



# ARE YOU BEING SERVERED?

## EXPLORING A SERVERLESS WEB

PHIL HAWKSWORTH

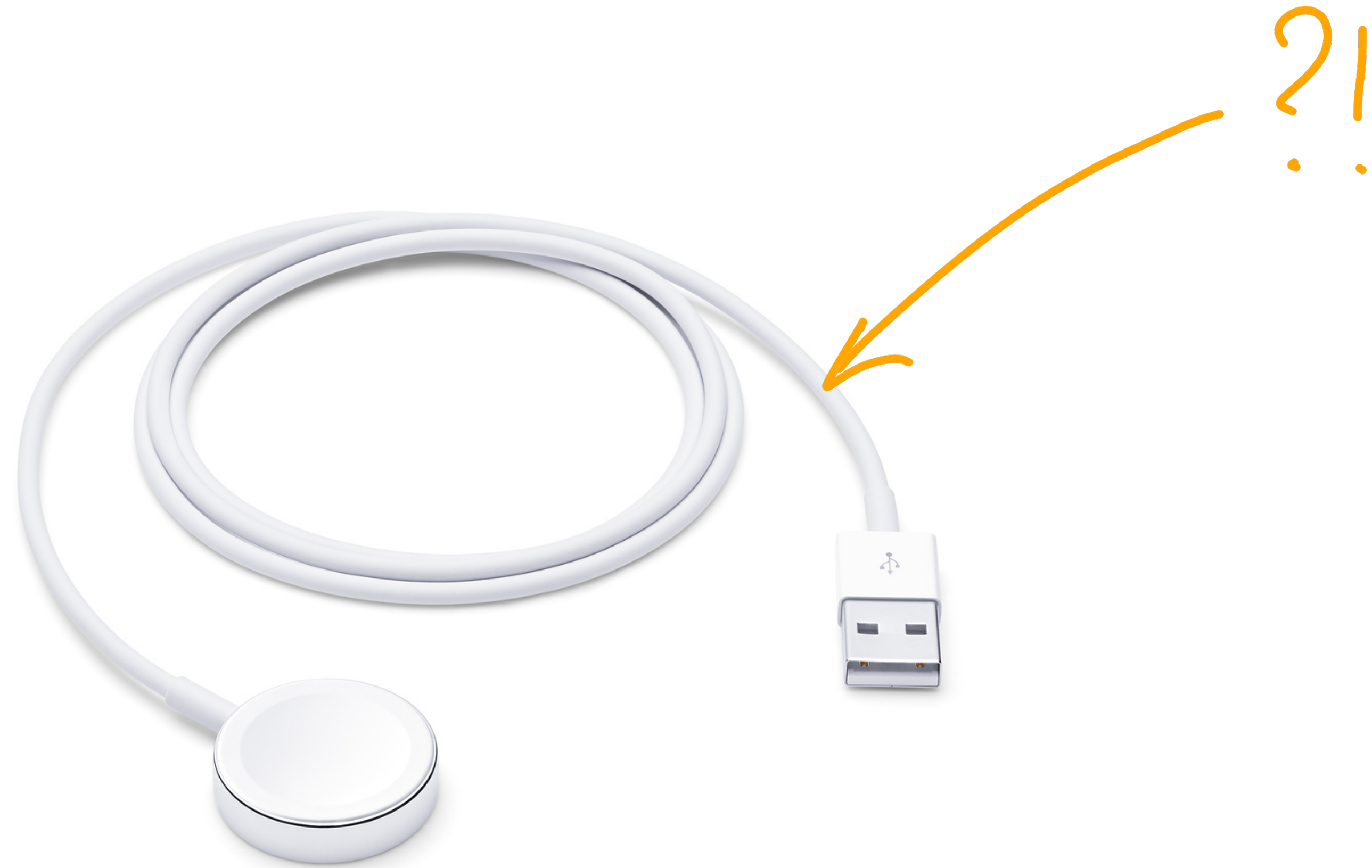


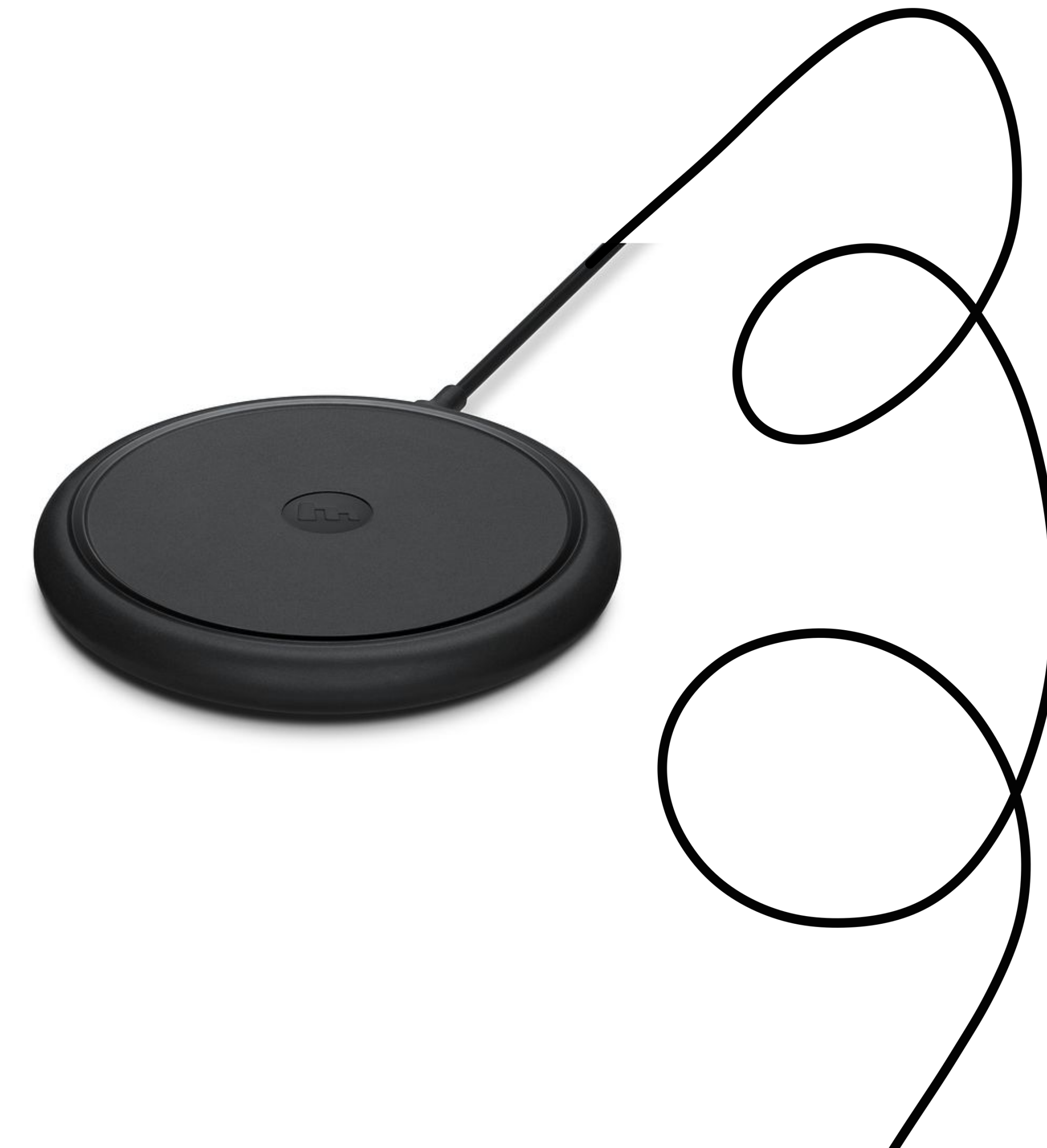


















# WIRELESS

# SERVERLESS

**CAN WE REALLY  
TAKE SERVERS  
OUT OF THE EQUATION?**



*serverless*



*jamstack*

**FOCUSSING ON  
THE THINGS YOU  
CARE ABOUT**

**FOCUSSING ON  
THE THINGS YOU  
*have to*  
CARE ABOUT**



*liberated*  
**TO FOCUS ON  
WHAT MATTERS**

# JUST WRITE CODE

**CHRIS NORING, 11:47AM**

*the problem with*  
**DOING  
BIG  
PROJECTS**



# CONSTRAINTS AND COMPLEXITY AND INFRASTRUCTURE

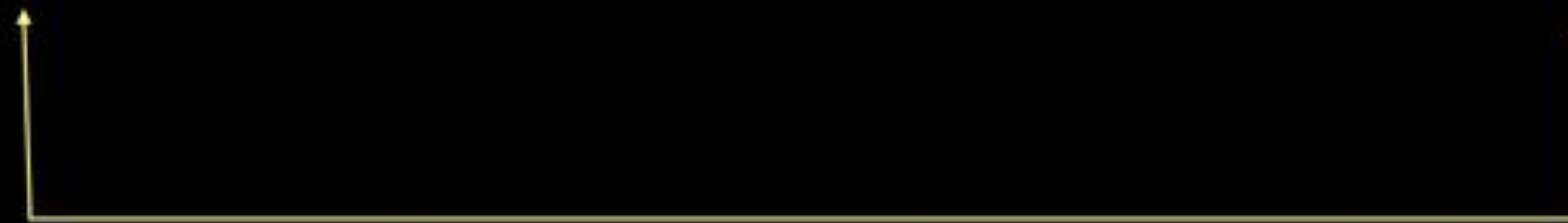
*oh my!*

# WHERE TO FOCUS OUR EFFORTS?

Back End

Front End

OS Database Servers Server Side Languages APIs Frameworks JavaScript CSS HTML

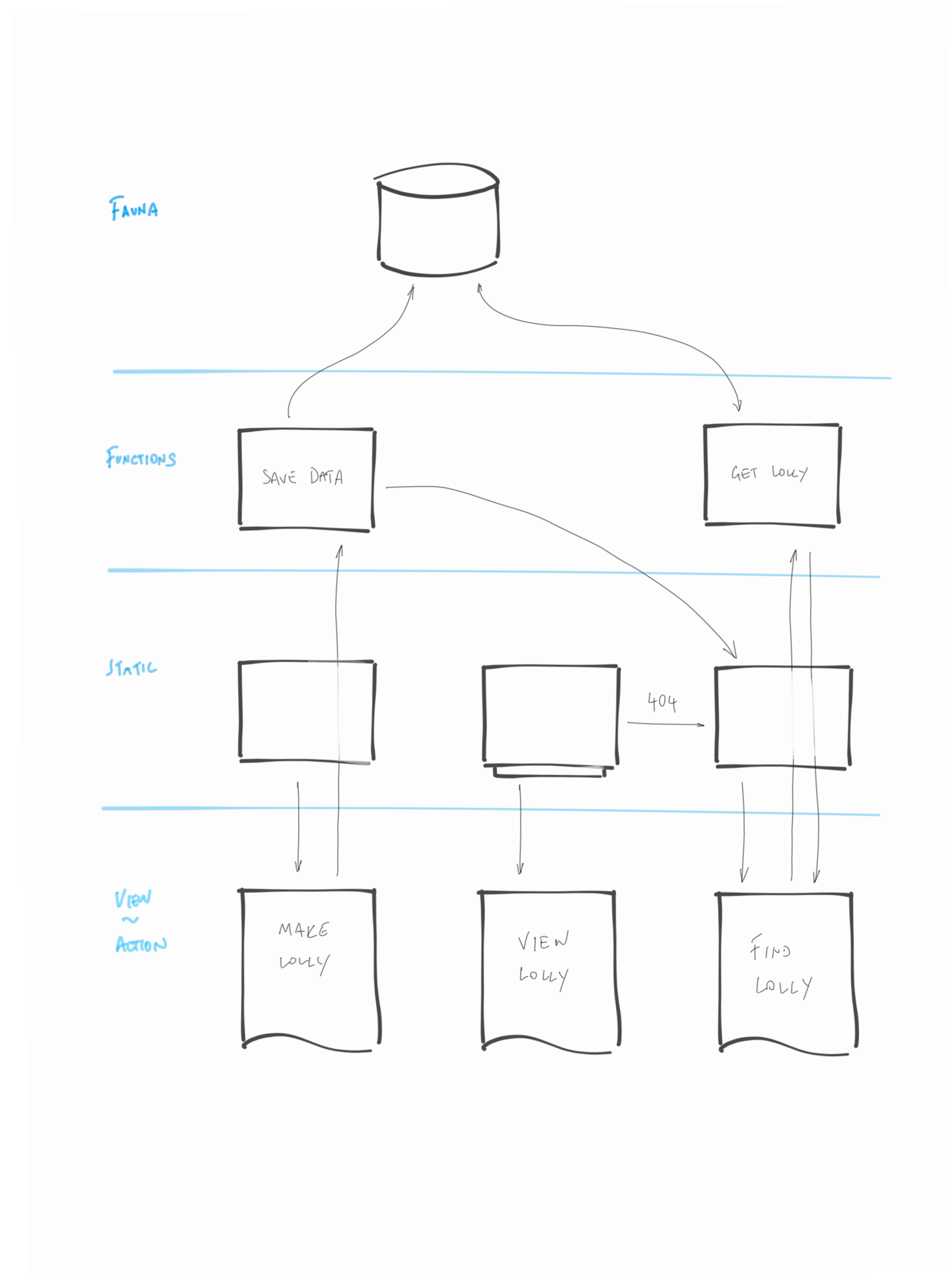


# LAMP

Linux Apache MySQL PHP



# LINES AND BOXES



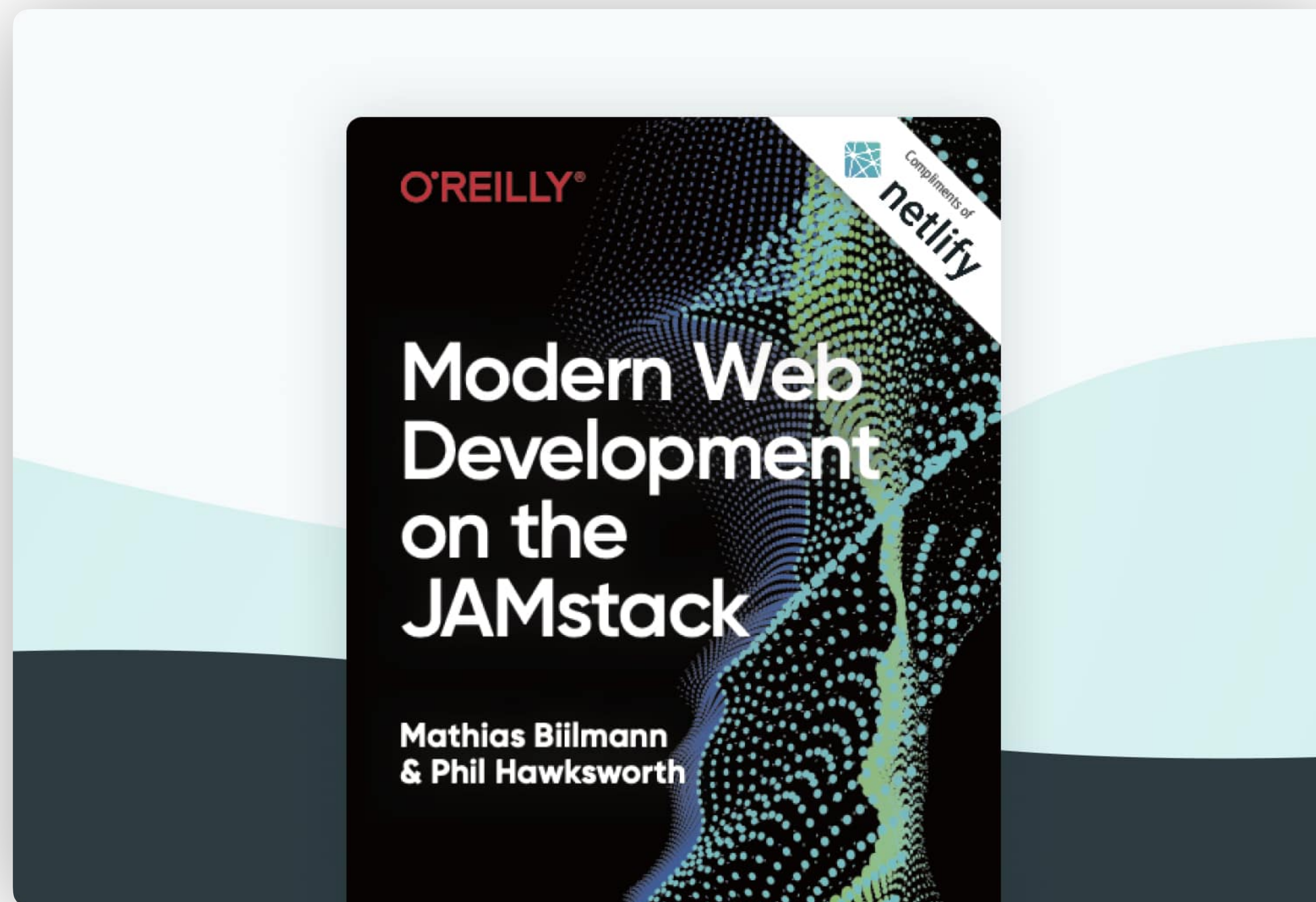


**@PHILHAWKSWORTH**

HE / HIM

DEVELOPER EXPERIENCE

NETLIFY



**FINDTHAT.AT/JAMSTACK-BOOK**

FINDTHAT.AT/SOMETHINGSOMETHING

FINDTHAT.AT/SERVERED

FINDTHAT.AT



# ARE YOU BEING SERVERED?

## EXPLORING A SERVERLESS WEB

PHIL HAWKSWORTH





# Are You Being Served?



BBC

# Are You Being Served?



The Complete First Series  
Including pilot episode

DVD  
VIDEO

PG



EMI

NAT COHEN presents

# "Are You Being Served?"

By JEREMY LLOYD  
and DAVID CROFT



Starring

MOLLIE SUGDEN | JOHN INMAN

FRANK THORNTON  
TREVOR BANNISTER

Also Starring

WENDY RICHARD · ARTHUR BROUGH  
NICHOLAS SMITH · HAROLD BENNETT  
and ARTHUR ENGLISH

Produced by ANDREW MITCHELL

Directed by BOB KELLETT

Technicolor® · Distributed by EMI Films Limited





**ON BEHALF OF THE  
PEOPLE OF BRITAIN,  
I APOLOGISE**

---

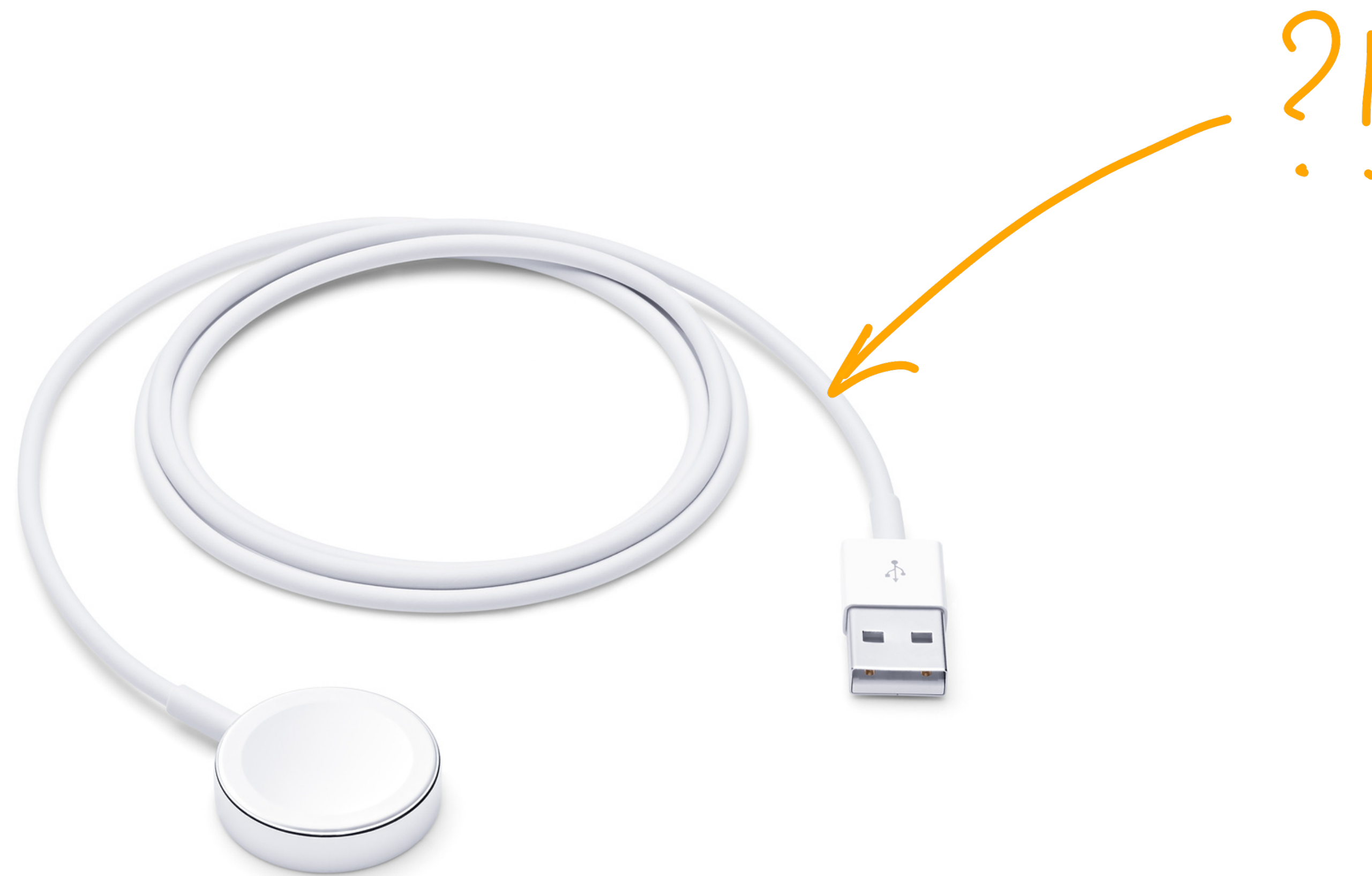
# ARE YOU BEING SERVERED?

## EXPLORING A SERVERLESS WEB

PHIL HAWKSWORTH

# FUNCTIONS AS A SERVICE

# SERVING WEBSITES WITHOUT WEBSERVERS



# *jamstack*

**JAVASCRIPT / API / MARKUP**



# STACKS FOR DAYZ

AN / LAMP / MAMP / XAMP / ROR / WISA / MEAN

WISA / MEAN / LAMP / MAMP / XAMP / ROR /

# jamstack

*A modern architecture —*

*Create fast and secure sites and dynamic apps  
with **J**avaScript, **A**PIs, and pre-rendered  
**M**arkup, served without web servers*

---

A black and white close-up portrait of Aaron Swartz, smiling and looking slightly to the left. He has dark, wavy hair and a light beard. The background is plain white.

# **BAKE, DON'T FRY**

*– Aaron Swartz*

**I CARE ABOUT NOT HAVING TO  
MAINTAIN CRANKY AOLSERVER,  
POSTGRES AND ORACLE INSTALLS**

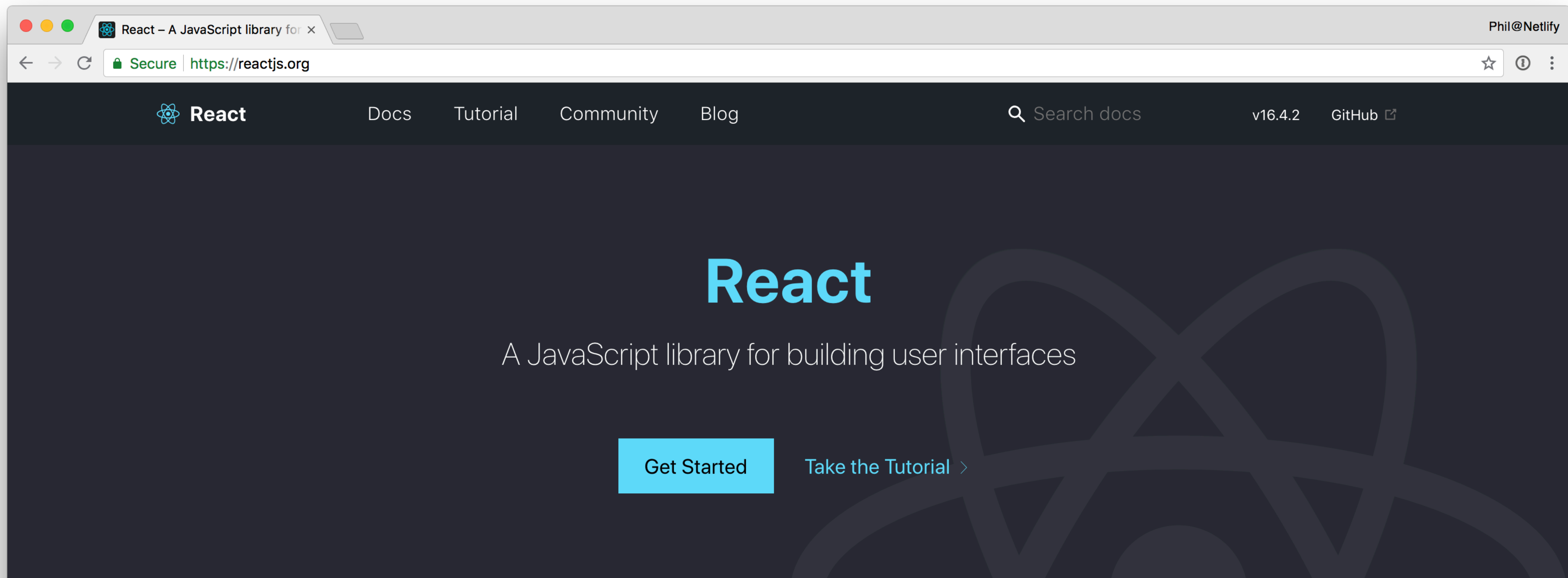
**AARON SWARTZ, 2002**



# TOOLS AND ECOSYSTEM

**SO... WHAT CAN  
A STATIC SITE  
EVEN BE?**

# REACTJS.ORG



## Declarative

React makes it painless to create interactive UIs. Design simple views for each state in your application, and React will efficiently update and render just the right components when your data changes.

## Component-Based

Build encapsulated components that manage their own state, then compose them to make complex UIs.

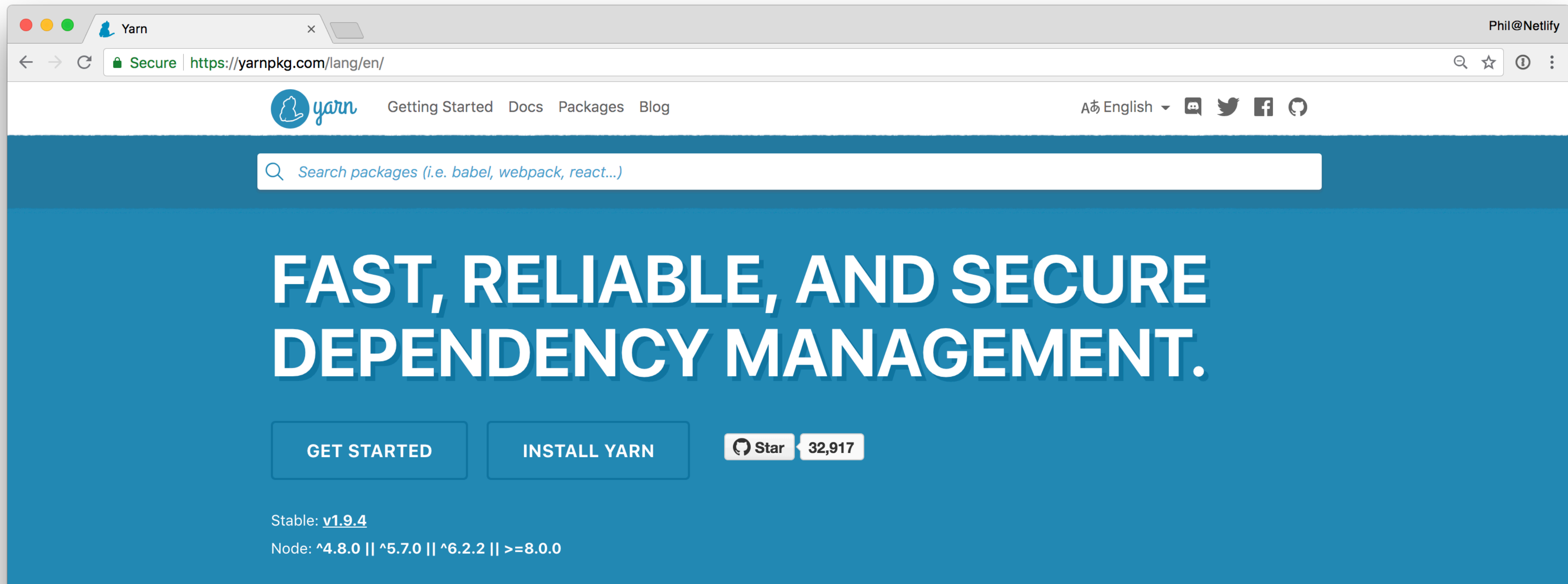
Since component logic is written in JavaScript

## Learn Once, Write Anywhere

We don't make assumptions about the rest of your technology stack, so you can develop new features in React without rewriting existing code.

React can also render on the server using Node

# YARNPKG.COM



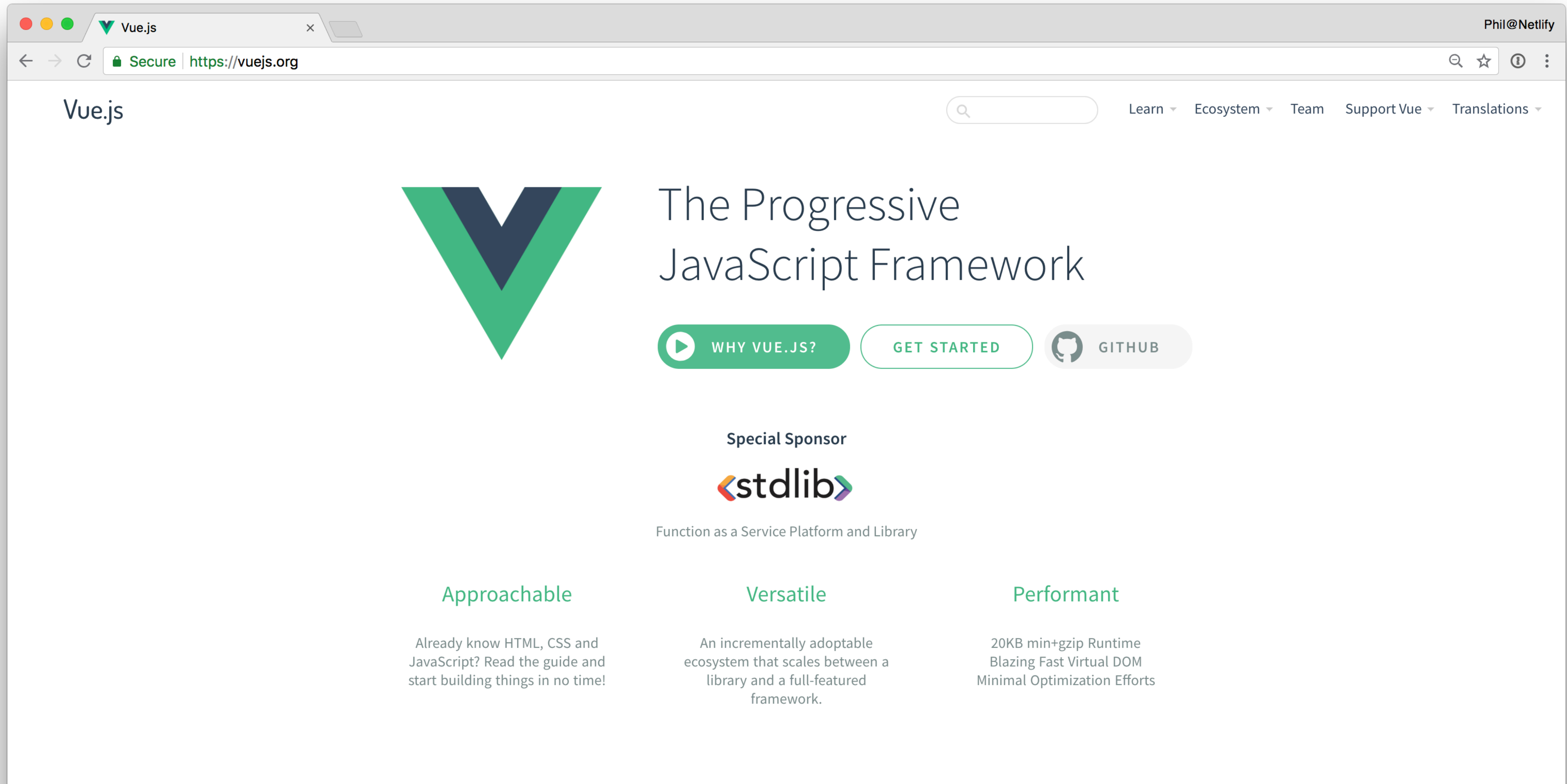
The screenshot shows a web browser window with the URL `https://yarnpkg.com/lang/en/`. The page features a blue header with the Yarn logo, navigation links for 'Getting Started', 'Docs', 'Packages', and 'Blog', and social media icons for GitHub, Twitter, Facebook, and YouTube. A search bar is present with the placeholder text 'Search packages (i.e. babel, webpack, react...)'. The main content area has a large blue background with the text 'FAST, RELIABLE, AND SECURE DEPENDENCY MANAGEMENT.' and three buttons: 'GET STARTED', 'INSTALL YARN', and a GitHub Star button showing '32,917' stars. Below the buttons, the current version 'Stable: v1.9.4' and supported Node.js versions 'Node: ^4.8.0 || ^5.7.0 || ^6.2.2 || >=8.0.0' are listed.

## Ultra Fast.

Yarn caches every package it downloads so it never needs to download it again. It also parallelizes operations to maximize resource utilization so install times are faster than ever.



# VUEJS.ORG



The screenshot shows the Vue.js website homepage. At the top, there's a navigation bar with the Vue.js logo, a search bar, and links for Learn, Ecosystem, Team, Support Vue, and Translations. The main content area features the large green and dark blue 'V' logo, followed by the heading 'The Progressive JavaScript Framework'. Below this are three buttons: 'WHY VUE.JS?' (with a play icon), 'GET STARTED', and 'GITHUB' (with the GitHub logo). A 'Special Sponsor' section follows, featuring the 'stdlib' logo and the text 'Function as a Service Platform and Library'. The bottom section highlights three key features: 'Approachable' (for those familiar with HTML, CSS, and JavaScript), 'Versatile' (for incremental adoption), and 'Performant' (with low runtime size and fast virtual DOM).

Vue.js

Secure | <https://vuejs.org>

Learn ▾ Ecosystem ▾ Team Support Vue ▾ Translations ▾

## The Progressive JavaScript Framework

[WHY VUE.JS?](#) [GET STARTED](#) [GITHUB](#)

Special Sponsor

**stdlib**

Function as a Service Platform and Library

### Approachable

Already know HTML, CSS and JavaScript? Read the guide and start building things in no time!

### Versatile

An incrementally adoptable ecosystem that scales between a library and a full-featured framework.

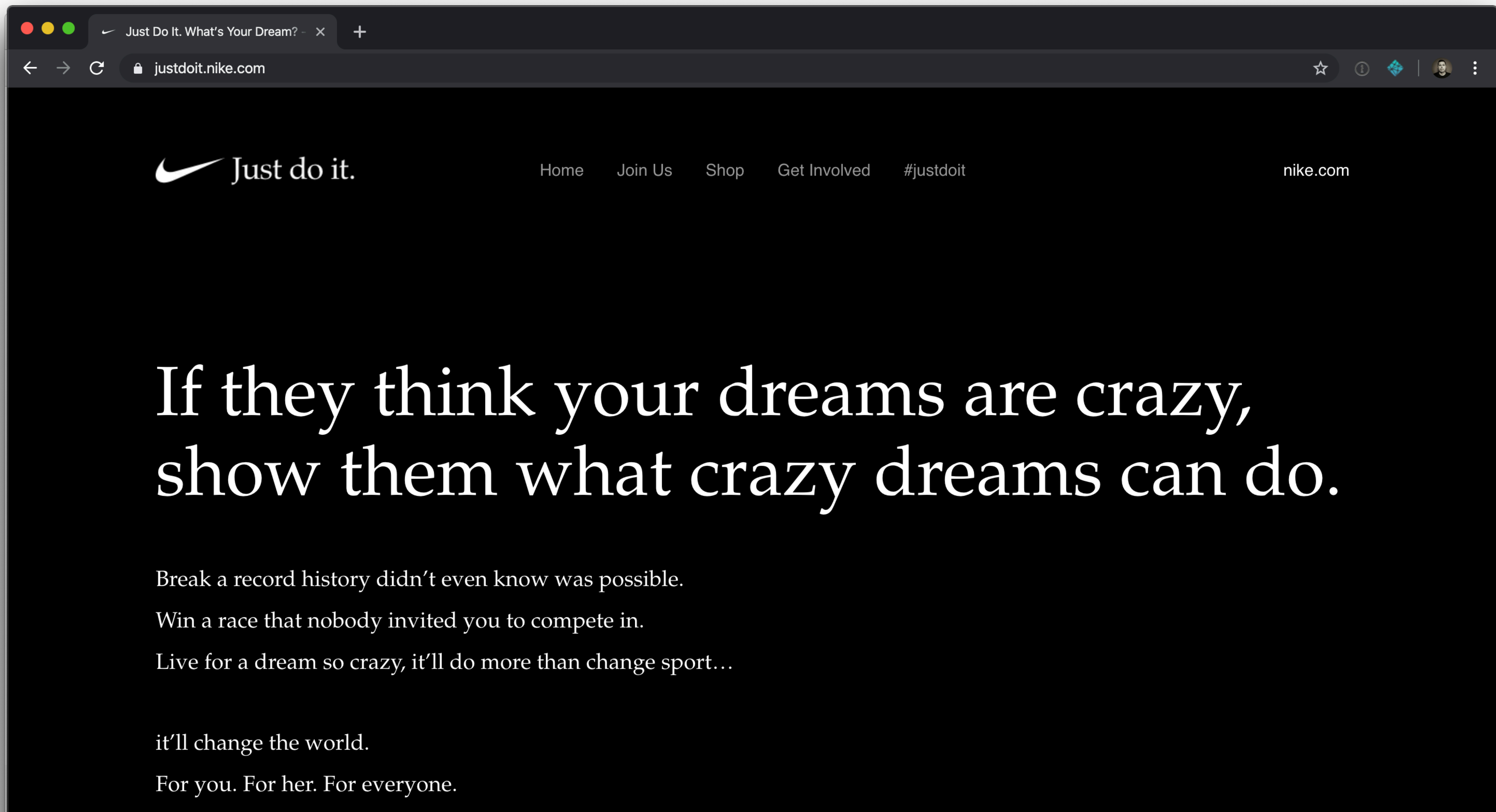
### Performant

20KB min+gzip Runtime  
Blazing Fast Virtual DOM  
Minimal Optimization Efforts

Patreon Sponsors



# JUSTDOIT.NIKE.COM



The screenshot shows a web browser window displaying the Nike website. The browser's address bar shows the URL `justdoit.nike.com`. The page features the Nike logo and the slogan "Just do it." in the top left. A navigation menu in the top right includes links for "Home", "Join Us", "Shop", "Get Involved", and "#justdoit", along with the "nike.com" link. The main content area is dominated by a large, white, serif font quote: "If they think your dreams are crazy, show them what crazy dreams can do." Below this quote, there are three lines of smaller text: "Break a record history didn't even know was possible.", "Win a race that nobody invited you to compete in.", and "Live for a dream so crazy, it'll do more than change sport...". At the bottom, there are two more lines of text: "it'll change the world." and "For you. For her. For everyone."

Just Do It. What's Your Dream? - x

justdoit.nike.com

Home Join Us Shop Get Involved #justdoit nike.com

Just do it.

If they think your dreams are crazy,  
show them what crazy dreams can do.

Break a record history didn't even know was possible.  
Win a race that nobody invited you to compete in.  
Live for a dream so crazy, it'll do more than change sport...

it'll change the world.  
For you. For her. For everyone.

# A LITTLE MORE "DYNAMIC"

# SMASHINGMAGAZINE.COM

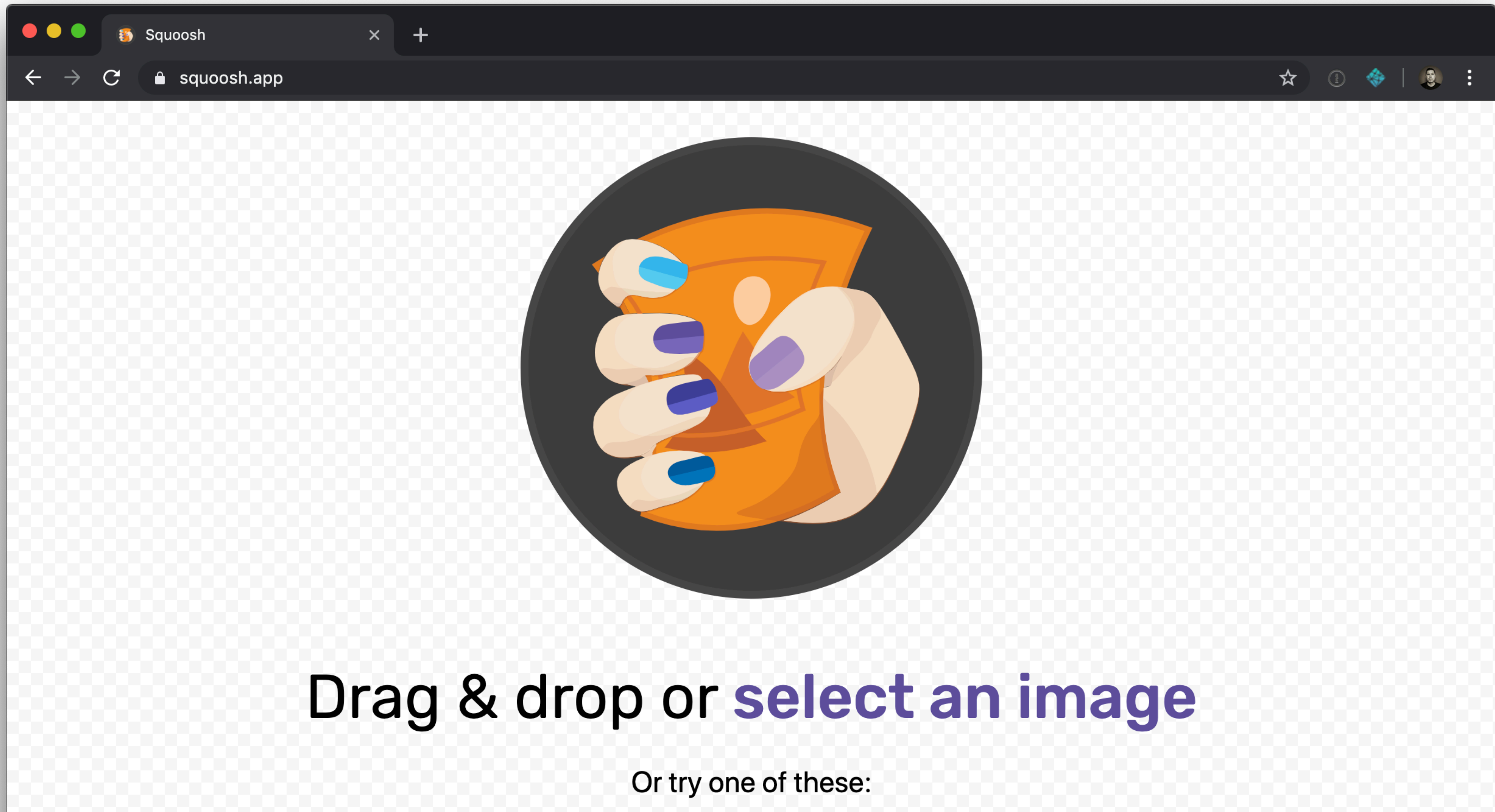
Smashing Magazine membership page. The header includes navigation for Articles, Books, Events, Jobs, and Membership. The main heading is "Smashing Membership" with a sub-headline: "The best thing invented since yummy cappuccino. Smashing books, webinars and conferences – for just 1 coffee a month!". Below this is a "Choose your option." section with three membership tiers: **SUPPORTER** (\$3), **MEMBER** (\$5), and **SMASHING** (\$9). Each tier includes a list of benefits and a "Become a [Tier]" button.

Smashing Magazine articles page. The header features navigation and a search bar. A "Don't Miss These Latest Articles" section highlights two featured articles: "How To Start Using Sketch And Framer X" by Martina Pérez and "Increase Customer Centricity With Workshops" by Claire Mason. Below these are two more articles: "When Do We Need A Design System? An Interview With Brad Frost" by Vitaly Friedman and "Inspiring Wallpapers For A Colorful June (2019 Edition)" by Cosima Mielke. Each article includes a "Leave a comment" button and a "Seriously, red?" badge.

Smashing Magazine events page. The header includes navigation and a search bar. The main heading is "SmashingConf 2019-2020" with a sub-headline: "Smashing Conferences are friendly, inclusive events for people who care about their work. No fluff, no fillers, no multi-track experience – just actionable insights applicable to your work right away. With live sessions on accessibility, performance, front-end, UX, CSS, JavaScript and interface design. Please respect our code of conduct." Below this is a "What's SmashingConf Like?" button and a promotional offer: "Get 10% off all tickets with your Smashing Membership. Just sign in." The page features two event cards: "Toronto, Canada Jun 25-26, 2019" and "London, UK Jul 9-10, 2019". Each card includes a description of the event and an "Explore all speakers and topics" button.



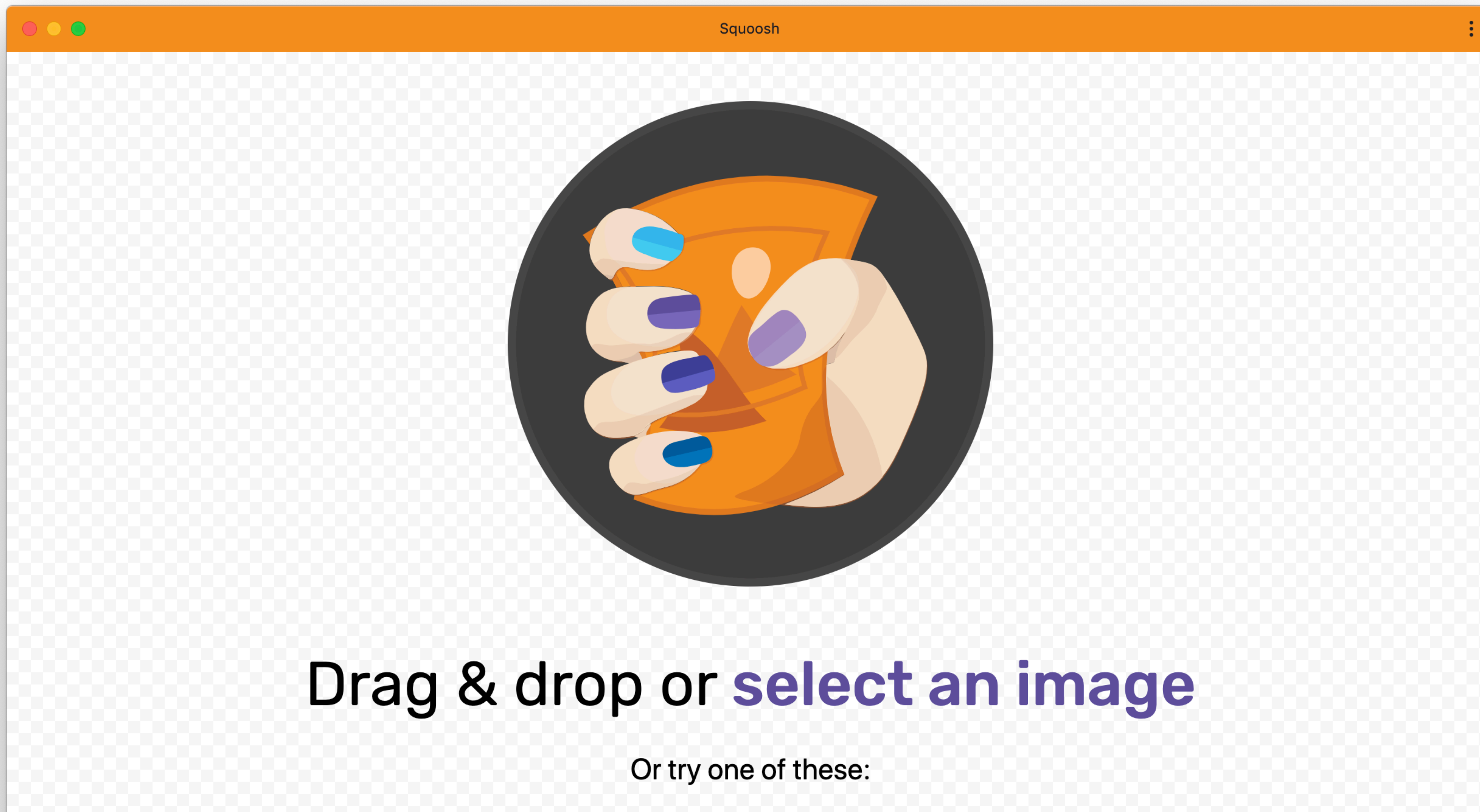
# SQUOOSH.APP



Drag & drop or **select an image**

Or try one of these:

# SQUOOSH.APP



Drag & drop or **select an image**

Or try one of these:





blog speaking about search

# HAWKSWORX

/hɔːkswɔːks/

The blog, playground, and generally a home on the web for Phil Hawksworth, a web nerd, amateur comedian, and cat botherer.

The source code of this site is available on [GitHub](#) and is hosted and updated by [Netlify](#) automatically after each code commit

Other than where specified, the content on this site is published under a [Creative Commons Attribution 3.0 licence](#).

Subscribe to a feed of blog posts on this site

You can usually find me on [Twitter](#). And you can sometimes find me at web development [conferences](#), where I might be talking about development techniques. I blog here less frequently than I'd like, but manage it a little more often on the [Netlify blog](#).

Wherever you find me, online or in the real world, please do come and say a friendly hello.

## [Recently on the blog](#)

August 19th 2019

### [Power up Gatsby sites with A/B testing on Netlify](#)

[#jamstack](#) , [#netlify](#) , [#gatsby](#)

If you host your Gatsby site with [Netlify](#), you can create A/B or multi-variant tests without the need for client-side UI manipulation or other JavaScript intervention. This post and demo video explain how.

Edit settings

## Build hooks

---

Build hooks give you a unique URL you can use to trigger a build.

Twitter activity trigger:

[https://api.netlify.com/build\\_hooks/58d50555d6865d3a3d5a1f19](https://api.netlify.com/build_hooks/58d50555d6865d3a3d5a1f19)



Comment approved:

[https://api.netlify.com/build\\_hooks/5a9178c6df99537d12e5d057](https://api.netlify.com/build_hooks/5a9178c6df99537d12e5d057)



Alexa voice command:

[https://api.netlify.com/build\\_hooks/5b75f84e82d3f10467d27f41](https://api.netlify.com/build_hooks/5b75f84e82d3f10467d27f41)



[Learn more about build hooks in the docs](#) ↗

Add build hook

## Build image selection

---

BETA

**PHILIP GOT COCKY**

**SOME PEOPLE ON  
THE INTERNET NOTICED**







**Zach Leatherman**

@zachleat

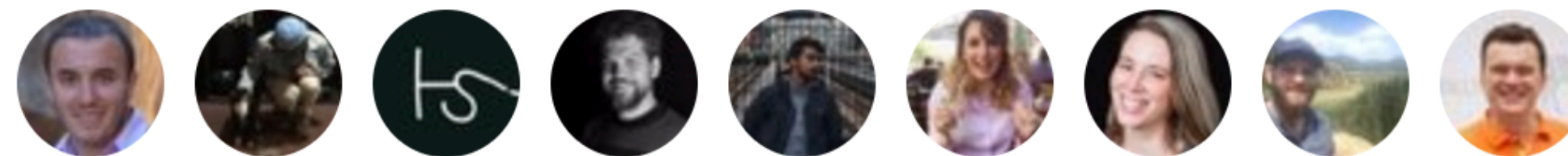
Following



free side project idea: HTML-only static site generated clock that deploys a new version to [@netlify](#) every minute

8:54 PM - 19 Jul 2018

30 Likes





**Phil Hawksworth**

@philhawksworth



Replying to [@zachleat](#) [@chriscoyier](#) and 2 others

Hold my beer.

10:25 PM - 19 Jul 2018

12 Likes







**Phil Hawksworth**

@philhawksworth



Replying to @philhawksworth @zachleat and 3 others

Only an idiot would make what you are suggesting.

[setyourwatchby.netlify.com](https://setyourwatchby.netlify.com)

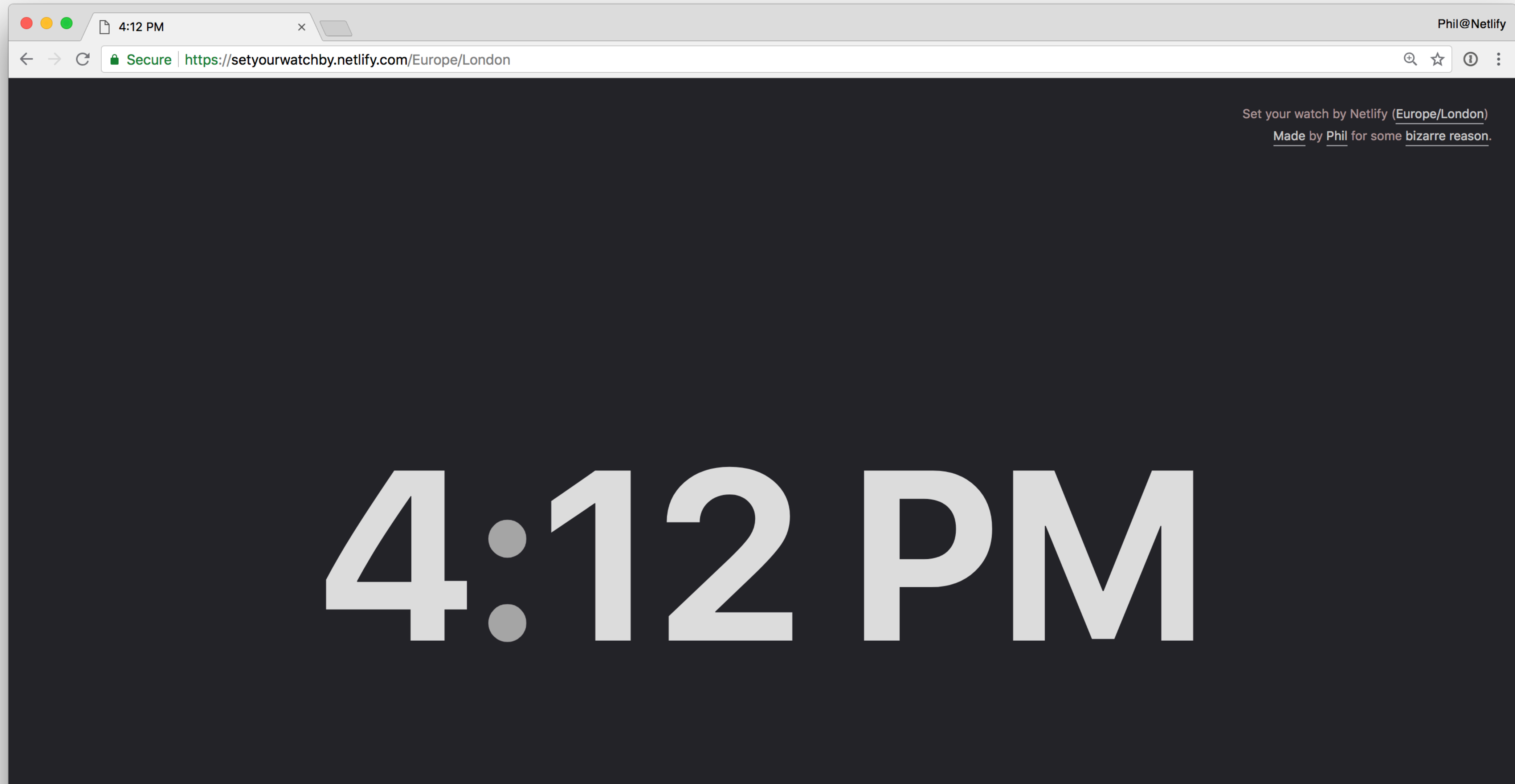
2:02 PM - 20 Jul 2018

12 Retweets 41 Likes



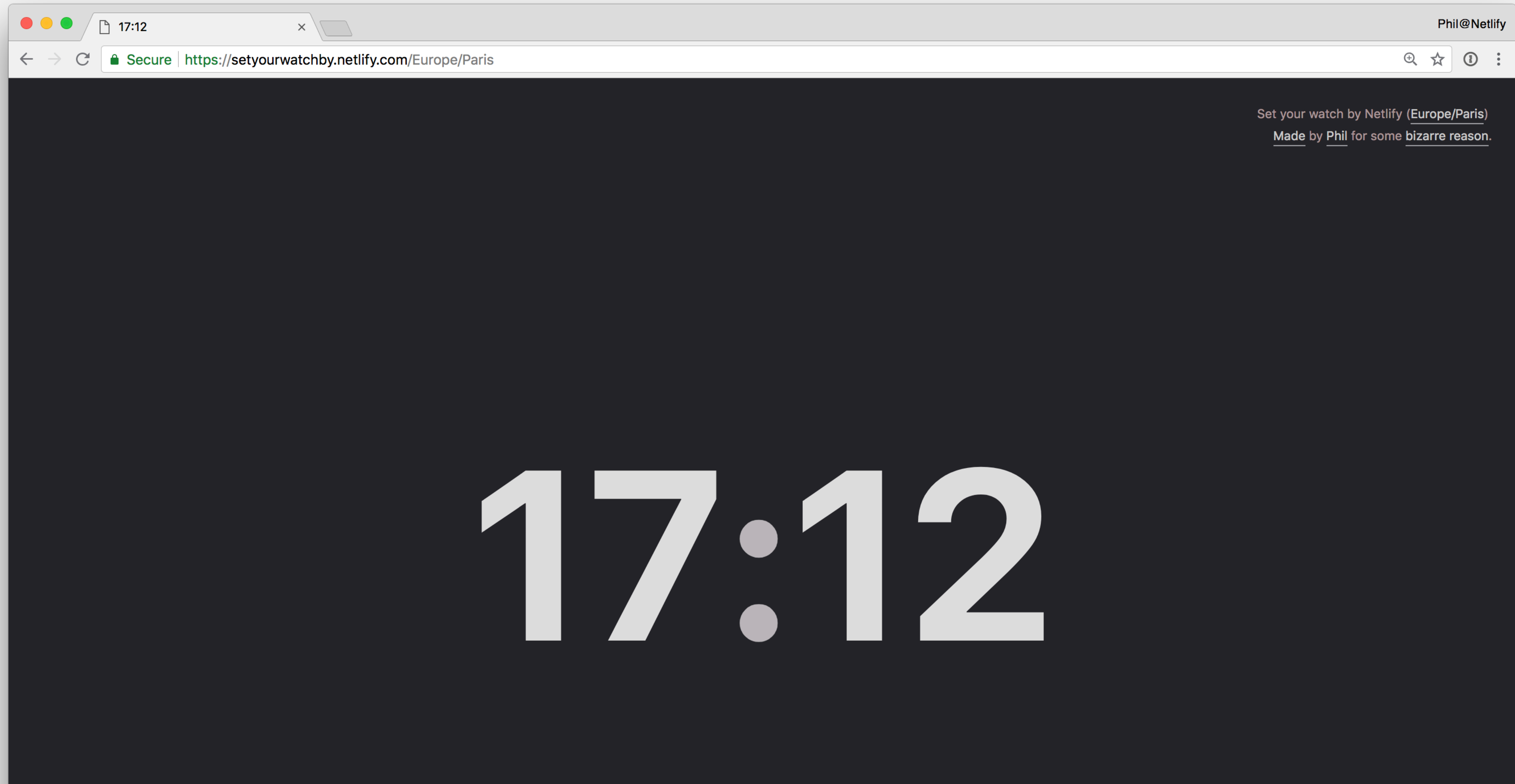
# FINDTHAT.AT/TIME

<https://setyourwatchby.netlify.com>



# FINDTHAT.AT/TIME

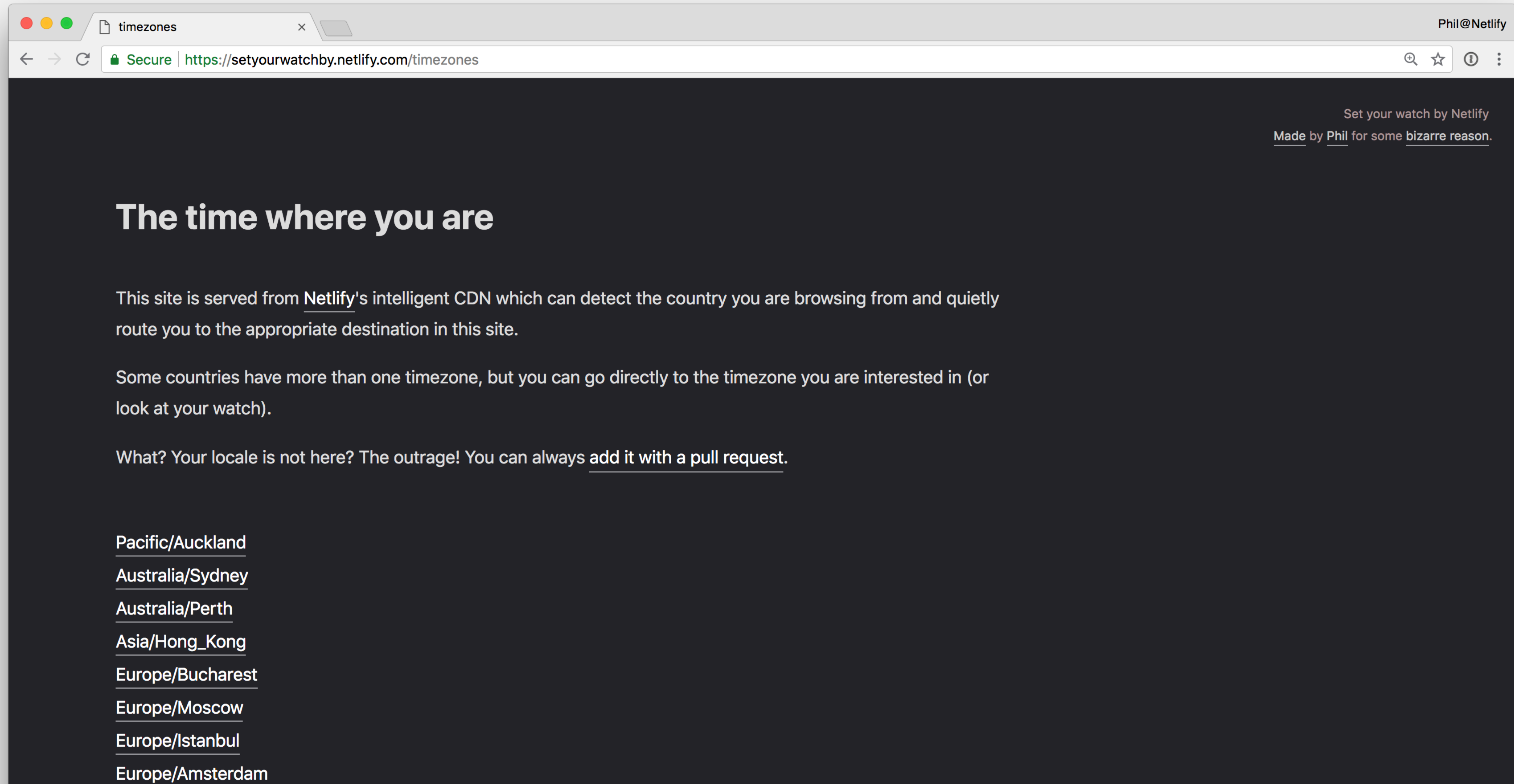
<https://setyourwatchby.netlify.com>





# FINDTHAT.AT/TIME

<https://setyourwatchby.netlify.com>



Phil@Netlify

Secure | <https://setyourwatchby.netlify.com/timezones>

Set your watch by Netlify  
Made by [Phil](#) for some [bizarre reason](#).

## The time where you are

This site is served from [Netlify](#)'s intelligent CDN which can detect the country you are browsing from and quietly route you to the appropriate destination in this site.

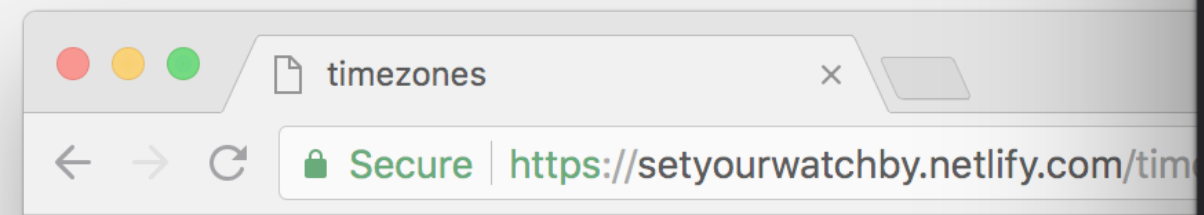
Some countries have more than one timezone, but you can go directly to the timezone you are interested in (or look at your watch).

What? Your locale is not here? The outrage! You can always [add it with a pull request](#).

- [Pacific/Auckland](#)
- [Australia/Sydney](#)
- [Australia/Perth](#)
- [Asia/Hong\\_Kong](#)
- [Europe/Bucharest](#)
- [Europe/Moscow](#)
- [Europe/Istanbul](#)
- [Europe/Amsterdam](#)

# FINDTHAT.AT/TIME

<https://setyourwatchby.netlify.com/timezones>



## The time where you

This site is served from [Netlify's](#) intelligent routing system which will route you to the appropriate destination based on your location.

Some countries have more than one time zone (e.g. Australia, look at your watch).

What? Your locale is not here? The output of the routing system is:

[Pacific/Auckland](#)

[Australia/Sydney](#)

[Australia/Perth](#)

[Asia/Hong\\_Kong](#)

[Europe/Bucharest](#)

[Europe/Moscow](#)

[Europe/Istanbul](#)

[Europe/Amsterdam](#)

[Pacific/Auckland](#)

[Australia/Sydney](#)

[Australia/Perth](#)

[Asia/Hong\\_Kong](#)

[Europe/Bucharest](#)

[Europe/Moscow](#)

[Europe/Istanbul](#)

[Europe/Amsterdam](#)

[Europe/Paris](#)

[Europe/London](#)

[America/New\\_York](#)

[America/Chicago](#)

[America/Denver](#)

[America/Los\\_Angeles](#)

# WEBTASK.IO

The screenshot shows the Webtask Editor interface in a browser window. The browser tab is titled "Webtask Editor" and the address bar shows "https://webtask.io/make". A blue banner at the top of the page asks, "Would you like the webtask.io experience in your own SaaS? Try Extend". The main interface is dark-themed and features the "webtask" logo on the left. A "Scheduler" panel is open, showing a configuration for a task named "Netlify-HTML-time-scheduler". The scheduler is set to "Write an advanced schedule" and has a cron expression of "\*/\*/\*/\*/\*". Below the scheduler are "Stats" showing a run count of 57540 and an error count of 10. A code editor on the right displays the following JavaScript code:

```
1 var request = require('request');
2
3 module.exports = function(cb) {
4   request({
5     method: 'POST',
6     url: 'https://api.netlify.com/build_hooks/5b51210902ed836d8a7073c4
7   });
8   cb(null, { msg: 'done '});
9 };
10
```

At the bottom right, it says "Powered by Extend".



# WEBTASK.IO

The screenshot shows the Webtask Editor interface. At the top, there's a navigation bar with 'Extend' and 'Documentation' links. Below that, a search bar and a 'e-scheduler' label are visible. The main content area is divided into two sections: 'Scheduler' and 'Stats'. The 'Scheduler' section has a 'Refresh' button, a 'Remove scheduler' button, and a checked checkbox for 'Write an advanced scheduler'. Below this, there are three buttons for 'Minute', 'Hour', and 'Day', each with a corresponding cron symbol (\*/\*, /\*, /\*). A large blue 'Update schedule' button is overlaid on the interface. The 'Stats' section shows 'Run count: 513902' (circled in yellow) and 'Error count: 38'. Below the stats, there's a green checkmark icon and the text 'Completed seconds ago'. At the bottom right, it says 'Powered by Extend'.

\*/1

Minute

\*

Hour

\*

Day

\*

Month

\*

Weekday

Update schedule

## Stats

Run count: **513902** Error count: **38**

✔ Completed seconds ago

## Scheduler

Refresh | Remove scheduler

Write an advanced scheduler

\*/1

Minute

\*

Hour

\*

Day

## Stats

Run count: **57540** Error count: **0**

**( DON'T DO THIS )**

*illustrating a point...*

**VERY LOW  
DEPLOYMENT FRICTION**



*illustrating a point...*

# EVENTS AND AUTOMATION

*a quick look at*  
**TWO**  
**PRINCIPLES**

# PRE-RENDERING



# PRE-RENDERING

# SERVERLESS RENDERING

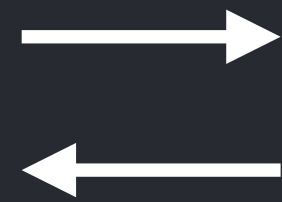
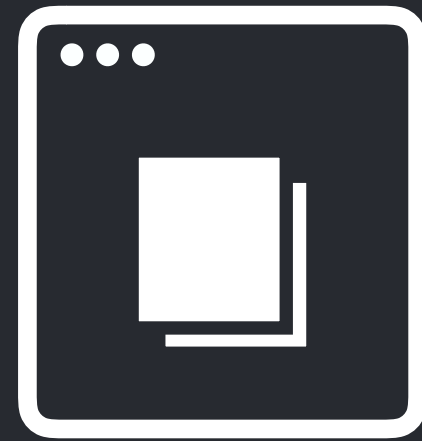
*motives for*  
**PRE-RENDERING**

**DOING THE WORK NOW,  
SO YOUR SERVERS  
DON'T HAVE TO LATER**

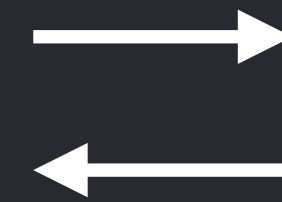
**PUT DISTANCE BETWEEN  
THE COMPLEXITY  
AND THE USER**



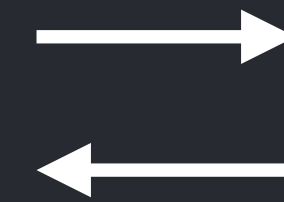
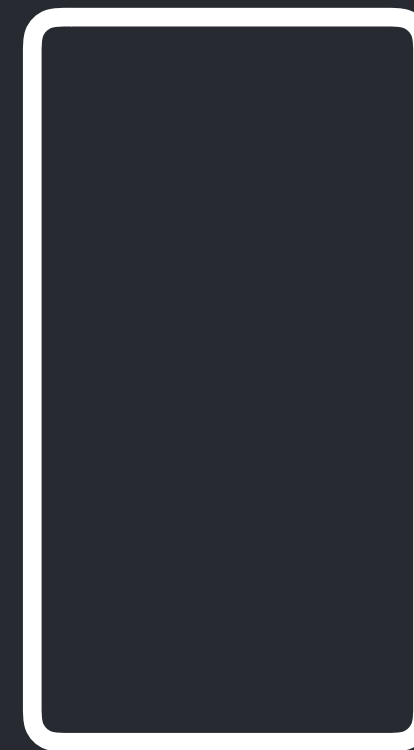
*traditional*



**CDN**



**LOAD BALANCER**



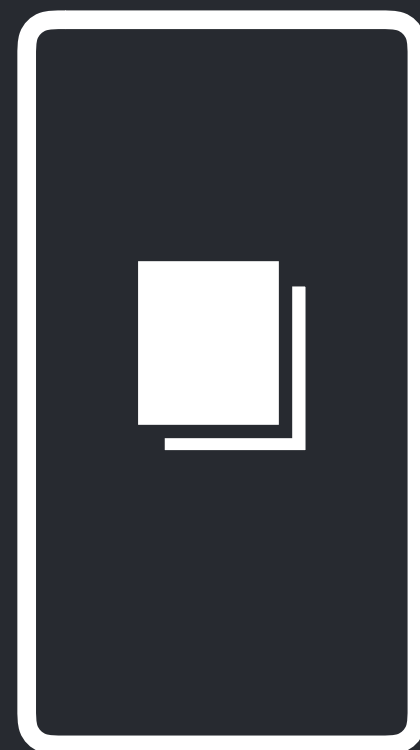
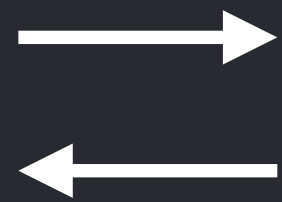
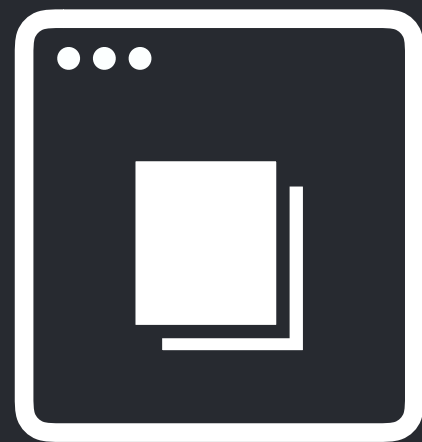
**WEB SERVERS**



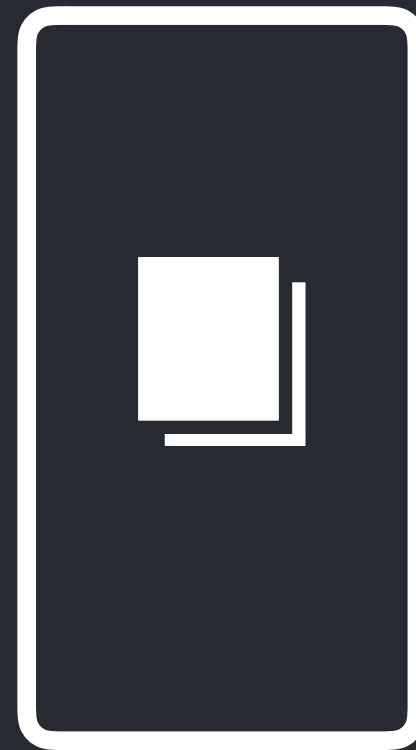
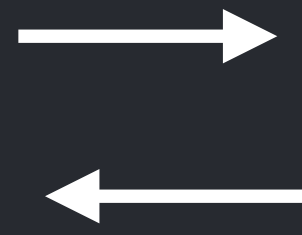
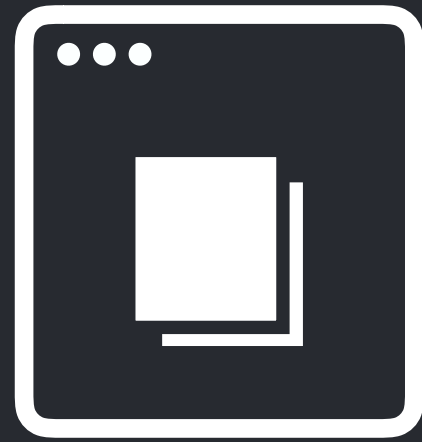
**DB SERVERS**



*jamstack*



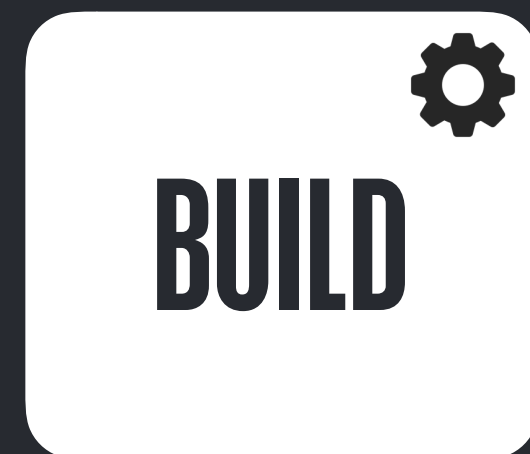
*jamstack*



REQUEST TIME

BUILD TIME

DEPLOYMENT



# JAMSTACK ADVANTAGES



**SECURITY**

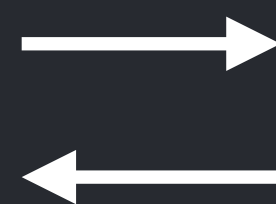
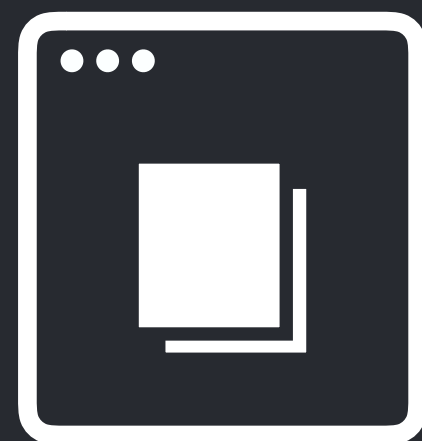


**PERFORMANCE**

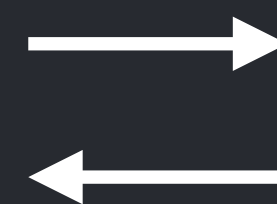
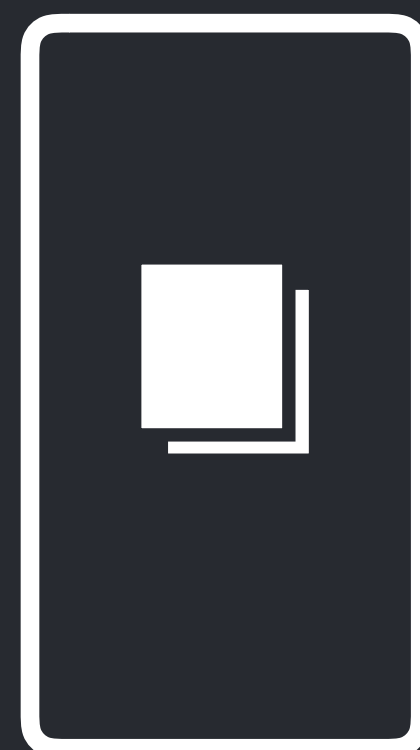


**SCALE**

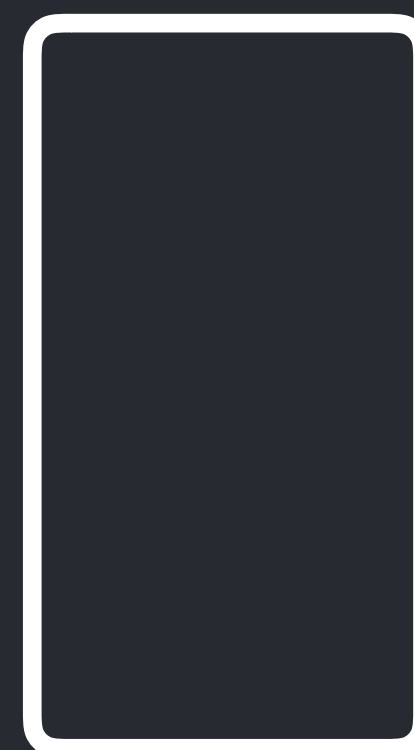
*traditional*



**CDN**



**LOAD BALANCER**



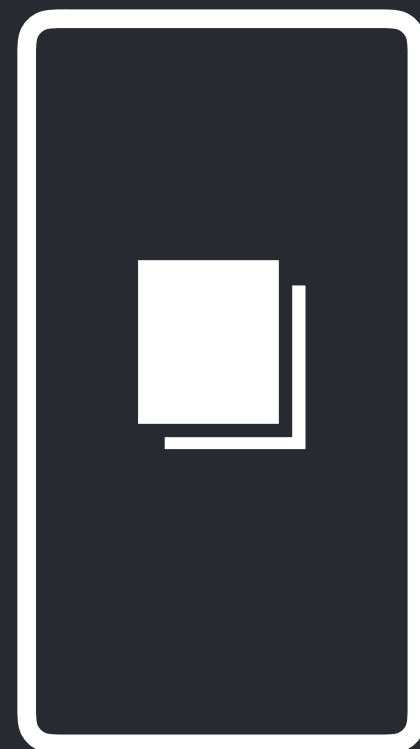
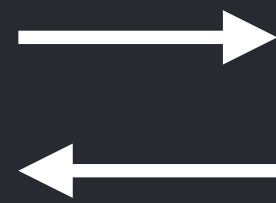
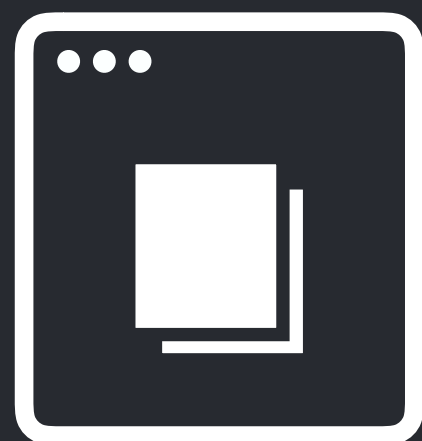
**WEB SERVERS**



**DB SERVERS**



*jamstack*



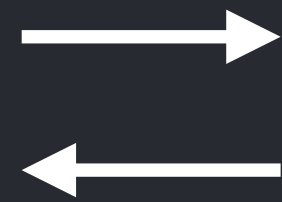
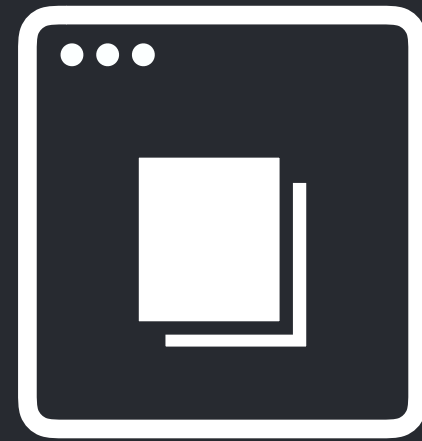




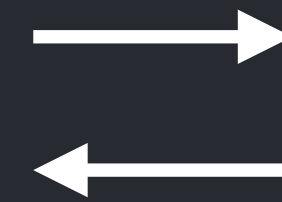
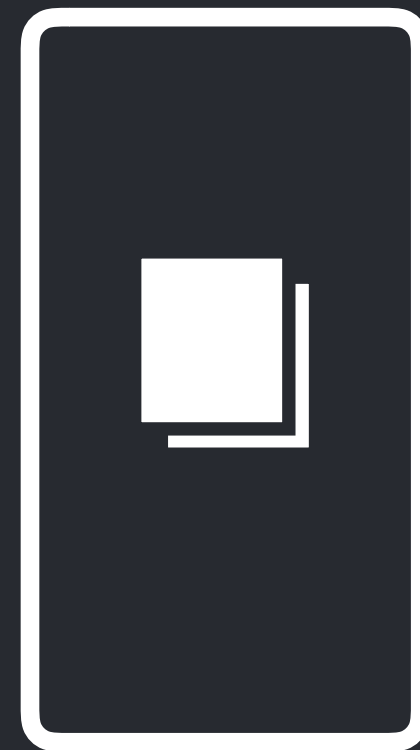
# SECURITY

# A GREATLY REDUCED SURFACE AREA

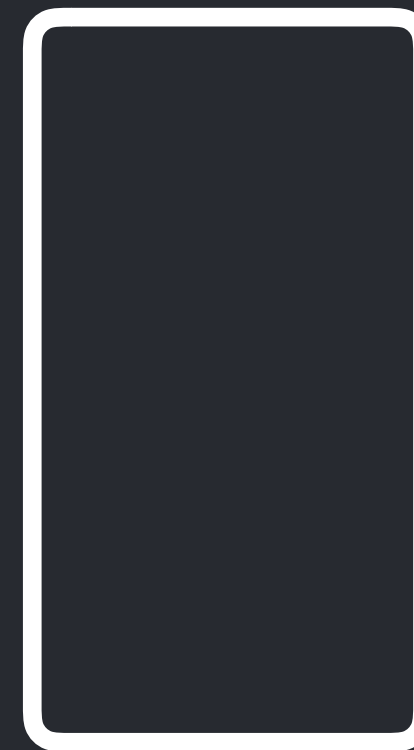
*traditional*



**CDN**



**LOAD BALANCER**



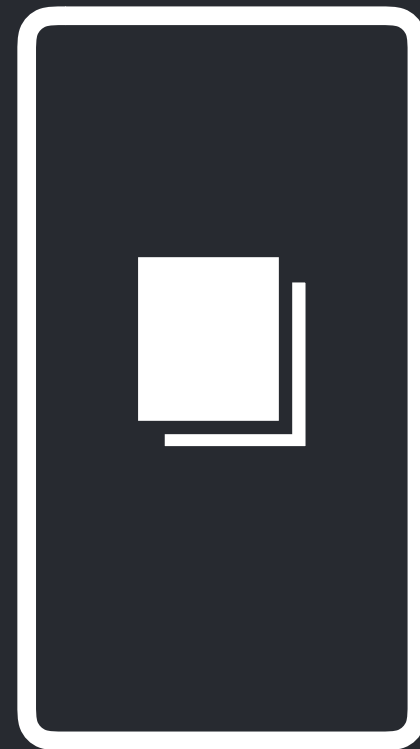
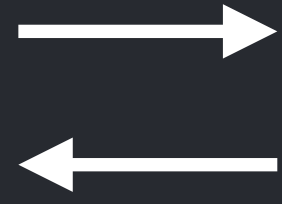
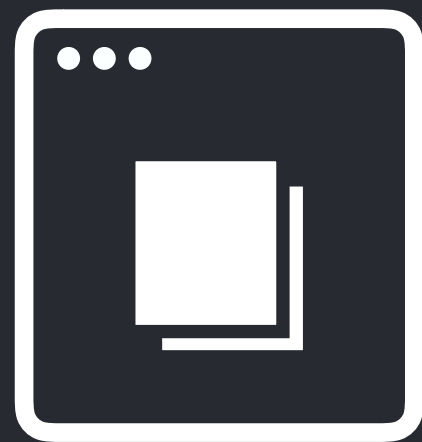
**WEB SERVERS**



**DB SERVERS**



*jamstack*



# FAR FEWER MOVING PARTS TO ATTACK



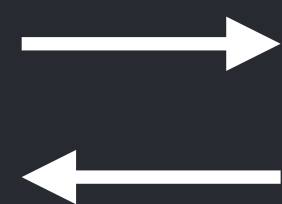
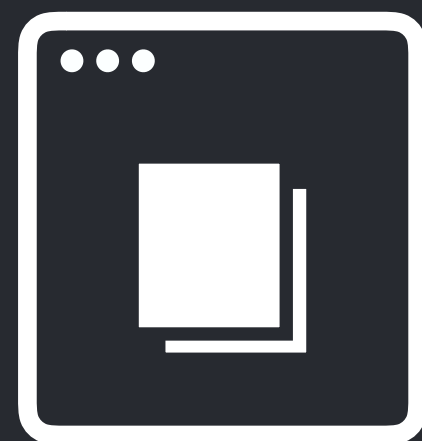


# PERFORMANCE

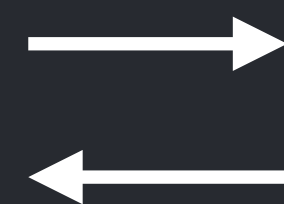
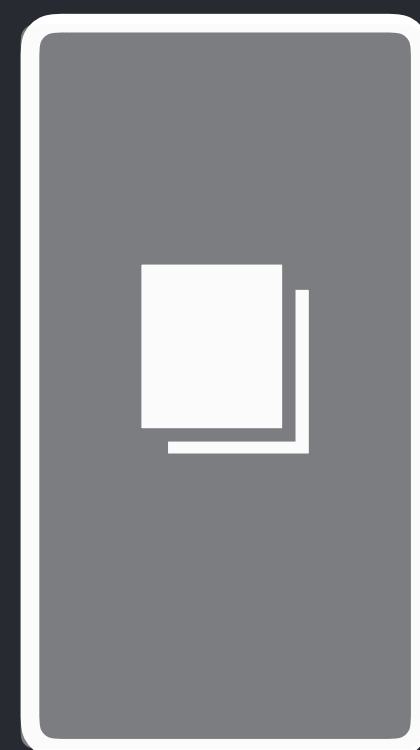
**TRADITIONAL STACKS  
ADD STATIC LAYERS  
IN ORDER TO IMPROVE  
PERFORMANCE**

# CACHING GALORE

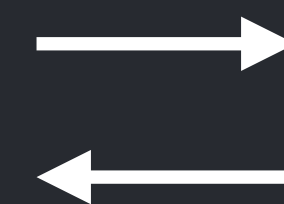
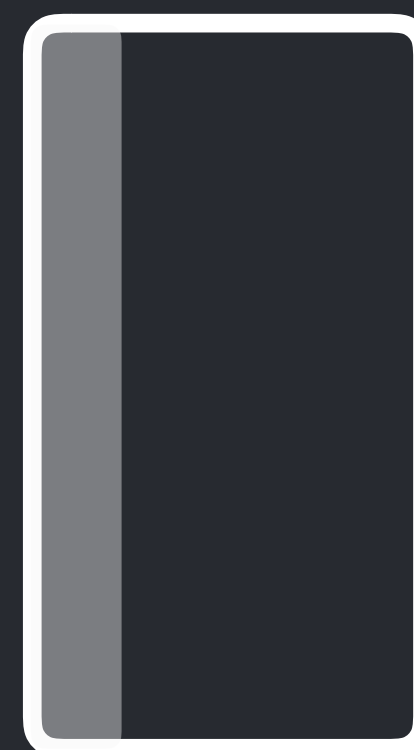
*traditional*



**CDN**



**LOAD BALANCER**



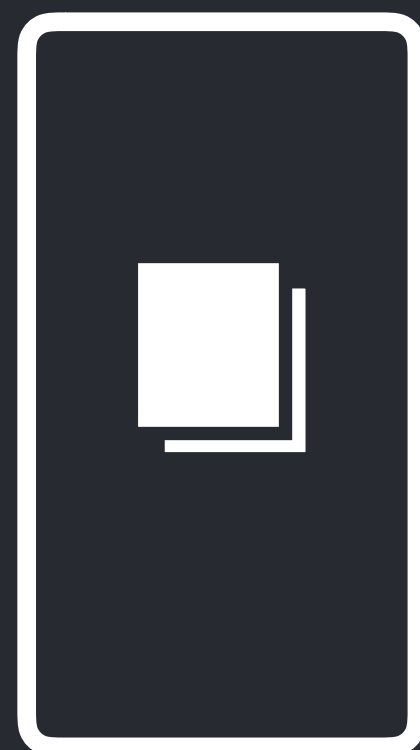
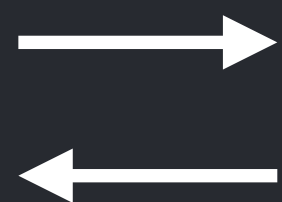
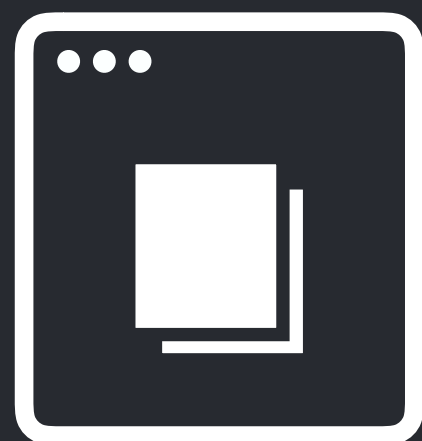
**WEB SERVERS**



**DB SERVERS**



*jamstack*



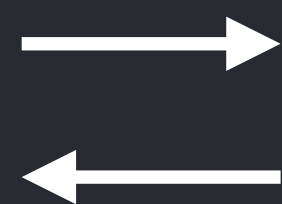
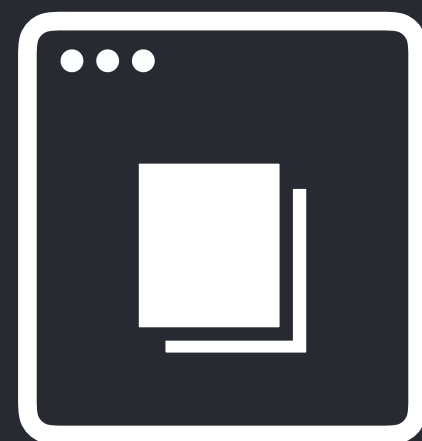




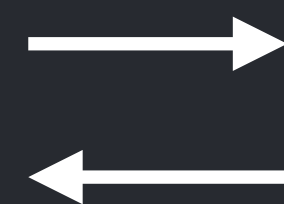
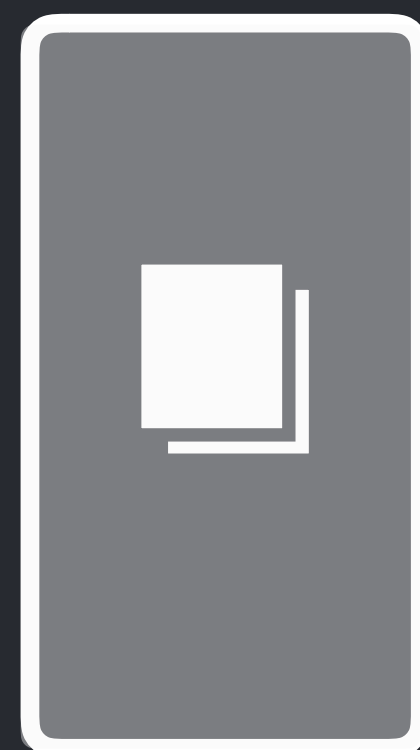
# SCALE

**TRADITIONAL STACKS  
ADD INFRASTRUCTURE  
IN ORDER TO SCALE**

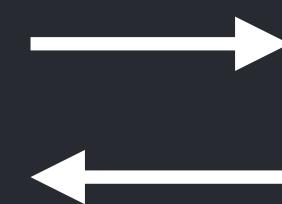
*traditional*



CDN



LOAD BALANCER



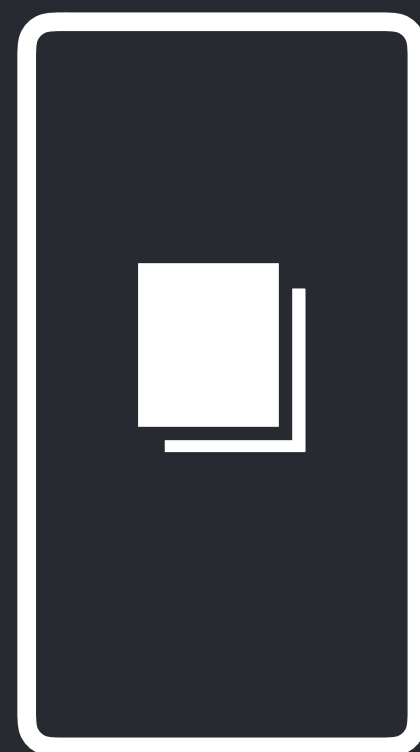
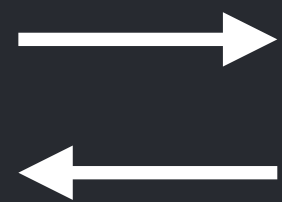
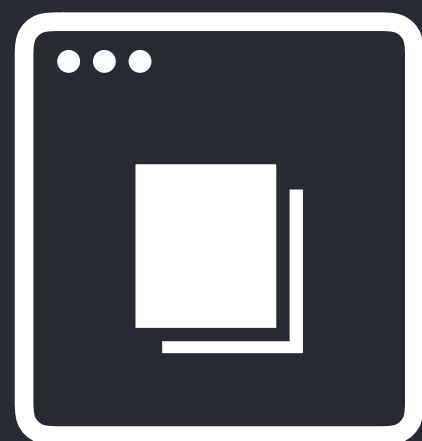
WEB SERVERS



DB SERVERS



*jamstack*



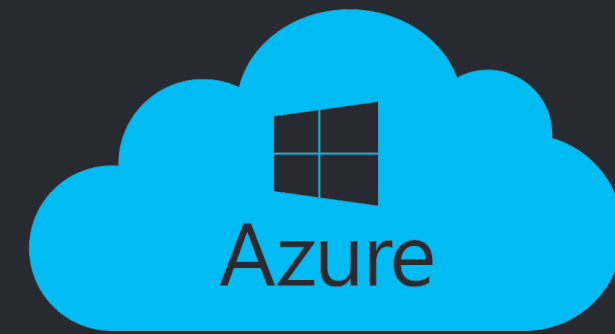
# DECOUPLING



# GET TO THE ~~CHOPPER~~ CDN







# PRE-RENDERING

# SERVERLESS RENDERING

# SERVERLESS RENDERING

# jamstack

*A modern architecture —*

*Create fast and secure sites and dynamic apps  
with **J**avaScript, **A**PIs, and pre-rendered  
**M**arkup, served without web servers*

---



**I ABSOLUTELY POSITIVELY  
NEED A LITTLE LOGIC  
ON A SERVER**

**MANY OF US, SOMETIMES**



# SERVERLESS TO THE RESCUE

**LET'S JUST RECREATE  
EVERYTHING IN  
SERVERLESS FUNCTIONS**

**THAT VOICE OF TEMPATION**

*free*  
**FROM INFRASTRUCTURE**

*but not free*  
**FROM DYNAMIC LOGIC**



# AUGMENTATION

# ENHANCEMENT

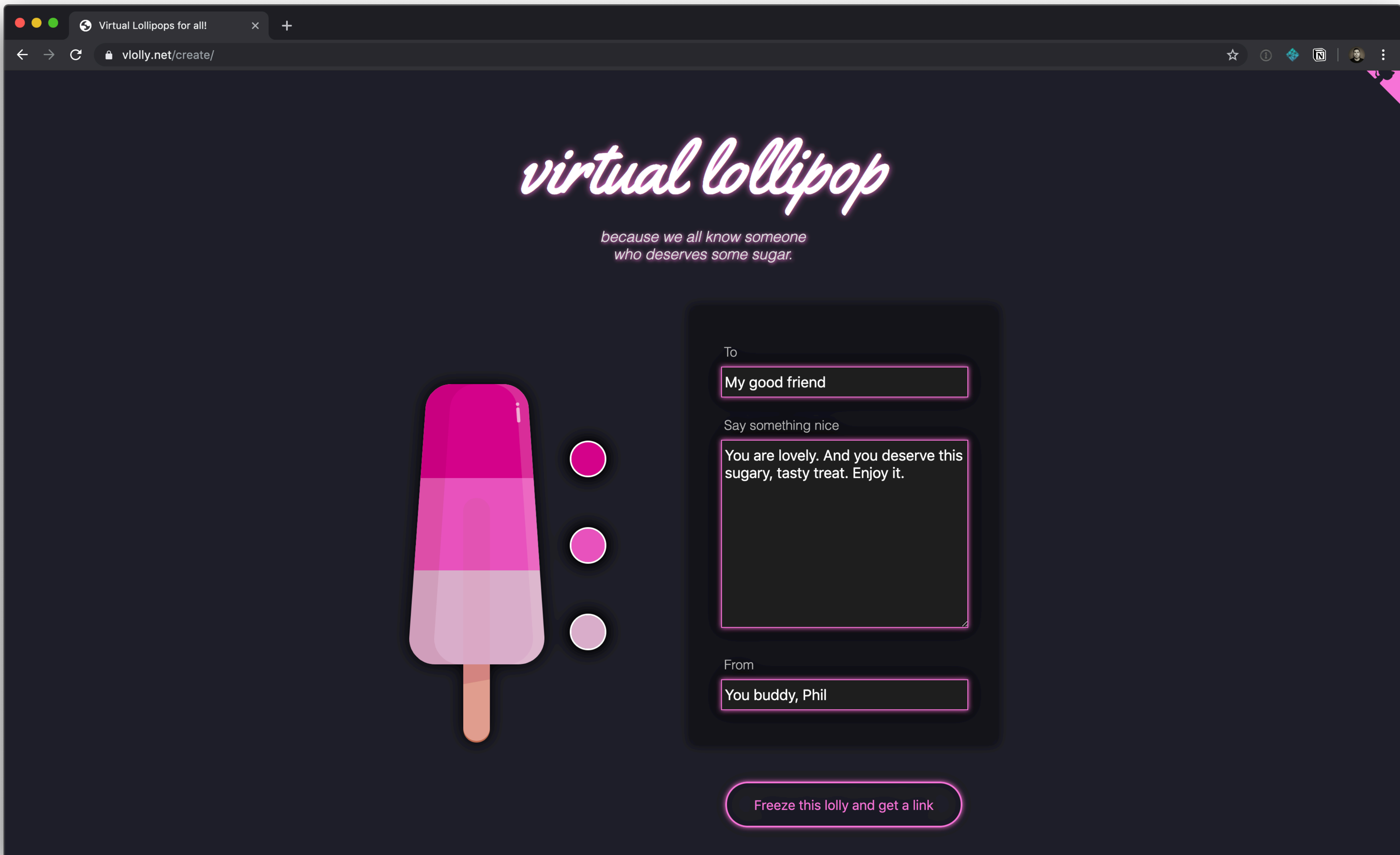
# STATIC FIRST

**MARKUS SCHORK, UNILEVER**

# AN EXAMPLE





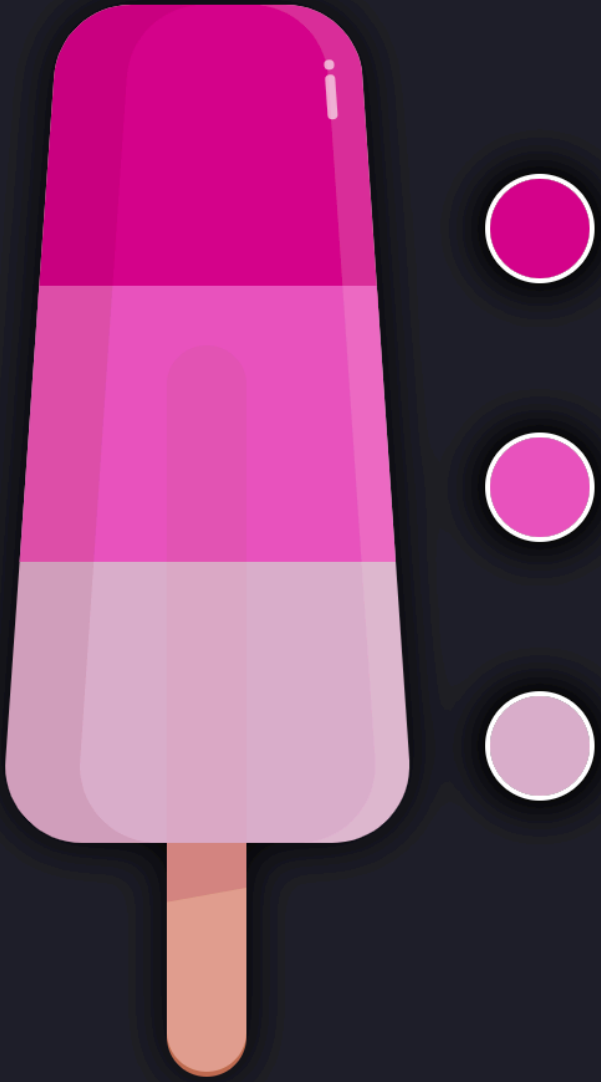


Virtual Lollipops for all! x +

vlolly.net/create/ ☆ ⓘ ⚙️ 📄 👤 ⋮

# virtual lollipop

*because we all know someone  
who deserves some sugar.*

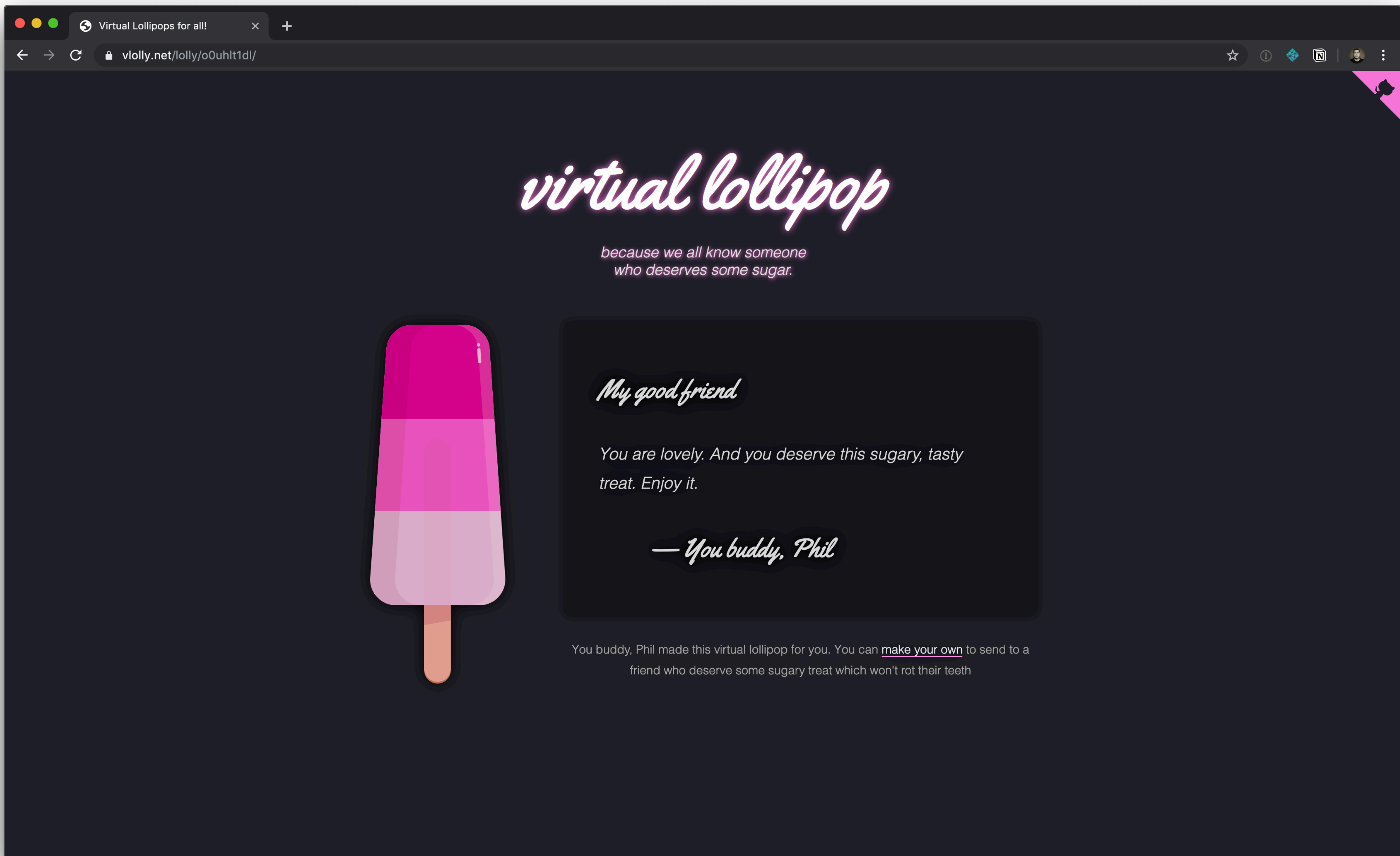


To

Say something nice

From

Freeze this lolly and get a link

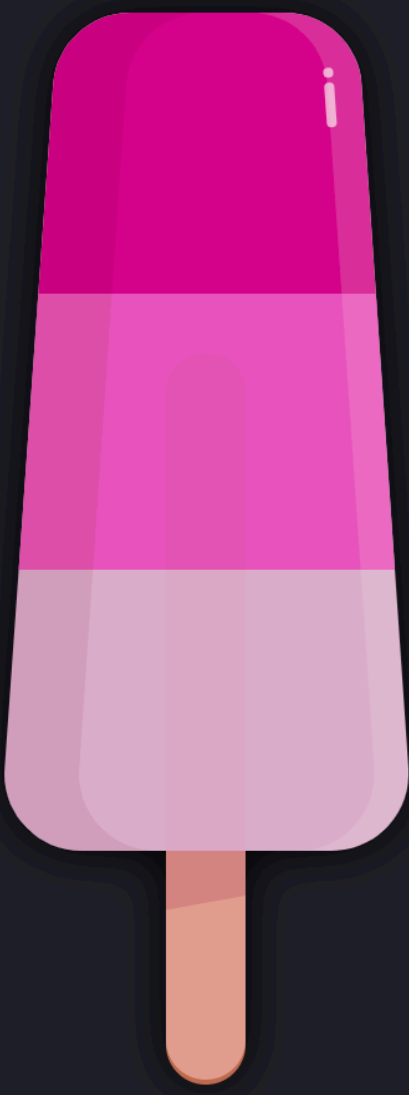


Virtual Lollipops for all! x +

vlolly.net/lolly/o0uht1dl/ ☆ ⓘ ⚙️ 📄 👤 ⋮

# *virtual lollipop*

*because we all know someone  
who deserves some sugar.*



*My good friend*

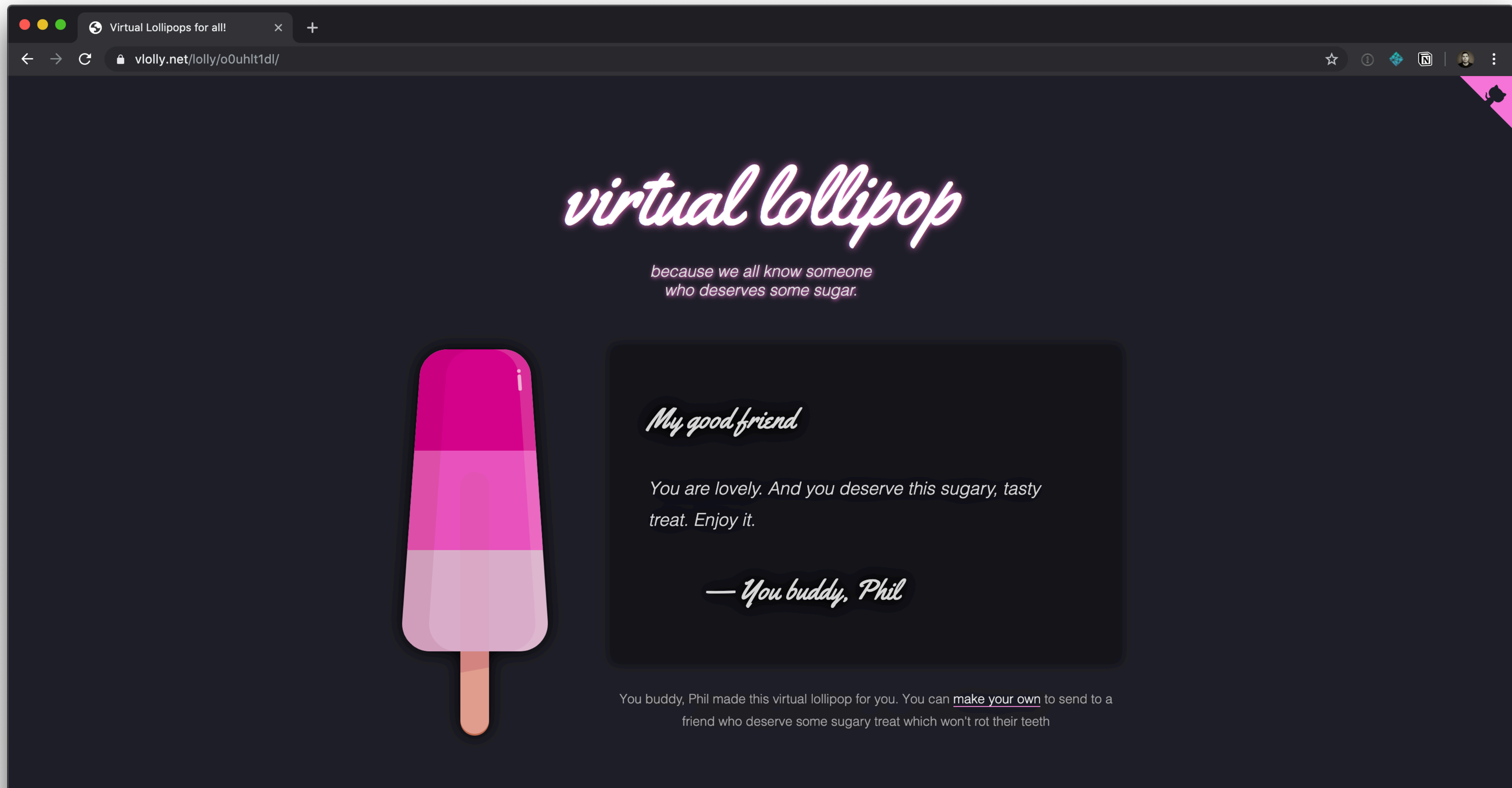
You are lovely. And you deserve this sugary, tasty  
treat. Enjoy it.

*— You buddy, Phil*

You buddy, Phil made this virtual lollipop for you. You can [make your own](#) to send to a  
friend who deserve some sugary treat which won't rot their teeth



# VLOLLY.NET/LOLLY/3hmtt2r3b

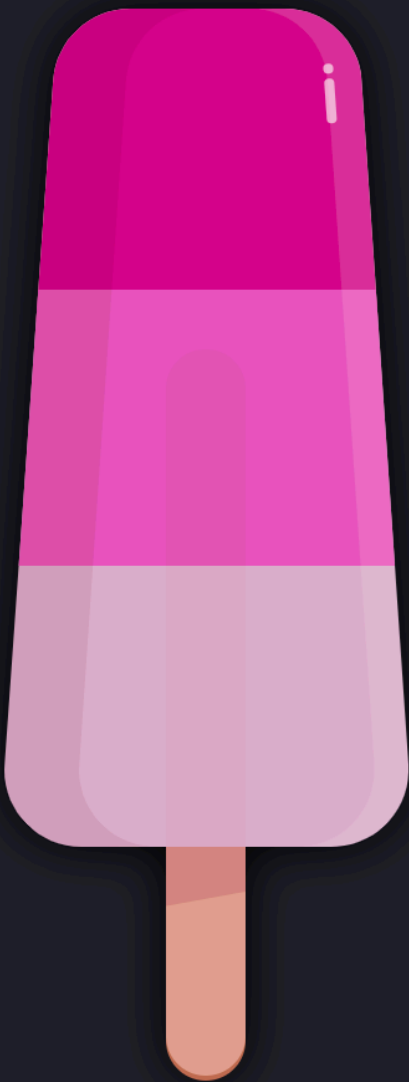


Virtual Lollipops for all!

volly.net/lolly/o0uht1dl/

## *virtual lollipop*

*because we all know someone  
who deserves some sugar.*



*My good friend*

*You are lovely. And you deserve this sugary, tasty  
treat. Enjoy it.*

*— You buddy, Phil*

You buddy, Phil made this virtual lollipop for you. You can [make your own](#) to send to a friend who deserve some sugary treat which won't rot their teeth

# *requirements*



# PRE-GENERATED PAGES WITH REAL URLS

(EVEN FOR THE USER GENERATED CONTENT)

# DATA STORED IN A DATABASE

(BUT DON'T MAKE ME A DBA)

# INSTANT ACCESS TO NEW CONTENT

(WITHOUT WAITING FOR A REBUILD)

# *tools*

# PRE-GENERATED PAGES WITH REAL URLS

**ELEVENTY**

# DATA STORED IN A DATABASE

**FAUNADB**

# INSTANT ACCESS TO NEW CONTENT

**NETLIFY FUNCTIONS**

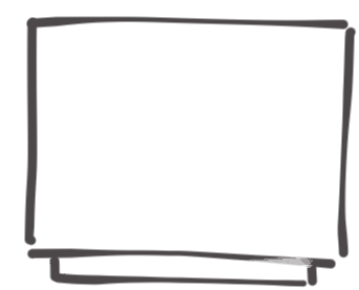
FAUNA



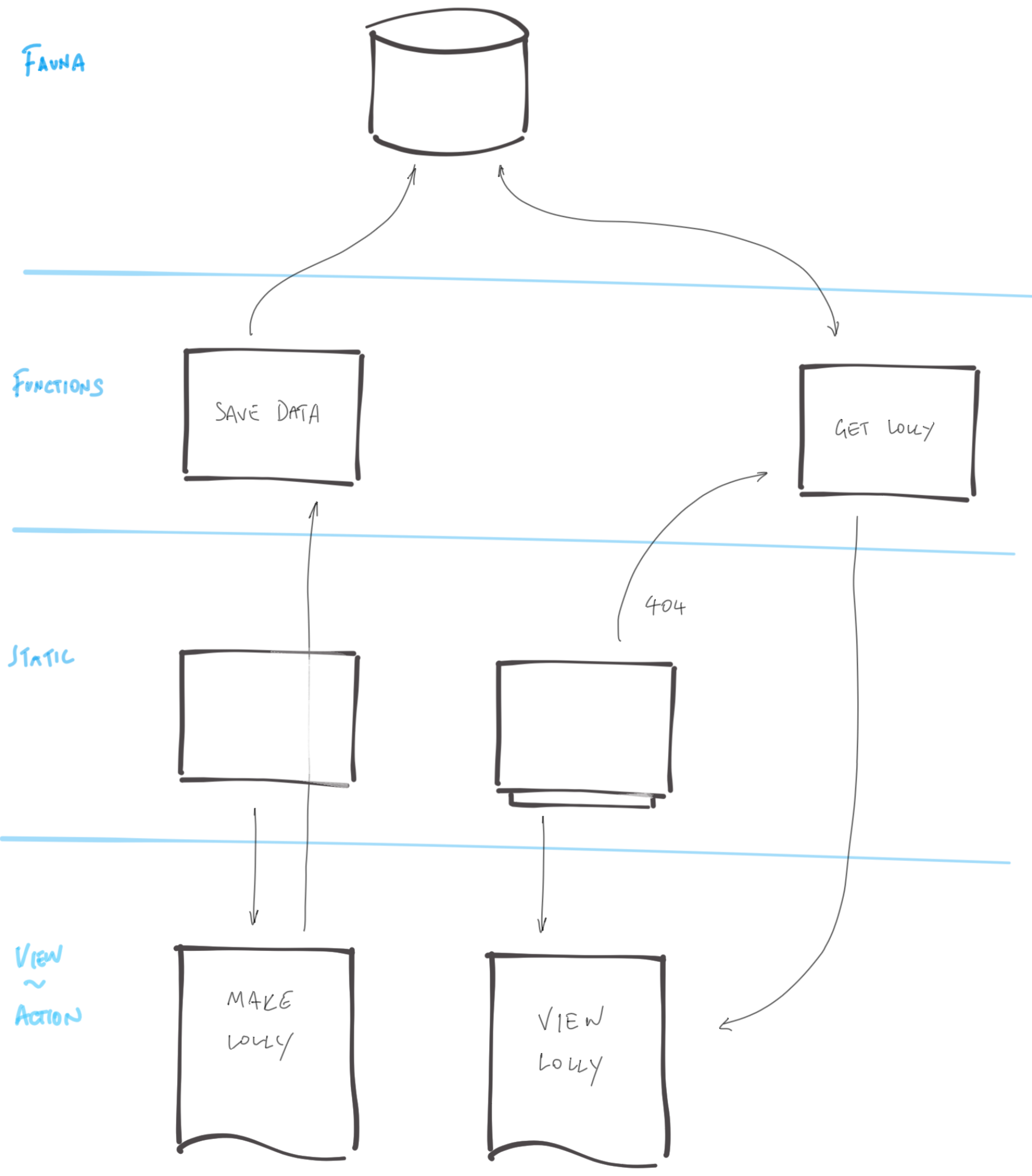
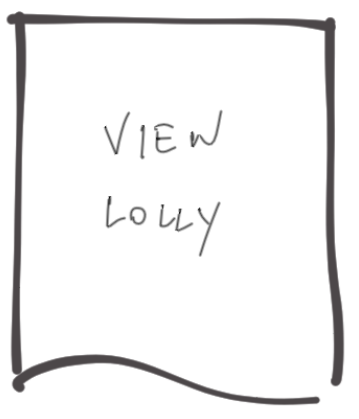
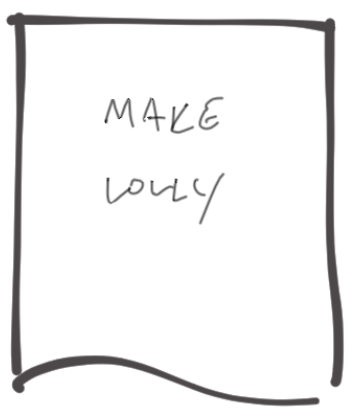
FUNCTIONS

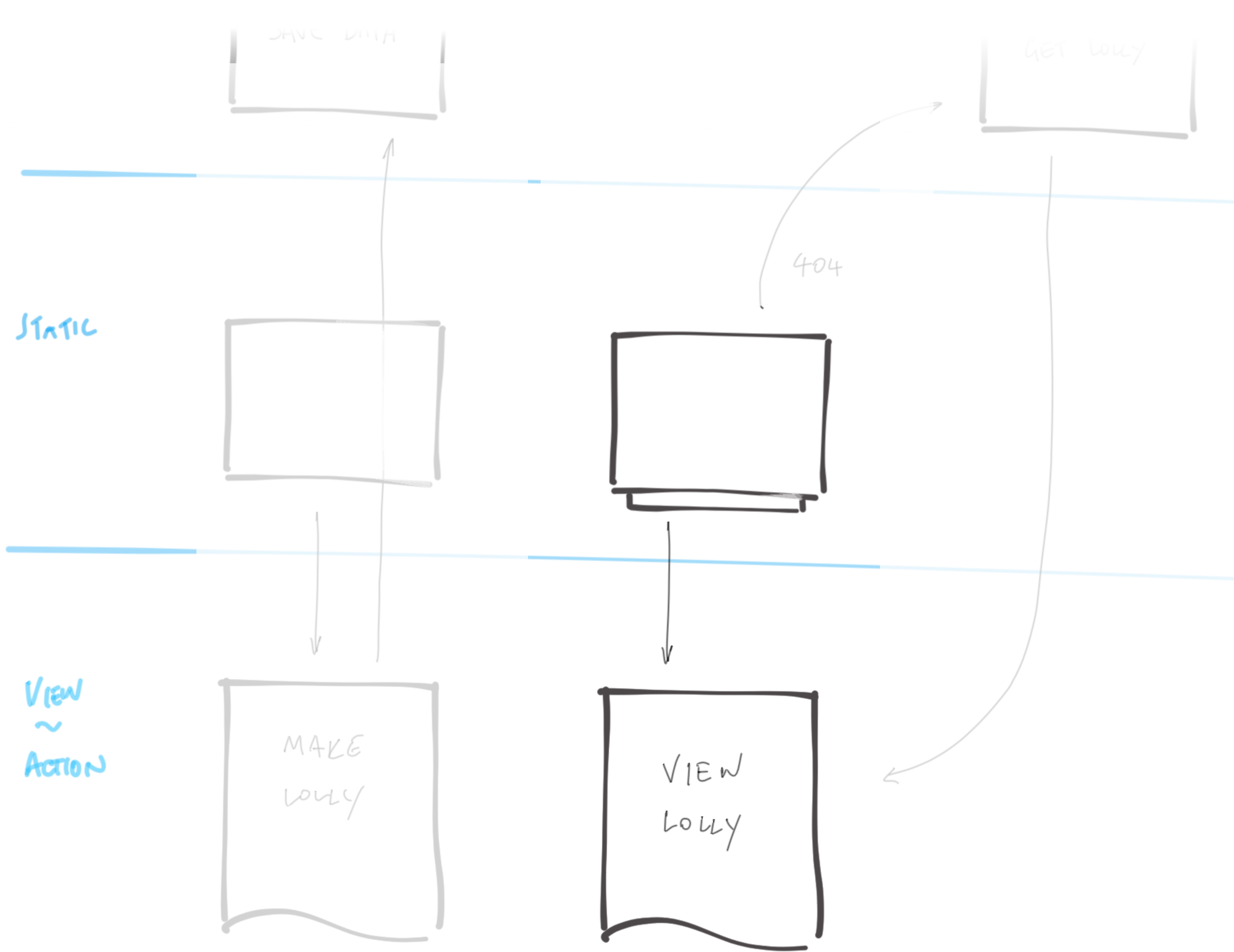


STATIC



VIEW  
~  
ACTION







```
const faunadb = require('faunadb');
const q = faunadb.query;
const client = new faunadb.Client({
  secret: process.env.FAUNADB_SERVER_SECRET
});
```

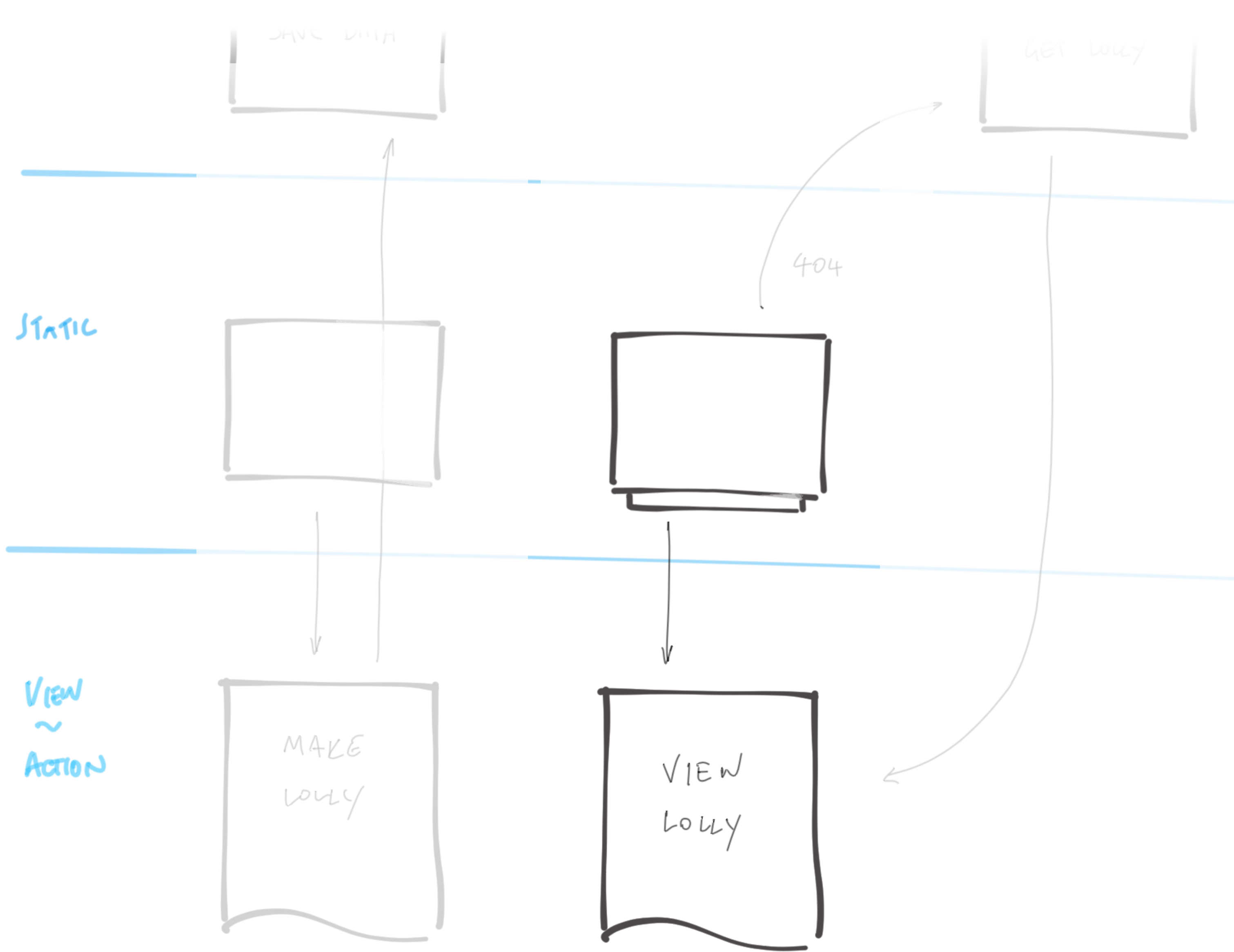
```
module.exports = () => {
  return new Promise((resolve, reject) => {
    client.query(
      q.Paginate(q.Match(q.Ref("indexes/all_lollies")))
    ).then((response) => {
      const lollies = response.data;
      const getAllDataQuery = lollies.map((ref) => {
        return q.Get(ref);
      });
      return client.query(getAllDataQuery).then((ret) => {
        resolve(ret);
      });
    }).catch((error) => {
      reject(error);
    });
  });
}
```

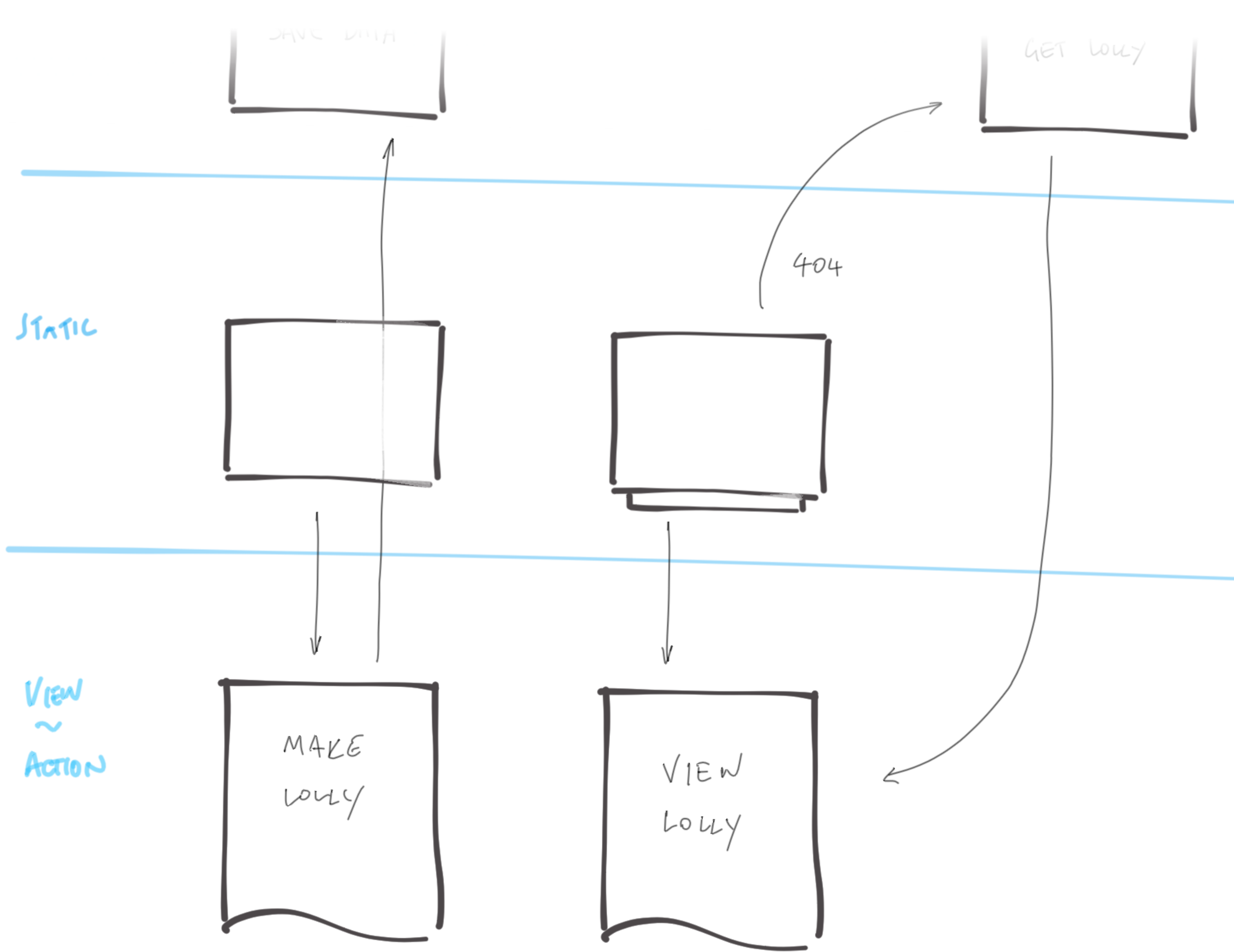
← AUTHENTICATE WITH THE DB

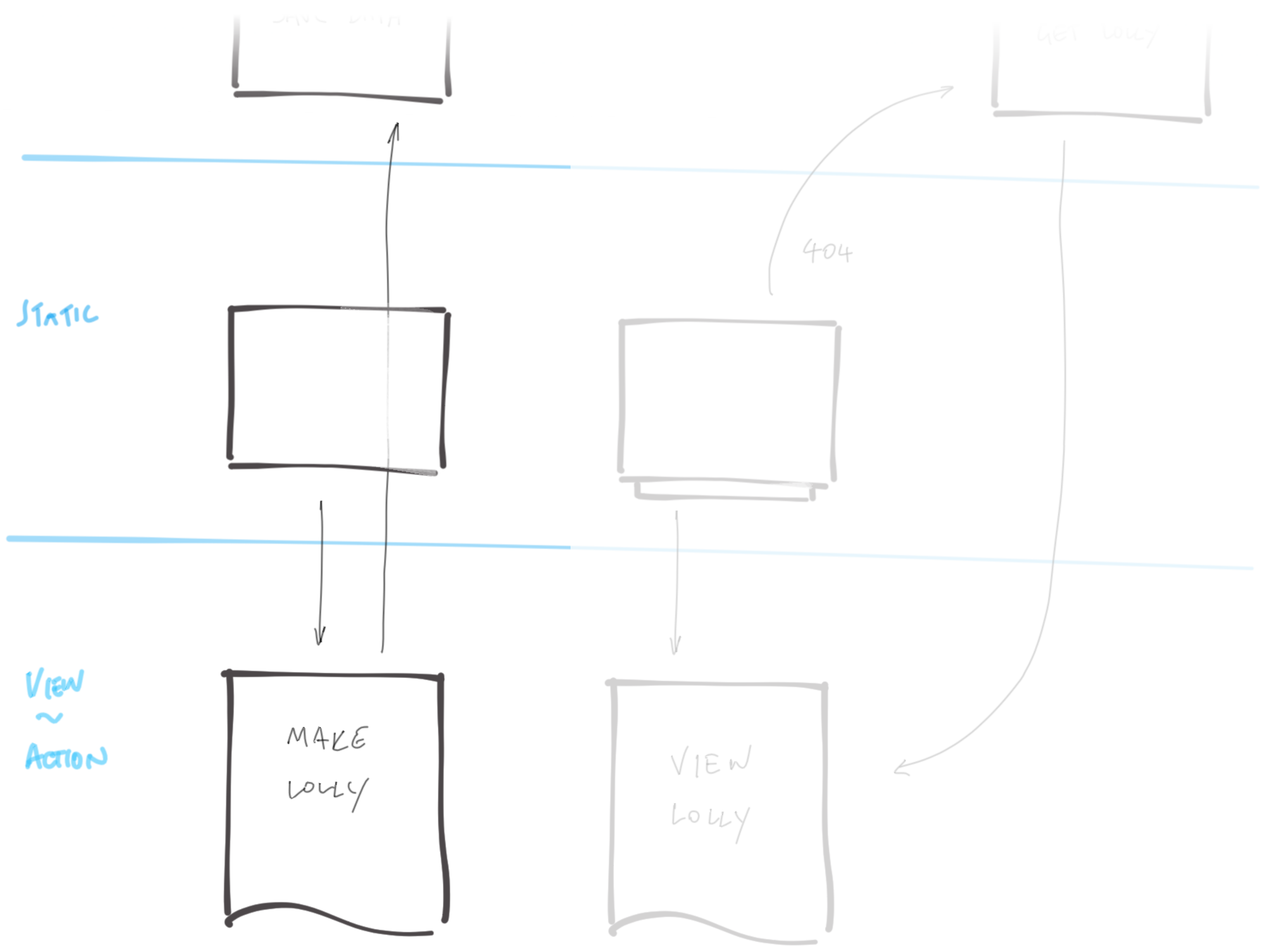
← QUERY FOR ALL THE LOLLIES... AND THEIR DATA

← RESOLVE THE PROMISE OF LOLLIES

← CATCH ANY ERRORS



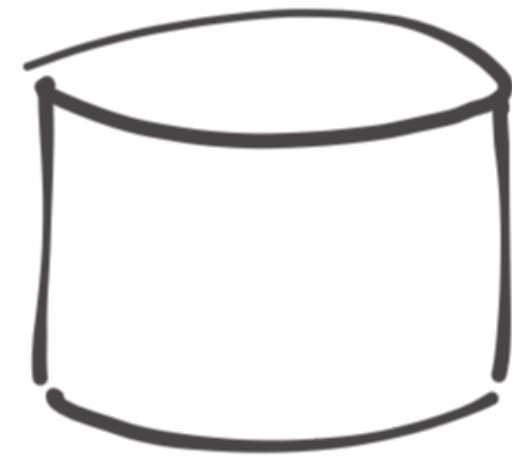




Static

View  
~  
Action

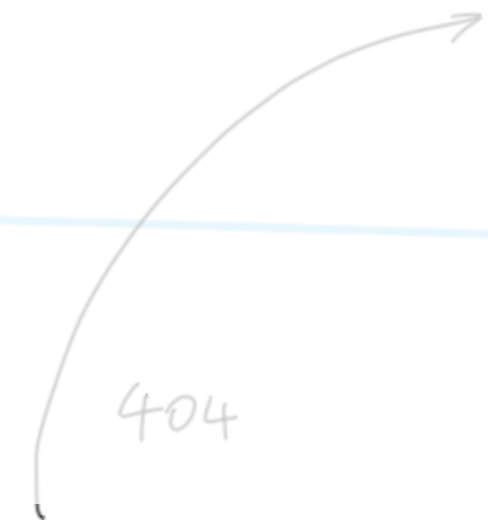
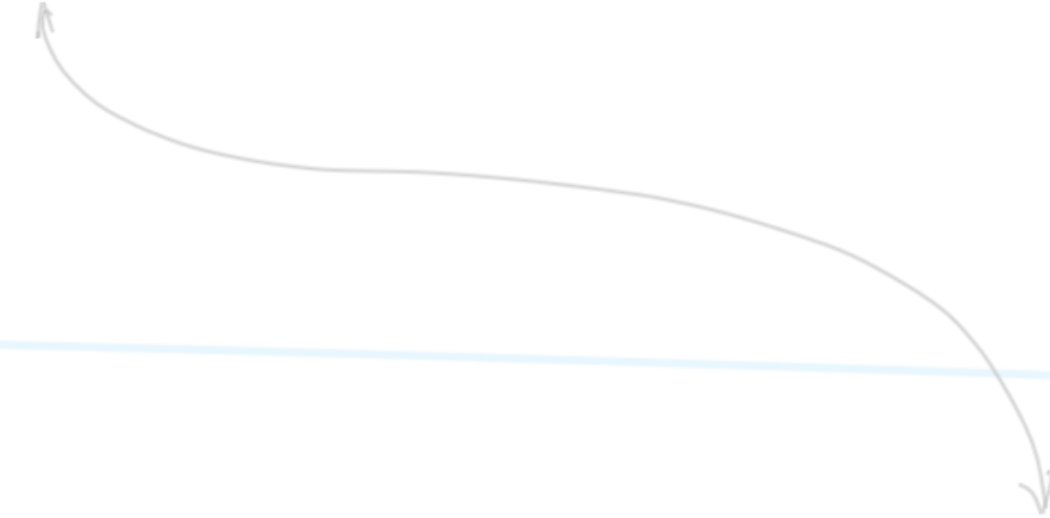
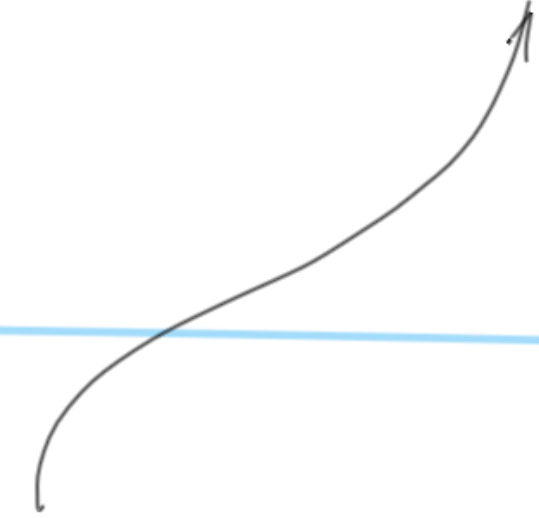
FAUNA



FUNCTIONS

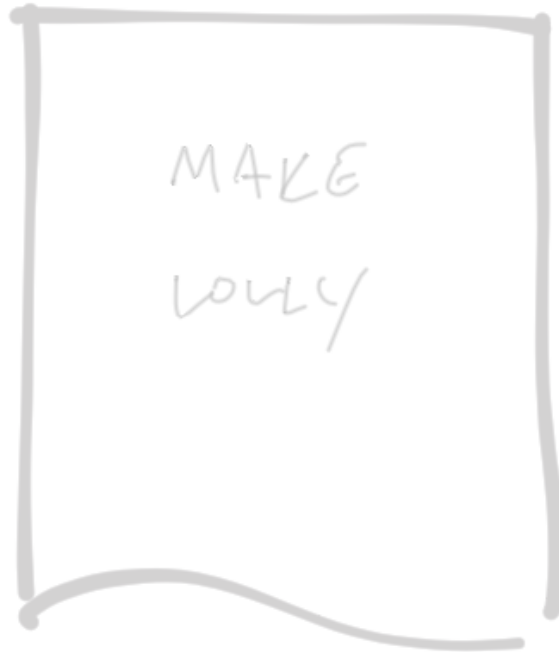


STATIC



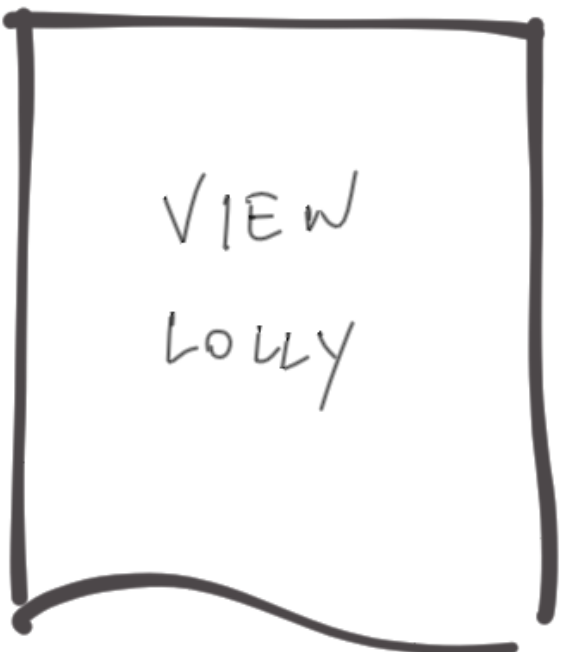
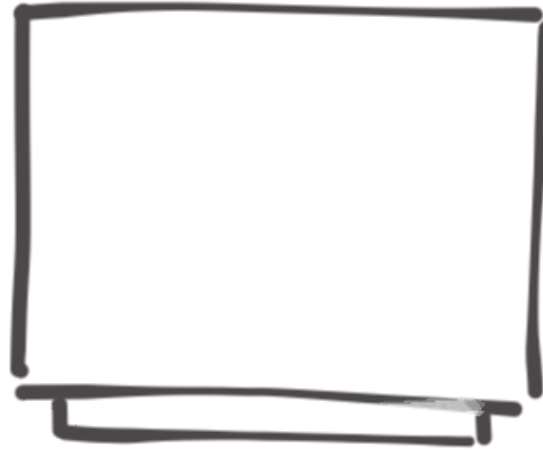


STATIC



VIEW  
~  
ACTION

404





Are you being servered?

@philhawksworth

International JavaScript Conference, Munich 2019

# 404

# TRIGGERS AND AUTOMATION

Build & deploy | Settings

https://app.netlify.com/sites/vlolly/settings/deloys

- General
- Build & deploy**
- Continuous Deployment
- Environment
- Post processing
- Deploy notifications
- Domain management
- Analytics
- Functions
- Identity
- Forms
- Large Media
- Access control

Deploy preview: Automatically build and deploy previews for all pull requests

Branch deploys: **Deploy only the production branch**

[Learn more about deploy contexts in the docs](#)

Edit settings

**Build hooks**

Build hooks give you a unique URL you can use to trigger a build.

New lolly in the freezer: **https://api.netlify.com/build\_hooks/5d46fa20da4a1b70047f2f04**

[Learn more about build hooks in the docs](#)

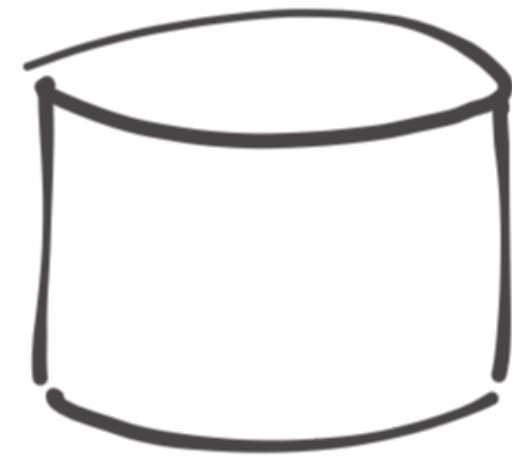
Add build hook

**Build image selection** BETA

Select a different build image to change the operating system and supported software versions in the environment where our buildbot builds your site.

Build image: **Ubuntu Xenial 16.04 (default)**

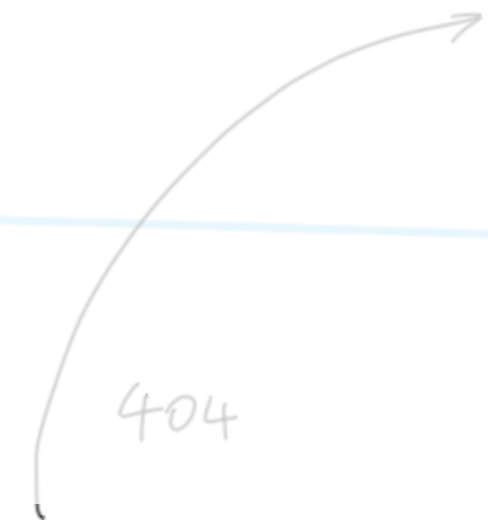
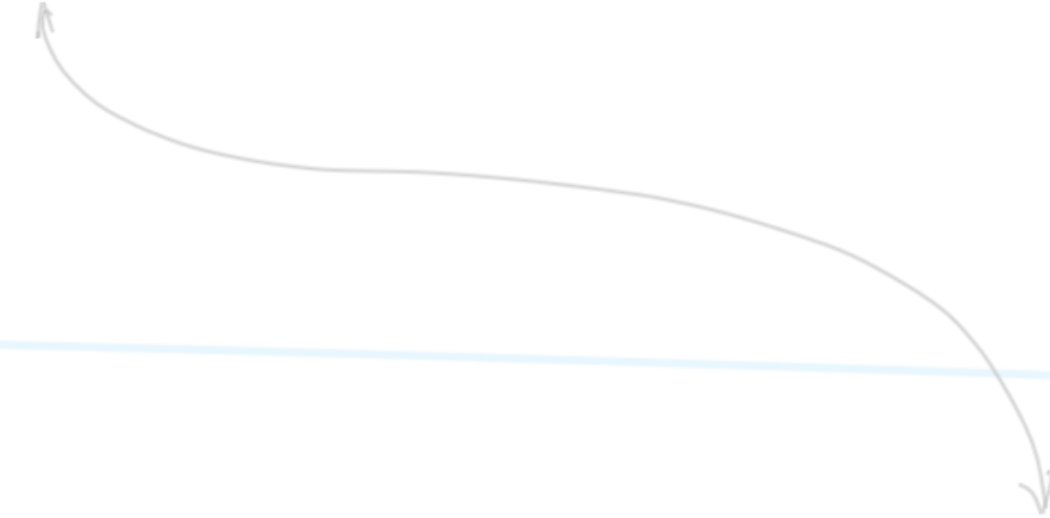
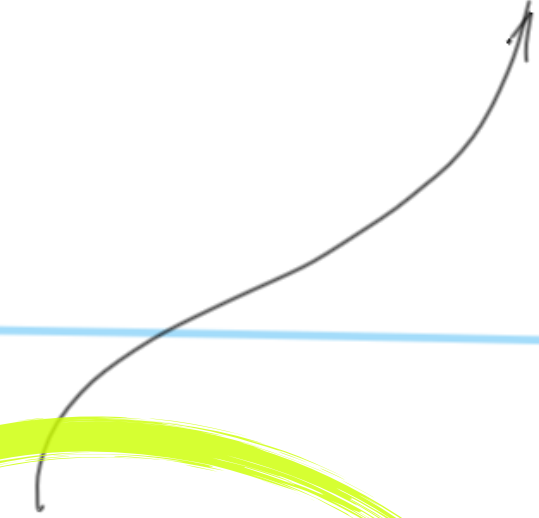
FAUNA



FUNCTIONS



STATIC





```
const faunadb = require('faunadb');
const shortid = require('shortid');
const querystring = require('querystring');
const axios = require('axios');
const q = faunadb.query
const client = new faunadb.Client({
  secret: process.env.FAUNADB_SERVER_SECRET
})
exports.handler = (event, context, callback) => {
  const data = querystring.parse(event.body);
  const uniquePath = shortid.generate();
  data.lollyPath = uniquePath;
  const lolly = {
    data: data
  };
  client.query(q.Create(q.Ref('classes/lollies'), lolly))
    .then((response) => {
      axios.post('https://api.netlify.com/build_hooks/5d46fa20da4a1b70047f2f04')
        .then(function (response) {
          console.log(response);
        })
        .catch(function (error) {
          console.log(error);
        });
      return callback(null, {
        body: JSON.stringify(response),
        statusCode: 302,
        headers: {
          Location: `/lolly/${uniquePath}`,
        }
      });
    }).catch((error) => {
      return callback(null, {
        statusCode: 400,
        body: JSON.stringify(error)
      });
    });
}
```

← AUTHENTICATE WITH THE DB

← POST THE DATA

← REBUILD

← SEND THE USER TO CHECK THE FREEZER FOR A LOLLY

**"CHECK THE FREEZER"?**  
**WUT????!?**

**ALL OF YOU, POSSIBLY**

**CHECK FOR A  
PRE-GENERATED  
LOLLY PAGE**

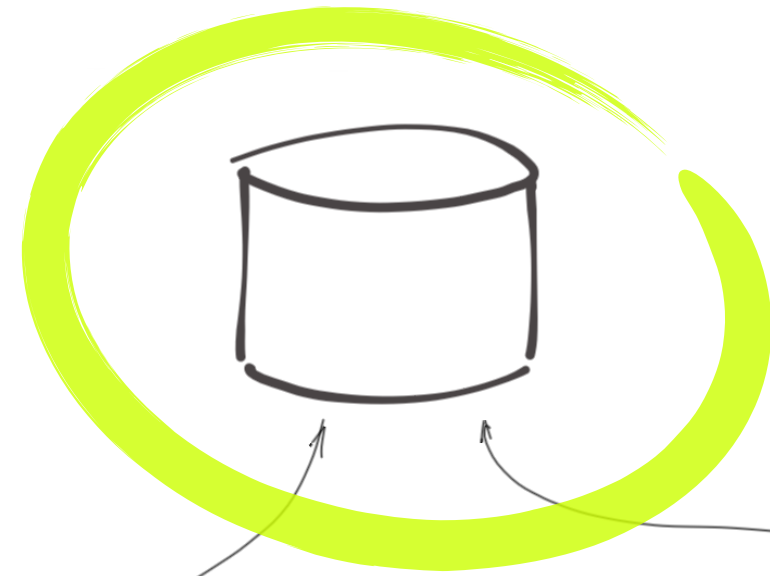


**SERVE THE  
STATIC  
PAGE**



**RENDER A  
DYNAMIC  
VIEW**

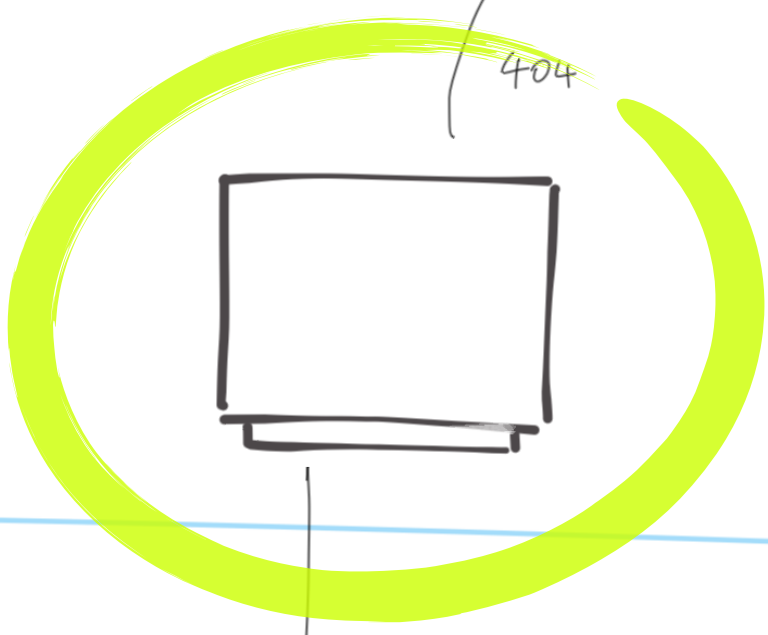
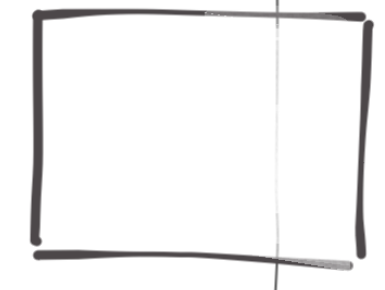
FAVNA



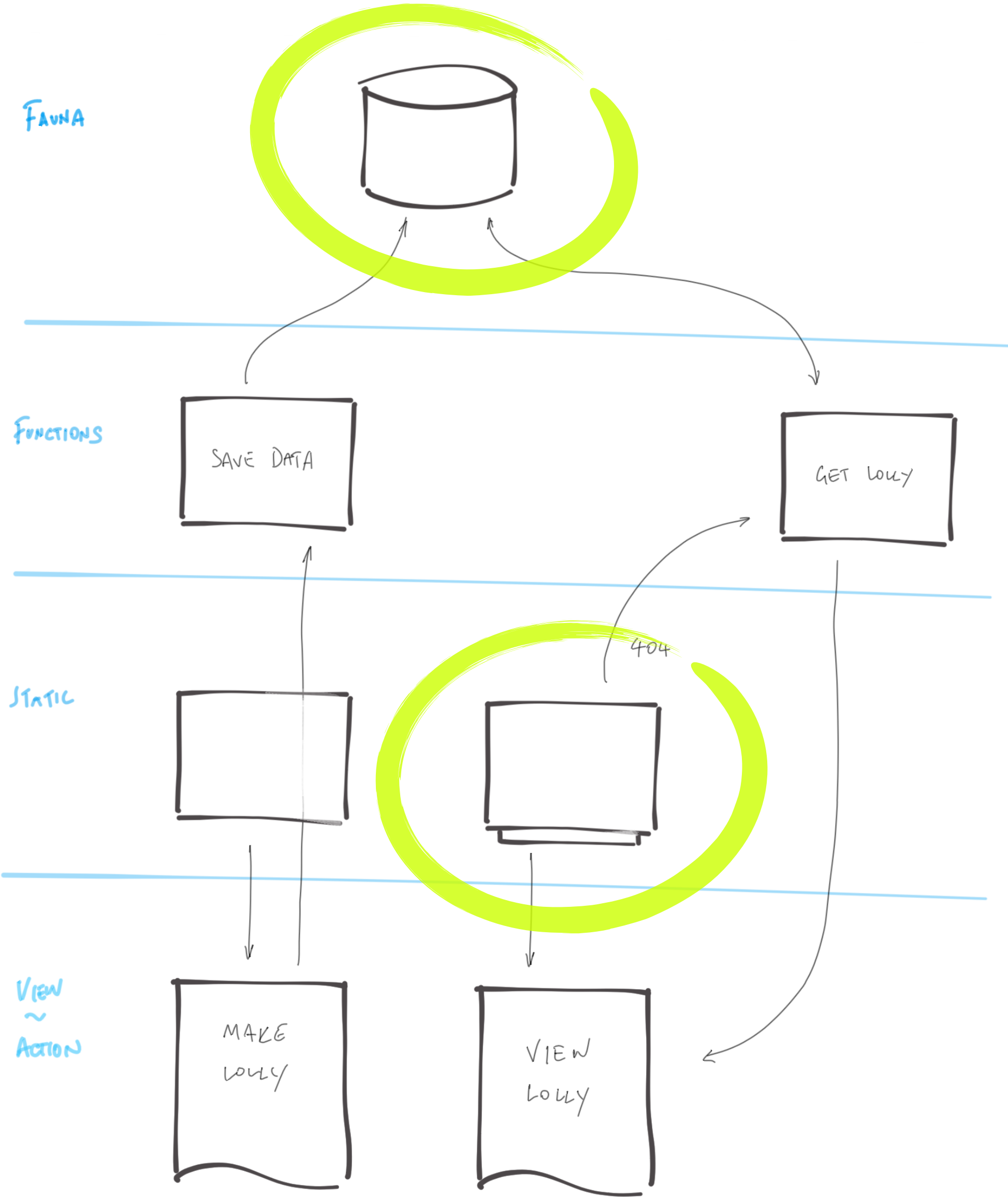
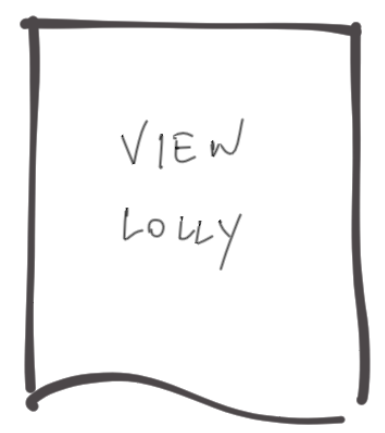
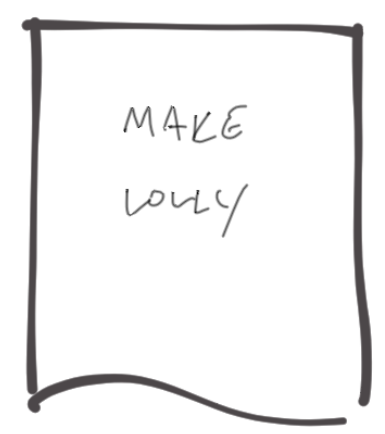
FUNCTIONS



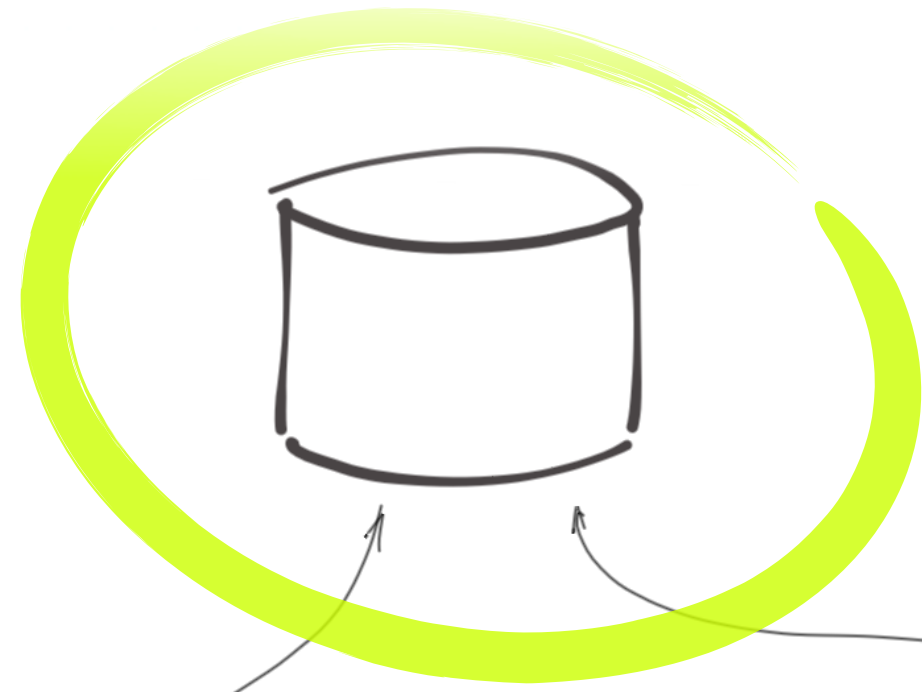
STATIC



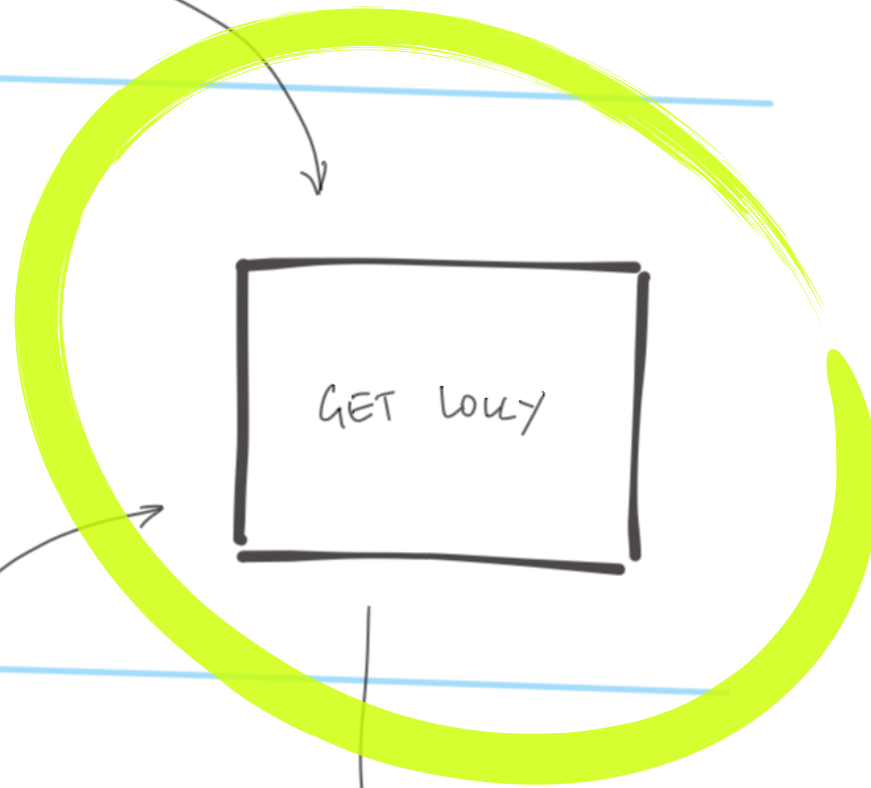
View ~ ACTION



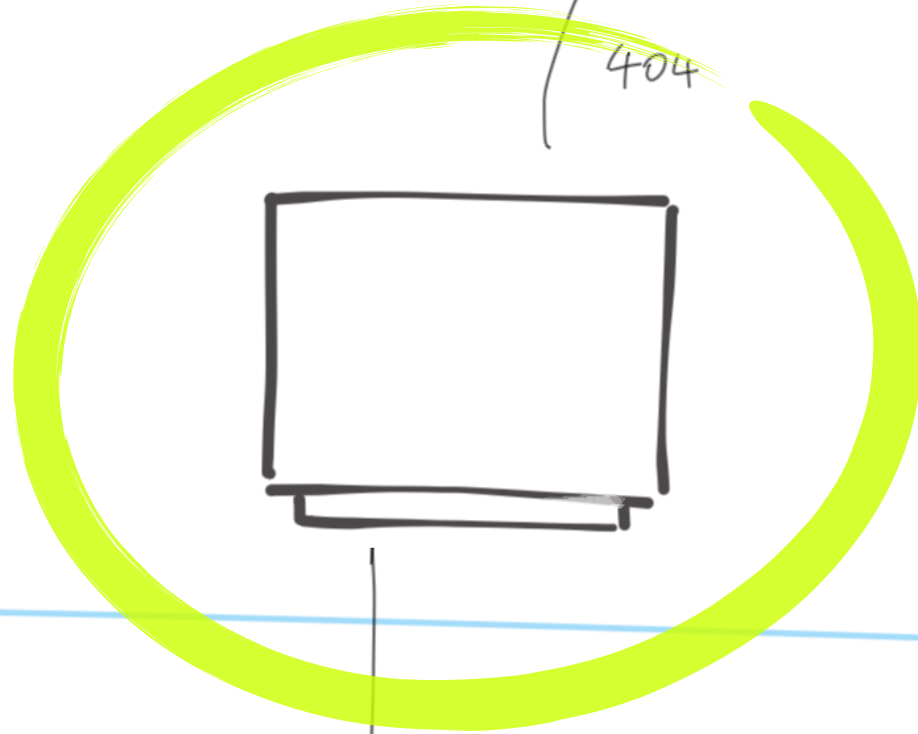
FAUNA



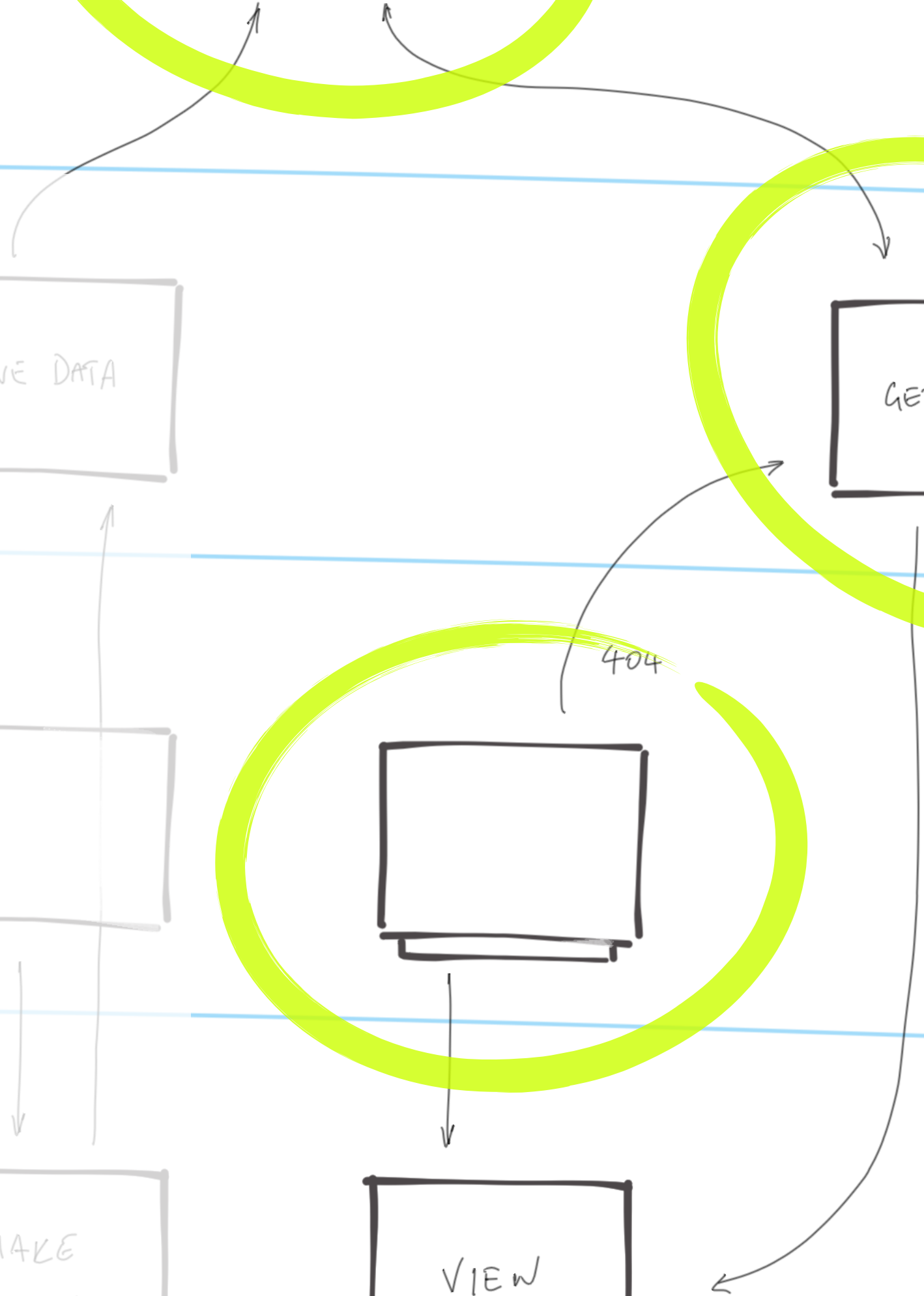
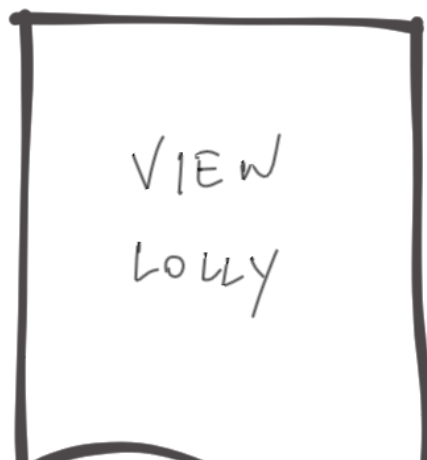
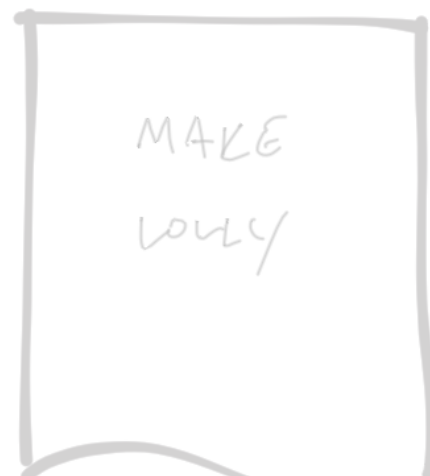
FUNCTIONS



STATIC



VIEW  
~  
ACTION





```
const faunadb = require('faunadb');
const pageTemplate = require('./lollyTemplate.js');

const q = faunadb.query;
const client = new faunadb.Client({
  secret: process.env.FAUNADB_SERVER_SECRET
});

exports.handler = (event, context, callback) => {
  const path = event.queryStringParameters.id.replace("/", "");
  client.query(
    q.Get(q.Match(q.Index("lolly_by_path"), path))
  ).then((response) => {
    return callback(null, {
      statusCode: 200,
      body: pageTemplate(response.data)
    });
  }).catch((error) => {
    return callback(null, {
      body: JSON.stringify(error),
      statusCode: 301,
      headers: {
        Location: `/melted/index.html`,
      }
    });
  });
};
```

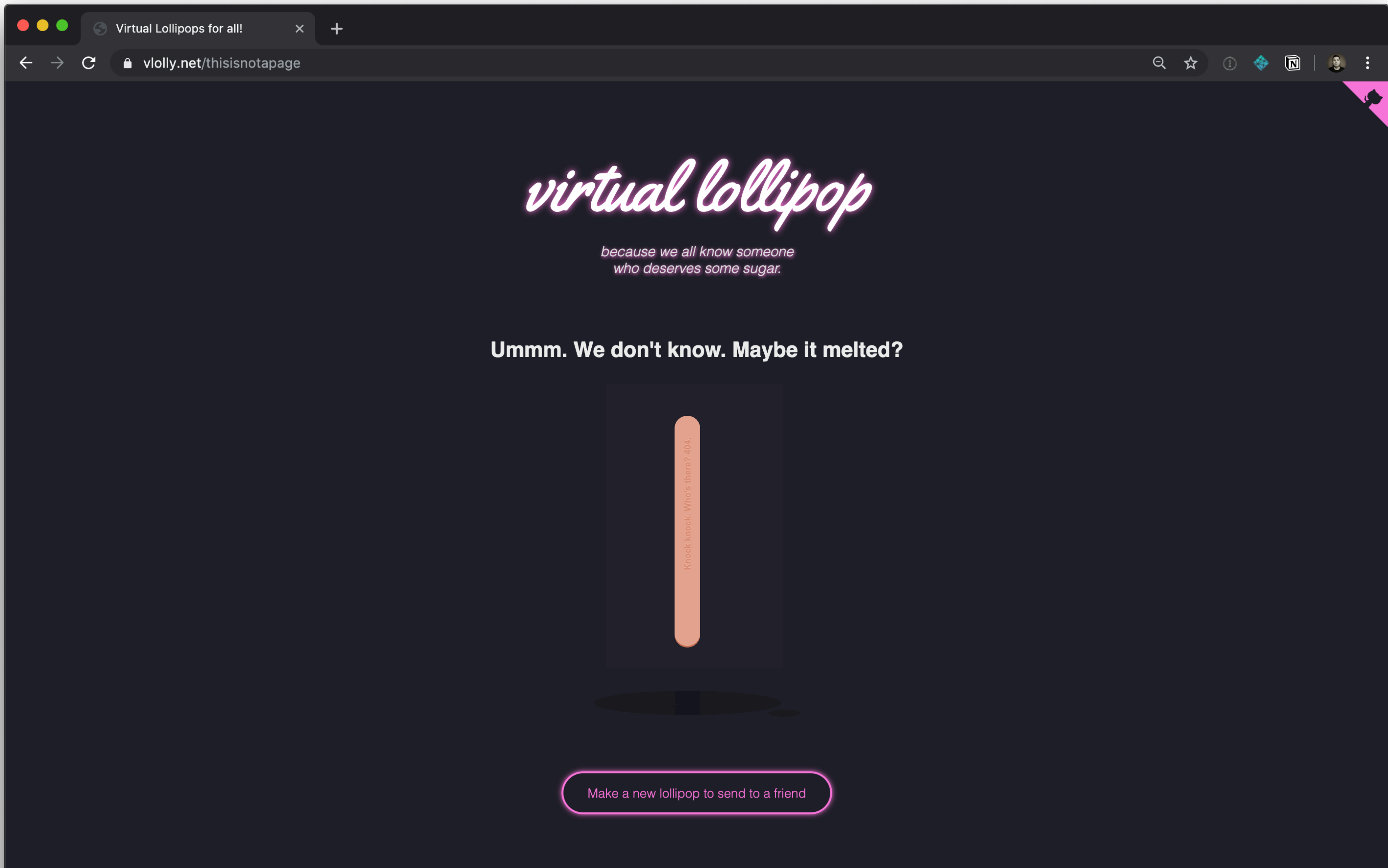
GET PAGE AS A  
JAVASCRIPT  
TEMPLATE LITERAL

AUTHENTICATE  
WITH THE DB

GET THE  
LOLLY DATA

SERVE LOLLY VIEW

NO LOLLY. BREAK  
THE BAD NEWS



Virtual Lollipops for all! x +

vlolly.net/thisisnotapage

*virtual lollipop*

*because we all know someone  
who deserves some sugar.*

**Ummm. We don't know. Maybe it melted?**

Knock knock. Who's there? 404.

Make a new lollipop to send to a friend

Knock knock. Who's there? 404.

*a quick demo?*



# FINDTHAT.AT/LOLLYTRICKS

<https://css-tricks.com/static-first-pre-generated-jamstack-sites-with-serverless-rendering-as-a-fallback/>

The screenshot shows a web browser window with the following elements:

- Browser Tab:** "Static First: Pre-Generated JAM" with a close button.
- Address Bar:** "css-tricks.com/static-first-pre-generated-jamstack-sites-with-serverless-rendering-as-a-fallback/"
- Navigation Bar:** CSS-TRICKS logo and icons for Articles, Videos, Almanac, Snippets, Newsletter, Jobs, and Guides. A search bar on the right contains "e.g. flexbox".
- Breadcrumbs:** "Home / Articles /"
- Article Title:** "Static First: Pre-Generated JAMstack Sites with Serverless Rendering as a Fallback"
- Author Info:** Profile picture of Phil Hawksworth, "Author Phil Hawksworth", "Comments Start the Conversation ->", "Published Sep 23, 2019", "Updated Sep 23, 2019".
- Tags:** "JAMSTACK", "NETLIFY", "NETLIFY FUNCTIONS", "SERVERLESS".
- Advertisement:** Wufoo by SurveyMonkey banner with the text "Build custom online forms in minutes" and a "Start now" button. Below it, a small profile picture and text: "Wufoo powers all our web forms here at CSS-Tricks, and has for over a decade!".



*enablers*

# CUSTOM 404 ROUTING



```
[[redirects]]  
  from = "/lolly/*"  
  to = "/.netlify/functions/showLolly?id=:splat"  
  status = 302  
  force = "false"
```

# EVENTS, TRIGGERS AND AUTOMATION

# DATABASE AS A SERVICE



# FUNCTIONS AS A SERVICE

# PRE-RENDERING

# SERVERLESS RENDERING

# A SHIFT

*from*

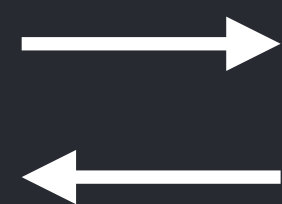
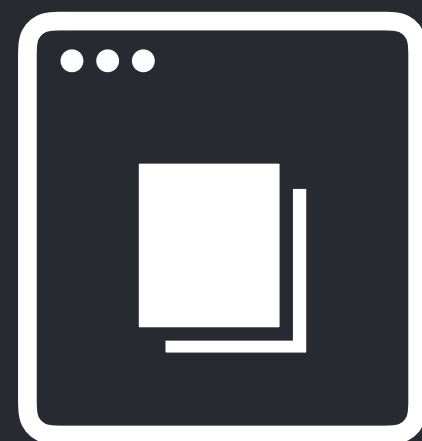
**SEEKING TO OPTIMIZE BY  
ADDING STATIC LAYERS**

*to*

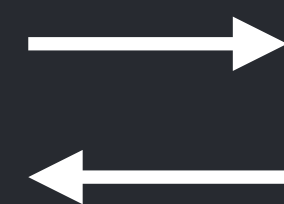
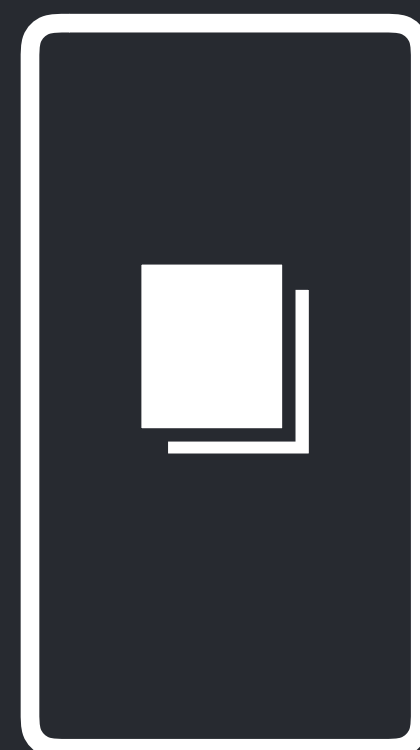
**STATIC FIRST**  
**ENHANCING IF REQUIRED**



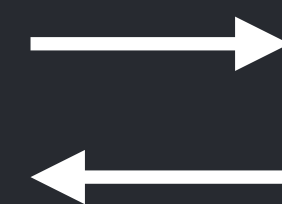
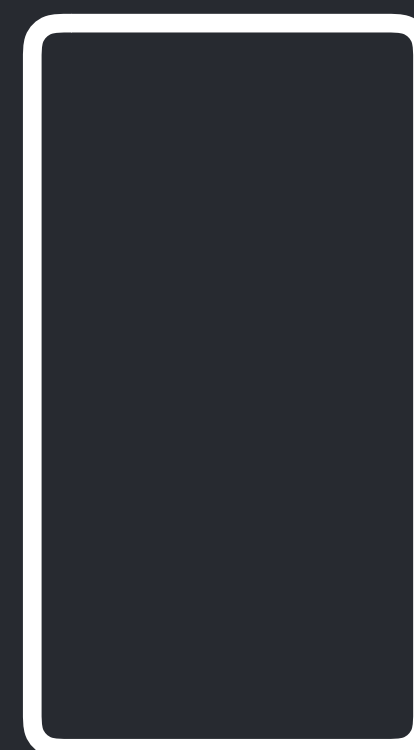
*traditional*



**CDN**



**LOAD BALANCER**



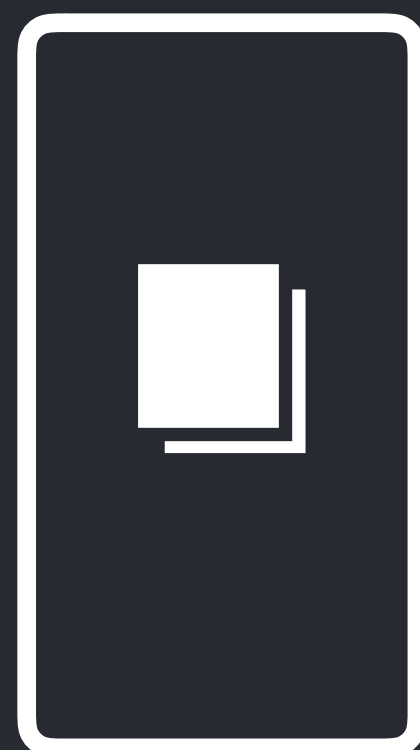
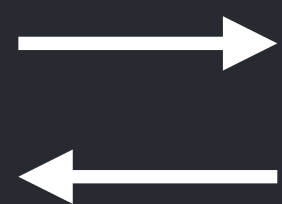
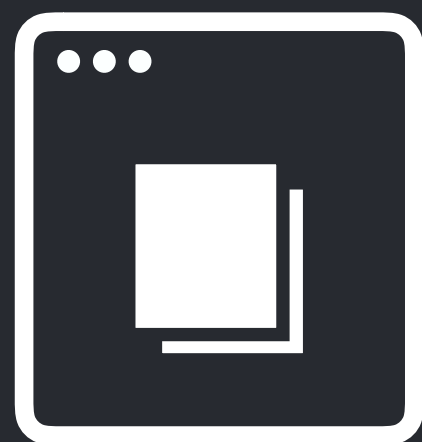
**WEB SERVERS**



**DB SERVERS**



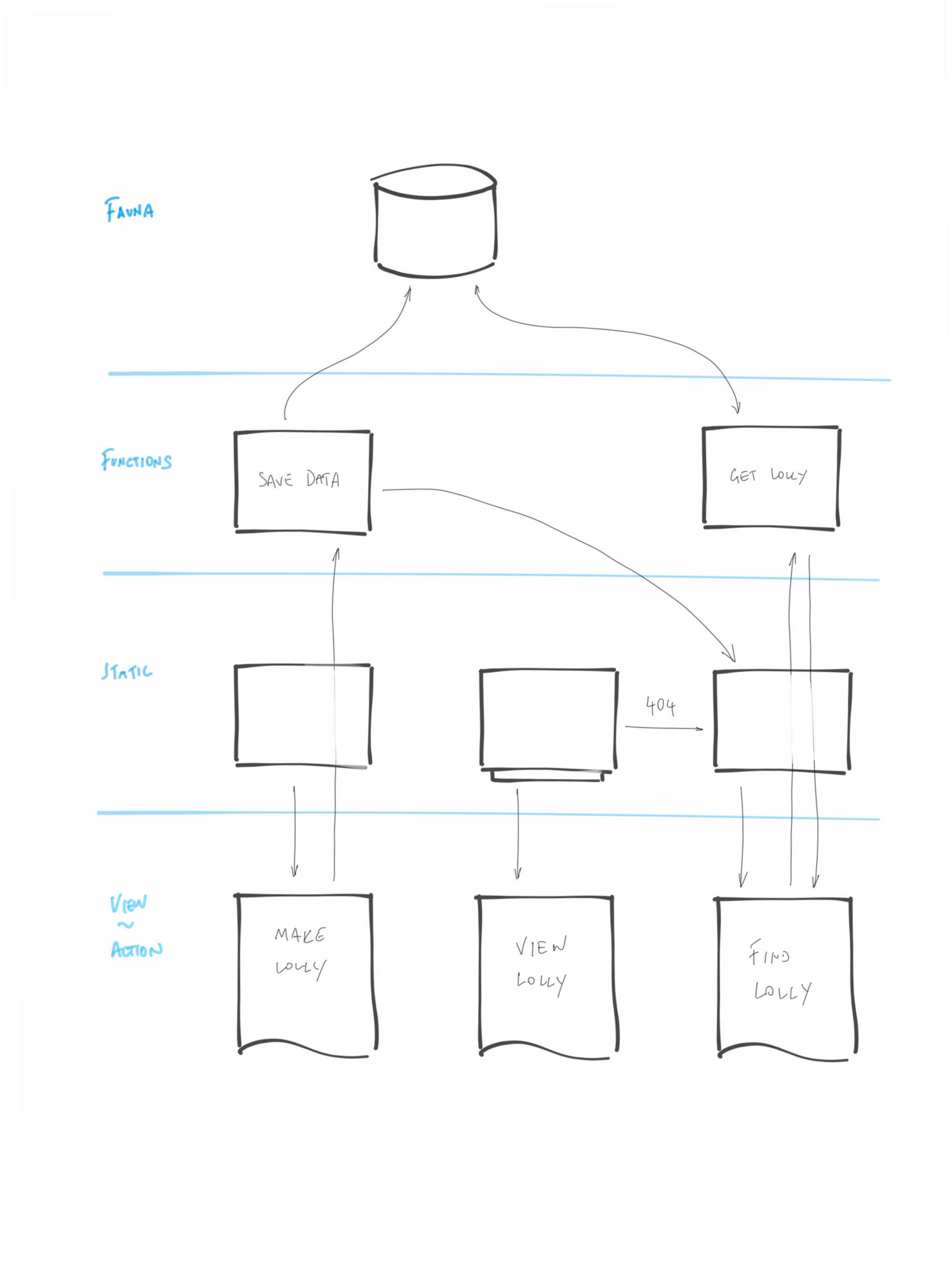
*jamstack*



**SIMPLIFYING  
IS NOT DUMBING DOWN**

**SIMPLIFYING  
IS NOT DUMBING DOWN  
IT LETS US FOCUS  
ON WHAT REALLY IS  
IMPORTANT**

# EASIER TO REASON ABOUT



**WHAT SHALL  
WE MAKE?**







# STATIC SITE GENERATORS

[staticgen.com](https://staticgen.com)

# NETLIFY

[www.netlify.com](https://www.netlify.com)

# VARIOUS RELATED RESOURCES FROM CHRIS COYIER

<https://serverless.css-tricks.com/>

# CITRIX PRESENTATION FROM JAMSTACKCONF NYC

[youtube.com/watch?v=kvS5h5domf0](https://youtube.com/watch?v=kvS5h5domf0)

# JAMSTACK CONFERENCE

jamstackconf.com

# HEADLESS / DECOUPLED CMS

headlesscms.org

# ABOUT THE JAMSTACK / COMMUNITY

jamstack.org

# BUILDING A URL SHORTENER WITH NETLIFY REDIRECTS

findthat.at

## SO I GUESS WE'RE FULL STACK NOW?

<https://www.youtube.com/watch?v=IF0fQsi5ye0>

## MODERN WEB DEVELOPMENT ON THE JAMSTACK

[netlify.com/oreilly-jamstack/](https://netlify.com/oreilly-jamstack/)

## JAMSTACK SLACK

[jamstack.org/slack](https://jamstack.org/slack)

## JAMSTACK COMMENTS EXAMPLE

[jamstack-comments.netlify.com](https://jamstack-comments.netlify.com)



**JAMSTACK SLACK**  
[jamstack.org/slack](https://jamstack.org/slack)



FINDTHAT.AT / SERVERED

THANKS

@PHILHAWKSWORTH