

# Learning about Web APIs!

What's an API?

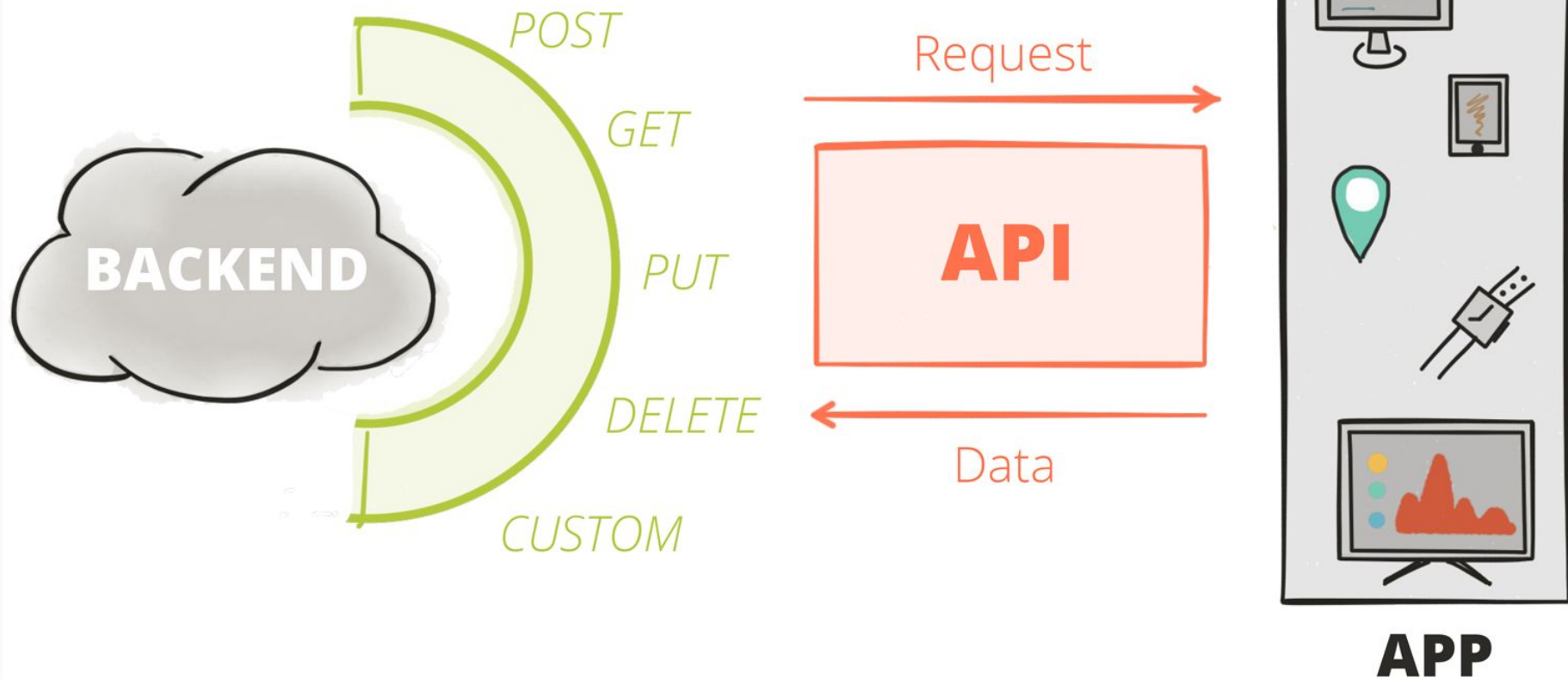
No, not apey eyes...



What does “**API**” stand for?

# Application Programming Interface

They make building apps faster!







# At a restaurant...

We can request the waiter to:

- **Read** all of the specials
- **Create** an order for pizza
- **Delete** our order

What platforms have APIs?



fitbit



reddit

# Language of the Web

# HTTP Request Methods

- **GET** - Requests data from a resource
- **POST** - Submits data to be processed to a specified resource
- **DELETE** - Deletes the specified resource

# HTTP Request Methods

- **GET** - “pulls”
- **POST** - “creates”
- **DELETE** - “deletes”

# HTTP Status Codes

- **1XX-level** - indicates the request was received and understood
- **2XX-level** - indicates the action requested by the client was received, understood, accepted, and processed successfully
- **3XX-level** - indicates the client must take additional action to complete the request, often for redirection
- **4XX-level** - the error seems to have been caused by the client
- **5XX-level** - the server failed to fulfill a valid request

# HTTP Status Codes

- **1XX-level** - “hold on”
- **2XX-level** - “here you go”
- **3XX-level** - “go away”
- **4XX-level** - “you messed up”
- **5XX-level** - “server’s messed up”





200  
OK



301  
Moved Permanently



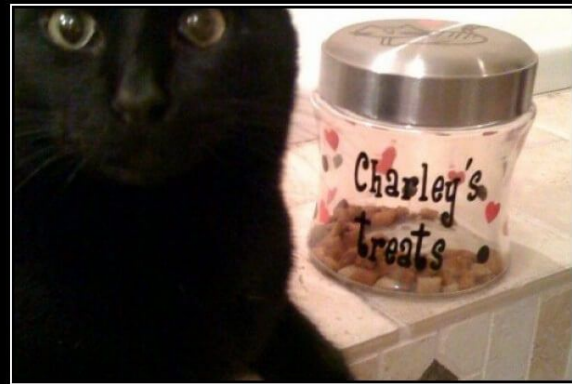
401  
Unauthorized



404  
Not Found



500  
Internal Server Error



507  
Insufficient Storage

Where do you learn how to use an API?

The Documentation!

icanhazdadjoke

Secure | https://icanhazdadjoke.com/api#fetch-a-random-dad-joke

Maxcell

## Fetch a random dad joke

`GET https://icanhazdadjoke.com/` fetch a random dad joke.

Fetching a random joke as JSON:

```
$ curl -H "Accept: application/json" https://icanhazdadjoke.com/
{
  "id": "R7UfaahVfFd",
  "joke": "My dog used to chase people on a bike a lot. It got so bad I had to take his bike away.",
  "status": 200
}
```

Fetching a random joke as text:

```
$ curl -H "Accept: text/plain" https://icanhazdadjoke.com/
My dog used to chase people on a bike a lot. It got so bad I had to take his bike away.
```

## Fetch a random dad joke as a Slack message

`GET https://icanhazdadjoke.com/slack` fetch random dad joke formatted for Slack.

This endpoint is used by the [icanhazdadjoke Slack app](#) but can be used by third parties who need to receive a random message.

This endpoint will only ever return JSON.

```
Prince ~ curl -i -H "Accept: application/json" https://icanhazdadjoke.com/ ✓ 7 20:54:30
HTTP/2 200
date: Mon, 11 Dec 2017 01:54:31 GMT
content-type: application/json
content-length: 127
set-cookie: __cfduid=dc96a1cd65a16939127d5400988d11dda1512957271; expires=Tue, 11-Dec-18 01:54:31 GMT; path=/; domain=.icanhazdadjoke.com; HttpOnly
cache-control: no-store, max-age=0, no-cache, must-revalidate, public, s-maxage=0
strict-transport-security: max-age=15552000; includeSubDomains
x-content-type-options: nosniff
server: cloudflare-nginx
cf-ray: 3cb4d1027bf6184c-EWR

{
  "id": "GBscNZg3gib",
  "joke": "Why couldn't the lifeguard save the hippie? He was too far out, man.",
  "status": 200
}
Prince ~ | ✓ 8 20:54:31
```

```
Prince ~ curl -i -H "Accept: application/json" https://icanhazdadjoke.com/
```



7

20:54:30

```
HTTP/2 200
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8

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```
Prince ~
```

```
✓ 8 20:54:31
```

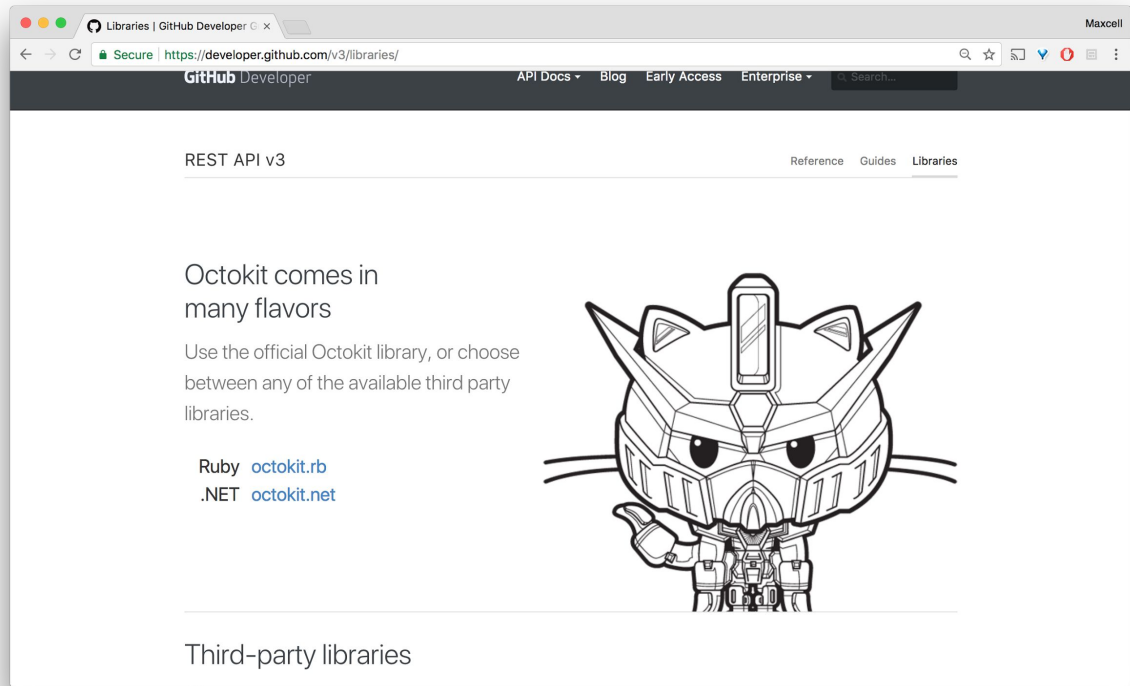


How do I use  
programming for this?



# API Clients

- Pre-built libraries
- By a company or community
- Integrates into your code
- Make Authorization simple



Let's build a request!

# Resources

- Postman - <https://www.getpostman.com/>
- Insomnia - <https://insomnia.rest/>
- List of Public APIs - <https://github.com/toddmotto/public-apis>
- Building your own API with Sinatra - <https://x-team.com/blog/how-to-create-a-ruby-api-with-sinatra/>
- Twilio - <https://www.twilio.com/>
- Algolia - <https://www.algolia.com/>

Thank you!