Introduction to APIs

CopenHacks 2017





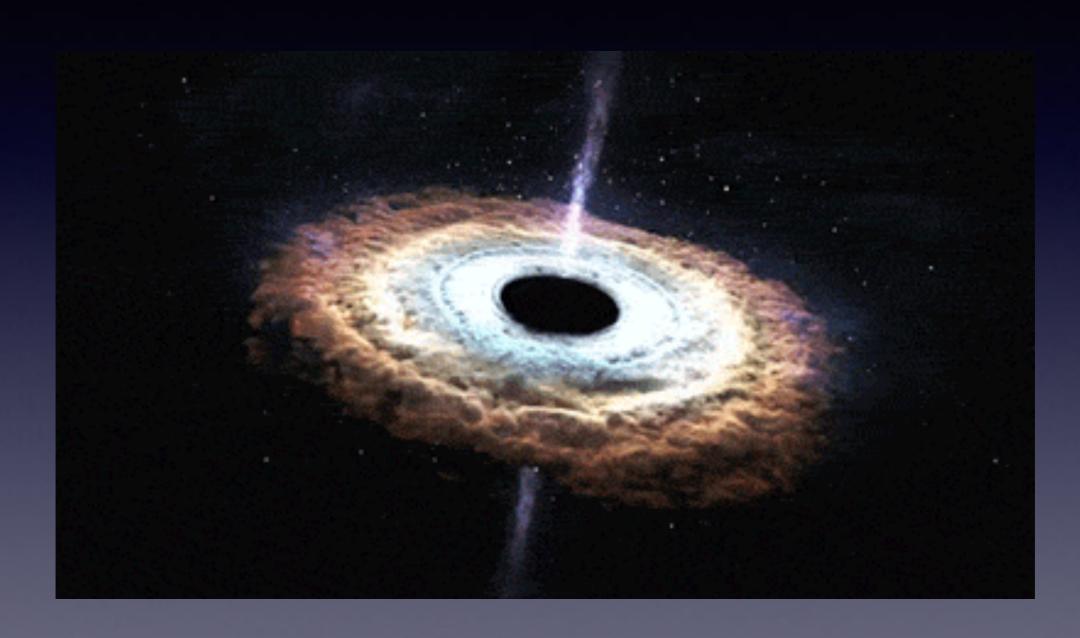
@wilhelmklopp

What are APIs

How do they work

How can we do cool things with them

A gate to another world



Terminology

API

Library

Framework

Example

Twitter API, Slack API

requests, tweepy

Django, React

Different types of APIs

Browser APIs

Geolocation

Camera

Accessing the client camera (Browser API)

```
<video autoplay></video>
 3
      <script>-
      var errorCallback = function(e) {-
      console.log('Reeeejected!', e);
      |··};-
 6
      · // Not showing vendor prefixes.-
 8
        navigator.getUserMedia({video: true, audio: true}, function(localMediaStream) {-
      var video = document.querySelector('video');
10
      video.src = window.URL.createObjectURL(localMediaStream);
12
      ····// Note: onloadedmetadata doesn't fire in Chrome when using it with getUserMedia.
13
14
      // See crbug.com/110938.-
15
      video.onloadedmetadata = function(e) {-
16
      ····// Ready to go. Do some stuff.
      ····};-
17
18
      --}, errorCallback);
19
      </script>
```

Internal APIs



docs.enghub.io

What are APIs

Company APIs



Slack API



GitHub API





Twitter API



Twilio API

How do they work

JSON HTTP REST

JSON

Demo Time

HTTP

The protocol underpinning the web and REST APIs

HTTP Verbs

- GET
- POST
- PUT
- PATCH

HTTP Status Codes

- 200 OK
- 404 Not Found
- 400 Bad Request
- 5XX Server Error

Our central method of communication

How do they work

REST

CRUD

Create, Read, Update, Delete

URL is resource

https://slack.com/api/channels.list

Typically returns
JSON

How do they work

REST

Crud Operation	HTTP Verb
Create	POST
Read	GET
Update	PUT
Delete	DELETE

How do they work

How can we do cool things with them

Postman

