



Aaahh!!! Real Endpoints!

Making sense of that gibberish

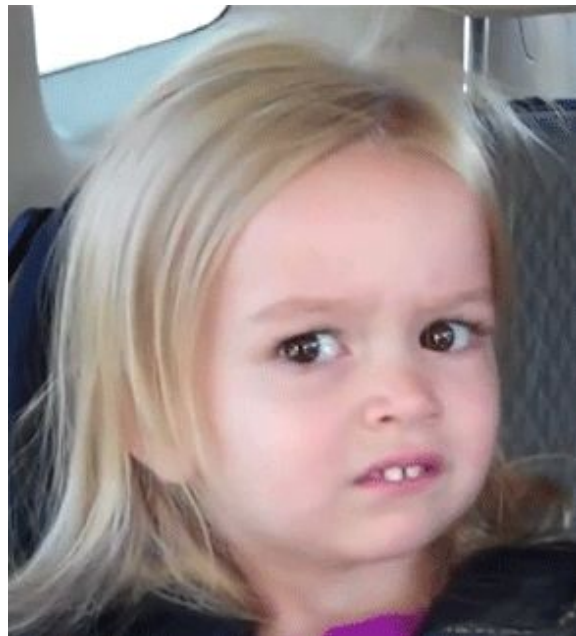
Have you heard of words like....

- Endpoints
- API
- RESTful
- CRUD
- GET
- POST
- PATCH
- DELETE
- verbs



And the immediate thought was...

- > Que?
- > lolwut
- > Plz speak human/decipher yourself
- > do you mean IPA?
- > Exit, pursued by a bear



Odds are ever in your favor!

Today, is the dawning of a new era.

Gibberish will be translated so you can talk tech back and know what the heck is going on!



But first, DATABASE... think of a closet

- ADD CLOTHES
- SELECT CLOTHES
- BEDAZZLE CLOTHES
- REMOVE CLOTHES

> Better excel/spreadsheets





Translation

CLOSET - **TABLE** (other rooms hold different stuff, house = database)

ADD CLOTHES - **INSERT** data

SELECT CLOTHES - **SELECT** data

MODIFY CLOTHES - **UPDATE** data

REMOVE CLOTHES - **DELETE** data



API: Application Programming Interface

API

- way we get information from online services
- Docs tells you how to make requests from API
- SOAP vs REST

REST - type of API

- Representational State Transfer - think web services (using HTTP protocol)
- standards/rules for how to build a web API so everyone is on the same page

<https://stackoverflow.com/questions/41189842/what-is-difference-between-rest-and-api>



What's the skinny on RESTful APIs?

- set of URLs that return data responses
- makes sharing data easier
- use JSON (python dictionaries) for a data format
- follows guidelines
- docs tell you what you want to know about how to interact with API



Terms

Resource: object/representation of something, has associated data with it

- Schools, Customers, Employees = resources (plural nouns)
- Add/Delete/Update/Select = actions/operations performed on resources

URL: sentence where resources are nouns and HTTP methods are verbs

- should only contain resources (nouns) not actions or verbs
- Uniform Resource Locator, path resource can be located and actions can be performed

Source: <https://hackernoon.com/restful-api-designing-guidelines-the-best-practices-60e1d954e7c9>



HTTP methods aka verbs: GET & POST

Indicates type of action to be performed on a resource

GET - requests data from resource

- **GET /foods** - list of all the foods
- **GET /foods/1** - food with id=1 info

POST - requests server to create a resource in database

- **POST /foods** - create a food
 - Data provided

Source: <https://hackernoon.com/restful-api-designing-guidelines-the-best-practices-60e1d954e7c9>



HTTP methods aka verbs: PATCH & DELETE

Indicates type of action to be performed on a resource

PATCH - requests data from a resource to be updated in database

- **PATCH /foods/1** - Update data for food id=1
 - Data provided

DELETE - requests that the resource be removed in database

- **DELETE /customers/1** - delete customer id=1

Source: <https://hackernoon.com/restful-api-designing-guidelines-the-best-practices-60e1d954e7c9>

HTTP Status Codes

<http://www.restapitutorial.com/httpstatuscodes.html>

This page is created from HTTP status code information found at ietf.org and Wikipedia. Click on the **category heading** or the **status code** link to read more.

1xx Informational

100 Continue

101 Switching Protocols

102 Processing (WebDAV)

2xx Success

★ 200 OK

203 Non-Authoritative Information

206 Partial Content

226 IM Used

★ 201 Created

★ 204 No Content

207 Multi-Status (WebDAV)

202 Accepted

205 Reset Content

208 Already Reported (WebDAV)

3xx Redirection

300 Multiple Choices

303 See Other

306 (Unused)

301 Moved Permanently

★ 304 Not Modified

307 Temporary Redirect

302 Found

305 Use Proxy

308 Permanent Redirect (experimental)

4xx Client Error

★ 400 Bad Request

★ 403 Forbidden

406 Not Acceptable

★ 409 Conflict

412 Precondition Failed

415 Unsupported Media Type

418 I'm a teapot (RFC 2324)

423 Locked (WebDAV)

426 Upgrade Required

431 Request Header Fields Too Large

450 Blocked by Windows Parental Controls (Microsoft)

★ 401 Unauthorized

★ 404 Not Found

407 Proxy Authentication Required

410 Gone

413 Request Entity Too Large

416 Requested Range Not Satisfiable

420 Enhance Your Calm (Twitter)

424 Failed Dependency (WebDAV)

428 Precondition Required

444 No Response (Nginx)

451 Unavailable For Legal Reasons

402 Payment Required

405 Method Not Allowed

408 Request Timeout

411 Length Required

414 Request-URI Too Long

417 Expectation Failed

422 Unprocessable Entity (WebDAV)

425 Reserved for WebDAV

429 Too Many Requests

449 Retry With (Microsoft)

499 Client Closed Request (Nginx)

5xx Server Error

★ 500 Internal Server Error

503 Service Unavailable

506 Variant Also Negotiates (Experimental)

509 Bandwidth Limit Exceeded (Apache)

598 Network read timeout error

501 Not Implemented

504 Gateway Timeout

507 Insufficient Storage (WebDAV)

510 Not Extended

599 Network connect timeout error

502 Bad Gateway

505 HTTP Version Not Supported

508 Loop Detected (WebDAV)

511 Network Authentication Required



Apply the fresh knowledge...

<https://developer.github.com/v3/#http-verbs>

<https://developer.github.com/v3/users/>

<https://developer.github.com/v3/projects/>



Enough Chit chat

Show me the code!