the response if XSS is detected.
* server: The name and version of the server. In our case the server is “GSE”.
* alt-svc: Used to indicate that the server’s resources can be accessed at a different host or port location using a different protocol.
* transfer-encoding: The form of encoding used to safely transfer the entity to the user. In this case, the transfer used “chunked” encoding.