



# BUILDING WITH JAMSTACK

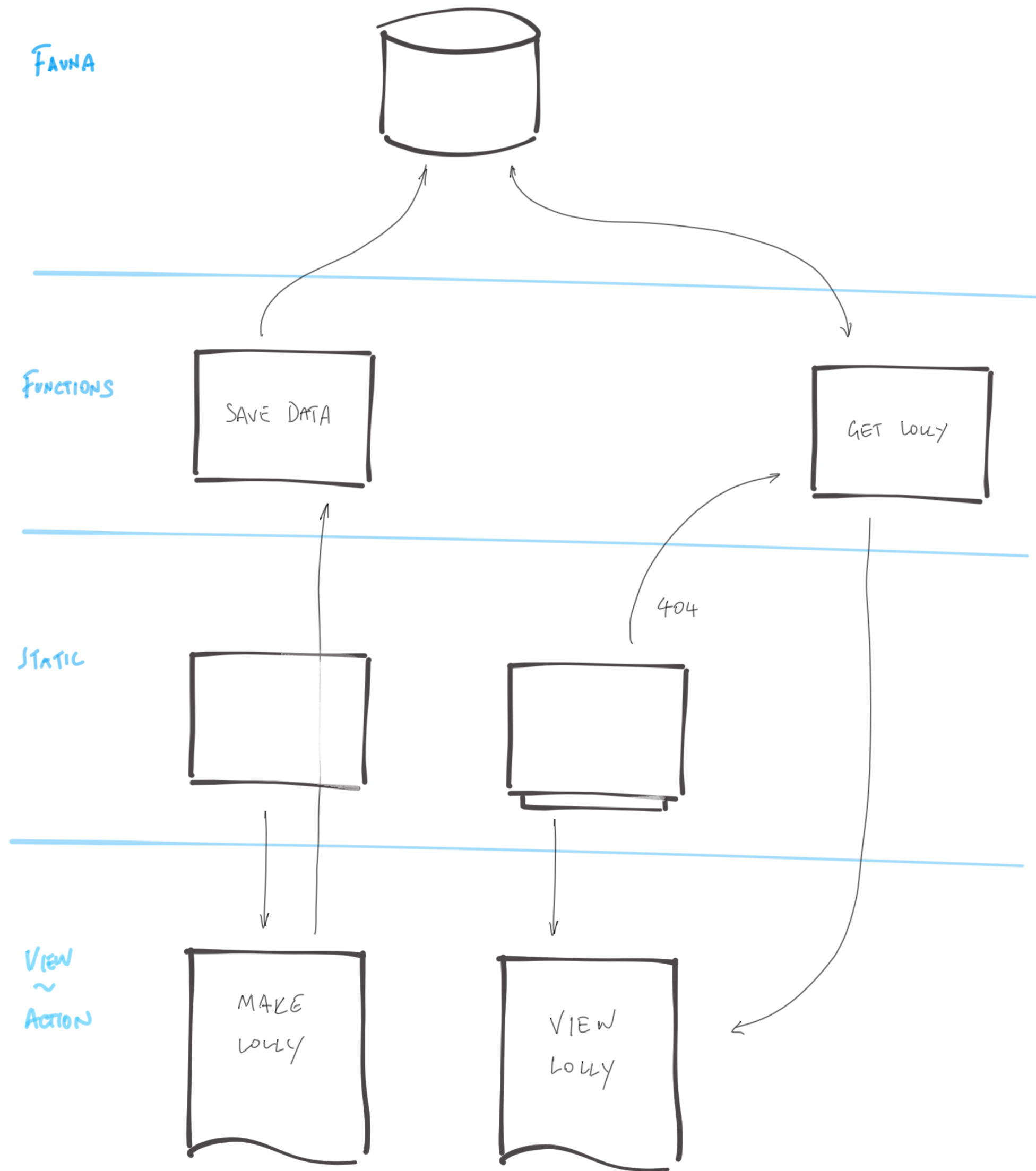
WRANGLING APIS AND UIS

PHIL HAWKSWORTH  
@PHILHAWKSWORTH

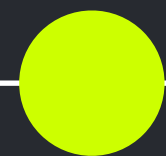




# LINES AND BOXES



*yikes!*



**YIYING**



**ME**



**MARK**

**JAMSTACK JAMSTACK JAMSTACK  
SOMETHING SOMETHING JAMSTACK**

**PHIL, ALL THE TIME TO BE HONEST**

**ART IS ABOUT ASKING QUESTIONS,  
DESIGN IS ABOUT FINDING ANSWERS**

**BRENDAN DAWES, I THINK**

**TECHNICAL  
DESIGN**

*is*

**DESIGN TOO**



**SIMPLICITY**



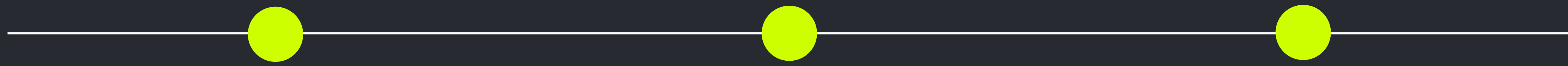


```
fetch('https://nice.api.com/things.json')  
  .then(res => res.json())  
  .then(json => console.log(json));
```

**BUILDING  
A SYSTEM**

*can be*

**HARD**

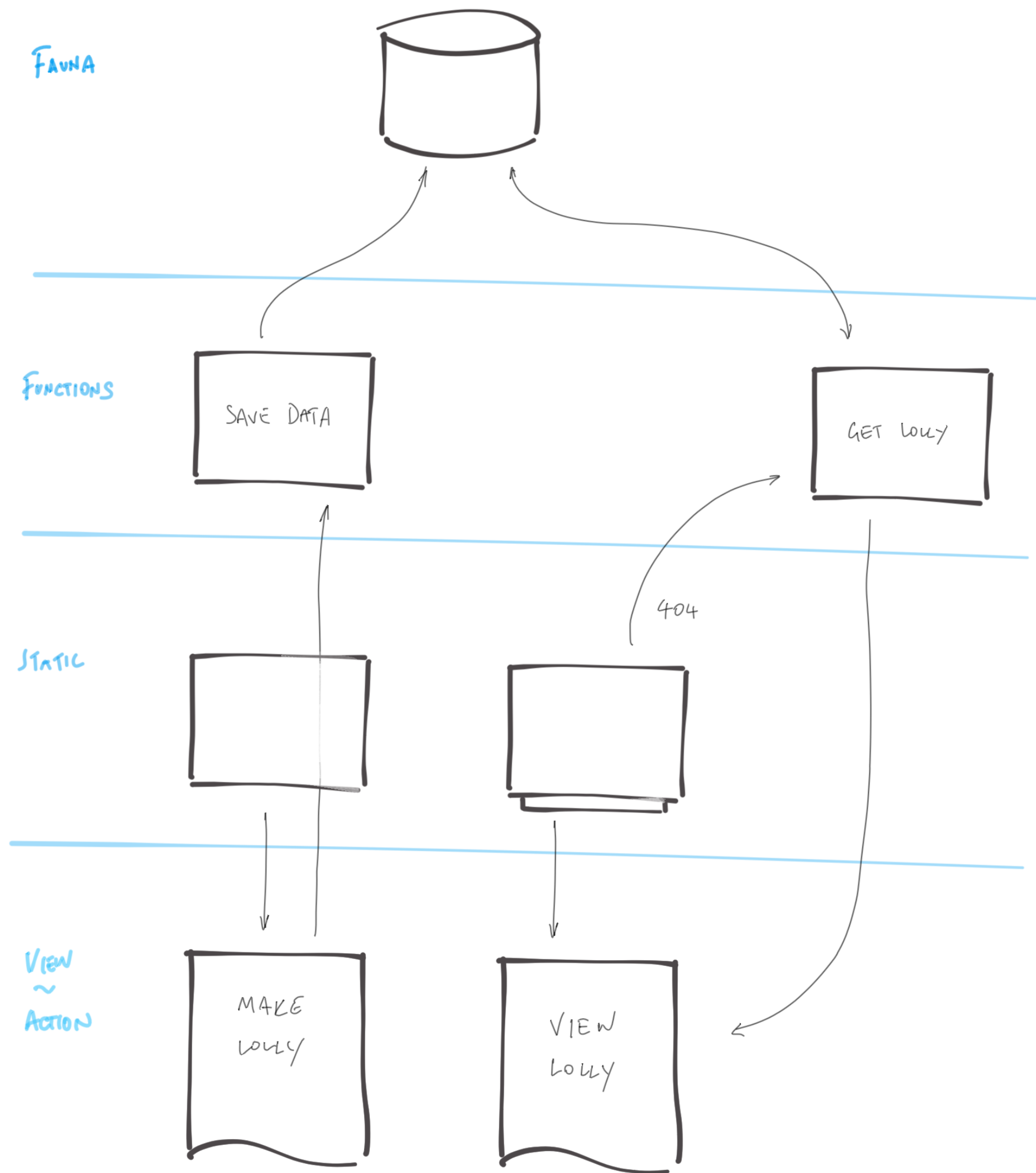


**SOFTWARE  
ENGINEER**

**TECHNICAL  
DIRECTOR**

**DX  
ENGINEER**

# LINES AND BOXES



**"VIEWING" SITES**

*Eg*

**"DOING" SITES**





# BUILDING WITH JAMSTACK

## WRANGLING APIS AND UIS

PHIL HAWKSWORTH  
@PHILHAWKSWORTH

# jamstack

*Fast and secure sites and apps delivered by pre-rendering files and serving them directly from a CDN, removing the requirement to manage or run web servers.*



**"VIEWING" SITES**

*Eg*

**"DOING" SITES**



# MONOLITHS

ONE CHOICE FOR ALL DISCIPLINES



**2-RAY WARNING:** When picture tubes are operated above the design maximum anode voltage, and when personal exposure is prolonged at close range, special shielding precautions against x-radiation may be needed.

**WARNING-HANDLE WITH CARE:** Breakage of this tube, which contains a high vacuum, may result in injury from flying glass. Remove tube carefully from container. Do not strike or scratch the tube or subject it to more than moderate pressure when inserting into or removing from its socket in electronic equipment.

**MADE BY HITACHI, JAPAN**

**WARNING: THIS PICTURE TUBE EMPLOYS INTEGRAL IMPLOSION PROTECTION. REPLACE WITH A TUBE OF THE SAME TYPE NUMBER FOR CONTINUED SAFETY.**

**BEFORE REMOVING THE ANODE CAP, ALWAYS BE SURE TO CONNECT THE ANODE OF THE CRT TO GROUND.**

HT-451A  
2122212  
YAKO-906  
Q10H V14

PWB ASS  
NO.  
2590341

14900





# SEPARATION OF CONCERNS

# *jamstack*

**MARKUP**

**AS MUCH AS POSSIBLE,  
GENERATED IN ADVANCE**

**JAVASCRIPT**

**USED AS A  
PROGRESSIVE  
ENHANCEMENT**

**API**

**IN THE BROWSER  
OR ELSEWHERE**

**API**



**USER INTERFACE**

*serverless*



*jamstack*

**API**



**USER INTERFACE**

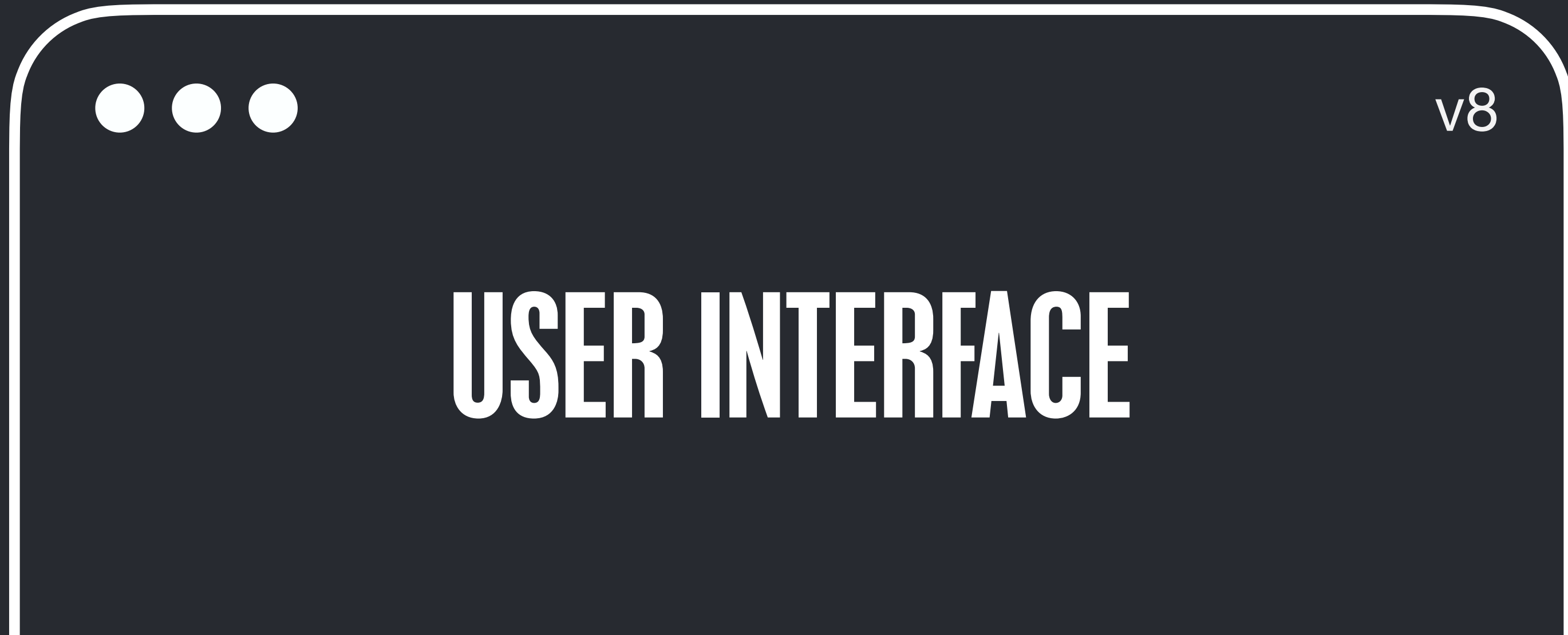
**API**



**USER INTERFACE**



v7 v6 v5.1 v5 v4.1 v4 v3 v2 v1



v7 v6 v5 v4 v3 v2 v1

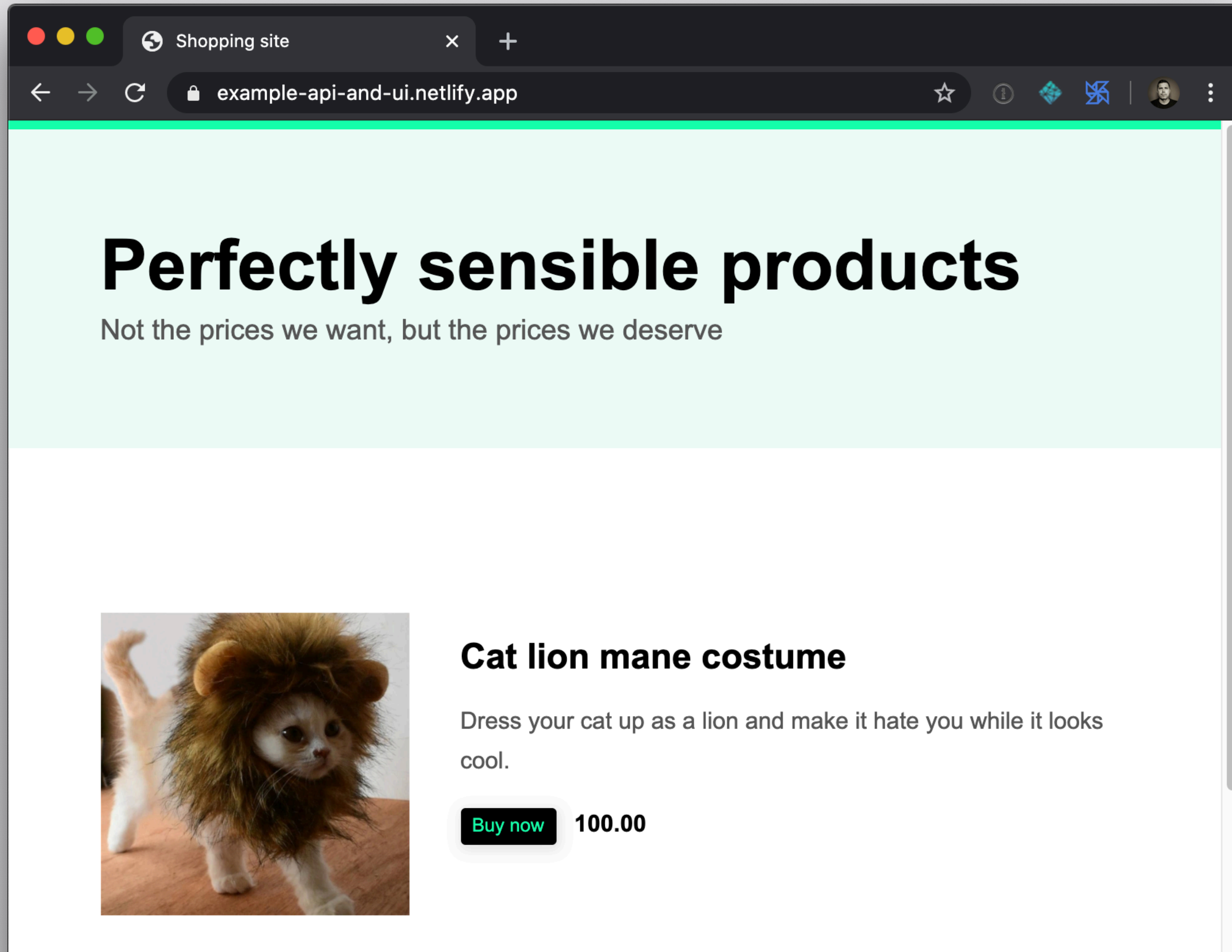
# HOW ARE APIS AND UIS COUPLED?

URL / SIGNATURE / RESPONSE



**EXAMPLE**

# FINDTHAT.AT/CATCOUTURE




Shopping site

example-api-and-ui.netlify.app

## Perfectly sensible products

Not the prices we want, but the prices we deserve



### Cat lion mane costume

Dress your cat up as a lion and make it hate you while it looks cool.

[Buy now](#) 100.00

```
{
  "prod-cat-outfit-lion": {
    "name": "Cat lion mane costume",
    "rrp": "100.00",
    "image": "product-cat-lion.jpg",
    "description": "Dress your cat up as a lion and make
                  it hate you while it looks cool."
  },
  ...
}
```

inventory.json



## Jaunty cat pirate outfit

Dress your cat up as a pirate and make it hate you.

[Just a few left! Buy now](#)

**100.00**

**API**



**USER INTERFACE**

```
const productViews = document.querySelectorAll('.product');

productViews.forEach(element => {
  fetch(`/api/stock/${element.dataset.productId}`)
    .then(response => response.json())
    .then(data => {

      // update the UI based on the
      // levels of available stock

    })
});
```

shop.js

# COUPLING

— API ENDPOINT

**API**



**USER INTERFACE**

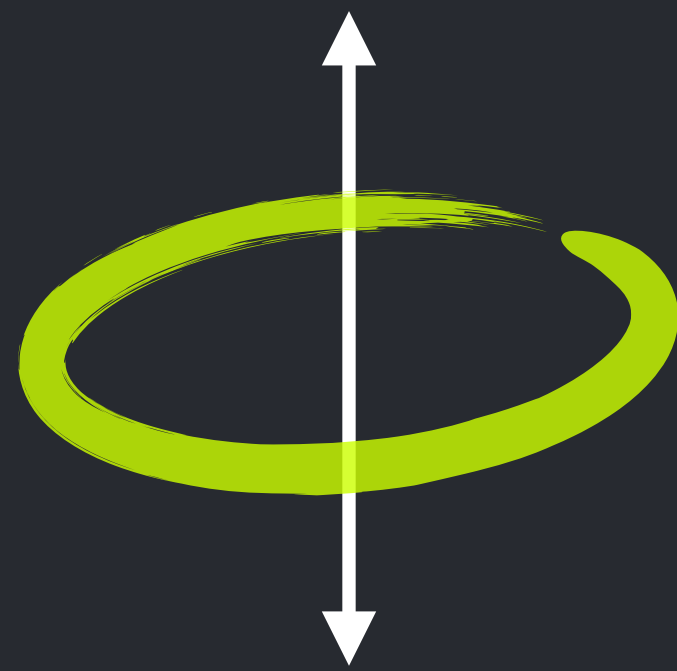


**API**

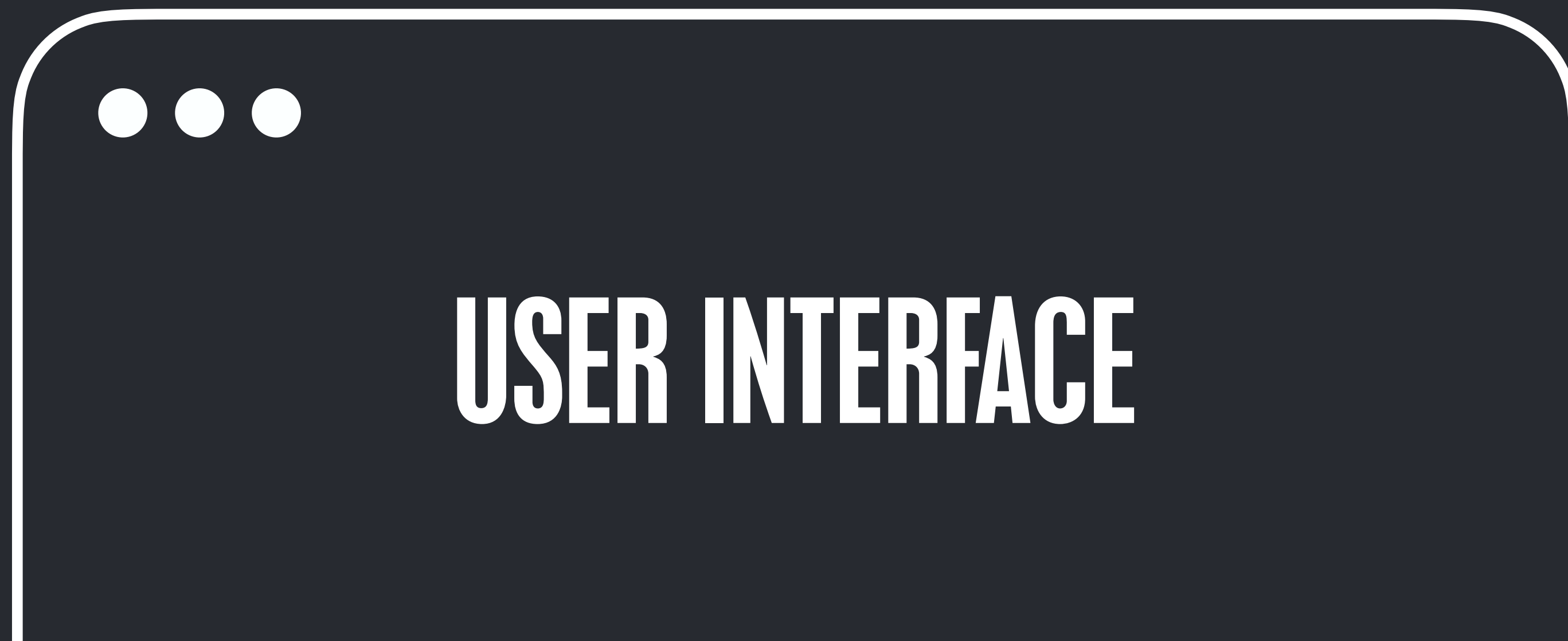


**USER INTERFACE**

**API**



**DECOUPLE WITH A PROXY**

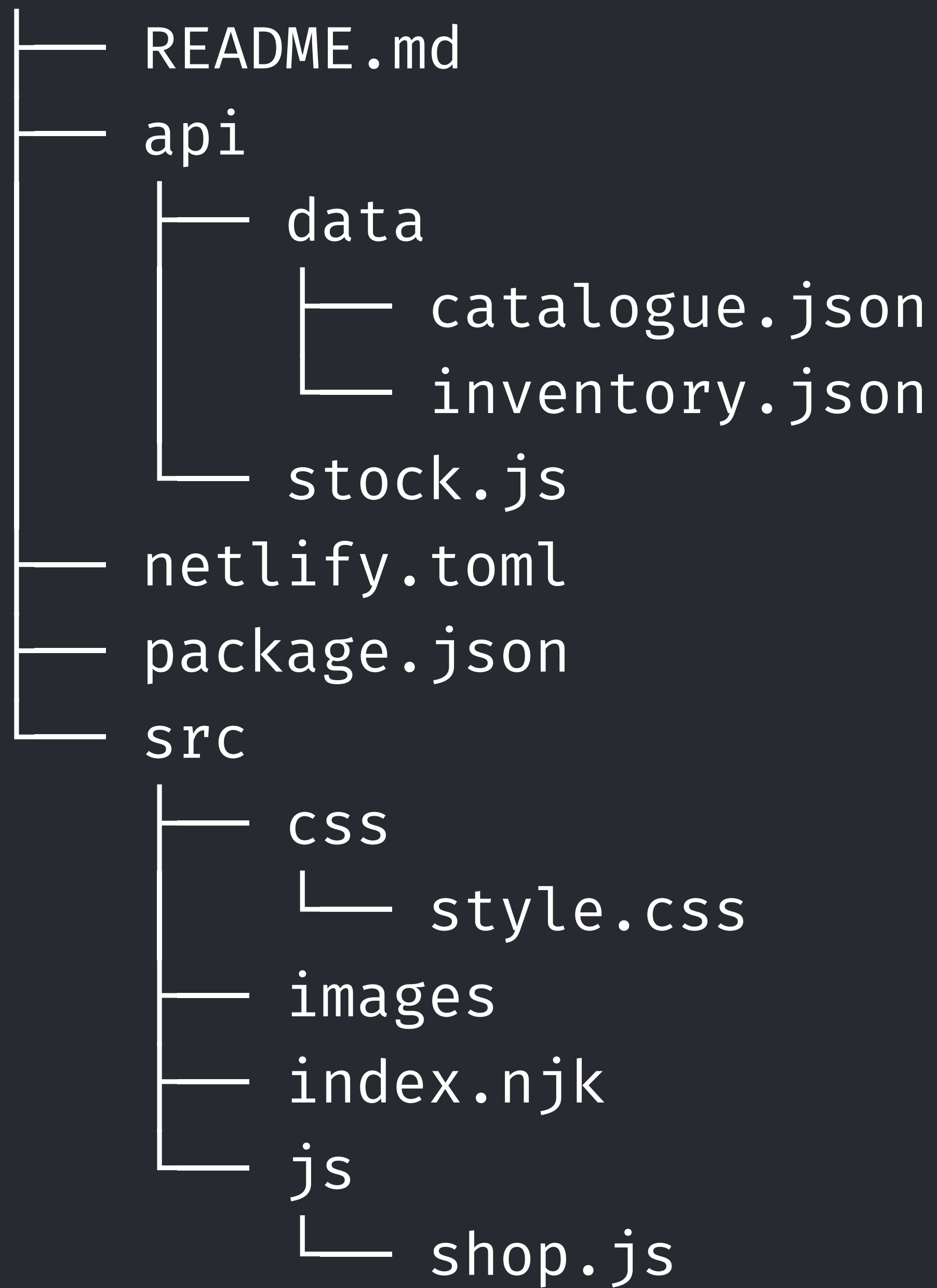


```
[[redirects]]  
  from = "/api/stock/:id"  
  to = "/.netlify/functions/stock?productId=:id"
```

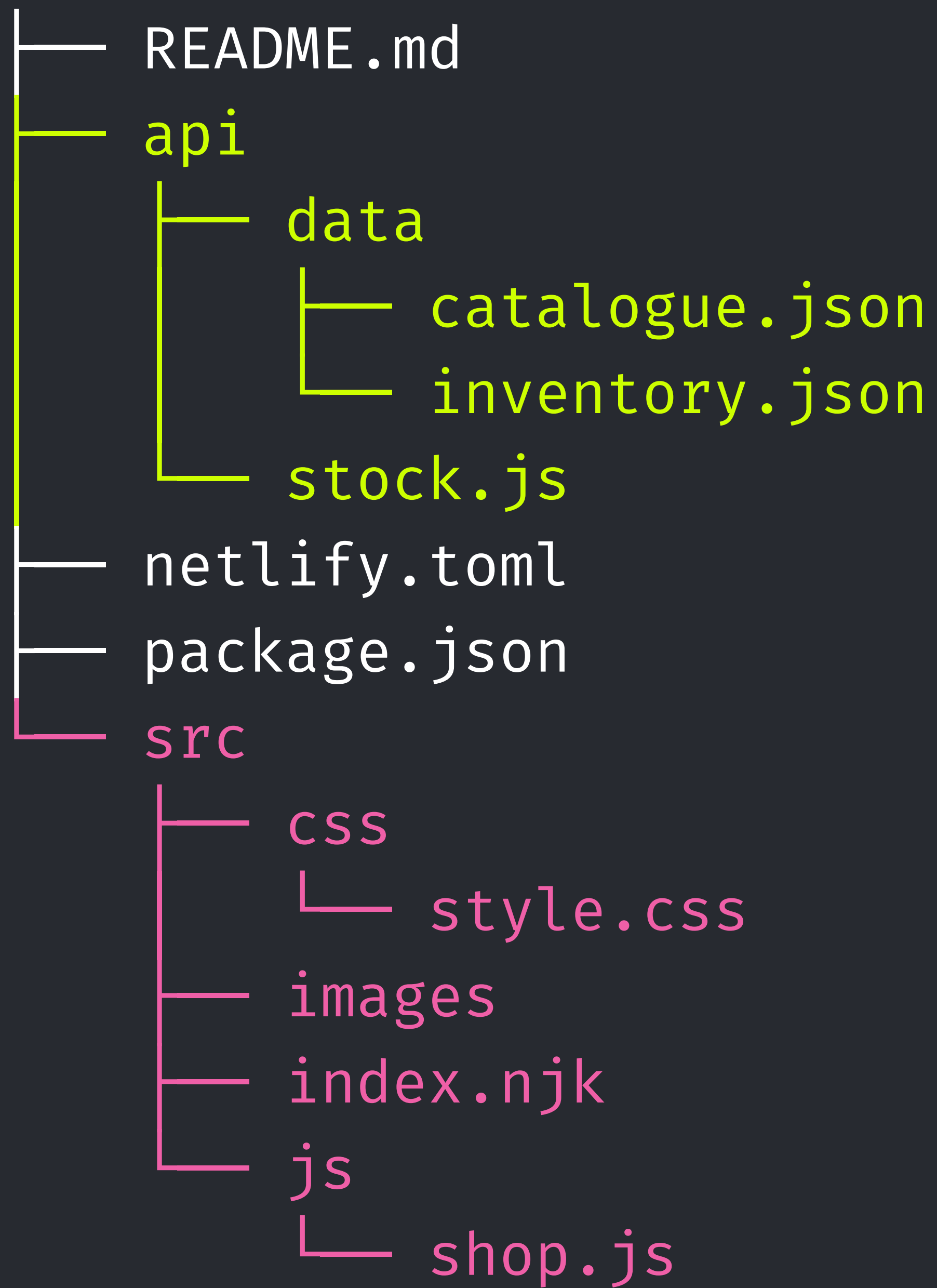
```
[[redirects]]  
  from = "/api/stock/:id"  
  to = "https://other.api.com/stock?productId=:id"
```

# HOW ARE APIS AND UIS COUPLED?

URL / SIGNATURE / RESPONSE









# FINDTHAT.AT/CATCOUTURE/REPO

The screenshot shows a GitHub repository page for 'philhawksworth/example-api-and-ui'. The browser address bar shows the URL 'github.com/philhawksworth/example-api-and-ui'. The repository page includes a search bar, navigation links for Pull requests, Issues, Marketplace, and Explore, and a user profile icon. The repository name is 'philhawksworth / example-api-and-ui', with a note that it was generated from 'netlify/example-site-boilerplate'. Action buttons include 'Deploy To Netlify', 'Unwatch' (1), 'Star' (1), and 'Fork' (0). A secondary navigation bar shows 'Code', 'Issues' (0), 'Pull requests' (0), 'Actions', 'Projects' (0), 'Wiki', 'Security' (0), 'Insights', and 'Settings'. The repository description is 'A working example for keeping APIs and UI aligned', with an 'Edit' button. Below this, a summary bar shows '15 commits', '4 branches', '0 packages', '0 releases', and '1 contributor'. A section for 'Your recently pushed branches' highlights the 'price-gouging' branch (about 1 hour ago) with a 'Compare & pull request' button. At the bottom, there are buttons for 'Branch: master', 'New pull request', 'Create new file', 'Upload files', 'Find file', and 'Clone or download'. A commit history table follows, showing the latest commit by philhawksworth (update repo links and typo, 1 hour ago) and a list of files and folders with their respective commit messages and timestamps.

philhawksworth/example-api-a x +

github.com/philhawksworth/example-api-and-ui

Search or jump to... Pull requests Issues Marketplace Explore

philhawksworth / example-api-and-ui

generated from netlify/example-site-boilerplate

Deploy To Netlify Unwatch 1 Star 1 Fork 0

Code Issues 0 Pull requests 0 Actions Projects 0 Wiki Security 0 Insights Settings

A working example for keeping APIs and UI aligned Edit

Manage topics

15 commits 4 branches 0 packages 0 releases 1 contributor

Your recently pushed branches:

price-gouging (about 1 hour ago) Compare & pull request

Branch: master New pull request Create new file Upload files Find file Clone or download

philhawksworth update repo links and typo Latest commit 88fd69a 1 hour ago

api	inventory update	19 hours ago
src	update repo links and typo	1 hour ago
.eleventy.js	data as js not json	19 hours ago
.gitignore	breathing site	21 hours ago
README.md	update readme	20 hours ago

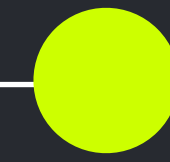
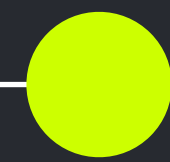
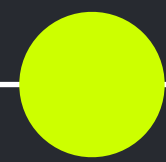
**UMM... "PRICE GOUGING?"**

**SOME OF YOU, PERHAPS**

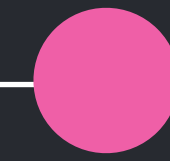
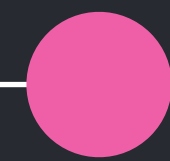
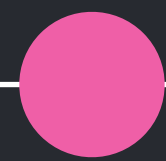
**ONE REPO**

**ONE DEPLOYMENT**

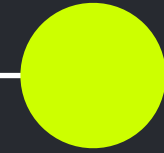
**API**



**UI**



API



*live*

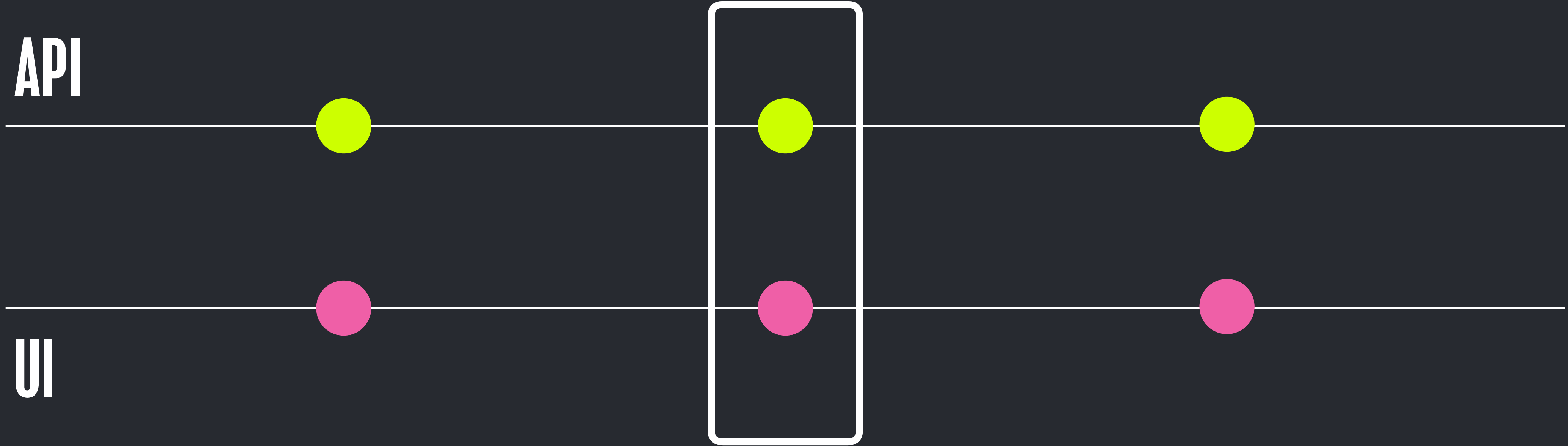
UI



API

*live*

UI



**GIT WORKFLOWS  
ACROSS THE  
APPLICATION  
FTW**

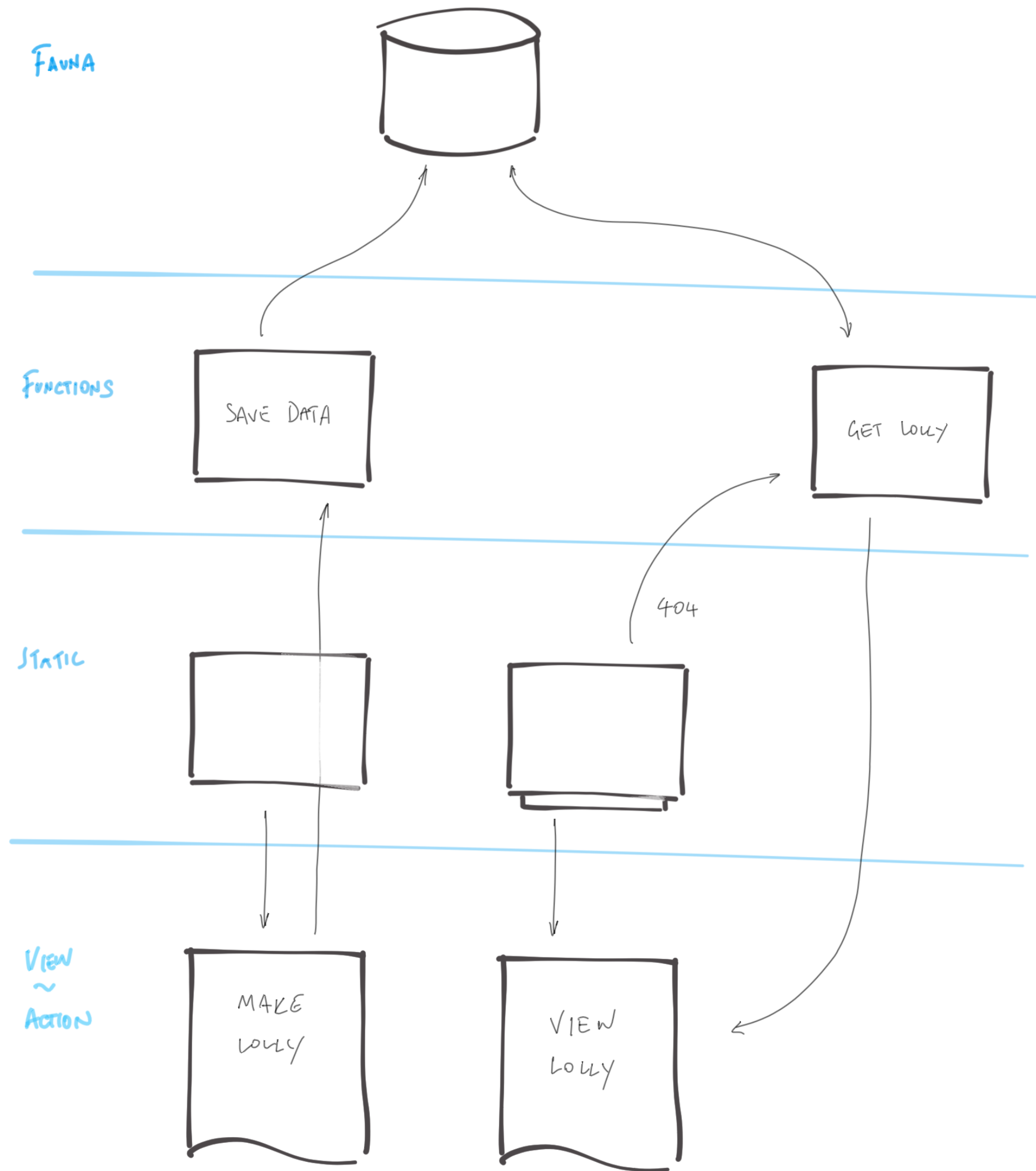
# HOW ARE APIS AND UIS COUPLED?

URL / SIGNATURE / RESPONSE



**WRAPPING UP**

# LINES AND BOXES



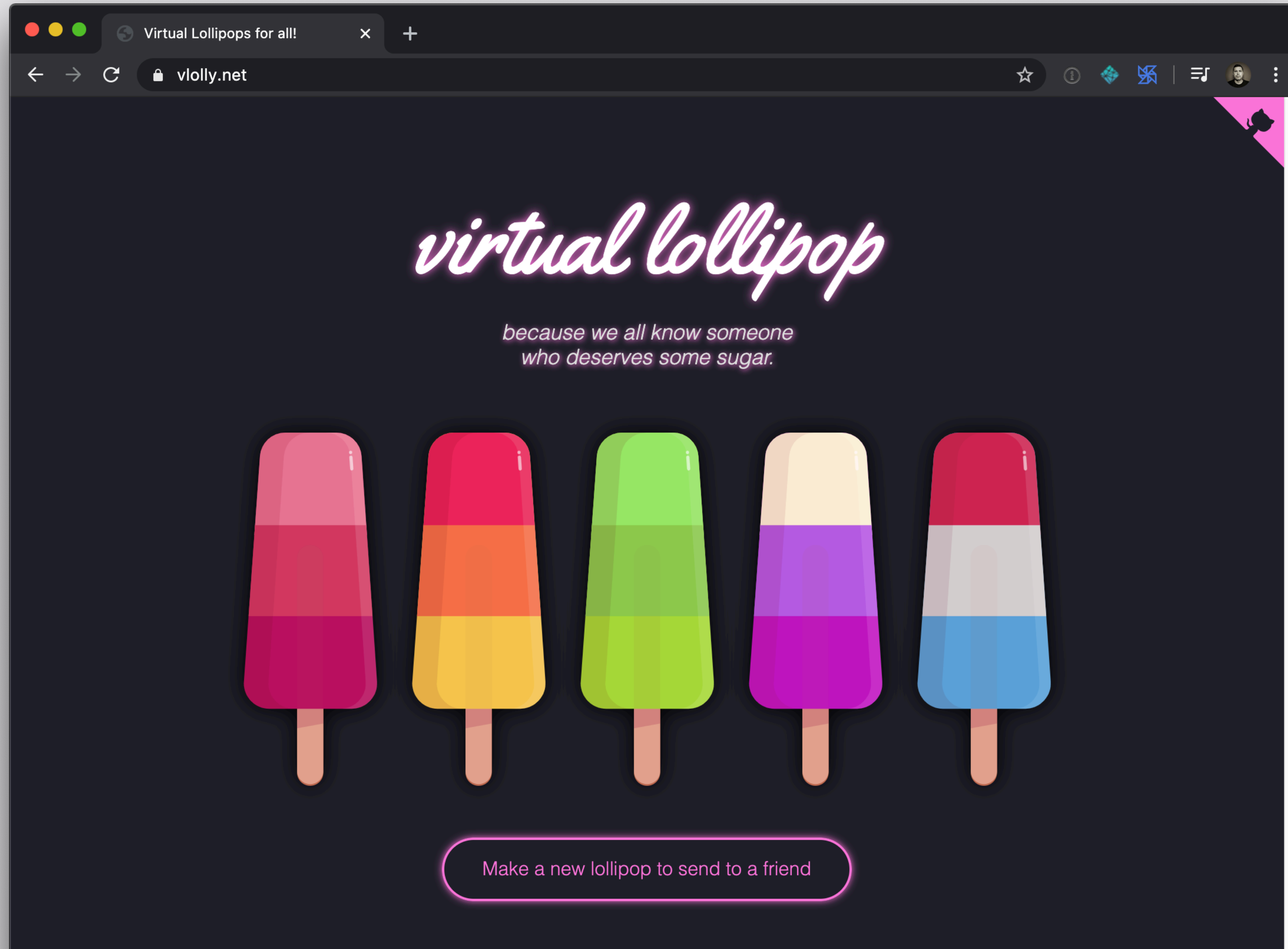
**STATIC FIRST**  
**ENHANCING IF REQUIRED**

**KEEP COUPLING LOOSE**

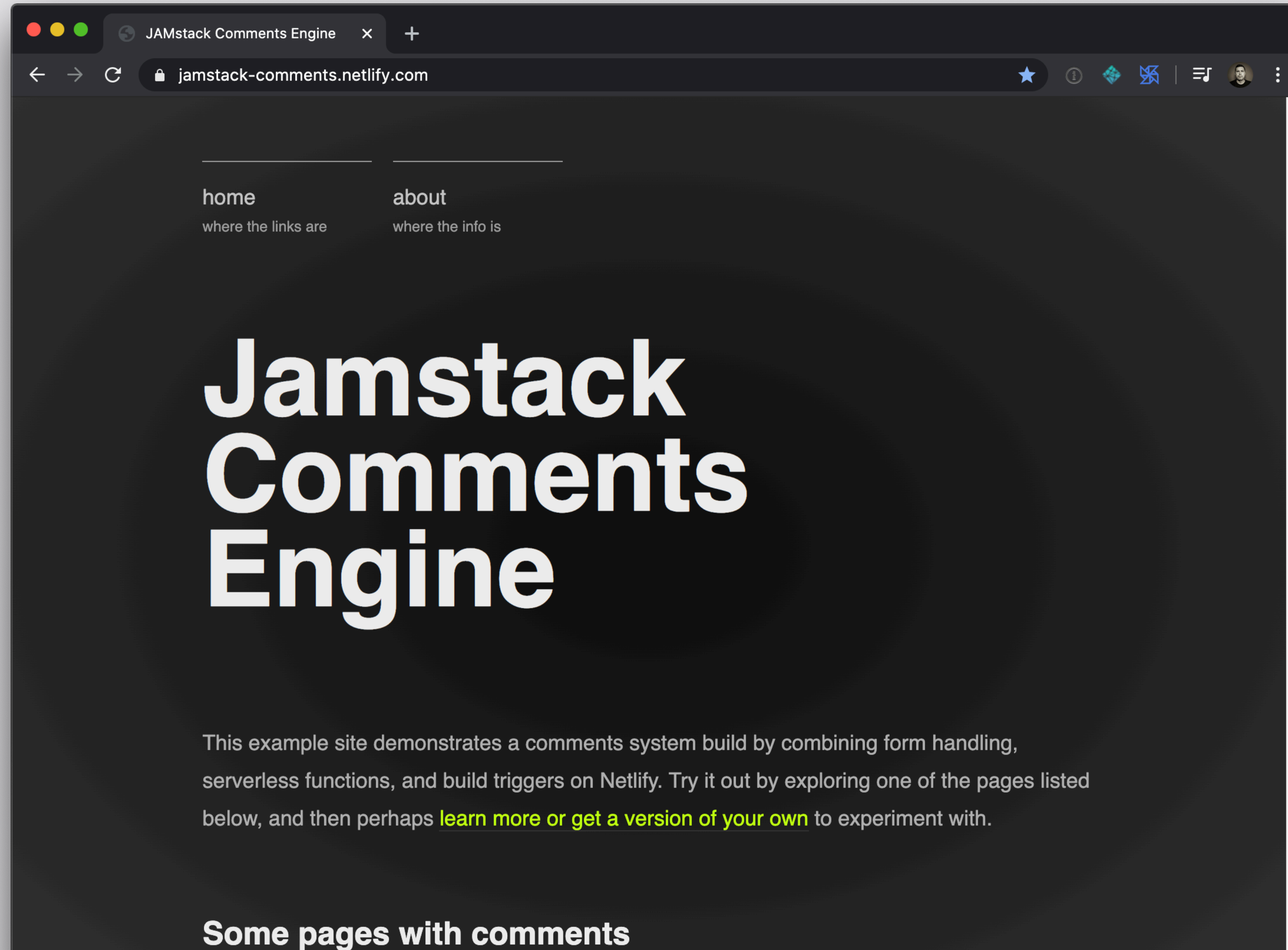
**THE API ECONOMY  
IS BOOMING**

**JAMSTACK &  
SERVERLESS ARE  
BEST FRIENDS**

# FINDTHAT.AT/LOLLY

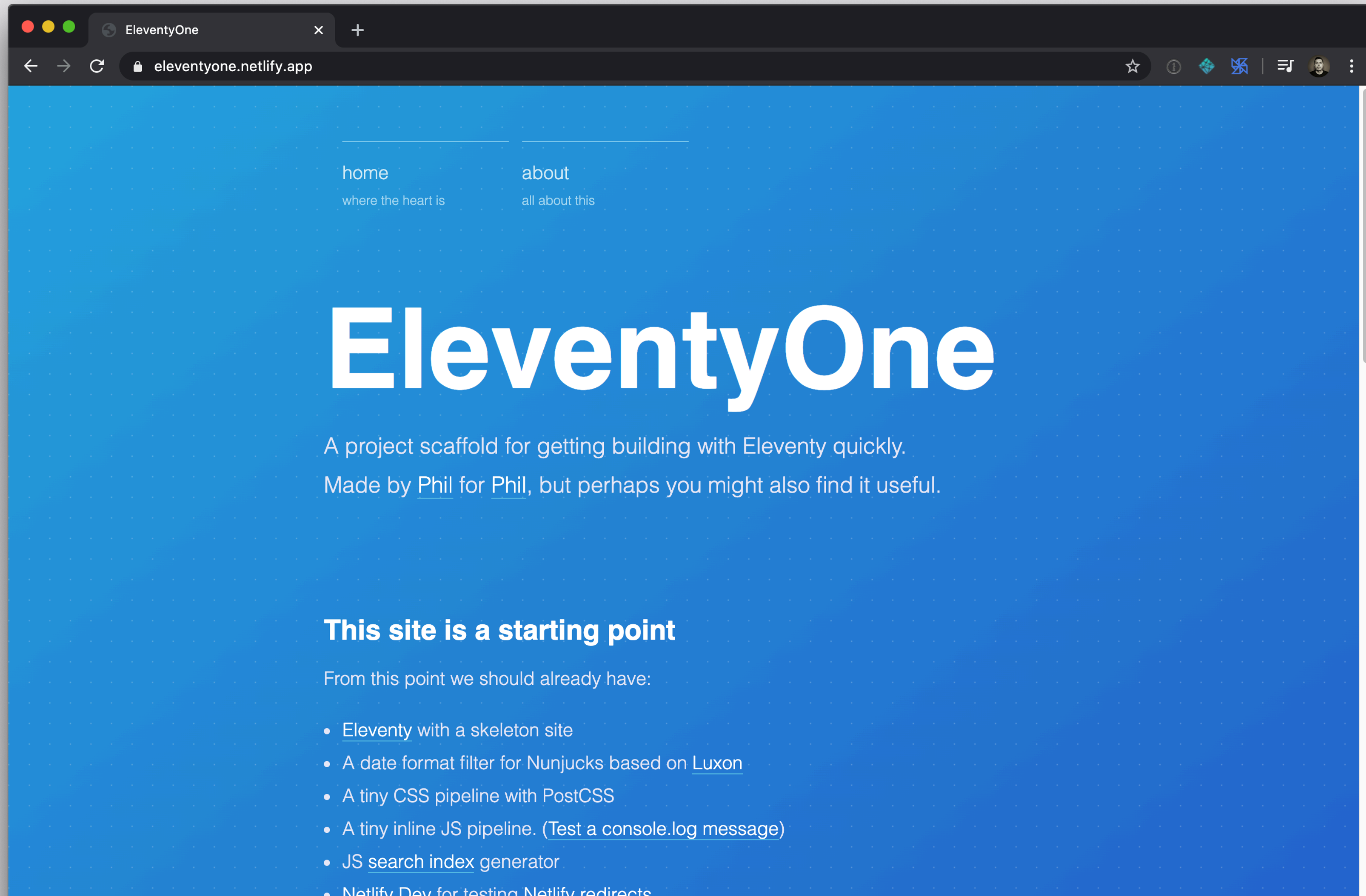


# FINDTHAT.AT/COMMENTS





# FINDTHAT.AT/ELEVENTYONE



# **BOOK - MODERN WEB DEVELOPMENT ON THE JAMSTACK**

[findthat.at/jamstackbook](https://findthat.at/jamstackbook)

# **FREE CODE CAMP VIDEO**

[findthat.at/jamstack/fcc](https://findthat.at/jamstack/fcc)

# **JAMSTACK WHITEPAPER**

[findthat.at/jamstack-whitepaper](https://findthat.at/jamstack-whitepaper)

# **JAMSTACK COMMENTS EXAMPLE**

[findthat.at/comments](https://findthat.at/comments)

[FINDTHAT.AT/SMASHINGJAM](https://findthat.at/smashingjam)

**THANKS**

**@PHILHAWKSWORTH**