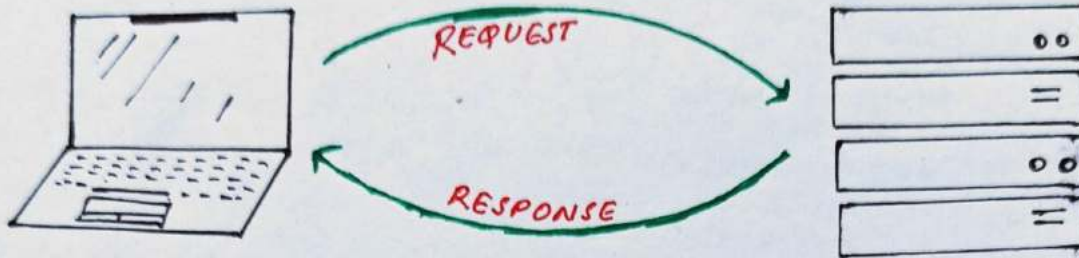


REST API

Rest stands for REPRESENTATIONAL STATE TRANSFER
REST APIs OPERATE ON A SIMPLE REQUEST/RESPONSE SYSTEM



CLIENT CAN MAKE A REQUEST
USING HTTP METHODS

SERVER RETURNS A RESPONSE WITH
AN HTTP STATUS CODE

THESE METHODS ARE:

GET, POST, PUT, PATCH, DELETE,
HEAD, TRACE, OPTIONS, CONNECT.

POPULAR HTTP STATUS CODE:

EX, 200, 202, 403, 404, 500 ETC.

HTTP REQUEST CONTAINS



HTTP RESPONSE CONTAINS



★ REST API CONSTRAINTS ★

CLIENT-SERVER ARCHITECTURE
• NO THIRD PARTY INTERPRETATION.

ATUL KUMAR (LINKEDIN)
• TELEGRAM- NOTES GALLERY.

UNIFORM INTERFACE

• FOLLOW A COMMON PROTOCOL

LAYERING

• MULTIPLE INTERMEDIARIES
BETWEEN CLIENT AND
SERVER.

CACHEABILITY

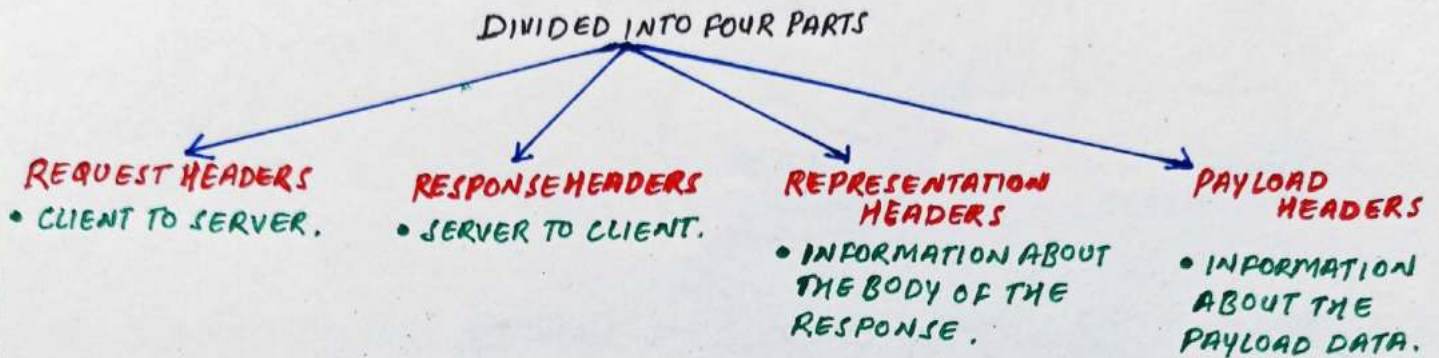
• RESPONSE CAN BE
CACHEABLE

STATELESSNESS

• THERE IS NO STATE.
CLIENT AND SERVER ARE
COMPLETELY SEPARATED.

HTTP HEADERS

CLIENT AND SERVER CAN PASS THE EXTRA BIT OF INFORMATION WITH THE REQUEST AND RESPONSE USING HTTP HEADERS.



ATUL KUMAR (LINKEDIN).

WIDELY USED HTTP HEADERS

Accept

TYPE OF DATA CLIENT CAN UNDERSTAND.

Content - Type

SPECIFIES THE MEDIA TYPE OF THE RESOURCE.

Accept - Encoding

WHICH ENCODING METHOD CLIENT CAN UNDERSTAND.

Host

SPECIFIES THE DOMAIN NAME.

Authorization

USED TO PASS CREDENTIALS SO THAT SERVERS CAN AUTHENTICATE.

Access - Control - Allow - Origin.

WHICH ORIGIN IS ALLOWED TO ACCESS THE RESOURCES.

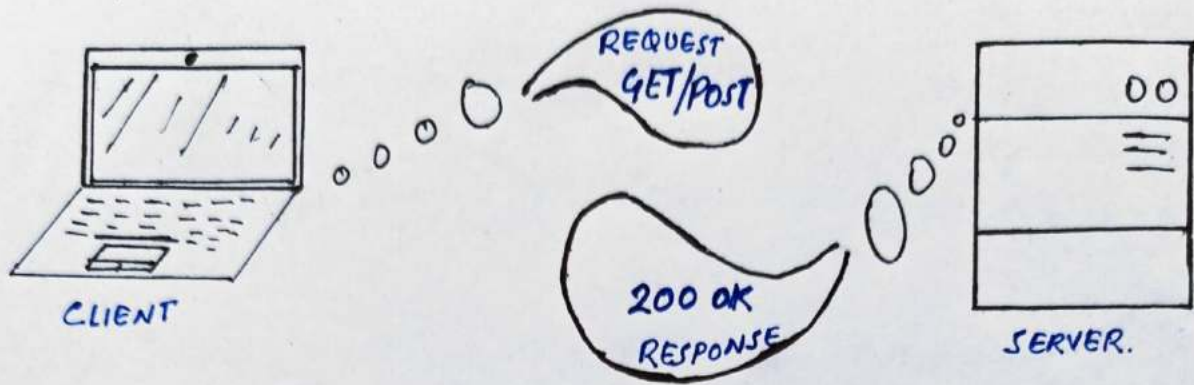
Accept - Language

CLIENT IS EXPECTING THE RESPONSE IN THE MENTIONED LANGUAGE

Access - Control - Allow - Methods.

WHICH METHODS ARE ALLOWED TO ACCESS THE CROSS-ORIGIN RESOURCES.

HTTP STATUS CODE



★ SERVER ALWAYS RETURNS HTTP STATUS CODE WITH THE RESPONSE ★

SUCCESSFUL RESPONSES

200 OK
EVERYTHING IS FINE

201 CREATED
NEW RESOURCE WAS
CREATED.

REDIRECTION MESSAGES

301 MOVED PERMANENTLY
THE RESOURCE HAS BEEN MOVED
PERMANENTLY TO THE NEW URL.

ATULKUMAR (LINKEDIN).

CLIENT ERROR

400 BAD REQUEST
INVALID SYNTAX.

403 FORBIDDEN

YOU DON'T HAVE PERMISSION TO ACCESS THE RESOURCES

404 NOT FOUND
INVALID URL

• TELEGRAM - NOTES GALLERY
401 UNAUTHORIZED
CREDENTIALS ARE INCORRECT.

429 TOO MANY REQUESTS
USER HAS SENT TOO MANY REQUESTS
IN A GIVEN AMOUNT OF TIME.

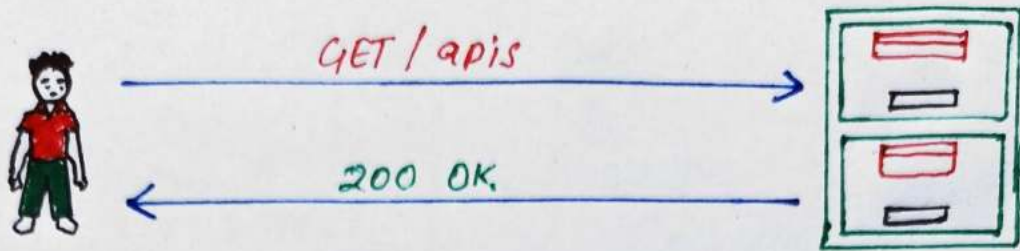
SERVER ERROR

500 INTERNAL SERVER ERROR

SERVER DOES NOT KNOW HOW TO HANDLE THE UNEXPECTED SITUATION.

ATULKUMAR (LINKEDIN).

HTTP REQUEST METHODS



GET

The **GET** method is the most common of all these request methods.

It is used to fetch the desired resources from the server.

The **POST** method is used to submit the information to the server.

As we're submitting the data, the **POST** method often changes the state of the server.

POST

PUT

The **PUT** method is used whenever you need to change the resource. The resource, which is already a part of resource collection.

PATCH

The **PATCH** request method is used to modify only the necessary part of the data or response.

The **PATCH** method doesn't modify the entire response.

DELETE

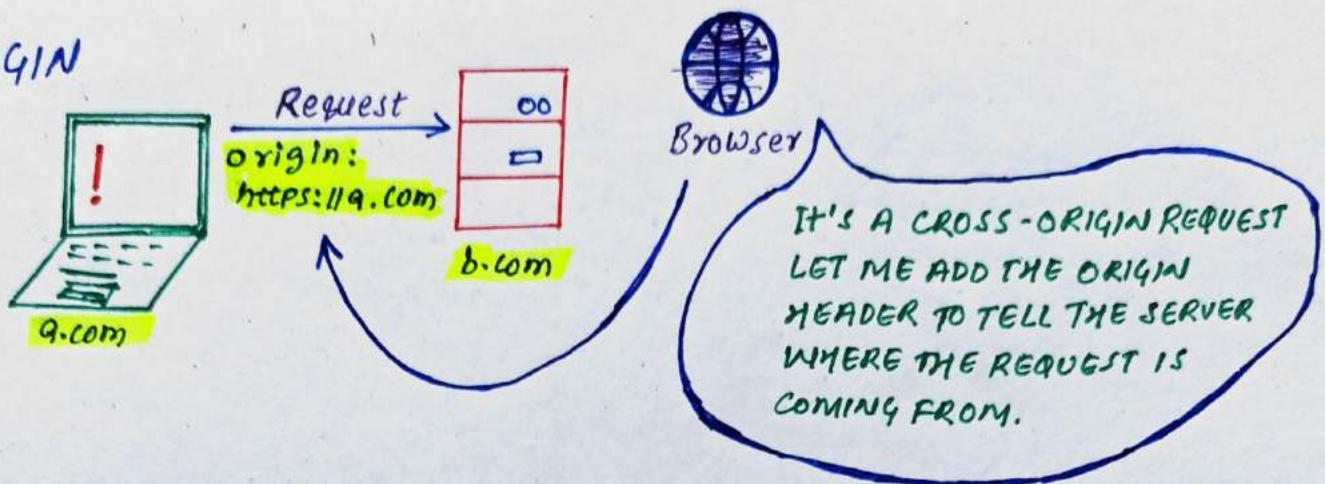
As the name says, the **DELETE** request method is used to delete the specified resource.

It requests that the origin server delete the resource identified by the Request-URL.

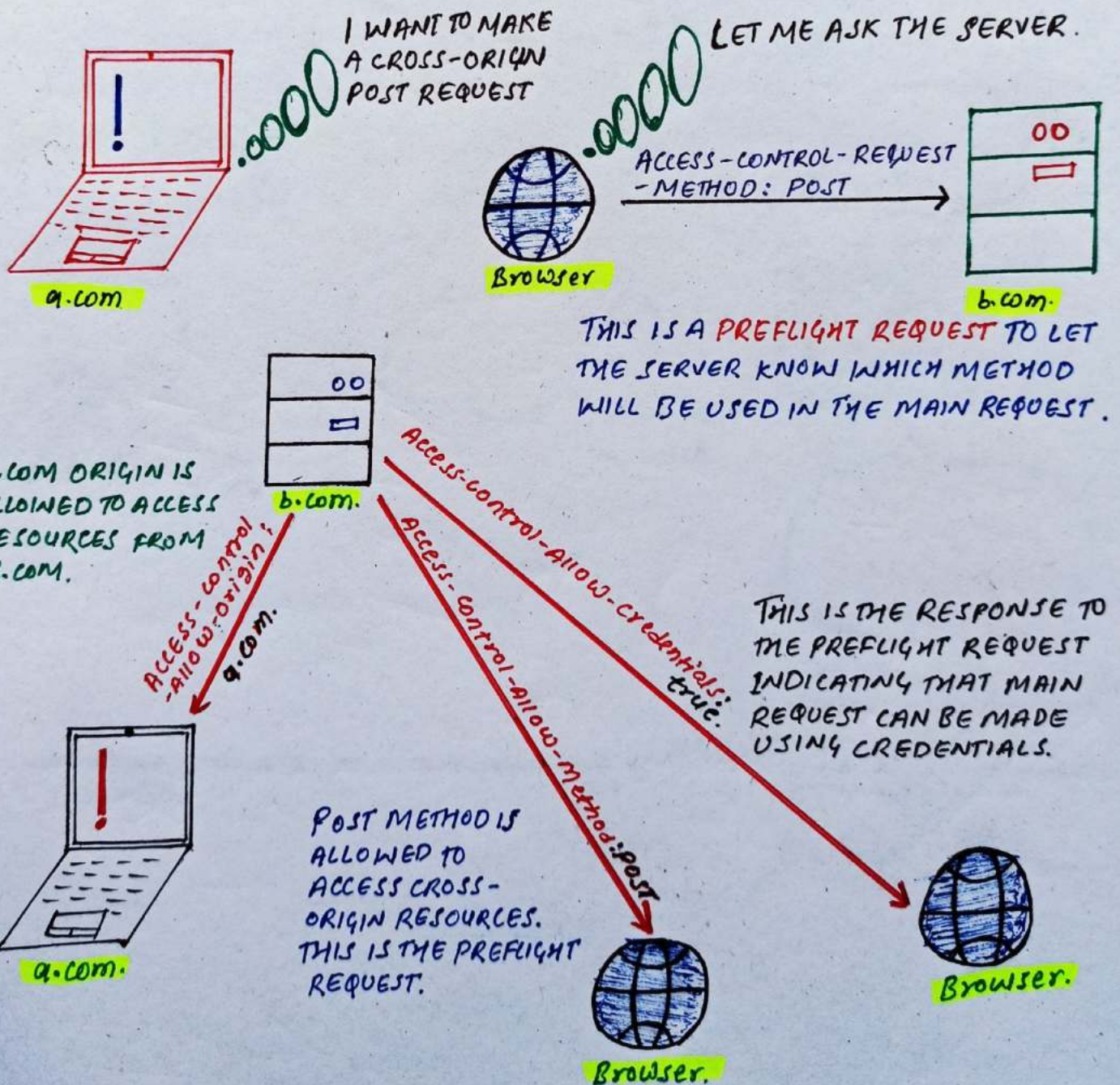
ATUL KUMAR (LINKEDIN)
TELEGRAM - NOTES GALLERY.

Access Control HTTP Headers

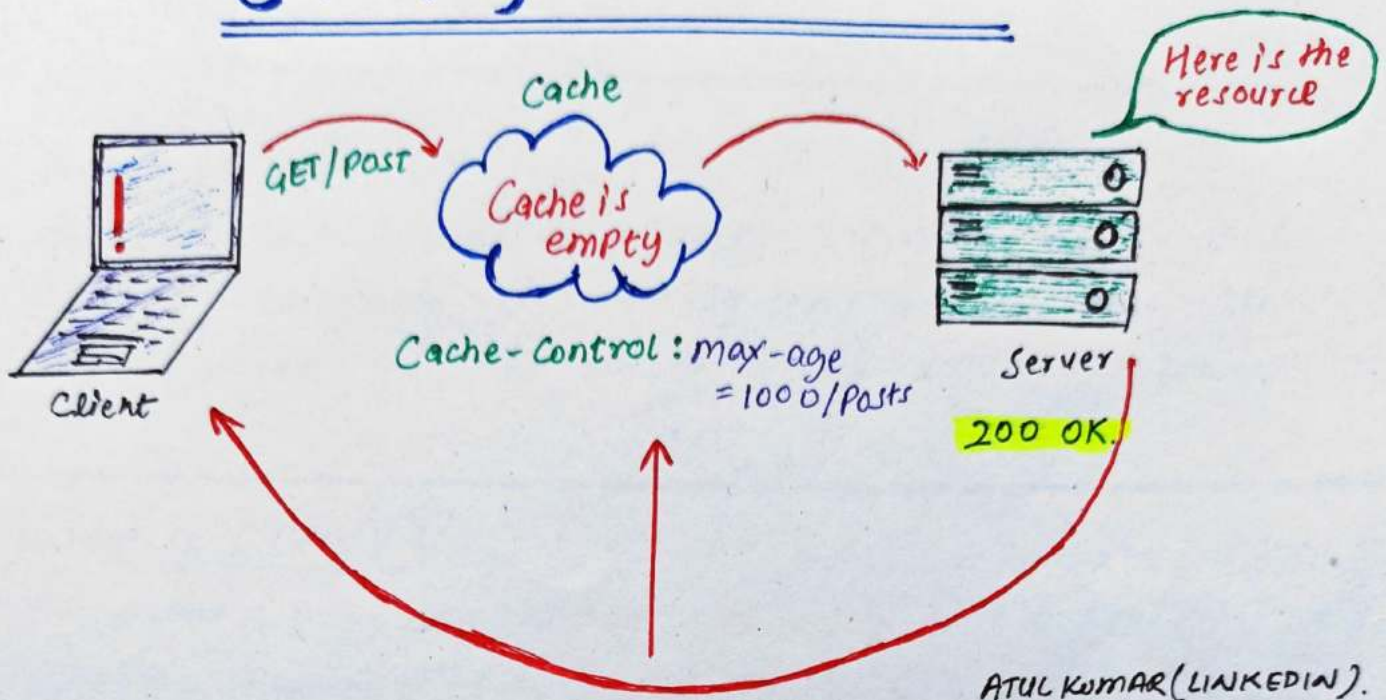
ORIGIN



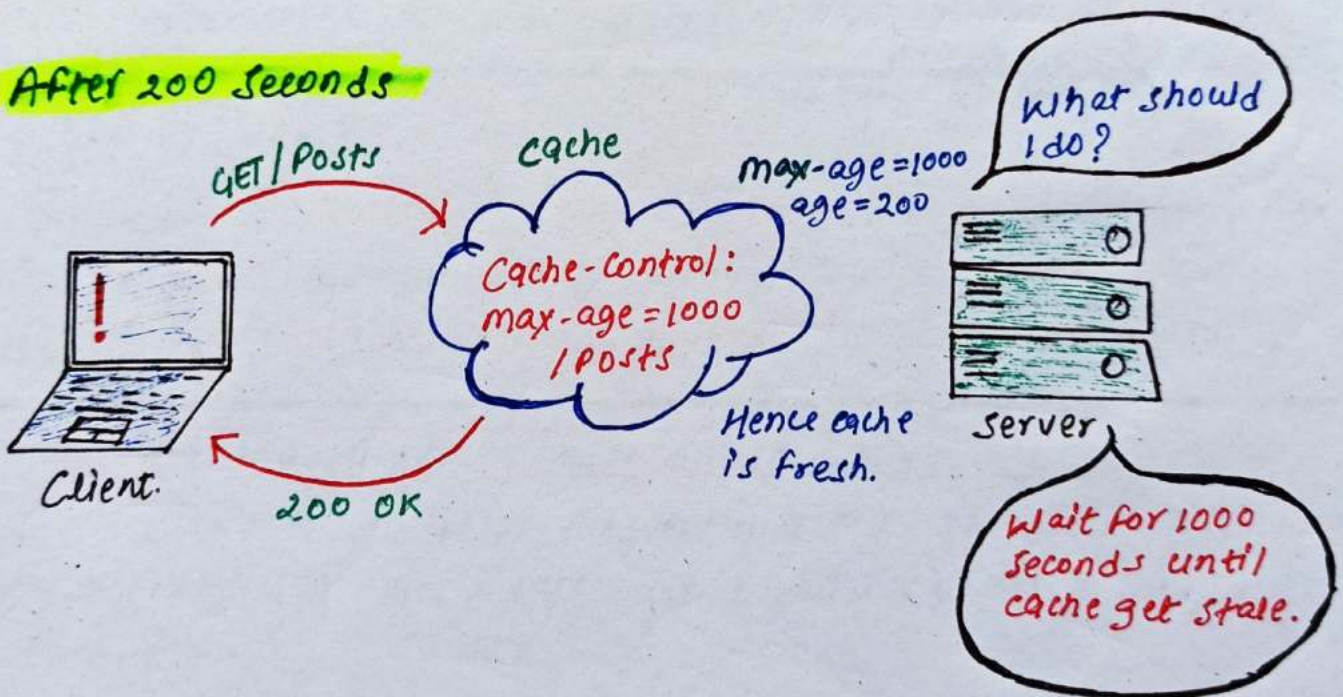
ACCESS-CONTROL-REQUEST-METHOD



Caching in API calls.



After 200 Seconds



TELEGRAM - NOTES GALLERY.