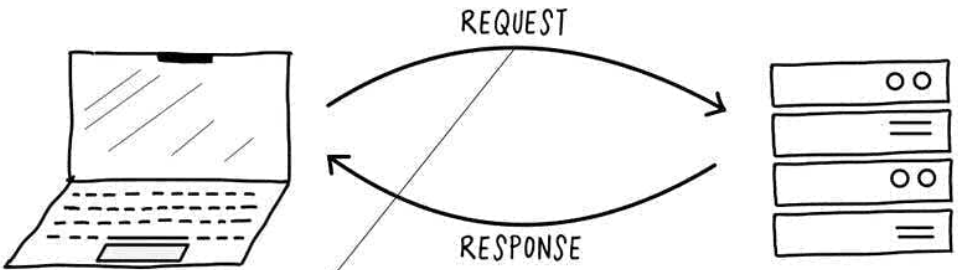
REST API

REST STANDS FOR REPRESENTATIONAL STATE TRANSFER

REST APIS OPERATE ON A SIMPLE REQUEST/RESPONSE SYSTEM



CLIENT CAN MAKE A REQUEST USING HTTP METHODS

THESE METHODS ARE:
GET, POST, PUT, PATCH, DELETE, HEAD, TRACE, OPTIONS, CONNECT

HTTP REQUEST CONTAINS

- REQUEST METHOD
- HTTP HEADERS
- BODY

SERVER RETURNS A RESPONSE WITH AN HTTP STATUS CODE

POPULAR HTTP STATUS CODE:
EX, 200, 202, 403, 404, 500 ETC

HTTP RESPONSE CONTAINS

- STATUS CODE
- HTTP HEADERS
- RESPONSE BODY

★ REST API CONSTRAINTS ★

CLIENT-SERVER ARCHITECTURE

- NO THIRD PARTY INTERPRETATION

UNIFORM INTERFACE

- FOLLOW A COMMON PROTOCOL

LAYERING

- MULTIPLE INTERMEDIARIES BETWEEN CLIENT AND SERVER

CACHEABILITY

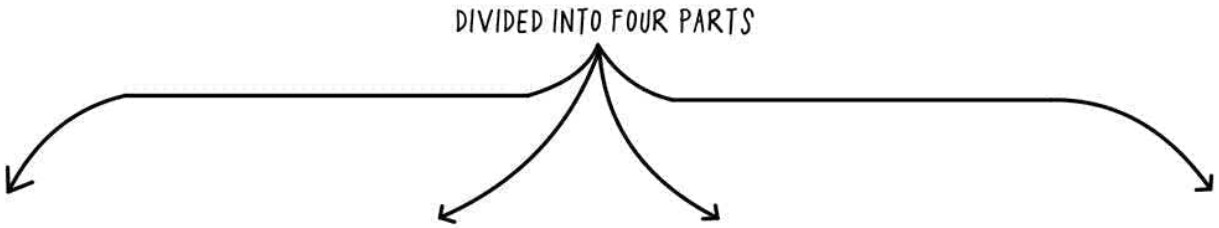
- RESPONSE CAN BE CACHEABLE

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



REQUEST HEADERS

- CLIENT TO SERVER

RESPONSE HEADERS

- SERVER TO CLIENT

REPRESENTATION HEADERS

- INFORMATION ABOUT THE BODY OF THE RESOURCE

PAYLOAD HEADERS

- INFORMATION ABOUT THE PAYLOAD DATA

WIDELY USED HTTP HEADERS

Accept

TYPE OF DATA CLIENT CAN UNDERSTAND

Accept-Encoding

WHICH ENCODING METHOD CLIENT CAN UNDERSTAND

Authorization

USED TO PASS CREDENTIALS SO THAT SERVER CAN AUTHENTICATE

Accept-Language

CLIENT IS EXPECTING THE RESPONSE IN THE MENTIONED LANGUAGE

Content-Type

SPECIFIES THE MEDIA TYPE OF THE RESOURCE

Host

SPECIFIES THE DOMAIN NAME

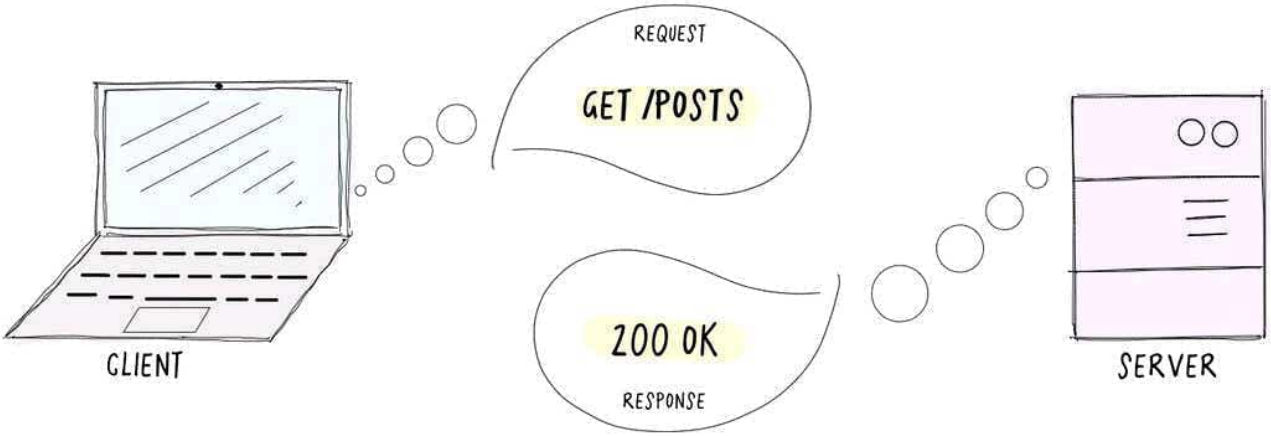
Access-Control-Allow-Origin

WHICH ORIGIN IS ALLOWED TO ACCESS THE RESOURCES

Access-Control-Allow-Methods

WHICH METHODS ARE ALLOWED TO ACCESS THE CROSS-ORIGIN RESOURCES

HTTP STATUS CODES



★ 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

CLIENT ERROR

400 BAD REQUEST
INVALID SYNTAX

401 UNAUTHORIZED
CREDENTIALS ARE INCORRECT

403 FORBIDDEN
YOU DON'T HAVE PERMISSION TO ACCESS THE RESOURCES

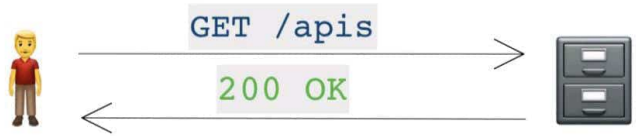
404 NOT FOUND
INVALID URL

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

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.

POST

The POST method is used to submit the information to the server.
As we're submitting data, the POST method often changes the state of the server.

PUT

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

PATCH

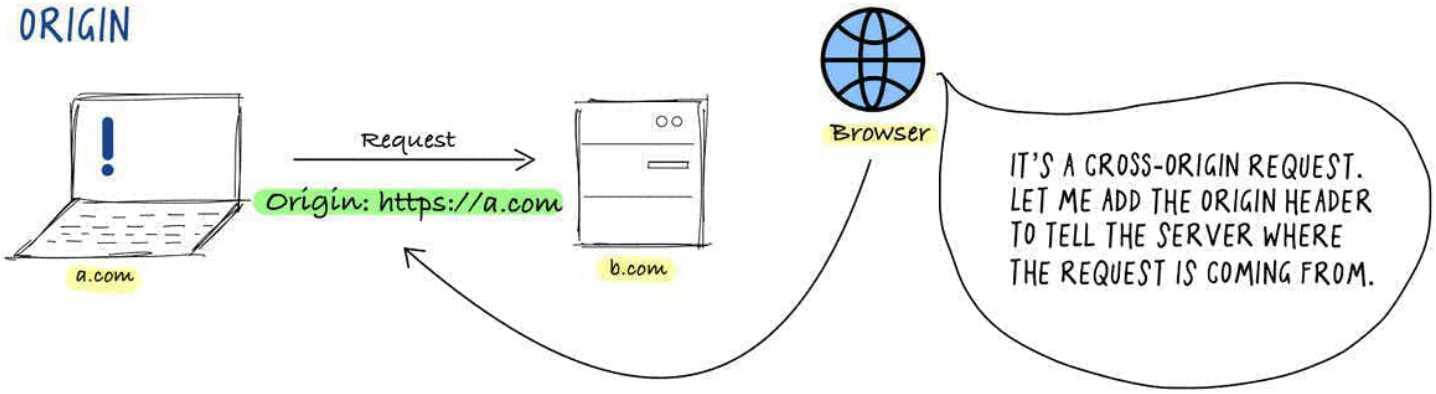
The PATCH request method is used to modify only the necessary part of the data or response.
The PATCH method doesn't modify the entire response.

DELETE

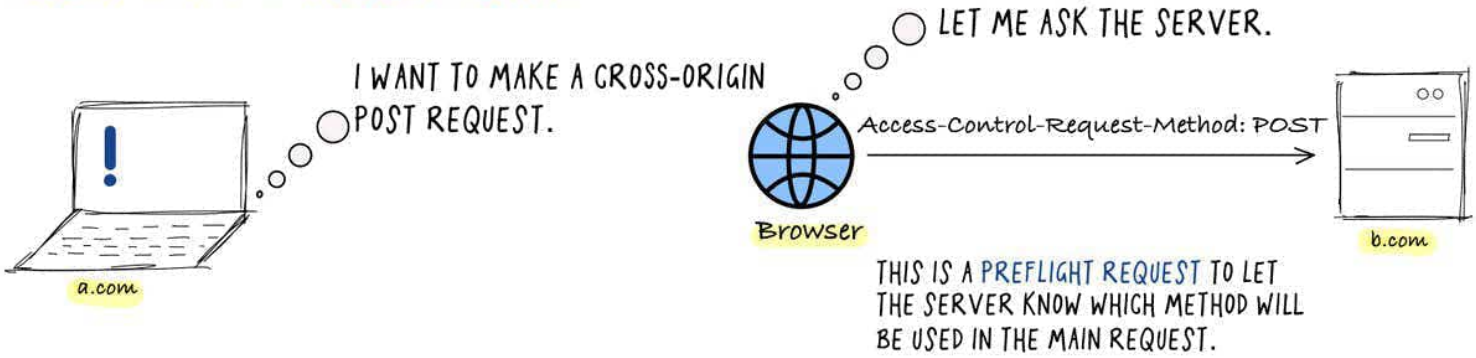
As the name says, the DELETE request method is used to delete the specified resource. It requests that the origin server delete the resource identified by the Request-URL.

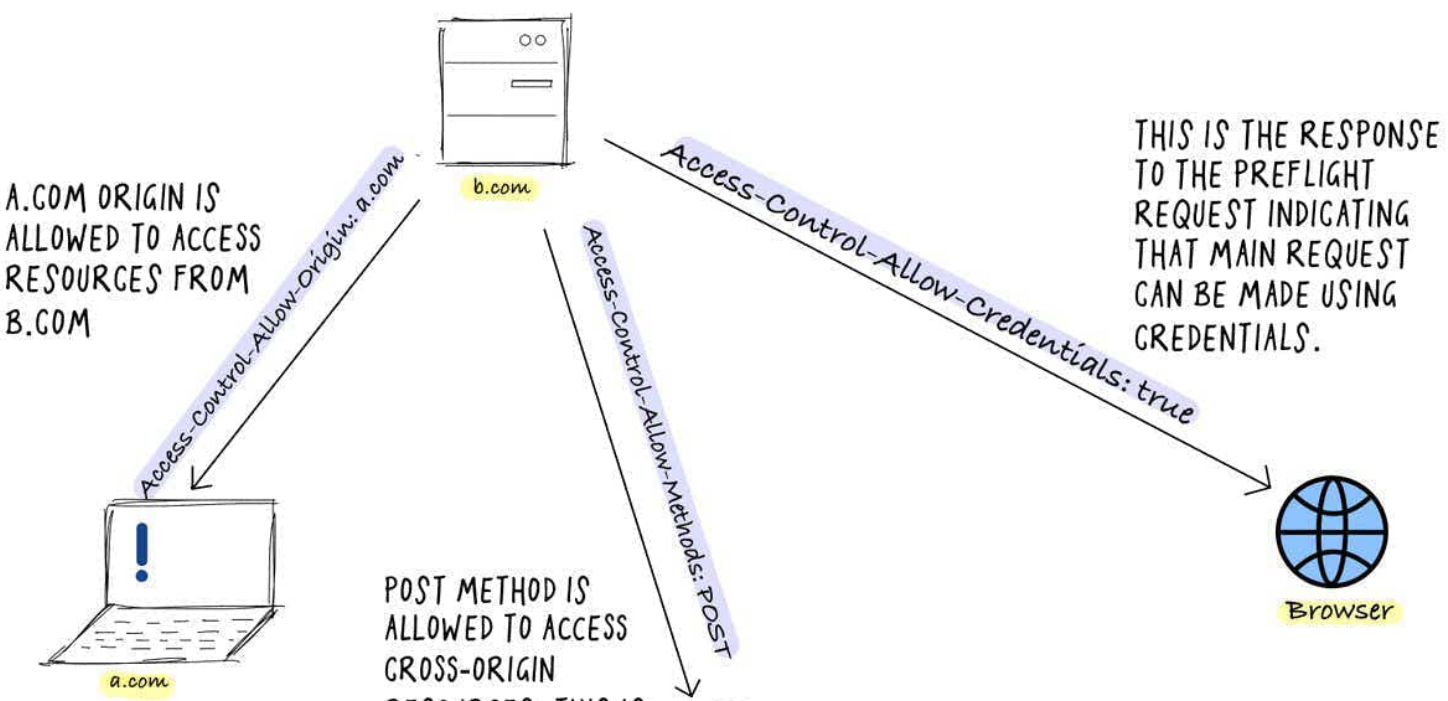
Access Control HTTP Headers

ORIGIN

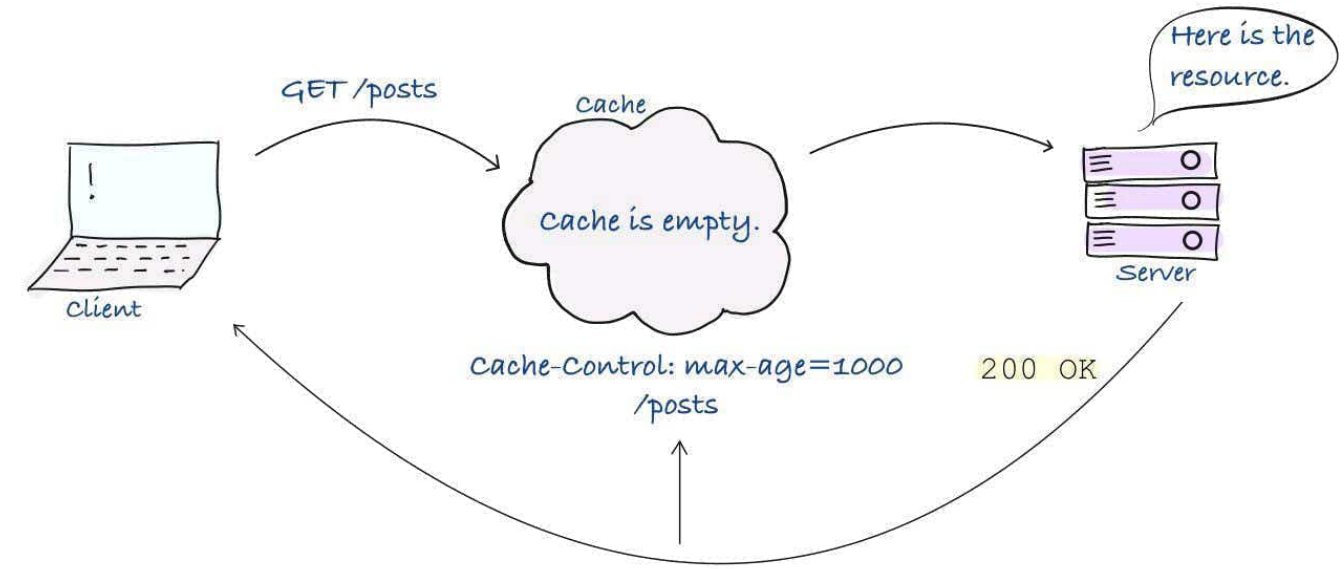


ACCESS-CONTROL-REQUEST-METHOD





Caching in API calls



After 200 Seconds