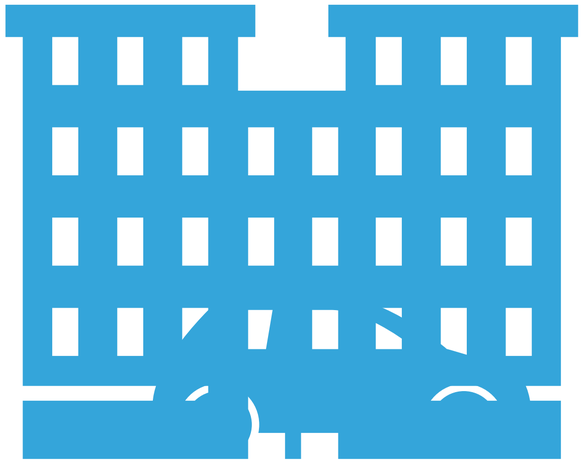
BRINGING THE JAMSTACK TO THE ENTERPRISE

JAMUND FERGUSON

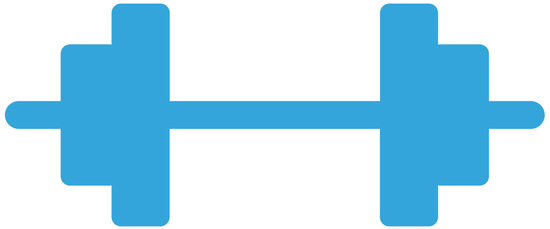
- Been at PayPal for 5.5yrs
- Brought in during Java to Node transition
- Currently leading consumer web platform team
- Focused on improving developer experience
- Do a lot of training and talking about JavaScript internally and externally

QCon
LONDON
BUILDING SCALABLE AND DEPENDABLE
NODE.JS APPLICATIONS
QCon

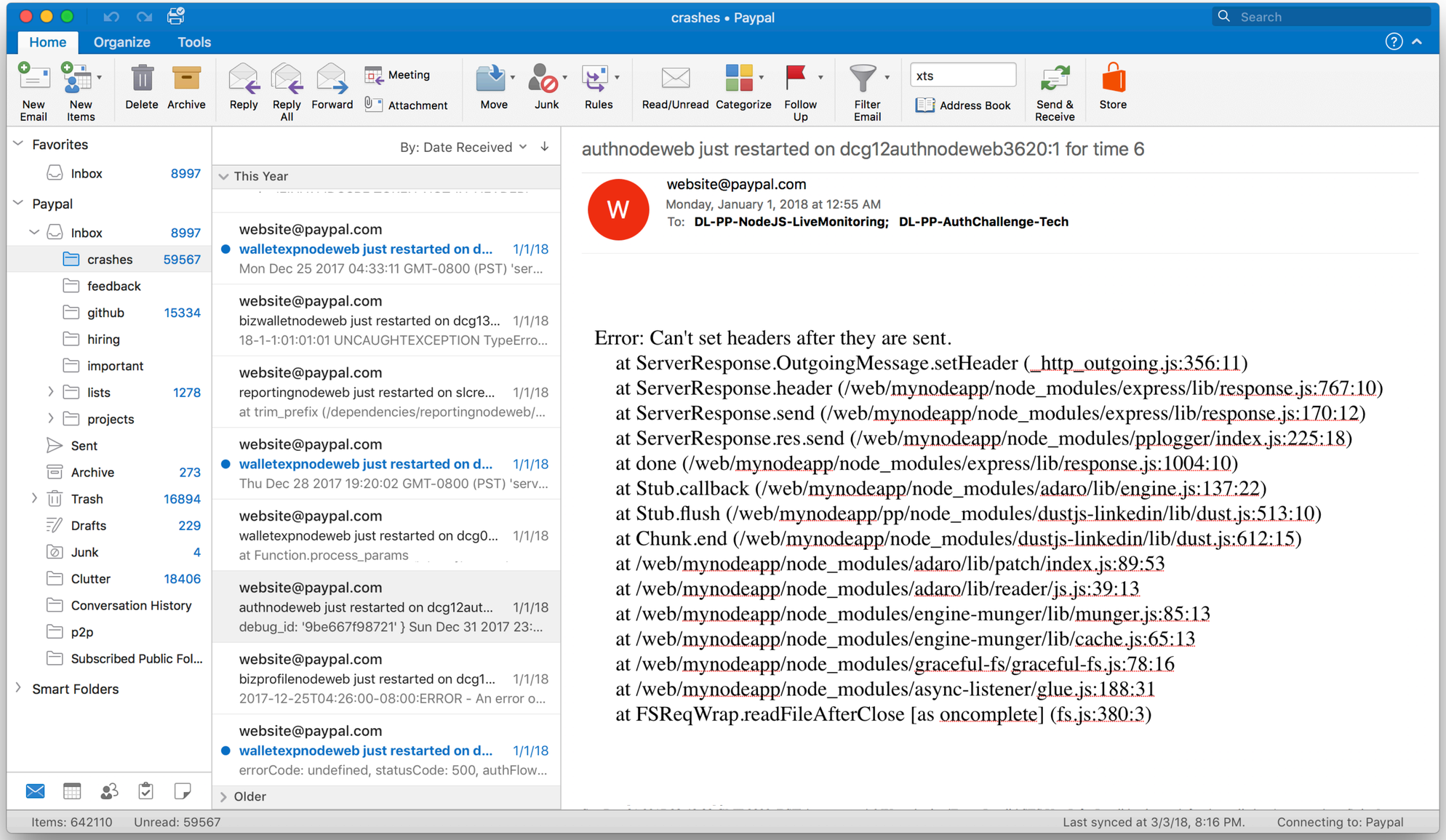


LACK OF STABILITY

INCREDIBLY SLOW DEPLOY TIMES



CLIENT-SIDE PERF


crashes • Paypal
Search
Home
Organize
Tools
New Email
New Items
Delete
Archive
Reply
Reply All
Forward
Meeting
Attachment
Move
Junk
Rules
Read/Unread
Categorize
Follow Up
Filter Email
xts
Address Book
Send & Receive
Store
Favorites
Inbox 8997
Paypal
Inbox 8997
crashes 59567
feedback
github 15334
hiring
important
lists 1278
projects
Sent
Archive 273
Trash 16894
Drafts 229
Junk 4
Clutter 18406
Conversation History
p2p
Subscribed Public Fol...
Smart Folders
By: Date Received
This Year
website@paypal.com
walletexpnodeweb just restarted on d... 1/1/18
Mon Dec 25 2017 04:33:11 GMT-0800 (PST) 'ser...
website@paypal.com
bizwalletnodeweb just restarted on dcg13... 1/1/18
18-1-1:01:01:01 UNCAUGHTEXCEPTION TypeErro...
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at trim_prefix (/dependencies/reportingnodeweb/...
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Thu Dec 28 2017 19:20:02 GMT-0800 (PST) 'serv...
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at Function.process_params
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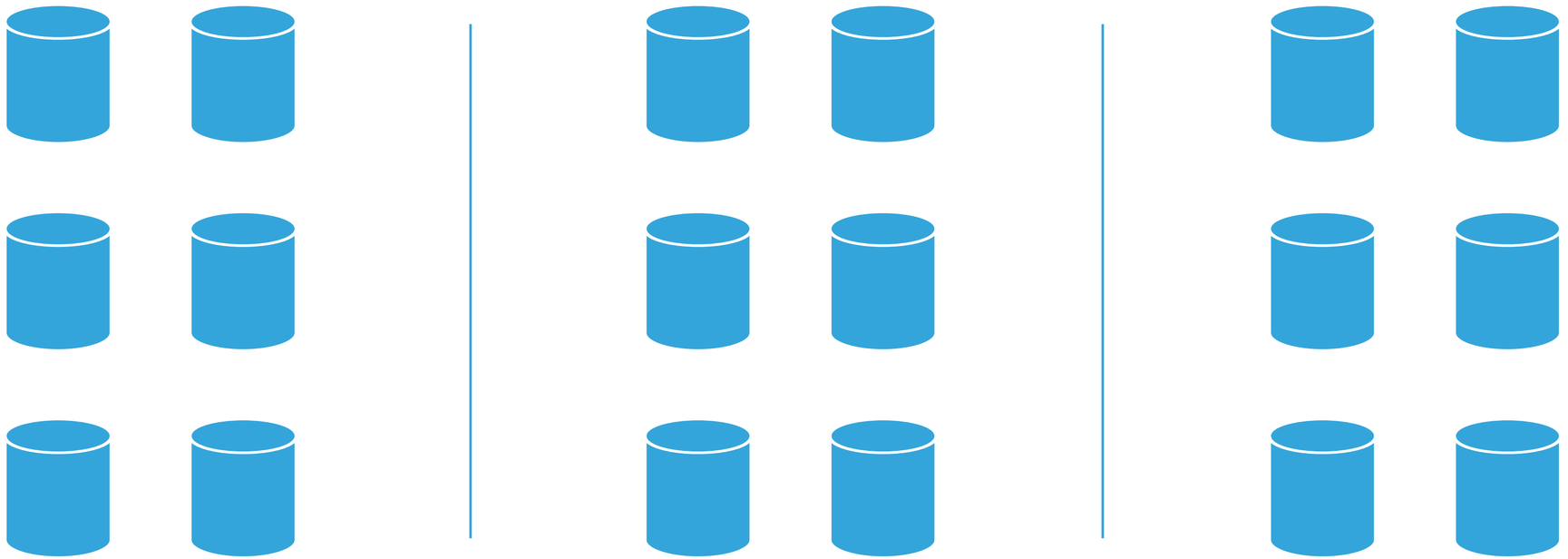
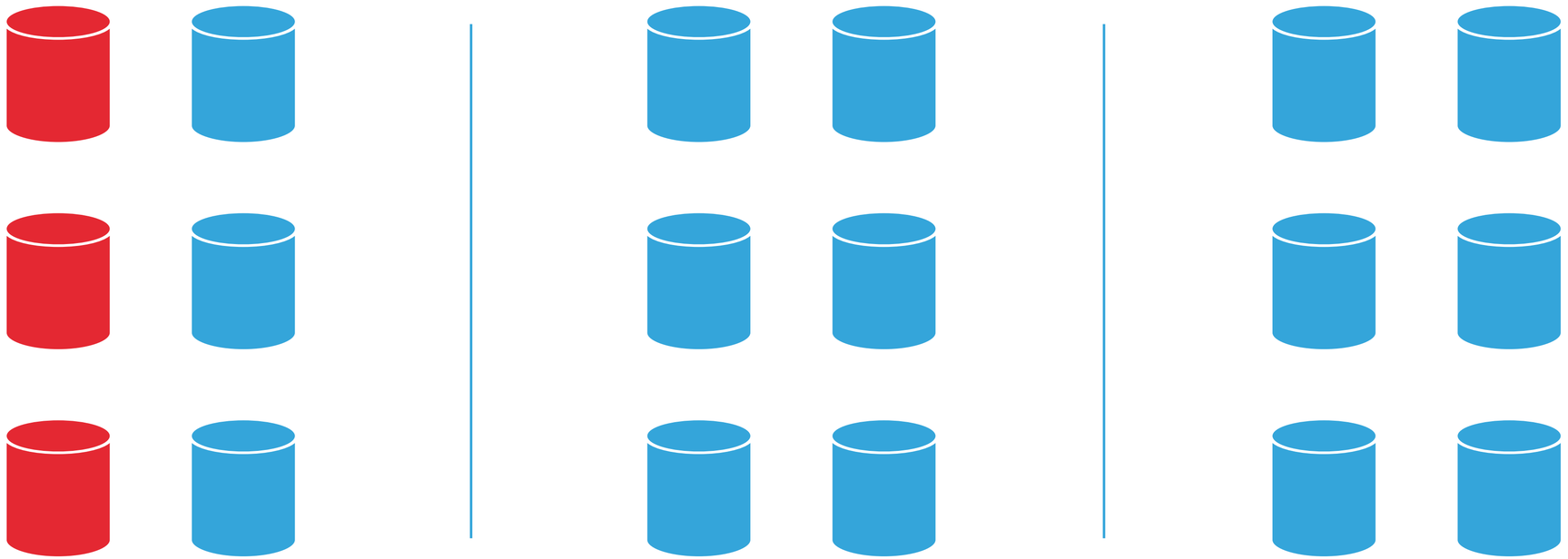
authnodeweb just restarted on dcg12aut... 1/1/18
debug_id: '9be667f98721' } Sun Dec 31 2017 23:...
website@paypal.com
bizprofilenodeweb just restarted on dcg1... 1/1/18
2017-12-25T04:26:00-08:00:ERROR - An error o...
website@paypal.com
walletexpnodeweb just restarted on d... 1/1/18
errorCode: undefined, statusCode: 500, authFlow...
Older
authnodeweb just restarted on dcg12authnodeweb3620:1 for time 6
W
website@paypal.com
Monday, January 1, 2018 at 12:55 AM
To: DL-PP-NodeJS-LiveMonitoring; DL-PP-AuthChallenge-Tech
Error: Can't set headers after they are sent.
at ServerResponse.OutgoingMessage.setHeader (_http_outgoing.js:356:11)
at ServerResponse.header (/web/mynodeapp/node_modules/express/lib/response.js:767:10)
at ServerResponse.send (/web/mynodeapp/node_modules/express/lib/response.js:170:12)
at ServerResponse.res.send (/web/mynodeapp/node_modules/pplogger/index.js:225:18)
at done (/web/mynodeapp/node_modules/express/lib/response.js:1004:10)
at Stub.callback (/web/mynodeapp/node_modules/adaro/lib/engine.js:137:22)
at Stub.flush (/web/mynodeapp/pp/node_modules/dustjs-linkedin/lib/dust.js:513:10)
at Chunk.end (/web/mynodeapp/node_modules/dustjs-linkedin/lib/dust.js:612:15)
at /web/mynodeapp/node_modules/adaro/lib/patch/index.js:89:53
at /web/mynodeapp/node_modules/adaro/lib/reader/js.js:39:13
at /web/mynodeapp/node_modules/engine-munger/lib/munger.js:85:13
at /web/mynodeapp/node_modules/engine-munger/lib/cache.js:65:13
at /web/mynodeapp/node_modules/graceful-fs/graceful-fs.js:78:16
at /web/mynodeapp/node_modules/async-listener/glue.js:188:31
at FSReqWrap.readFileAfterClose [as oncomplete] (fs.js:380:3)
Items: 642110
Unread: 59567
Last synced at 3/3/18, 8:16 PM.
Connecting to: Paypal

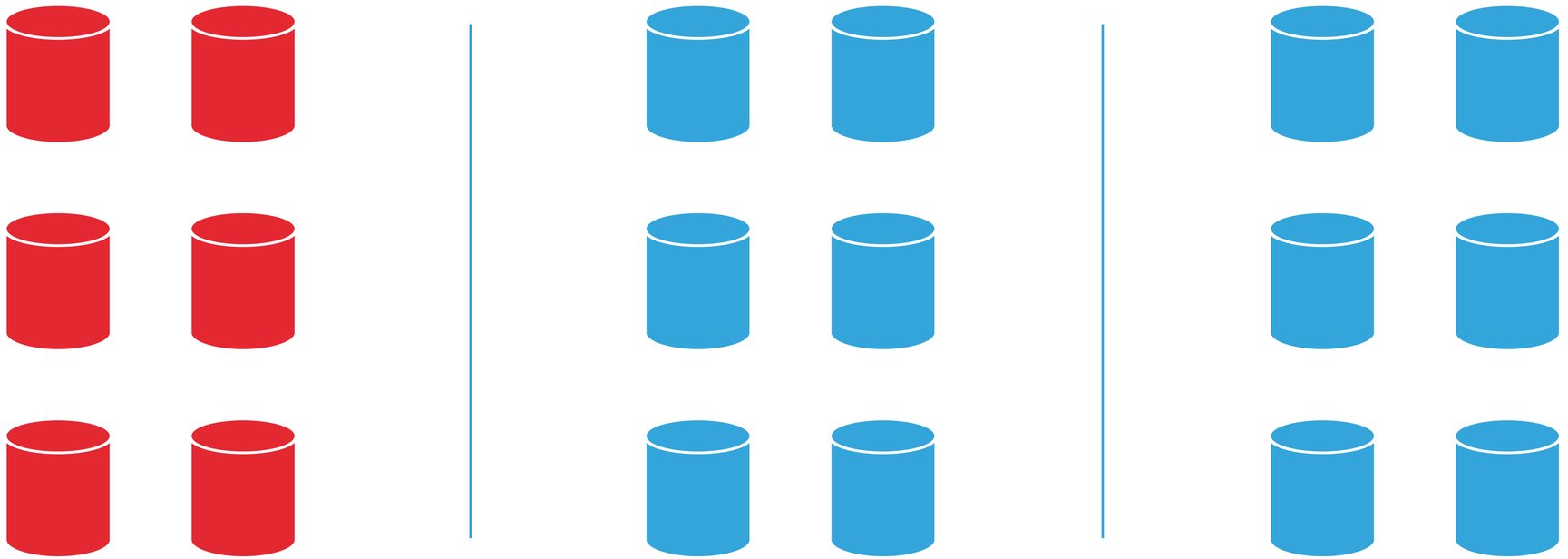
WE HAVE A LOT OF SERVERS



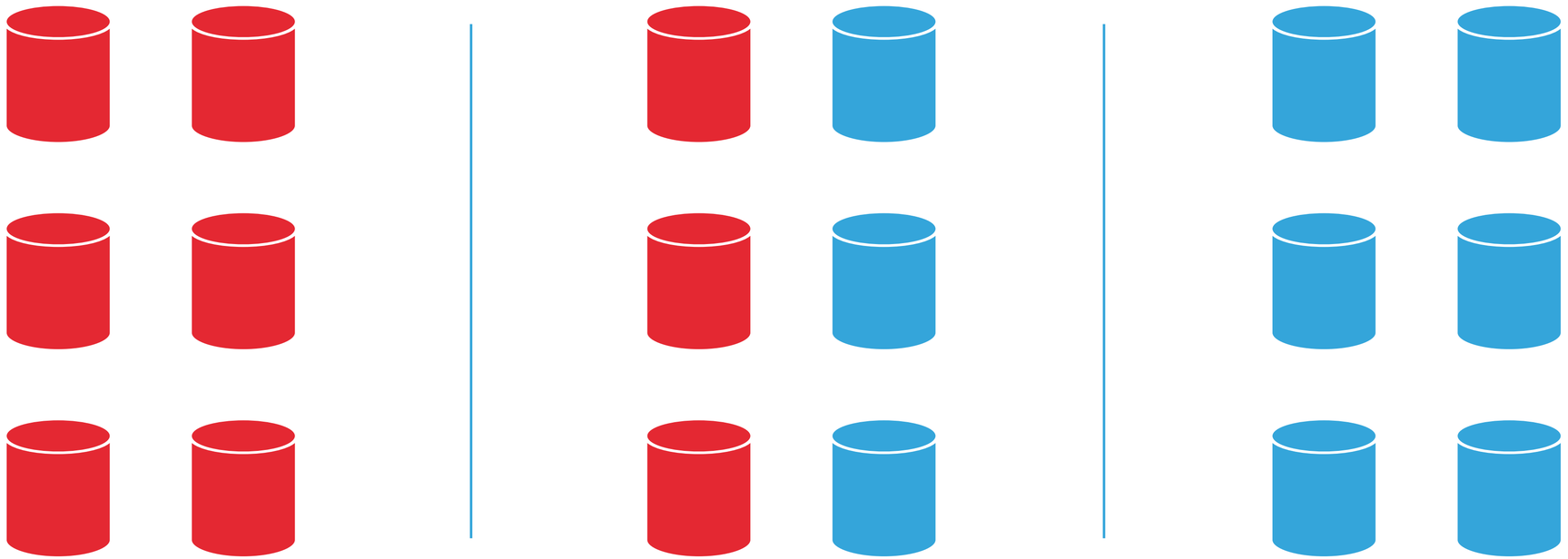
AND DATA CENTERS



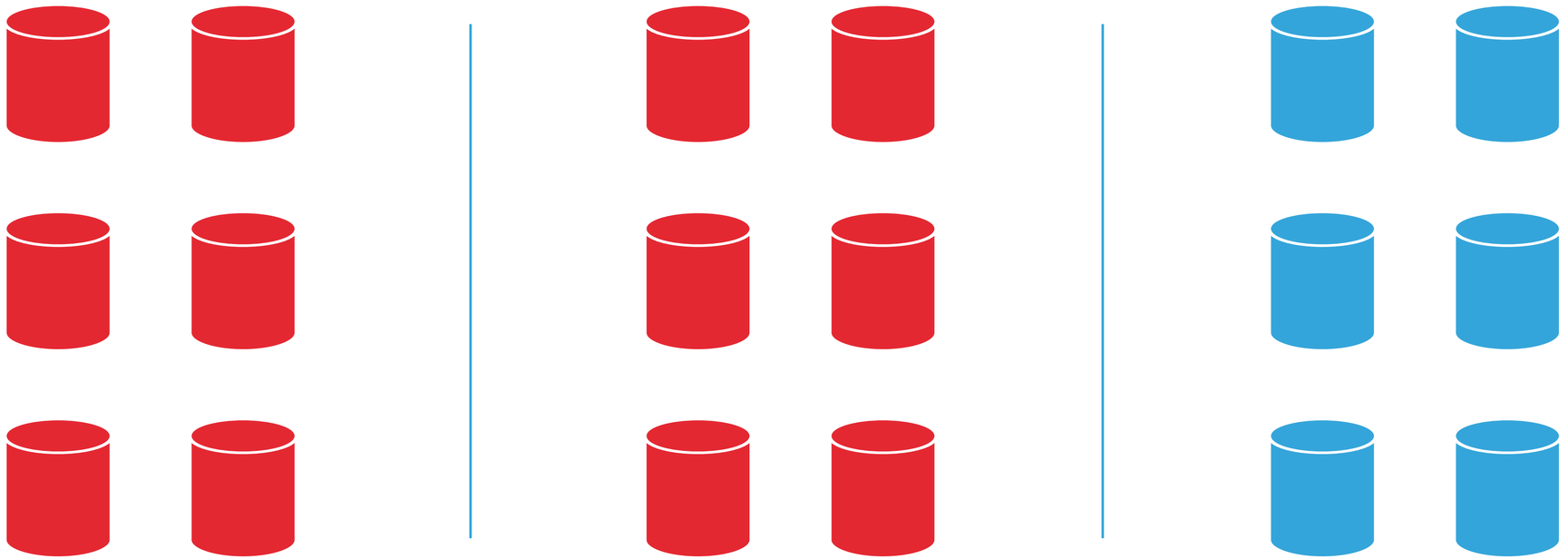
AND AVAILABILITY ZONES



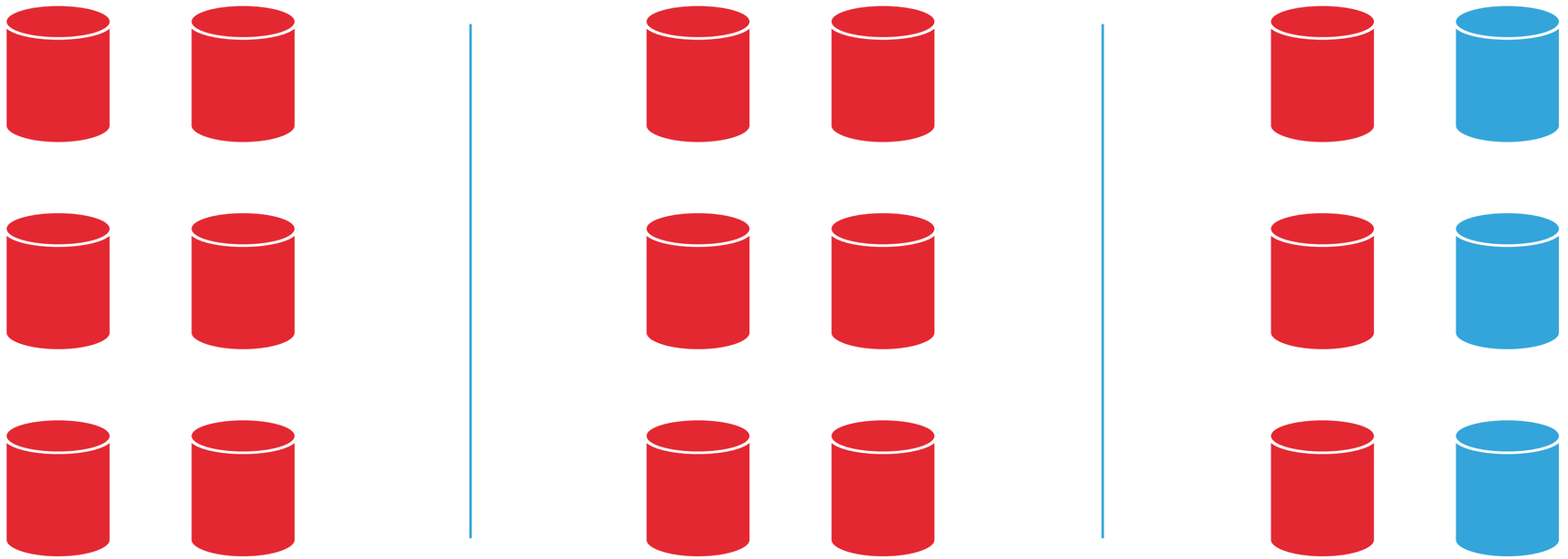
AND STABILITY CHECKS



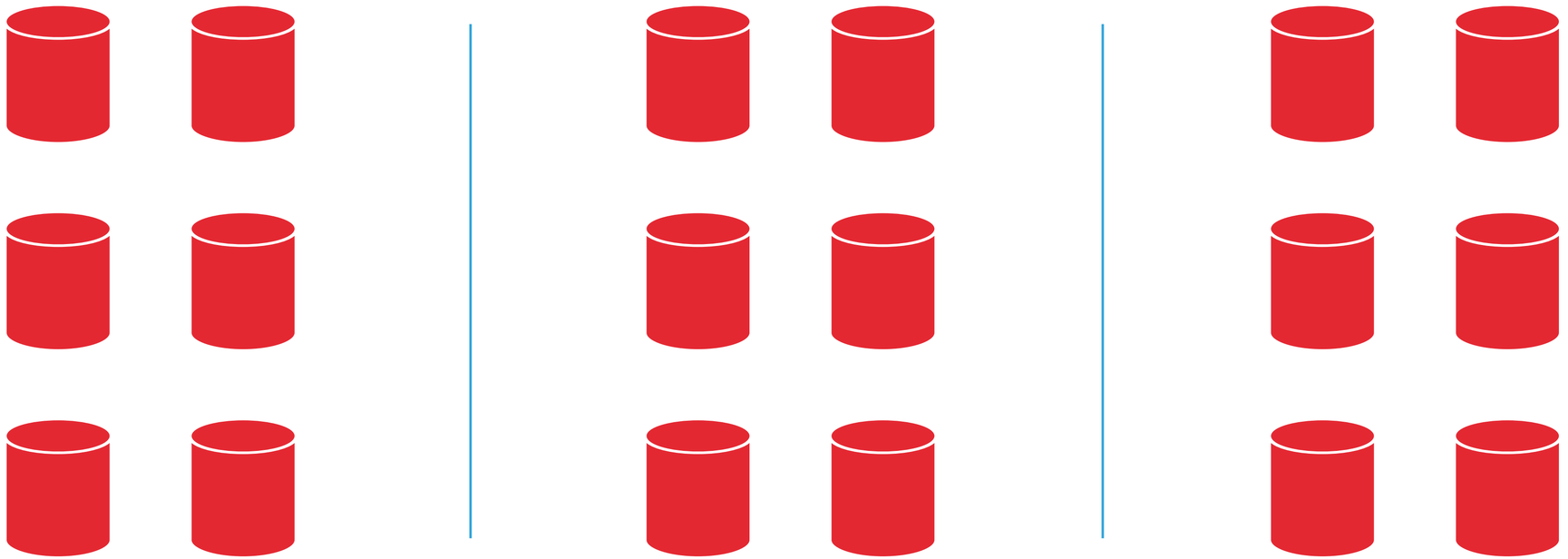
DEPLOYS CAN TAKE HOURS

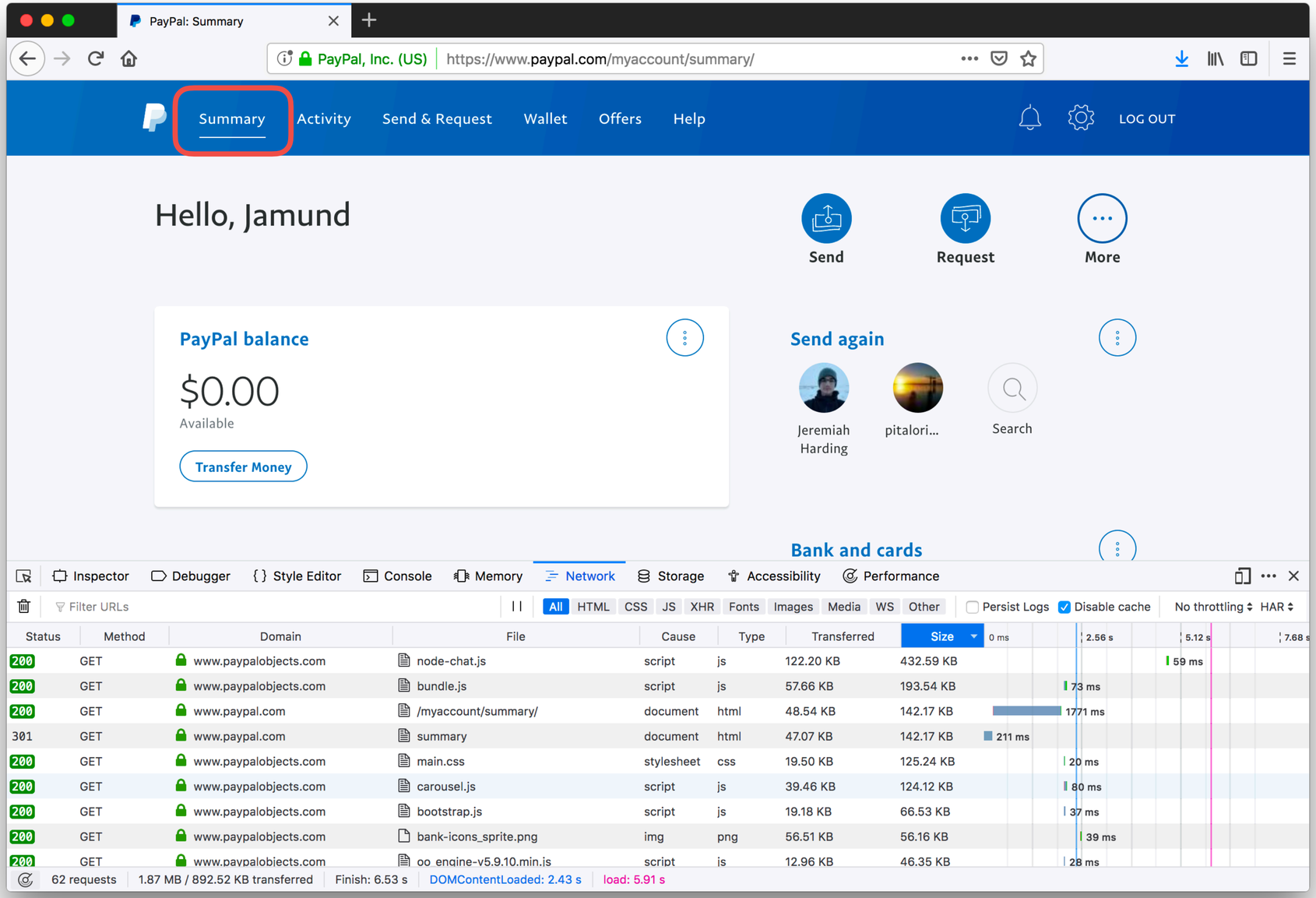


DEPLOYS CAN TAKE HOURS



DEPLOYS CAN TAKE HOURS




PayPal: Summary
PayPal, Inc. (US) https://www.paypal.com/myaccount/summary/
Summary
Activity
Send & Request
Wallet
Offers
Help
LOG OUT
Hello, Jamund
Send
Request
More
PayPal balance
$0.00
Available
Transfer Money
Send again
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Search
Bank and cards
Inspector
Debugger
Style Editor
Console
Memory
Network
Storage
Accessibility
Performance
Filter URLs
All HTML CSS JS XHR Fonts Images Media WS Other
Persist Logs
Disable cache
No throttling
HAR
Status Method Domain File Cause Type Transferred Size
200 GET www.paypalobjects.com node-chat.js script js 122.20 KB 432.59 KB
200 GET www.paypalobjects.com bundle.js script js 57.66 KB 193.54 KB
200 GET www.paypal.com /myaccount/summary/ document html 48.54 KB 142.17 KB
301 GET www.paypal.com summary document html 47.07 KB 142.17 KB
200 GET www.paypalobjects.com main.css stylesheet css 19.50 KB 125.24 KB
200 GET www.paypalobjects.com carousel.js script js 39.46 KB 124.12 KB
200 GET www.paypalobjects.com bootstrap.js script js 19.18 KB 66.53 KB
200 GET www.paypalobjects.com bank-icons_sprite.png img png 56.51 KB 56.16 KB
200 GET www.paypalobjects.com oo_engine-v5.9.10.min.js script js 12.96 KB 46.35 KB
62 requests
1.87 MB / 892.52 KB transferred
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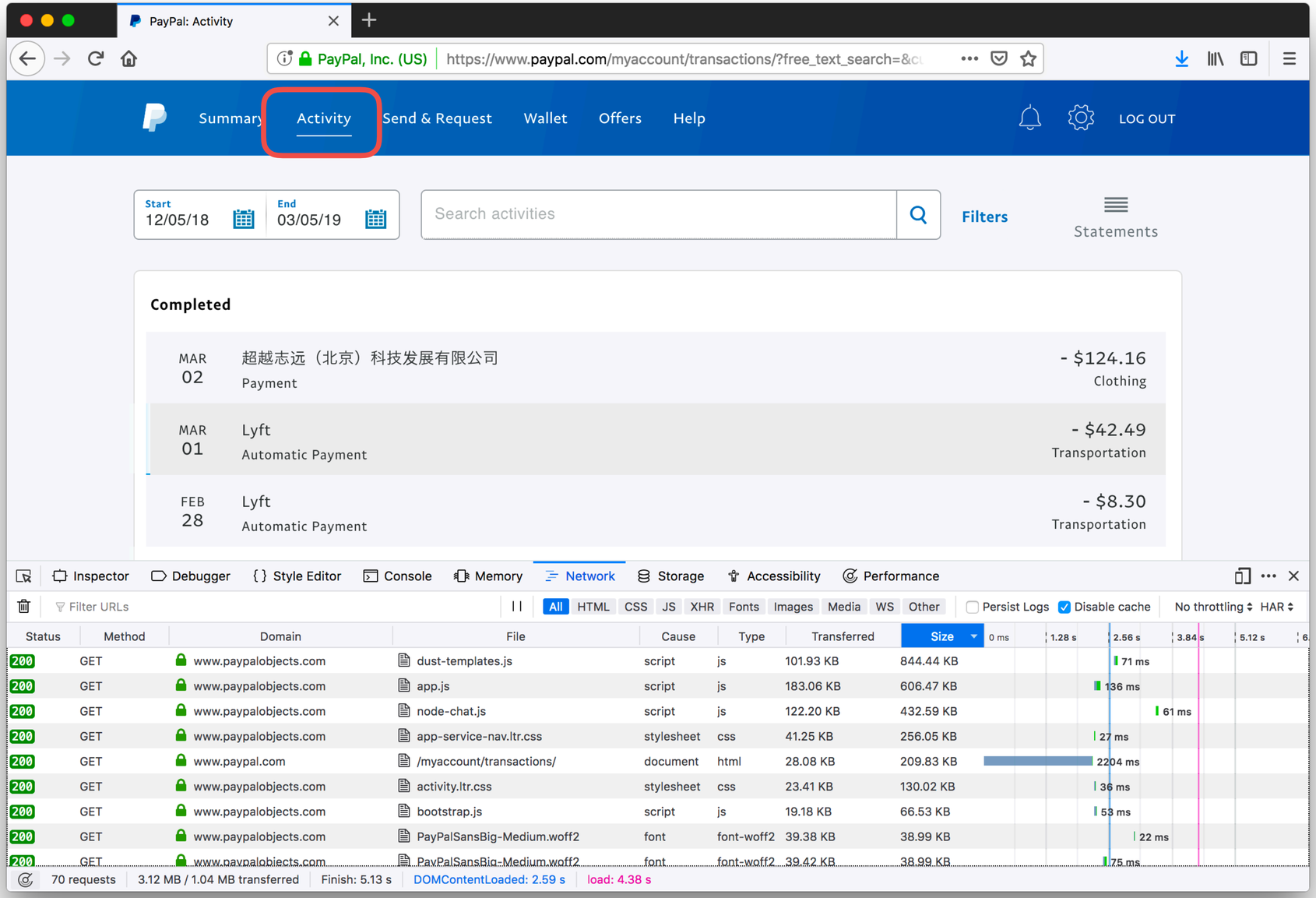
load: 5.91 s


PayPal: Activity
PayPal, Inc. (US) https://www.paypal.com/myaccount/transactions/?free_text_search=&
Summary
Activity
Send & Request
Wallet
Offers
Help
LOG OUT
Start 12/05/18
End 03/05/19
Search activities
Filters
Statements
Completed
MAR 02 超越志远（北京）科技发展有限公司 Payment - $124.16 Clothing
MAR 01 Lyft Automatic Payment - $42.49 Transportation
FEB 28 Lyft Automatic Payment - $8.30 Transportation
Inspector Debugger Style Editor Console Memory Network Storage Accessibility Performance
Filter URLs
All HTML CSS JS XHR Fonts Images Media WS Other
Persist Logs Disable cache No throttling HAR
Status Method Domain File Cause Type Transferred Size
200 GET www.paypalobjects.com dust-templates.js script js 101.93 KB 844.44 KB 71 ms
200 GET www.paypalobjects.com app.js script js 183.06 KB 606.47 KB 136 ms
200 GET www.paypalobjects.com node-chat.js script js 122.20 KB 432.59 KB 61 ms
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200 GET www.paypal.com /myaccount/transactions/ document html 28.08 KB 209.83 KB 2204 ms
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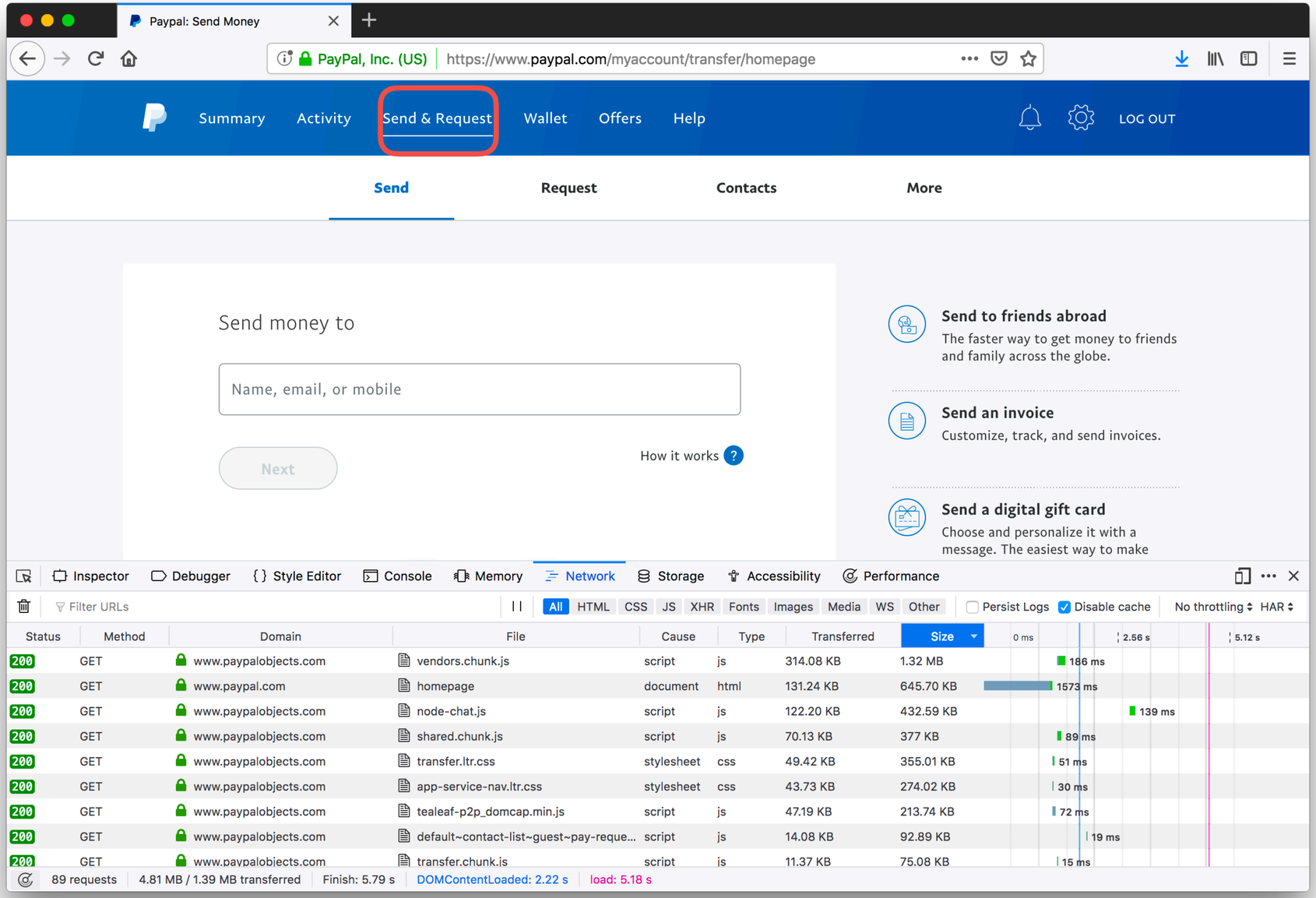
Paypal: Send Money
PayPal, Inc. (US)
https://www.paypal.com/myaccount/transfer/homepage
Summary
Activity
Send & Request
Wallet
Offers
Help
LOG OUT
Send
Request
Contacts
More
Send money to
Name, email, or mobile
Next
How it works
Send to friends abroad
The faster way to get money to friends and family across the globe.
Send an invoice
Customize, track, and send invoices.
Send a digital gift card
Choose and personalize it with a message. The easiest way to make
Inspector
Debugger
Style Editor
Console
Memory
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Storage
Accessibility
Performance
Filter URLs
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Other
Persist Logs
Disable cache
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200 GET www.paypalobjects.com vendors.chunk.js script js 314.08 KB 1.32 MB 186 ms
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200 GET www.paypalobjects.com app-service-nav.ltr.css stylesheet css 43.73 KB 274.02 KB 30 ms
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200 GET www.paypalobjects.com transfer.chunk.js script js 11.37 KB 75.08 KB 15 ms
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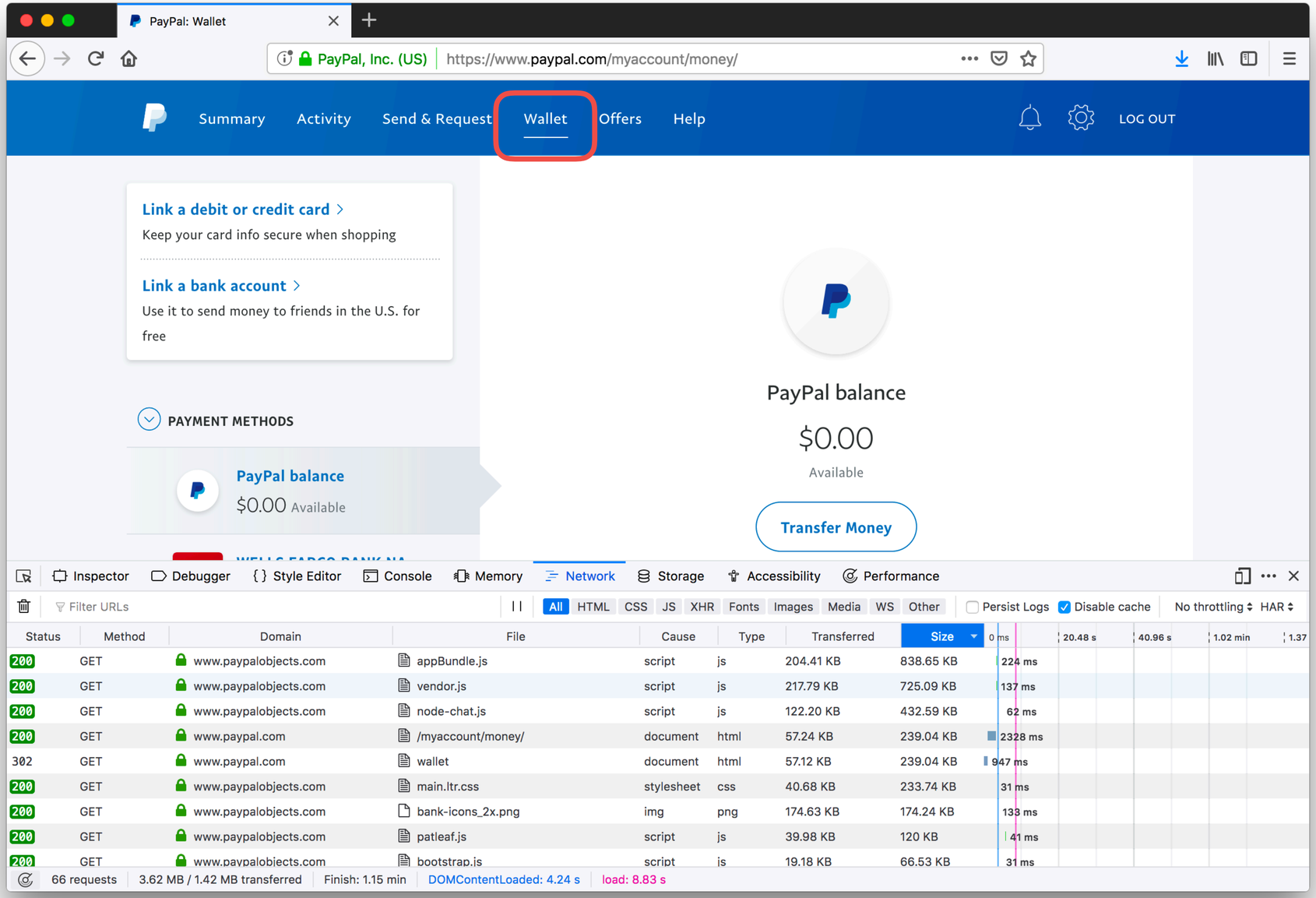
DOMContentLoaded: 2.22 s
load: 5.18 s


PayPal: Wallet
PayPal, Inc. (US) https://www.paypal.com/myaccount/money/
Summary
Activity
Send & Request
Wallet
Offers
Help
LOG OUT
Link a debit or credit card
Keep your card info secure when shopping
Link a bank account
Use it to send money to friends in the U.S. for free
PAYMENT METHODS
PayPal balance
$0.00 Available
PayPal balance
$0.00
Available
Transfer Money
Inspector
Debugger
Style Editor
Console
Memory
Network
Storage
Accessibility
Performance
Filter URLs
All HTML CSS JS XHR Fonts Images Media WS Other
Persist Logs
Disable cache
No throttling
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Status Method Domain File Cause Type Transferred Size
200 GET www.paypalobjects.com appBundle.js script js 204.41 KB 838.65 KB 224 ms
200 GET www.paypalobjects.com vendor.js script js 217.79 KB 725.09 KB 137 ms
200 GET www.paypalobjects.com node-chat.js script js 122.20 KB 432.59 KB 62 ms
200 GET www.paypal.com /myaccount/money/ document html 57.24 KB 239.04 KB 2328 ms
302 GET www.paypal.com wallet document html 57.12 KB 239.04 KB 947 ms
200 GET www.paypalobjects.com main.ltr.css stylesheet css 40.68 KB 233.74 KB 31 ms
200 GET www.paypalobjects.com bank-icons_2x.png img png 174.63 KB 174.24 KB 133 ms
200 GET www.paypalobjects.com patleaf.js script js 39.98 KB 120 KB 41 ms
200 GET www.paypalobjects.com bootstrap.js script js 19.18 KB 66.53 KB 31 ms
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3.62 MB / 1.42 MB transferred
Finish: 1.15 min
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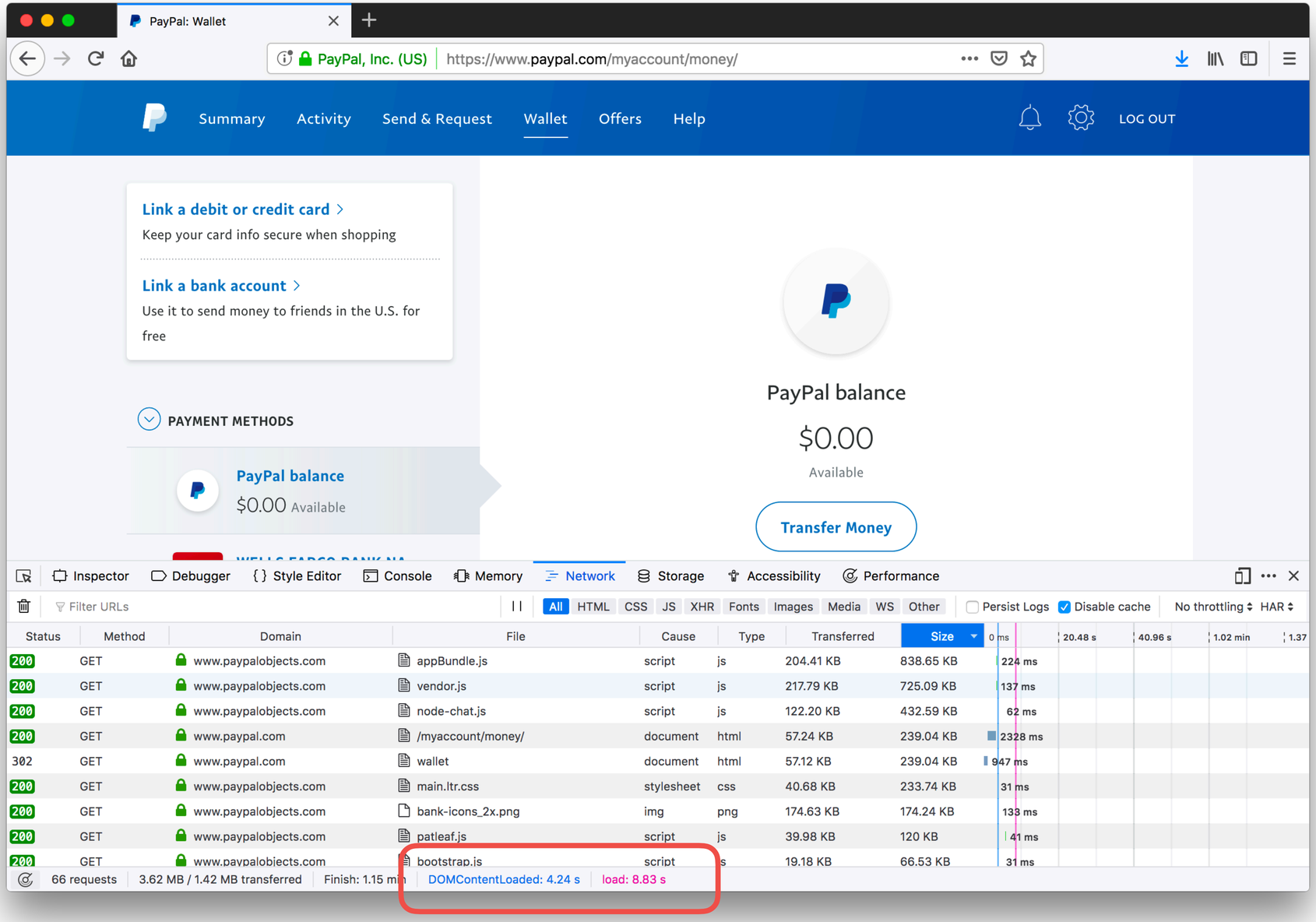
PayPal: Wallet
PayPal, Inc. (US) https://www.paypal.com/myaccount/money/
Summary Activity Send & Request Wallet Offers Help LOG OUT
Link a debit or credit card
Keep your card info secure when shopping
Link a bank account
Use it to send money to friends in the U.S. for free
PAYMENT METHODS
PayPal balance
$0.00 Available
PayPal balance
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Available
Transfer Money
Inspector Debugger Style Editor Console Memory Network Storage Accessibility Performance
Filter URLs
All HTML CSS JS XHR Fonts Images Media WS Other
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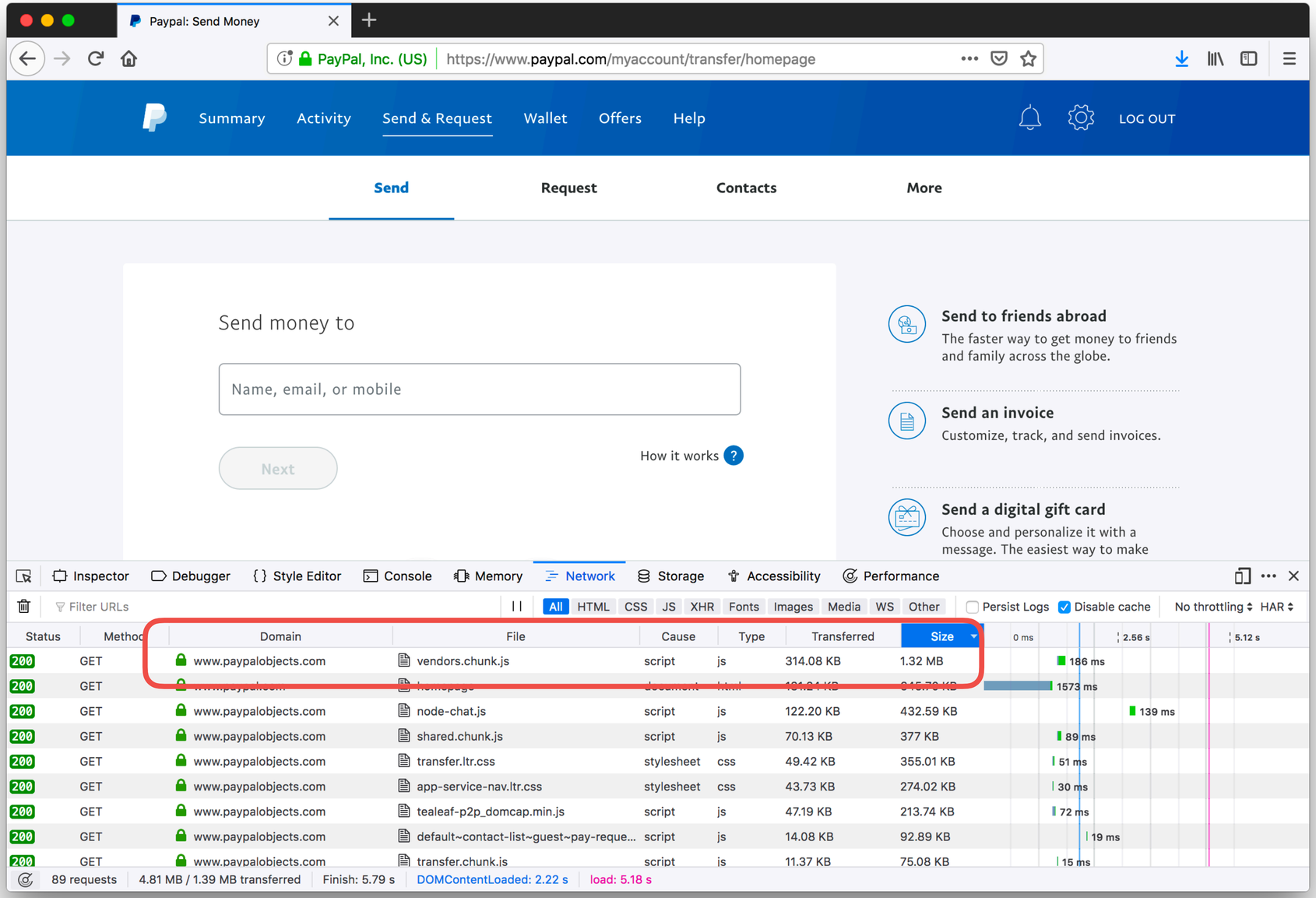
66 requests 3.62 MB / 1.42 MB transferred Finish: 1.15 m DOMContentLoaded: 4.24 s load: 8.83 s


Paypal: Send Money
PayPal, Inc. (US) https://www.paypal.com/myaccount/transfer/homepage
Summary Activity Send & Request Wallet Offers Help LOG OUT
Send Request Contacts More
Send money to
Name, email, or mobile
Next
How it works
Send to friends abroad
The faster way to get money to friends and family across the globe.
Send an invoice
Customize, track, and send invoices.
Send a digital gift card
Choose and personalize it with a message. The easiest way to make
Inspector Debugger Style Editor Console Memory Network Storage Accessibility Performance
Filter URLs
All HTML CSS JS XHR Fonts Images Media WS Other
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200 GET www.paypalobjects.com vendors.chunk.js script js 314.08 KB 1.32 MB 186 ms
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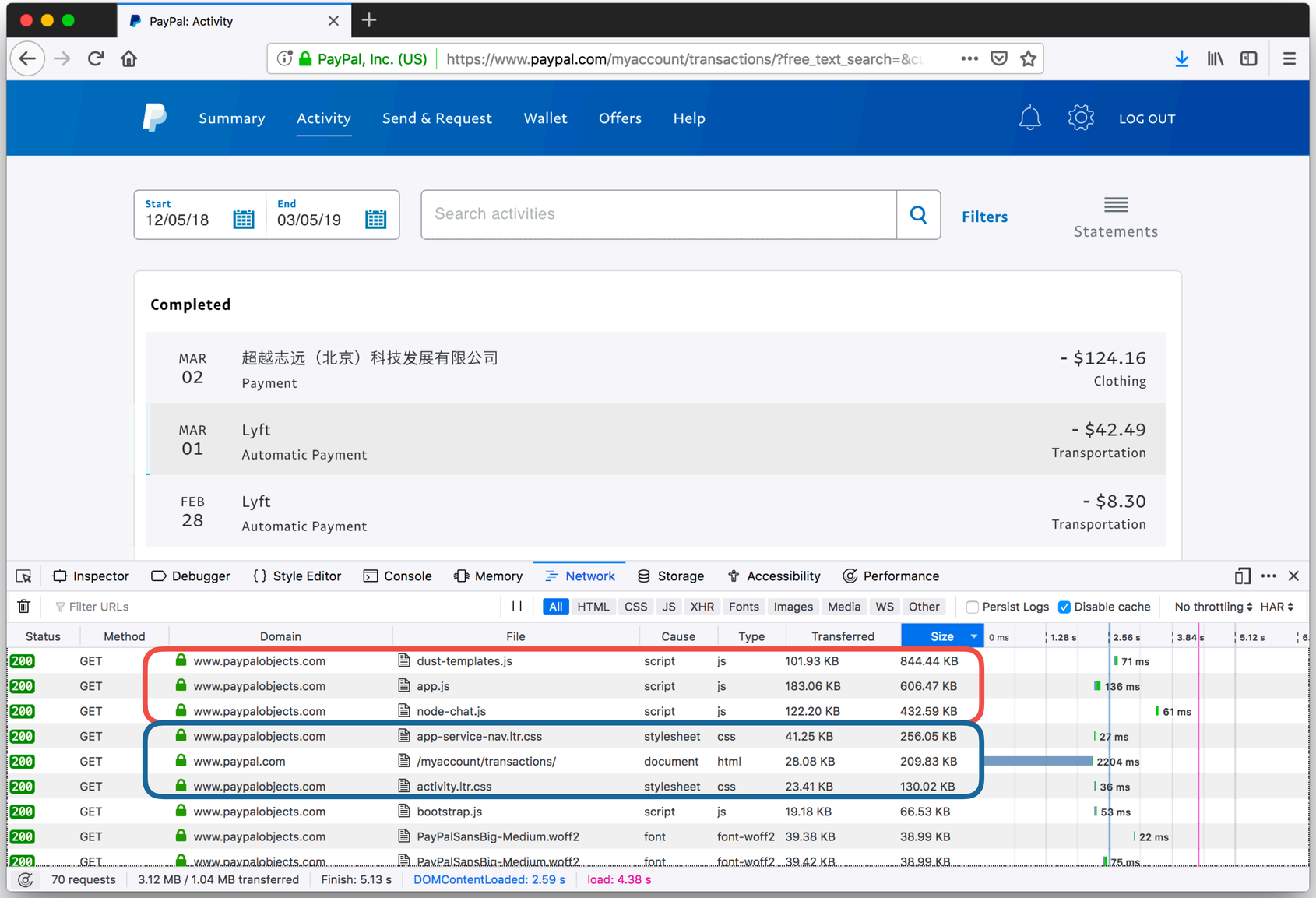
PayPal: Activity
PayPal, Inc. (US) https://www.paypal.com/myaccount/transactions/?free_text_search=&
Summary
Activity
Send & Request
Wallet
Offers
Help
LOG OUT
Start
12/05/18
End
03/05/19
Search activities
Filters
Statements
Completed
MAR 02
超越志远（北京）科技发展有限公司
Payment
- $124.16
Clothing
MAR 01
Lyft
Automatic Payment
- $42.49
Transportation
FEB 28
Lyft
Automatic Payment
- $8.30
Transportation
Inspector
Debugger
Style Editor
Console
Memory
Network
Storage
Accessibility
Performance
Filter URLs
All
HTML
CSS
JS
XHR
Fonts
Images
Media
WS
Other
Persist Logs
Disable cache
No throttling
HAR
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File
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Size
200 GET www.paypalobjects.com dust-templates.js script js 101.93 KB 844.44 KB 71 ms
200 GET www.paypalobjects.com app.js script js 183.06 KB 606.47 KB 136 ms
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200 GET www.paypal.com /myaccount/transactions/ document html 28.08 KB 209.83 KB 2204 ms
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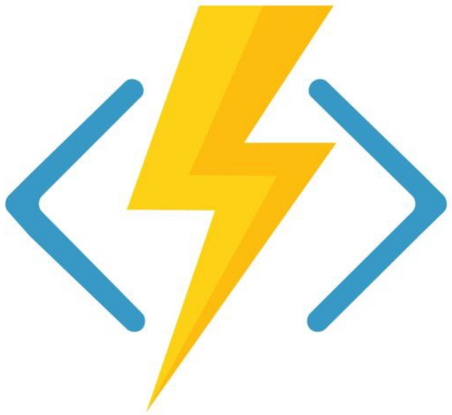
70 requests
3.12 MB / 1.04 MB transferred
Finish: 5.13 s
DOMContentLoaded: 2.59 s
load: 4.38 s

WHAT IF DOING THE RIGHT THING IS TOO HARD?

WE NEED TO RE-THINK
THE ARCHITECTURE

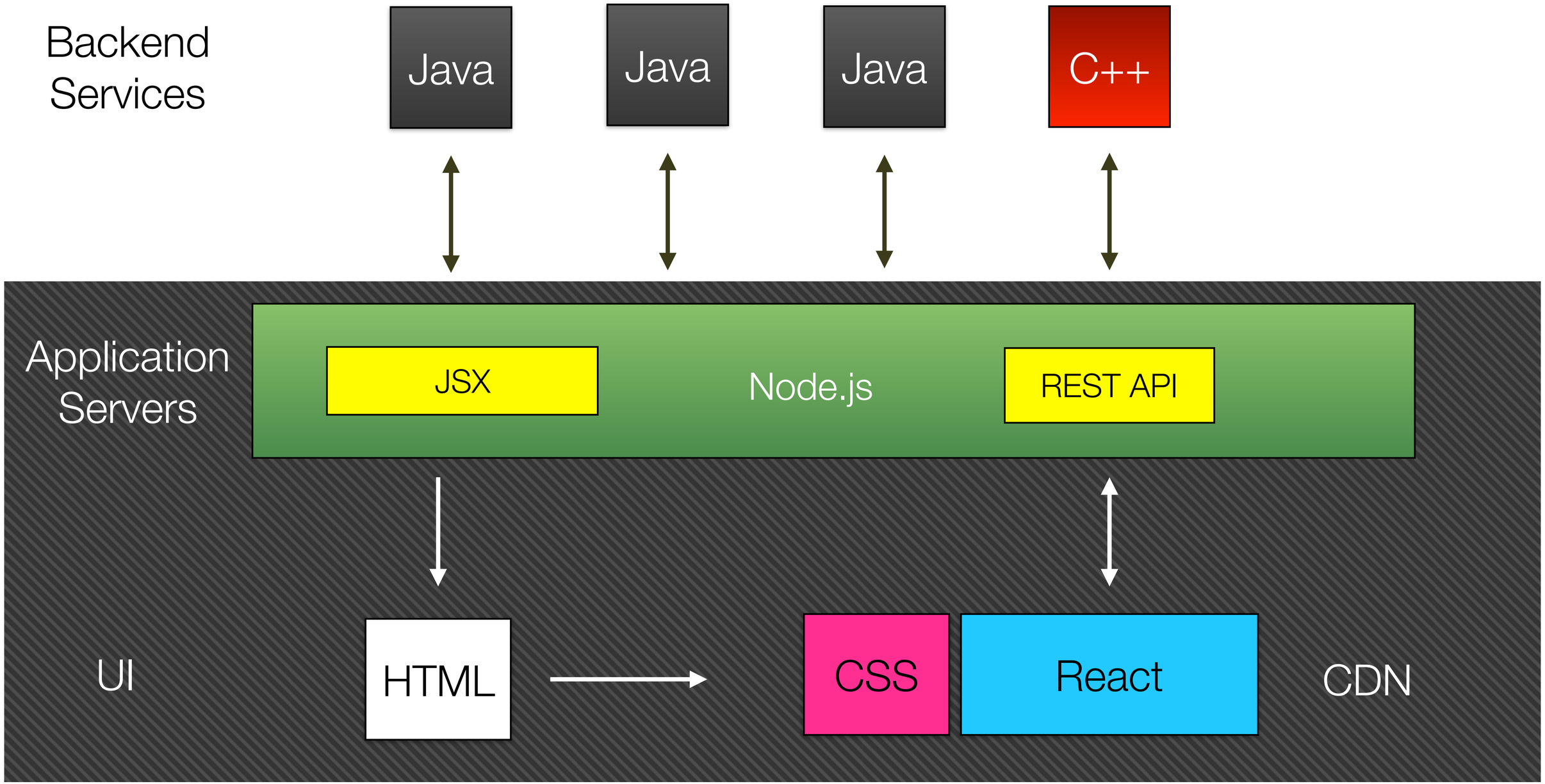
TECHNOLOGY ENVY

GOLANG



CLOUD FUNCTIONS

MACHINE LEARNING

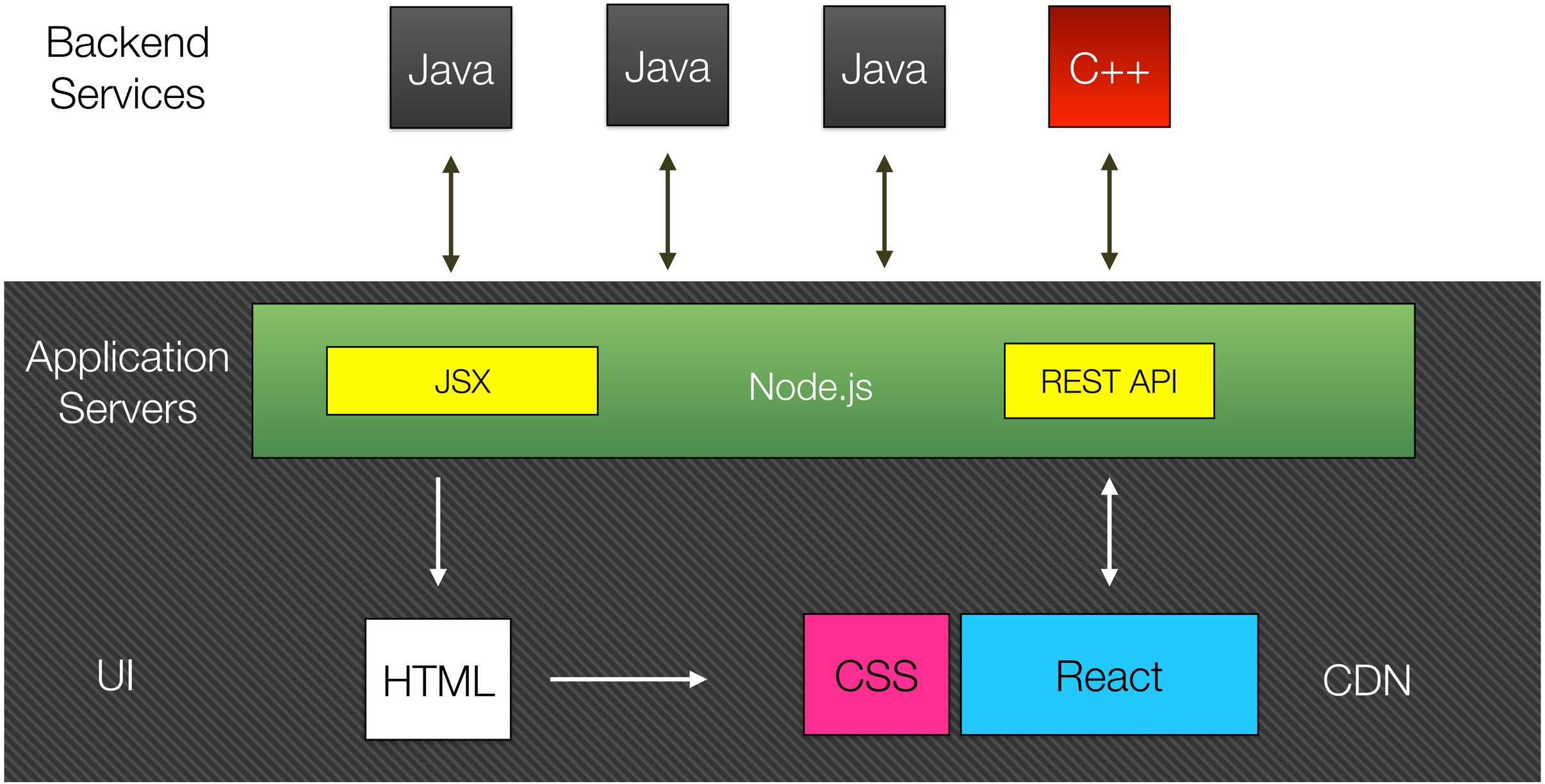

Backend Services
Java
Java
Java
C++
Application Servers
JSX
Node.js
REST API
UI
HTML
CSS
React
CDN

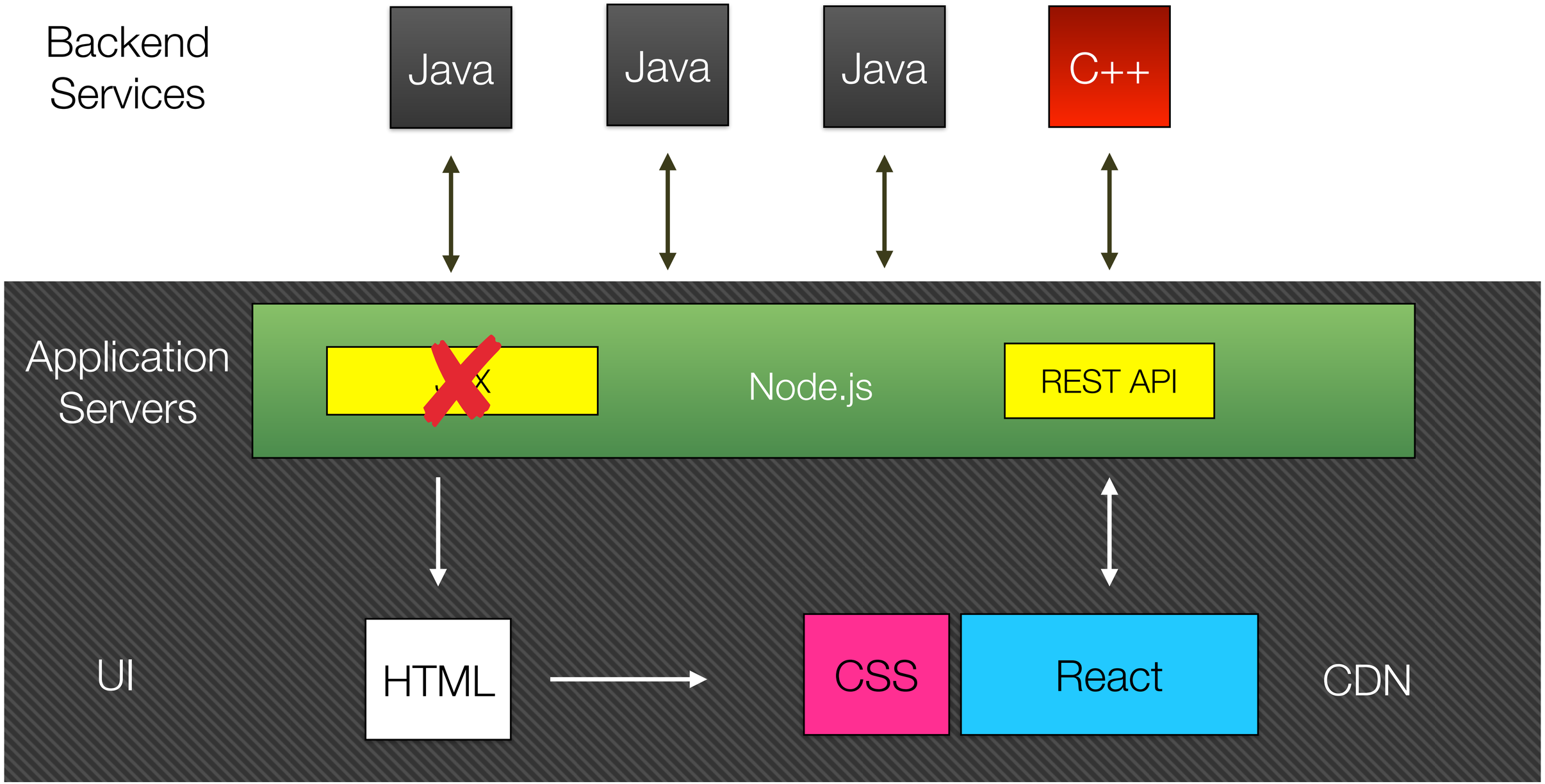
Gabriel Ricard liked

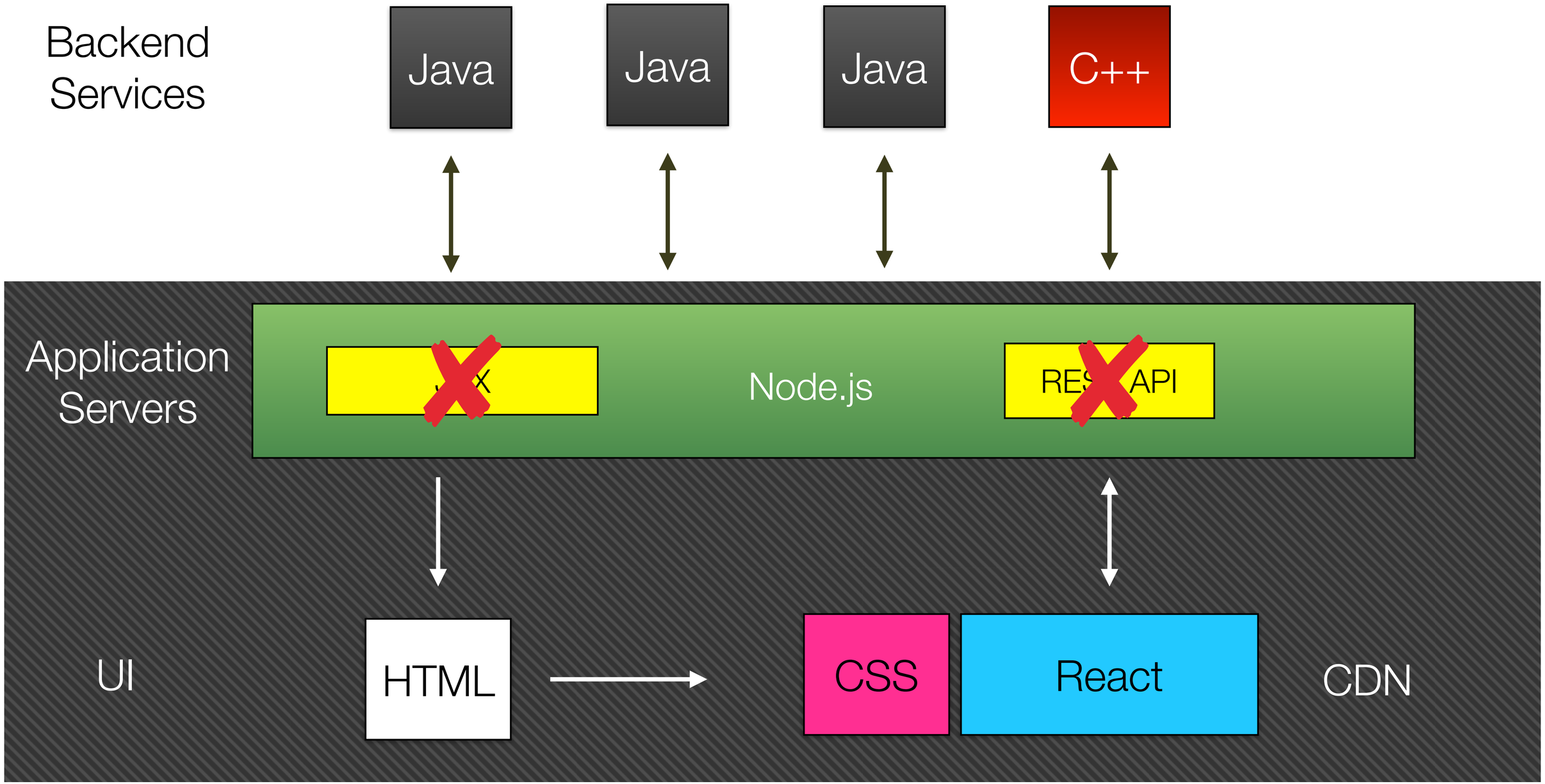
Nicholas C. Zakas @slicknet · 25 May 2018

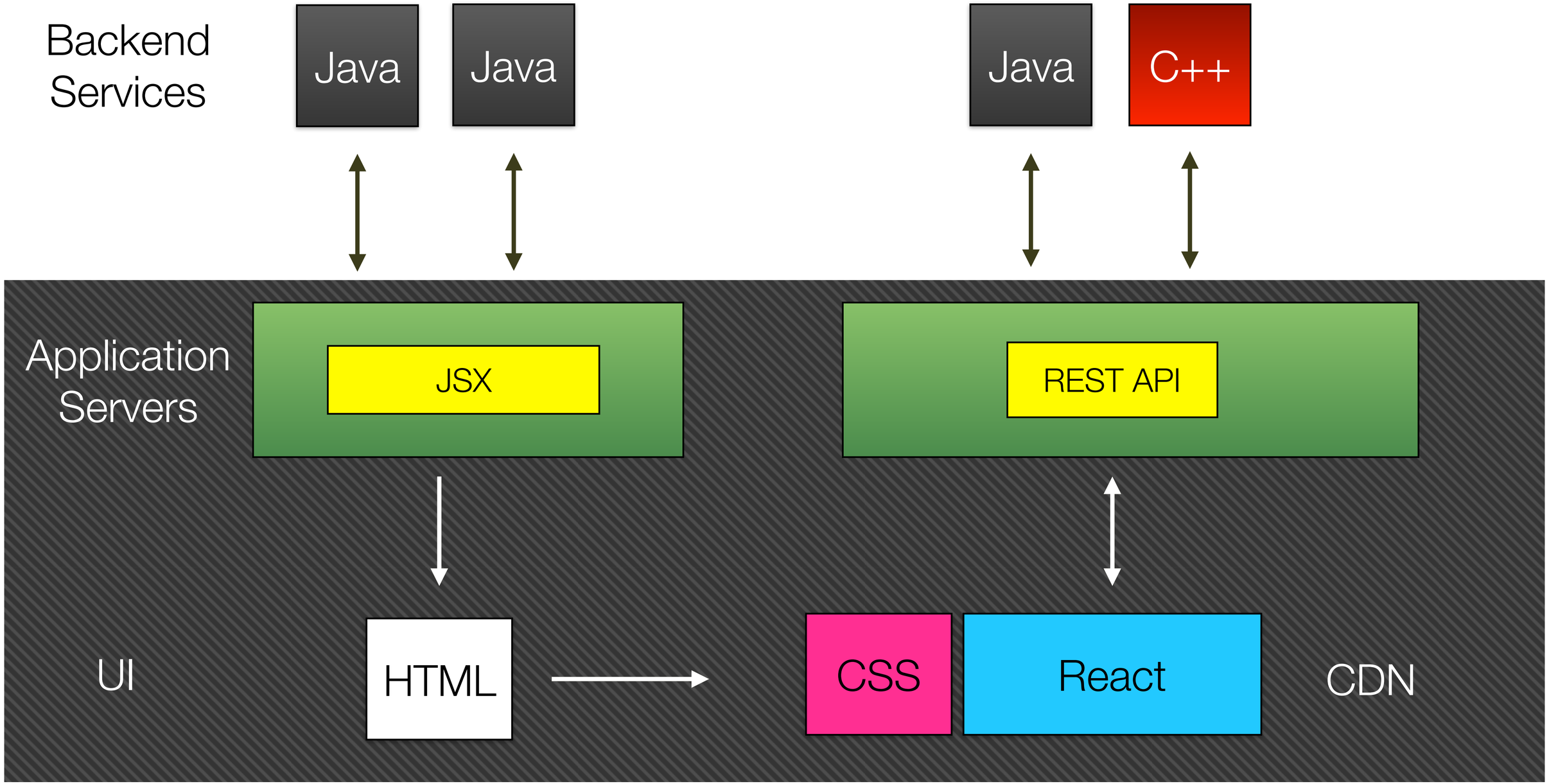
Part of why I love AWS Lambda is the enforced **isolation** between functions. Every framework I've written in the past ten years has tried to do that. My old JS architecture talk was all about that and ESLint rules are completely isolated from each other. **Isolation** FTW!

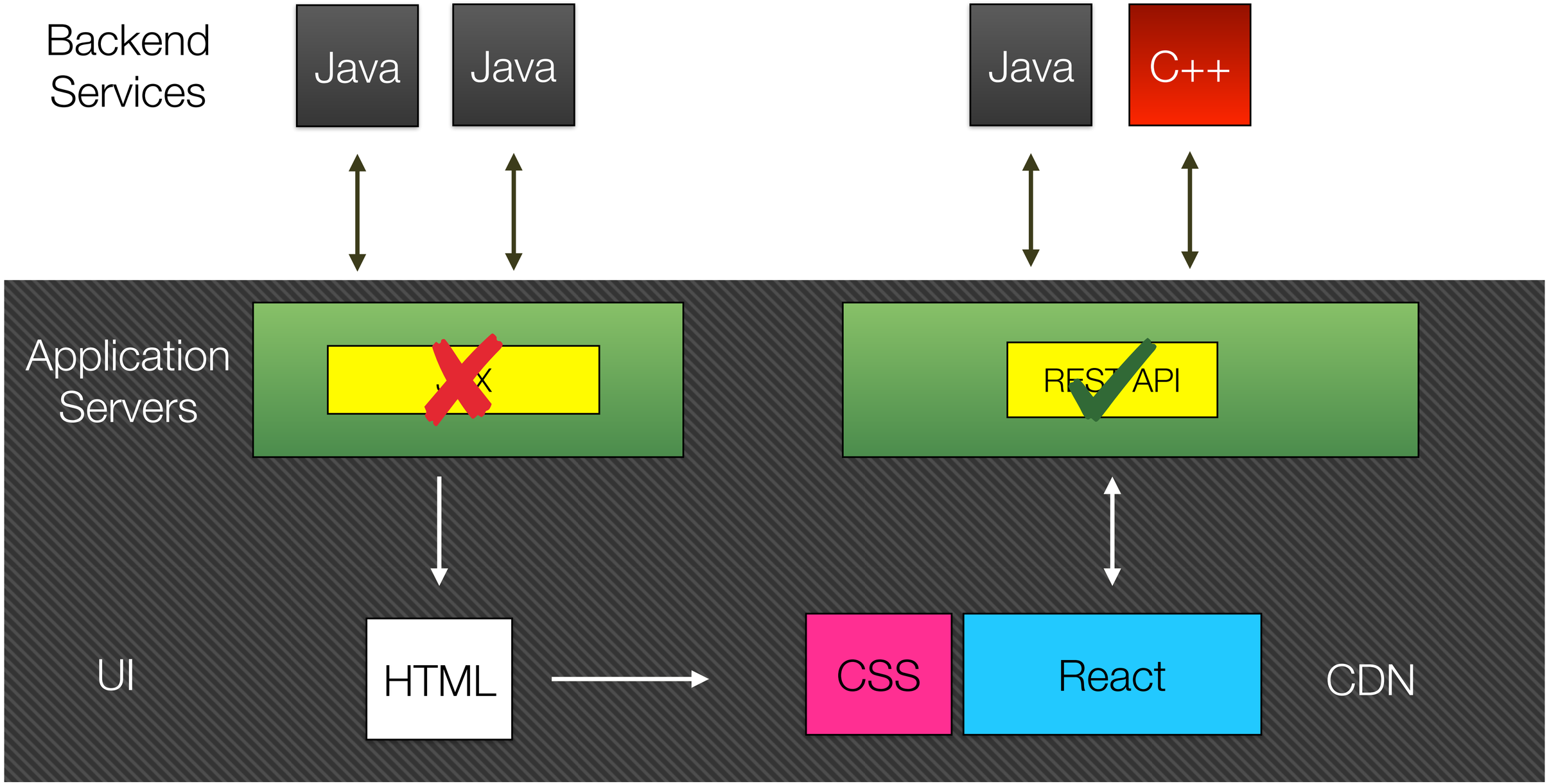
1 4 55

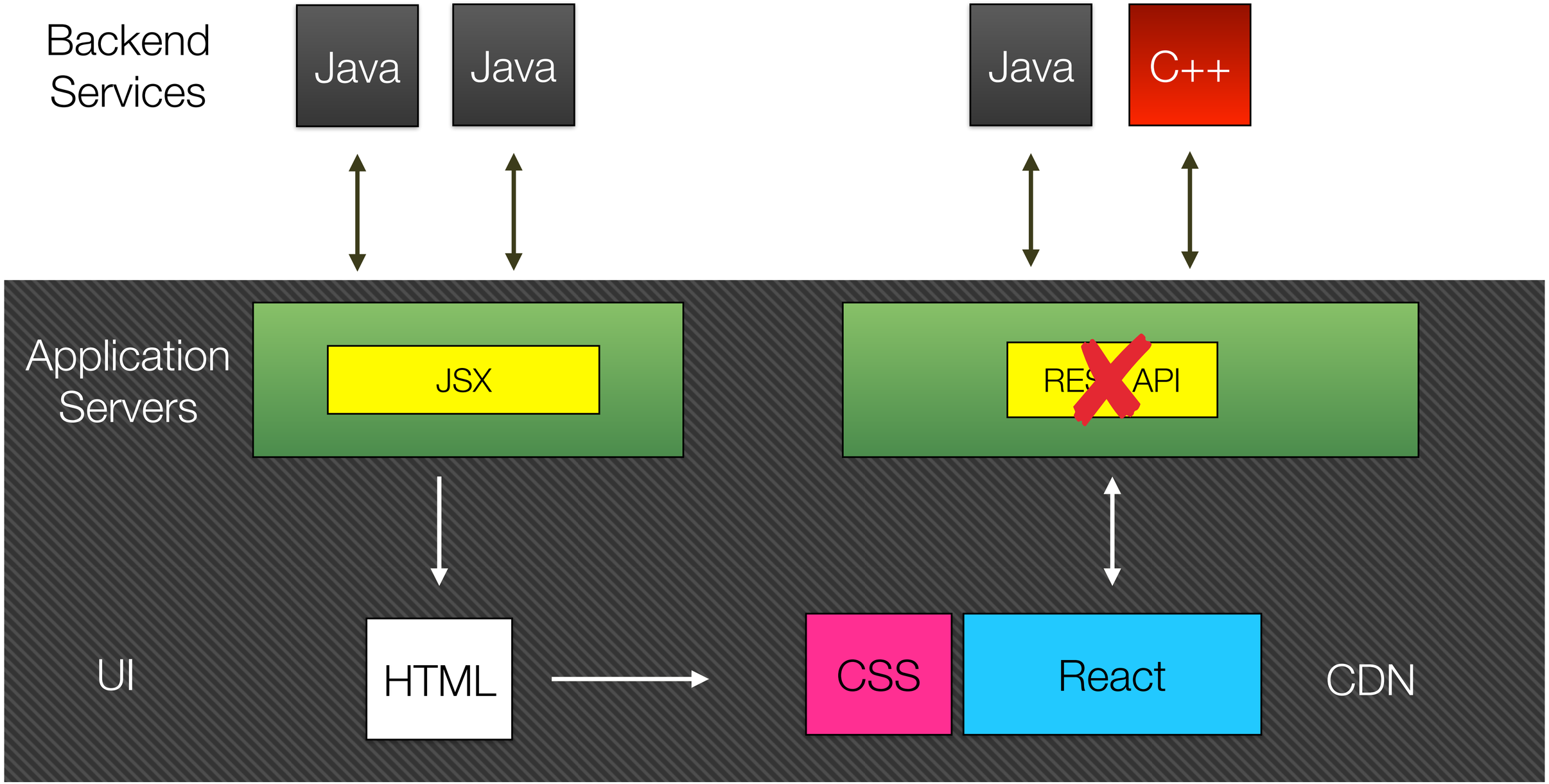

Backend Services
Java
Java
Java
C++
Application Servers
JSX
Node.js
REST API
UI
HTML
CSS
React
CDN

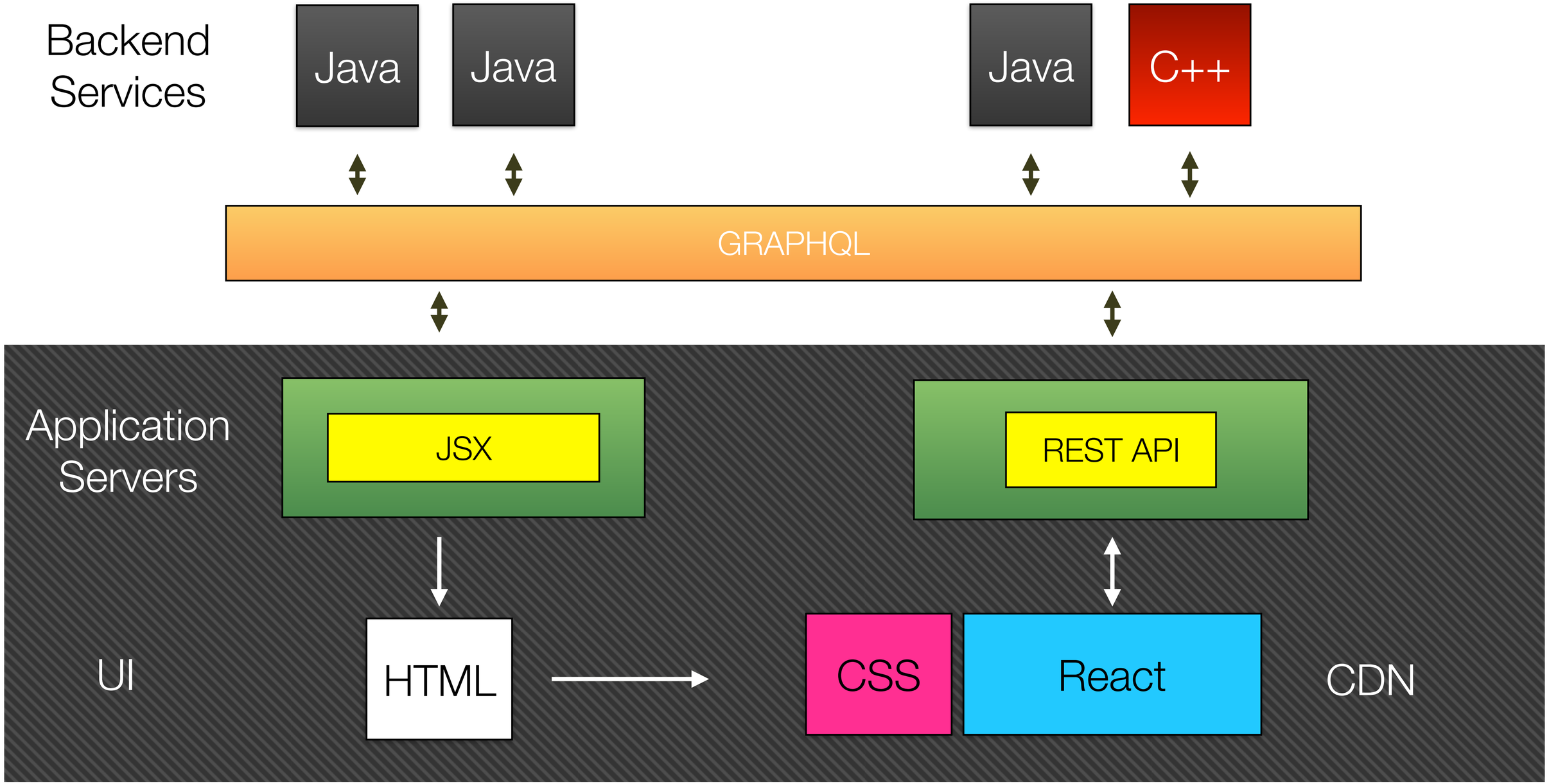

Backend Services
Java
Java
Java
C++
Application Servers
JSX
Node.js
REST API
UI
HTML
CSS
React
CDN

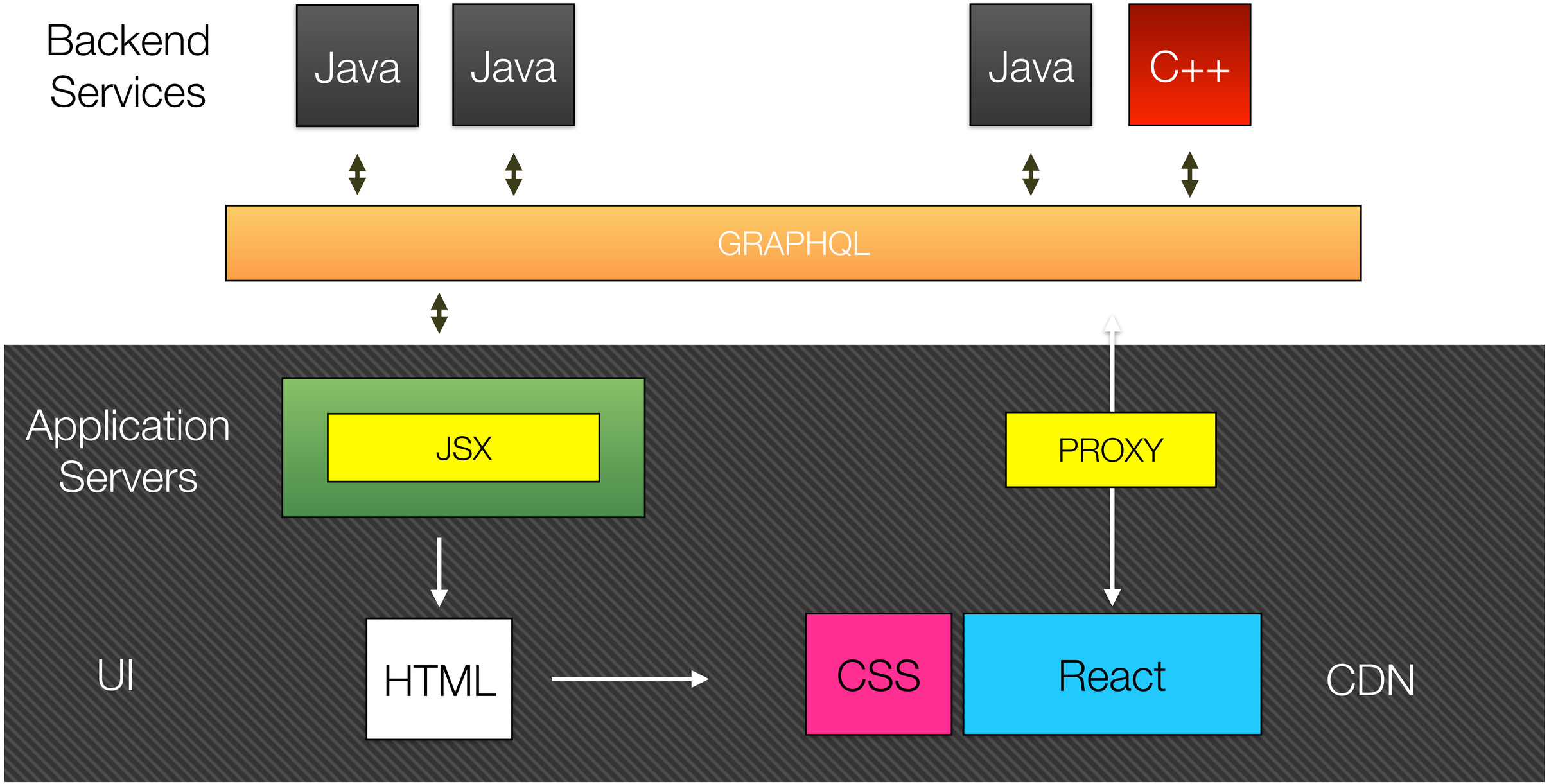

Backend Services
Java
Java
Java
C++
Application Servers
X
Node.js
RES API
HTML
CSS
React
UI
CDN

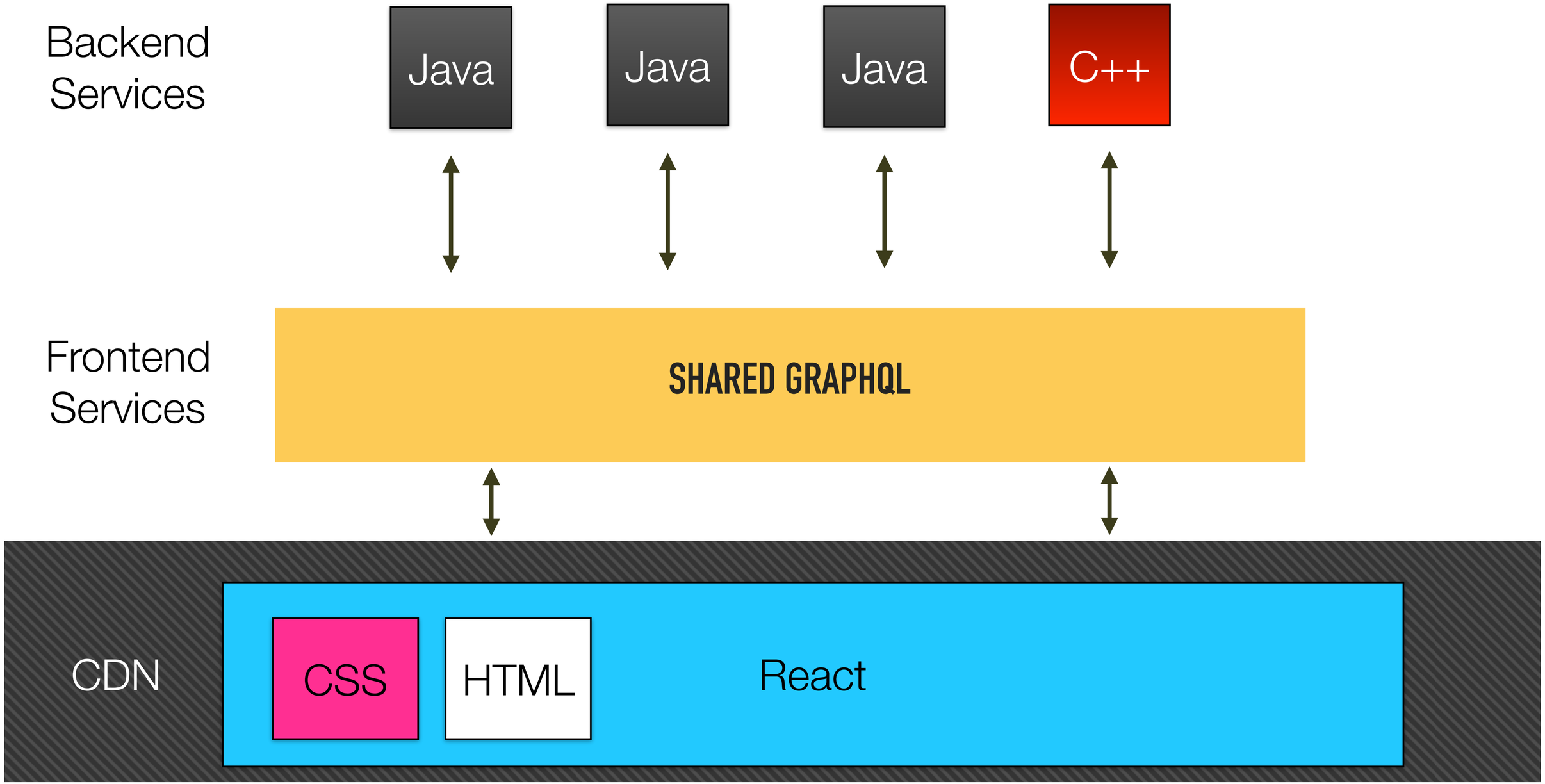

Backend Services
Java
Java
Java
C++
Application Servers
JSX
REST API
UI
HTML
CSS
React
CDN


Backend Services
Java
Java
Java
C++
Application Servers
X
REST API
HTML
CSS
React
UI
CDN


Backend Services
Java
Java
Java
C++
Application Servers
JSX
RES API
HTML
CSS
React
UI
CDN


Backend Services
Java
Java
Java
C++
GRAPHQL
Application Servers
JSX
REST API
UI
HTML
CSS
React
CDN


Backend Services
Java
Java
Java
C++
GRAPHQL
Application Servers
JSX
PROXY
UI
HTML
CSS
React
CDN


Backend Services
Java
Java
Java
C++
Frontend Services
SHARED GRAPHQL
CDN
CSS
HTML
React

HELLO JAMSTACK, MY OLD FRIEND

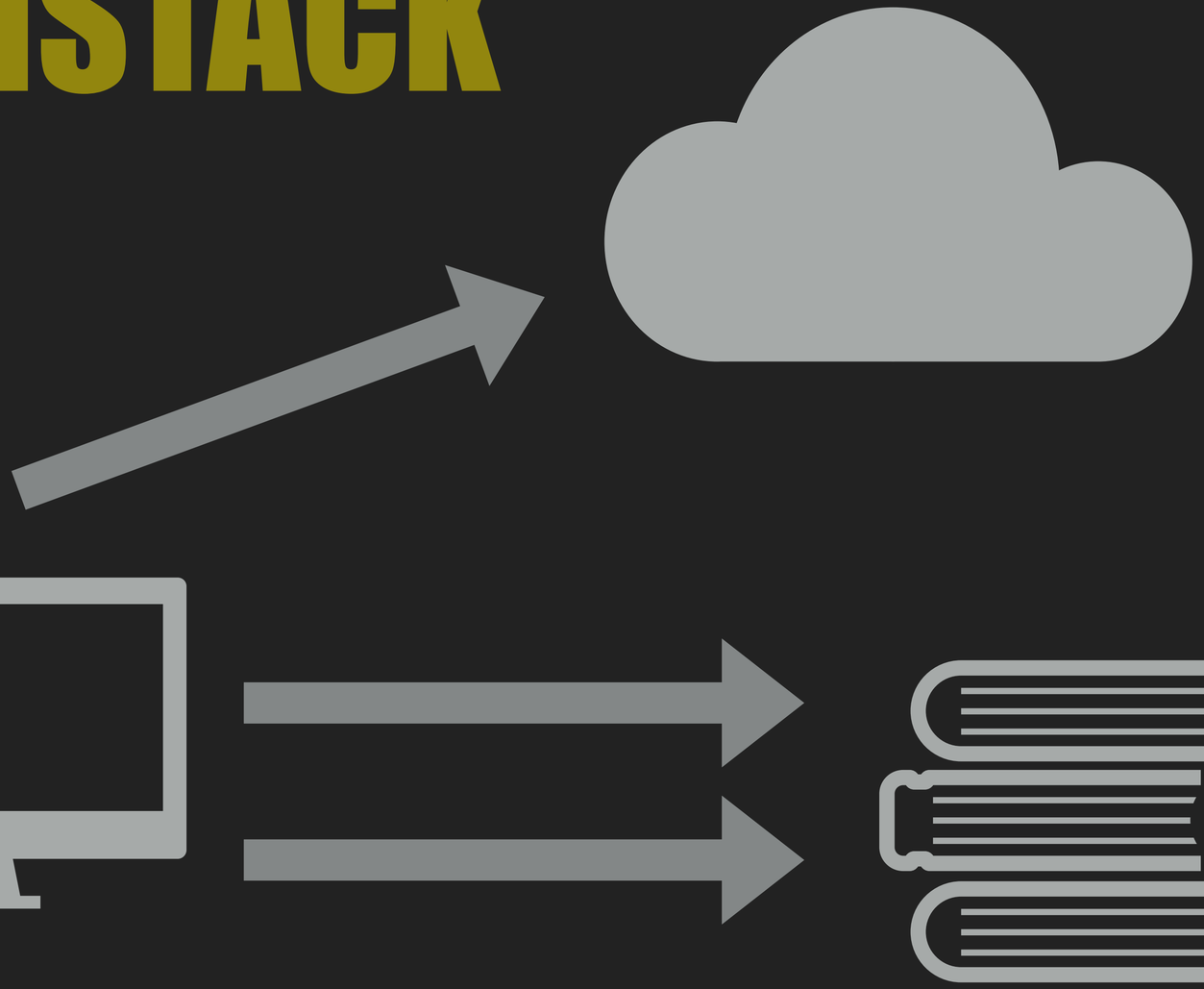
JAMSTACK

Best Practices Examples Resources

JAMstack: noun \'jam-stak'\

Modern web development architecture based on client-side JavaScript, reusable APIs, and prebuilt Markup.

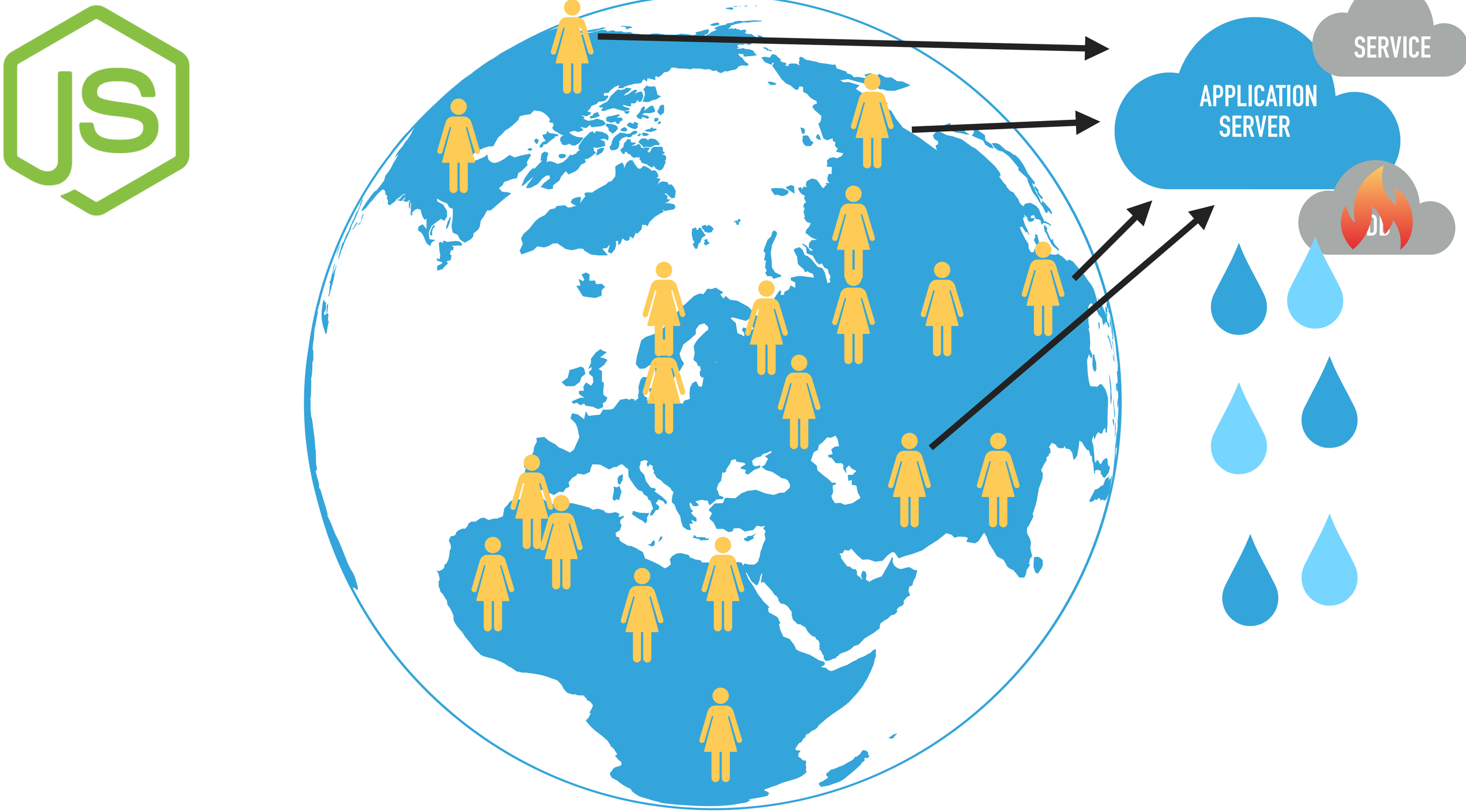
JAMSTACK



APIs

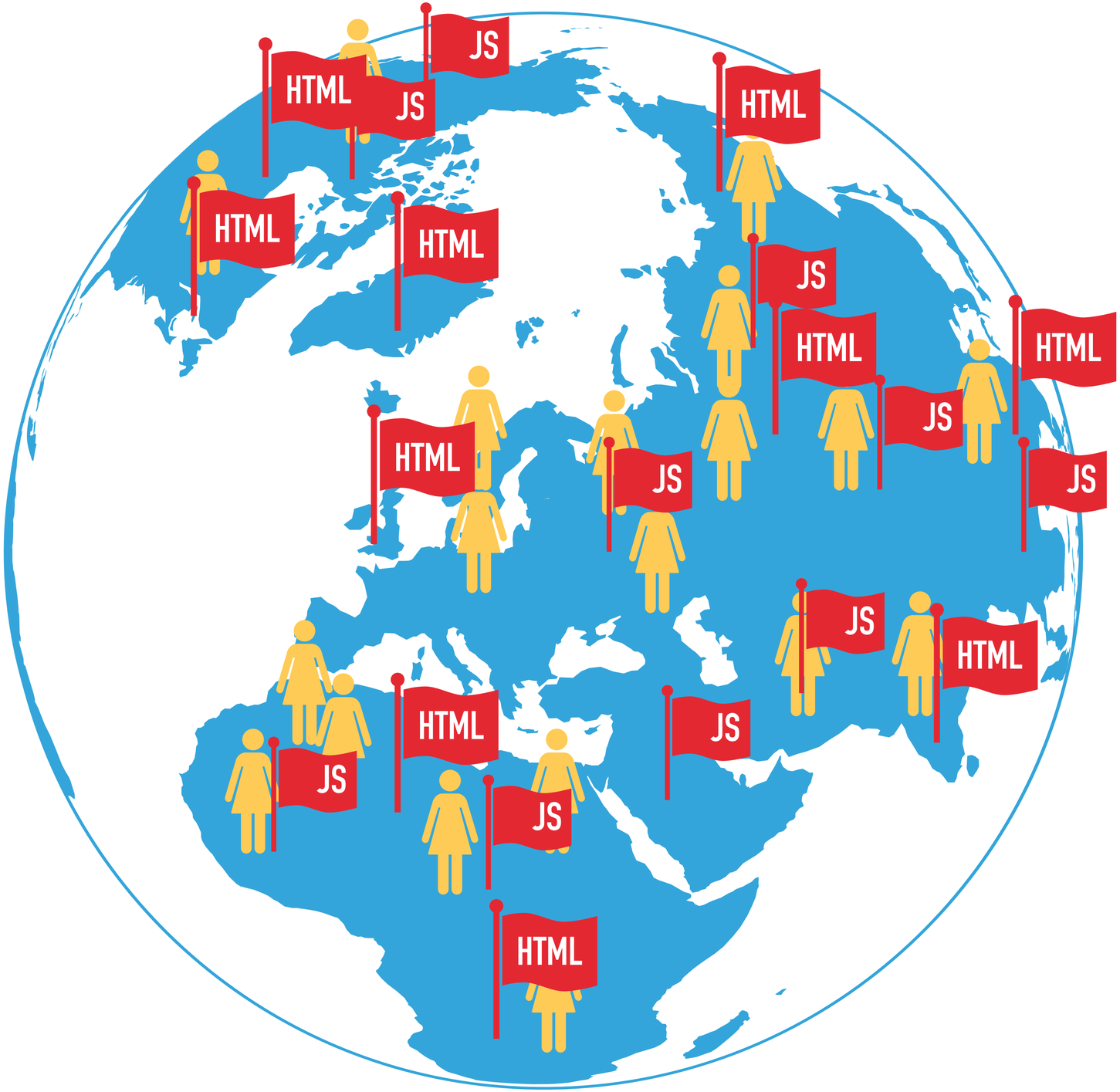
MARKUP

JAVASCRIPT


SERVICE
APPLICATION
SERVER

JAMSTACK

JAMSTACK


JS
HTML
JS
HTML
HTML
HTML
HTML
JS
HTML
HTML
JS
JS
JS
HTML
JS
HTML
HTML
JS
JS
HTML

KEEP CONTENT CLOSER TO THE CUSTOMER

CLOUD

GEOGRAPHICAL NEAR (CDN)

THEIR DEVICE

FEW MOVING PARTS

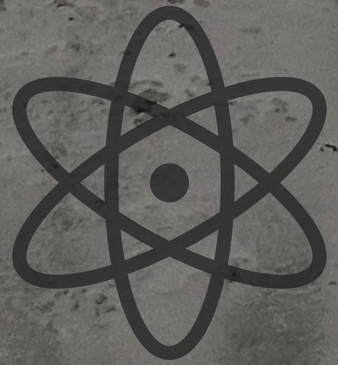
NO DATABASE

NO APP SERVER

NO PROGRAMMING LANGUAGE

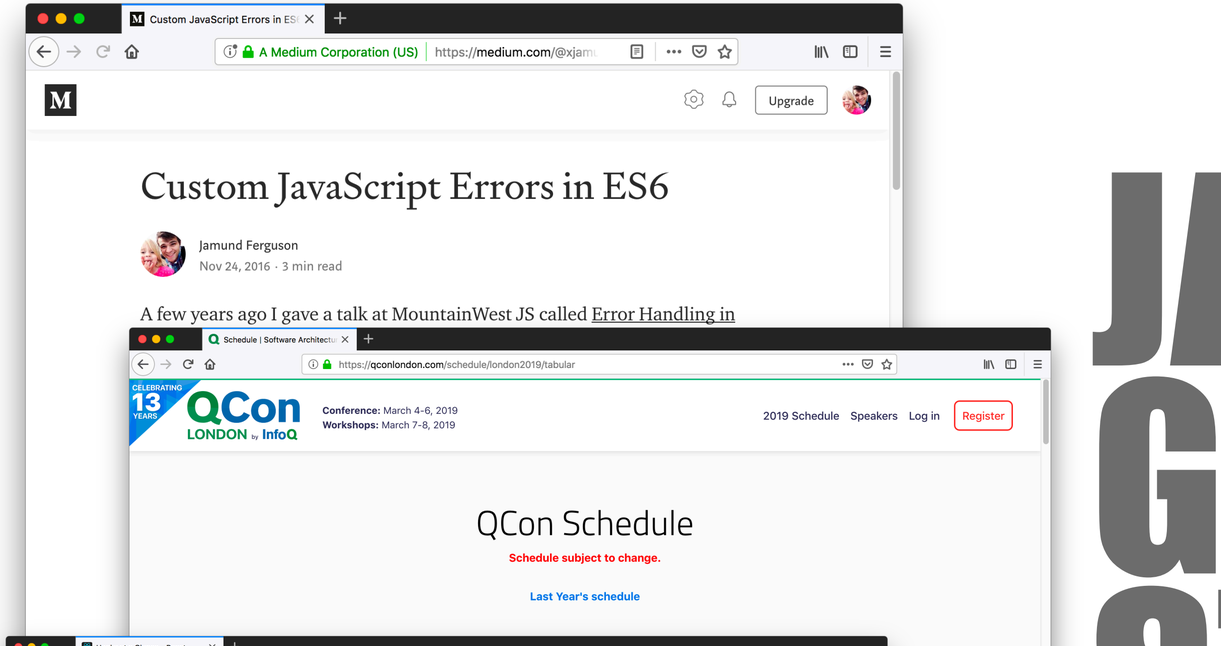
GREAT TOOLING & DX

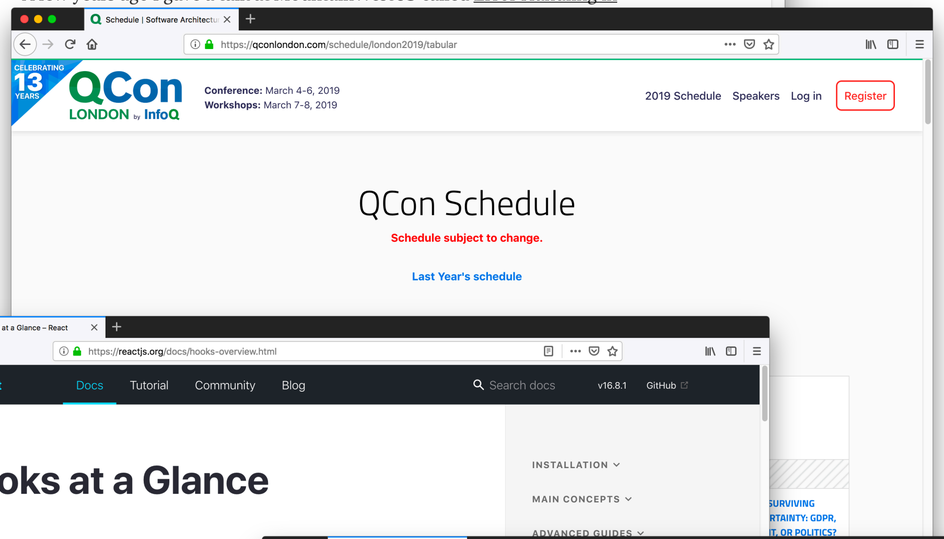
DEPLOY IN SECONDS

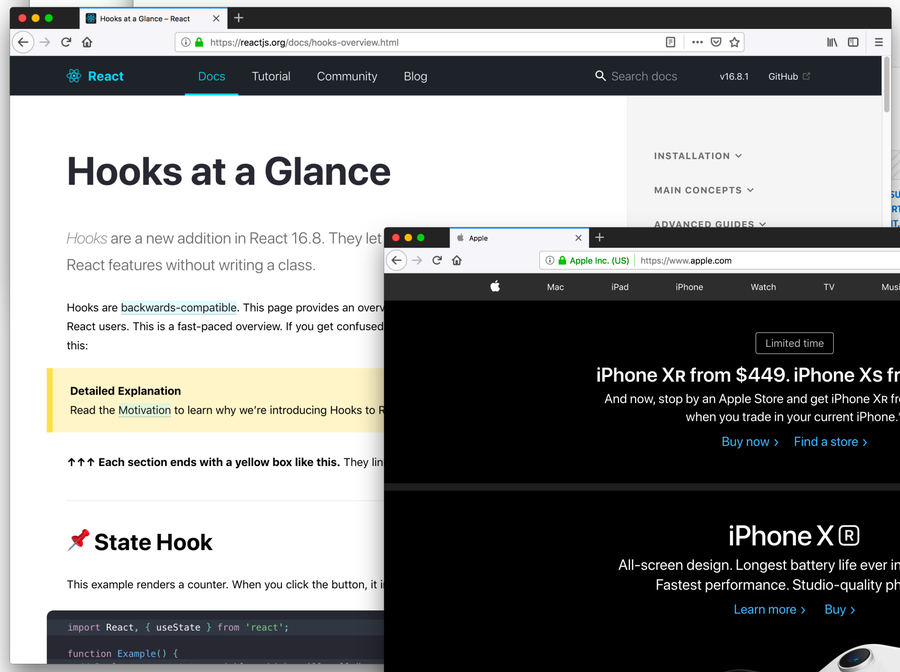


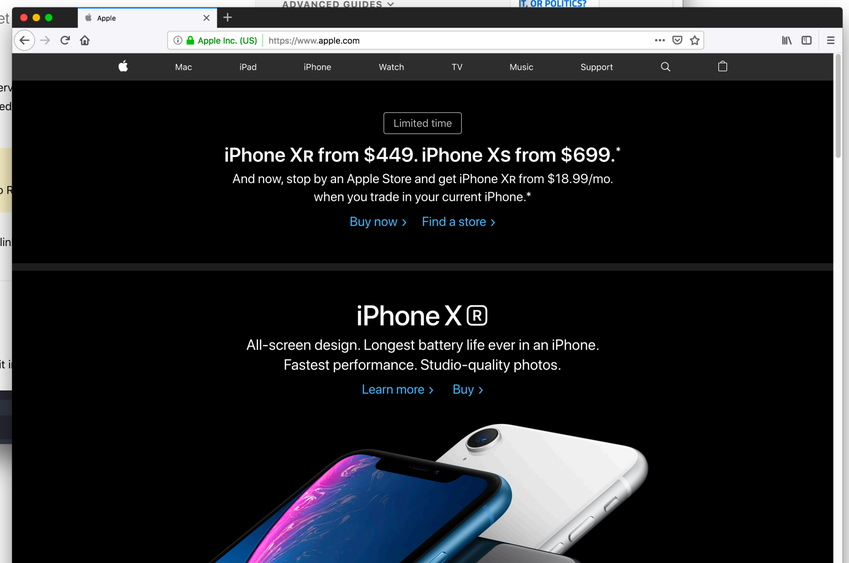
REACT & GATSBY

SINGLE STACK





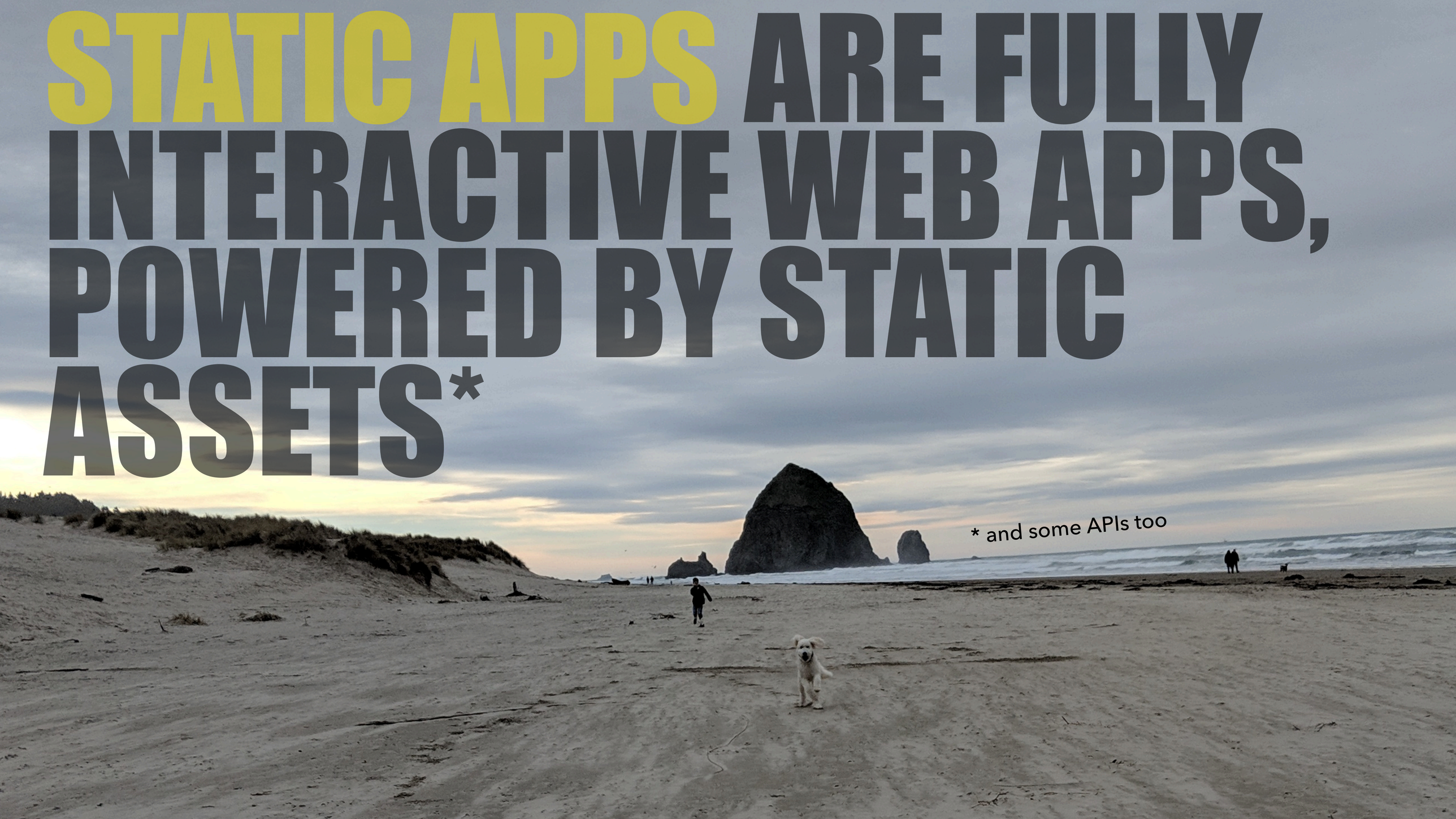




JAMSTACK IS GREAT FOR STATIC SITES

YOU CAN ALSO MAKE FULLY INTERACTIVE WEB APPS

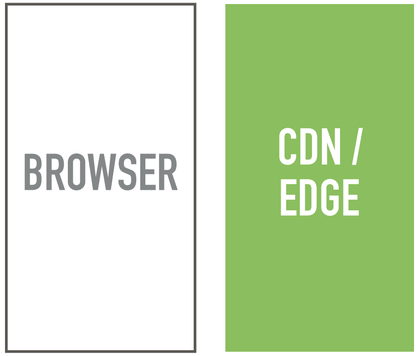
STATIC APPS ARE FULLY INTERACTIVE WEB APPS, POWERED BY STATIC ASSETS*



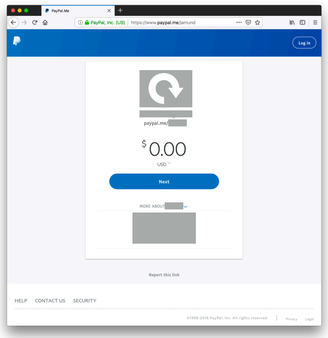
* and some APIs too

LOAD THE STATIC PART

<300MS



300ms

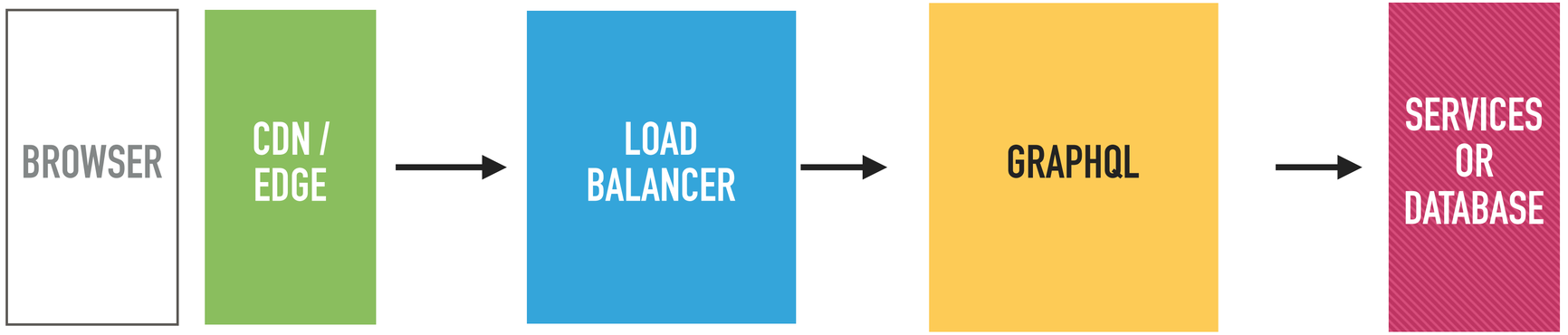


TTFB IS SUPER FAST. MOST OF PAGE READY TO GO RIGHT AWAY!

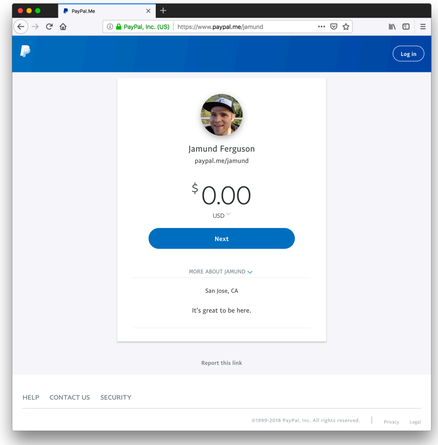
LOAD THE DYNAMIC BITS

~1000MS

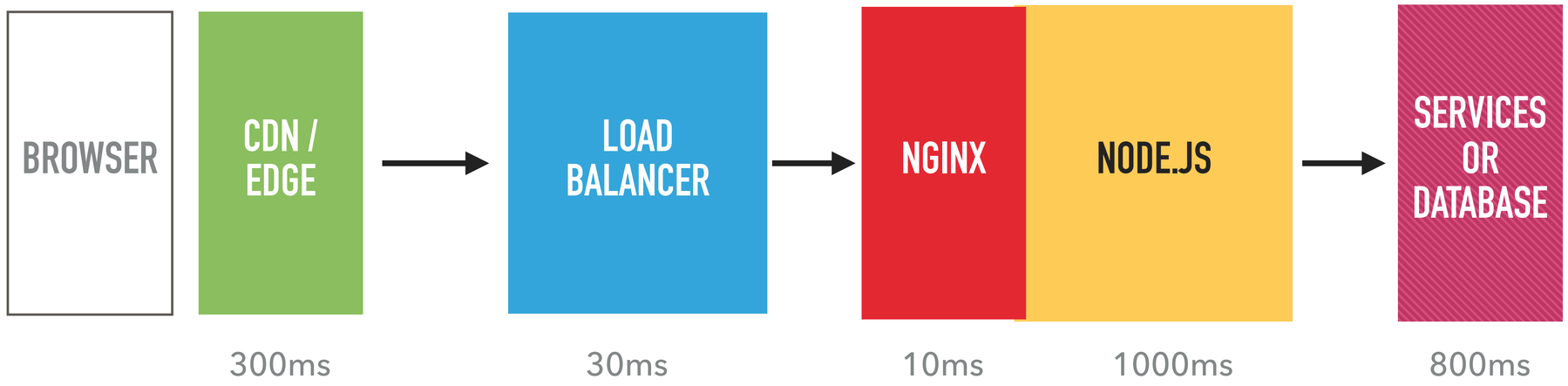
WAITING TIME IS LOWER THAN SSR BECAUSE I'M ONLY DOING API PROCESSING



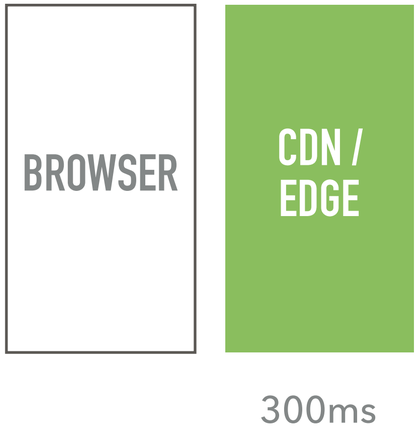
300ms 30ms 500ms 400ms



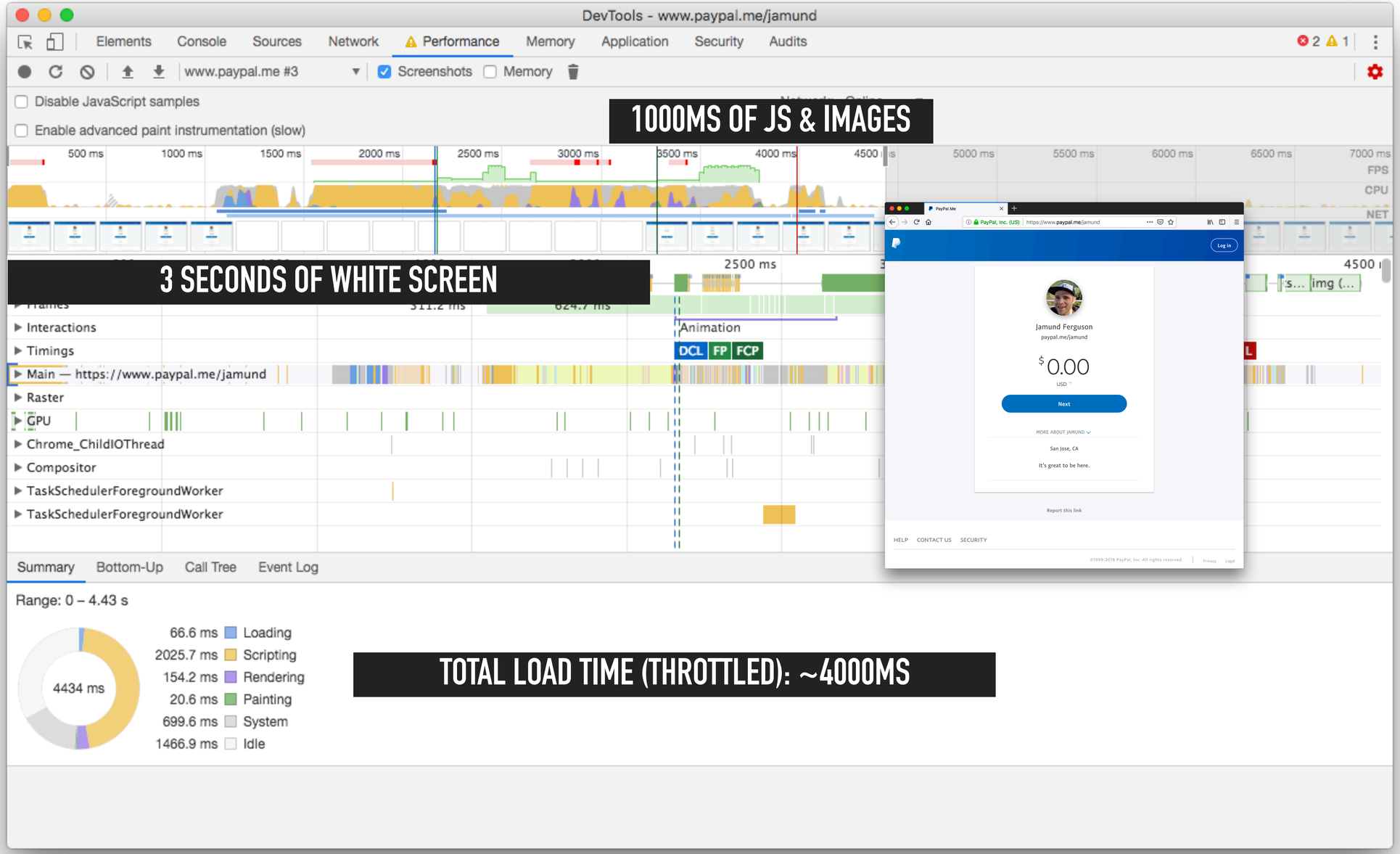
SERVER-SIDE RENDERED JAVASCRIPT 2140MS



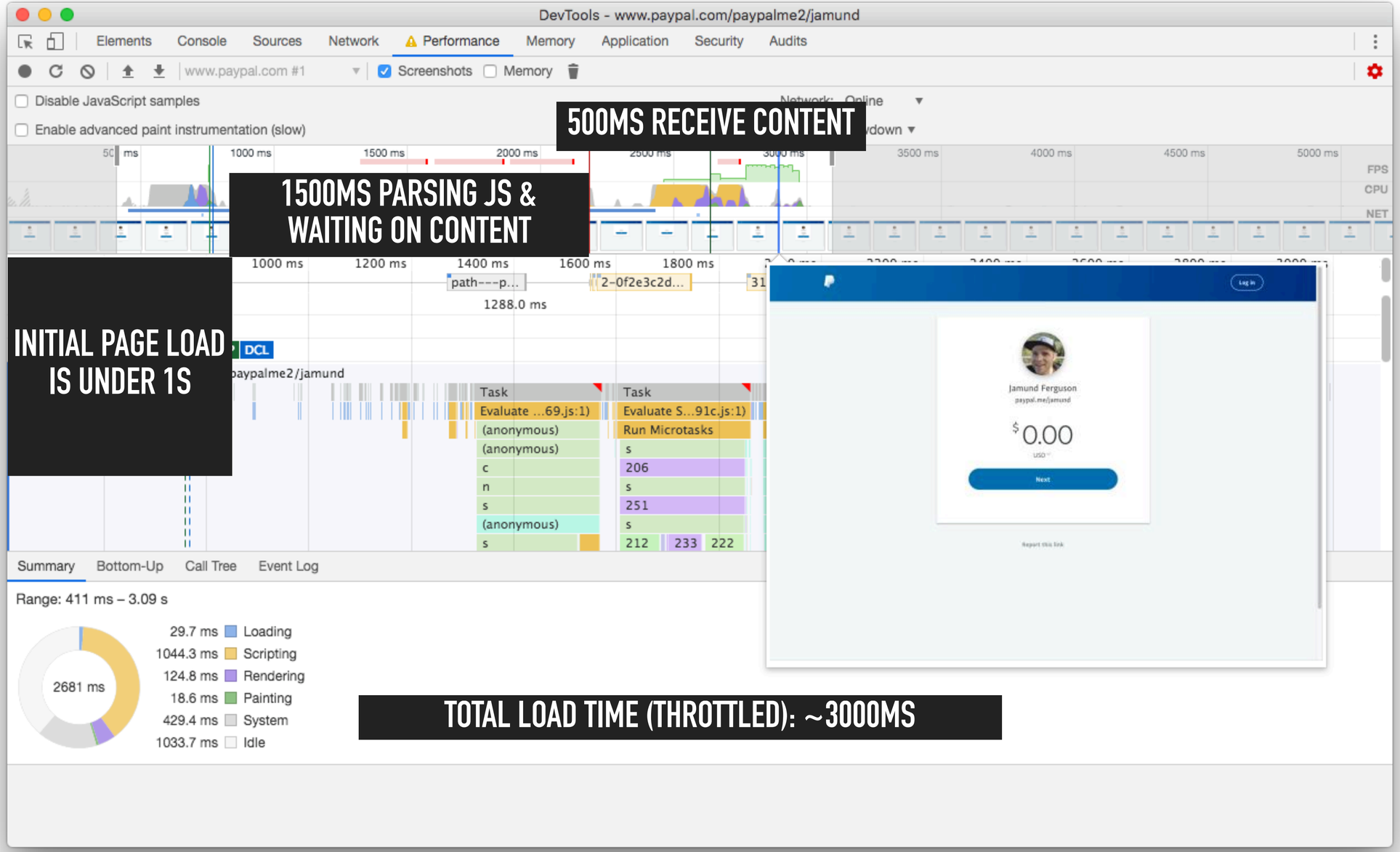
PRE-RENDERED HTML AT THE CDN 300MS



PPME: PARTIALLY SERVER-RENDERED VERSION

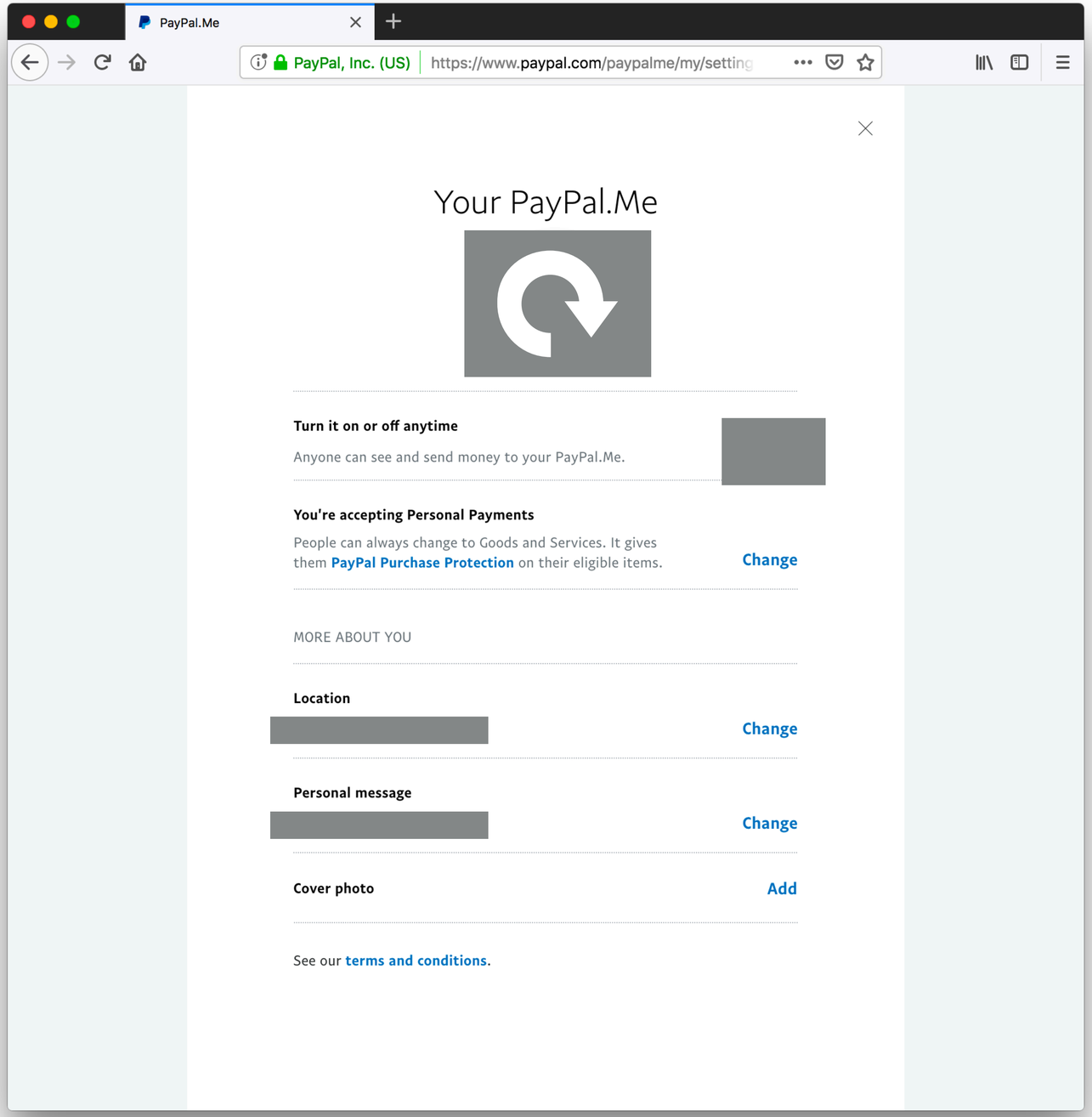


PPME: STATIC APP VERSION



WHEN BUILDING STATIC APPS

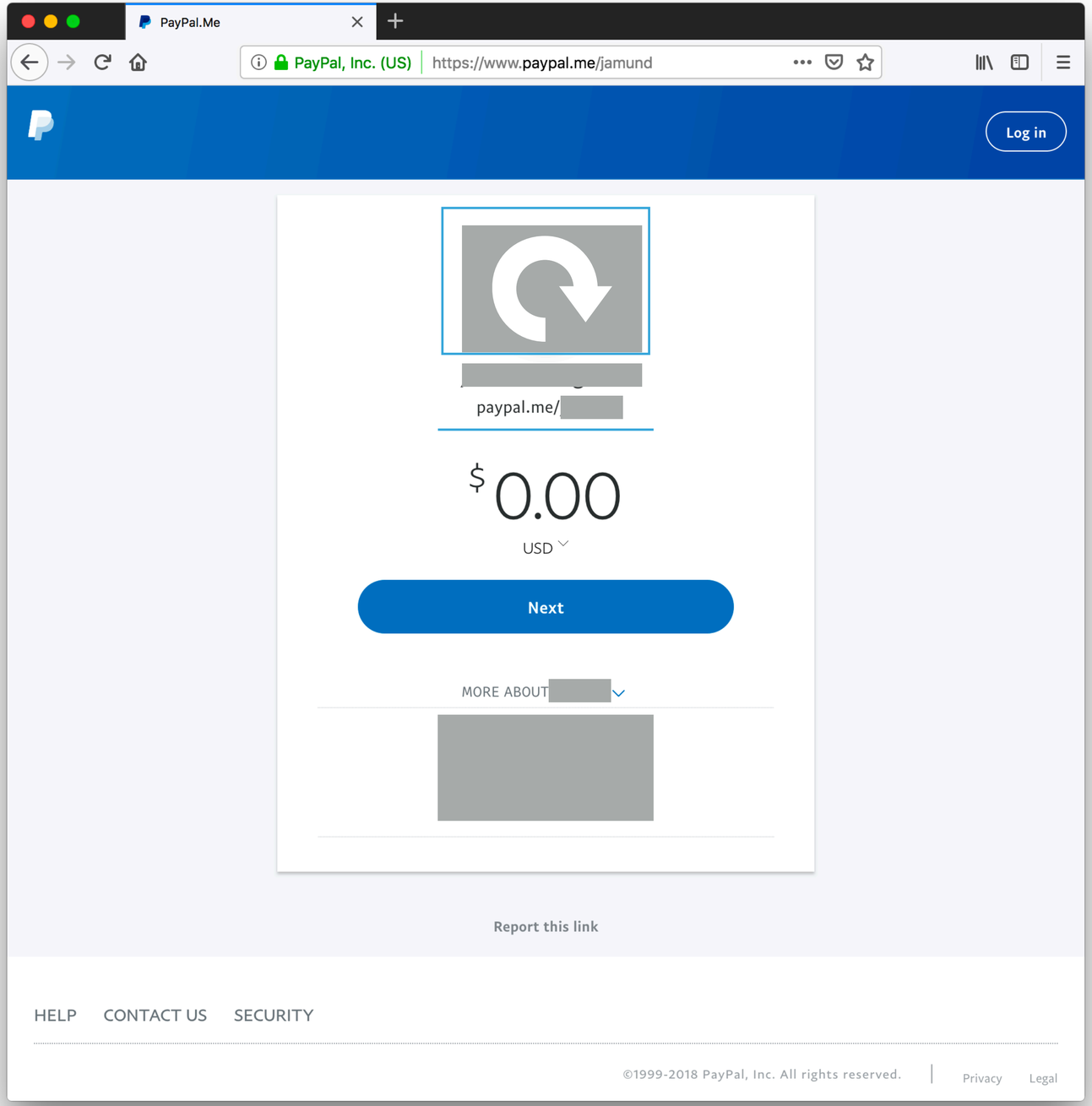
- Think files not routes
- Pre-render as much as possible (how frequently?)
- Load additional content with APIs
- Cache / optimize aggressively



PayPal.me Settings Page

1. /PAYPALME/SETTINGS → SETTINGS.HTML
2. How much of this page can be static?
3. Load it up with an API
4. Optimize using **SessionStorage** by pre-loading the users basic settings at log-in

FROM	TO
300MS + 1200MS = 1500MS	300MS + 200MS = 500MS



My PayPal.me Profile

1

PAYPAL.ME/JAMUND → JAMUND.HTML

PAYPAL.ME/* → PROFILE.HTML

2 How much we we pre-render?

3 Make an API call for more data

4 Optimizations:

- Cache user info / API request
- We can also load things like the URL directly from memory
-

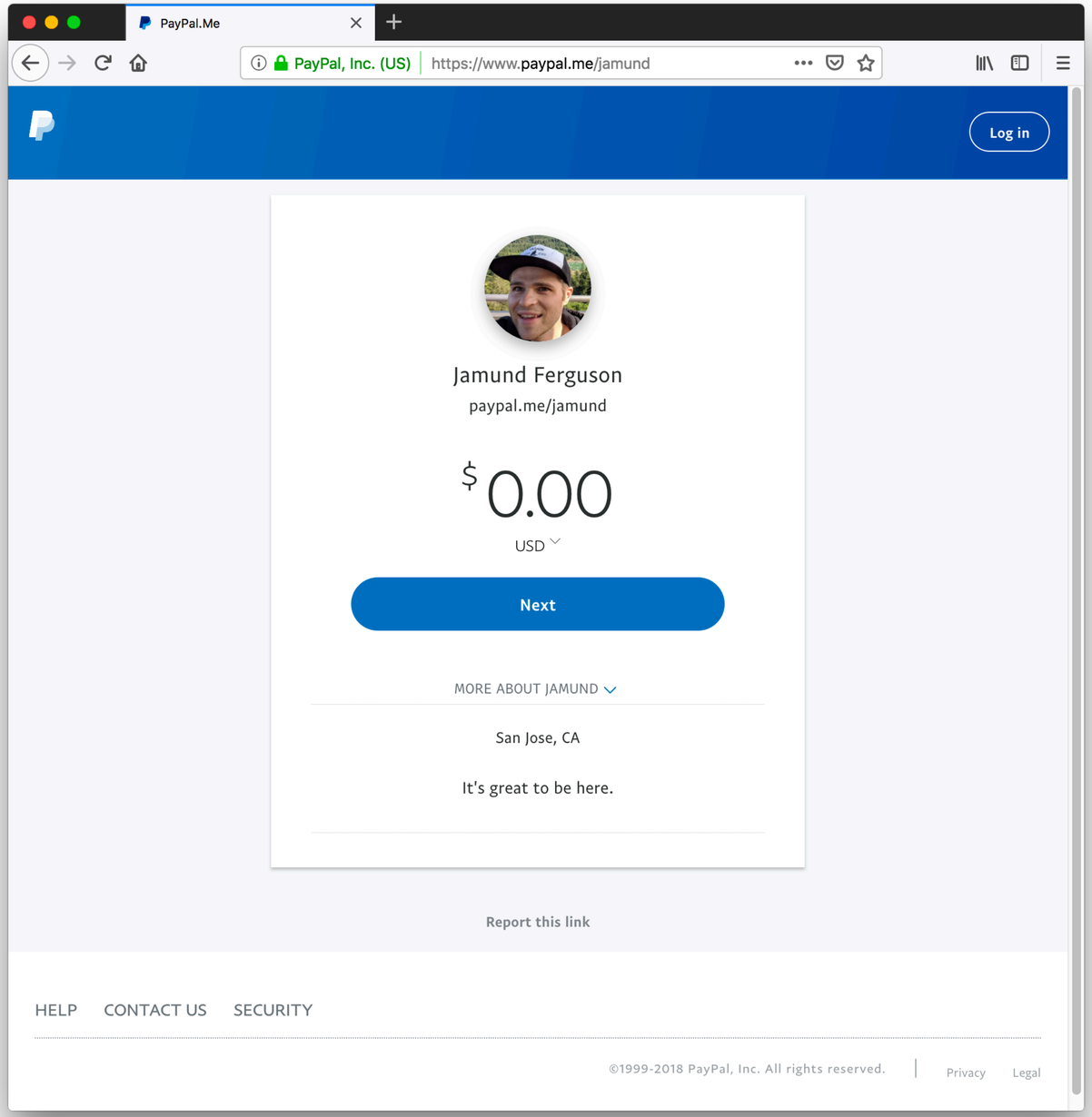
EVEN IN WORST CASE SCENARIOS, WHERE MOST OF THE PAGE IS DYNAMIC, STATIC APPS ARE FAST

BRINGING IT TO THE ENTERPRISE

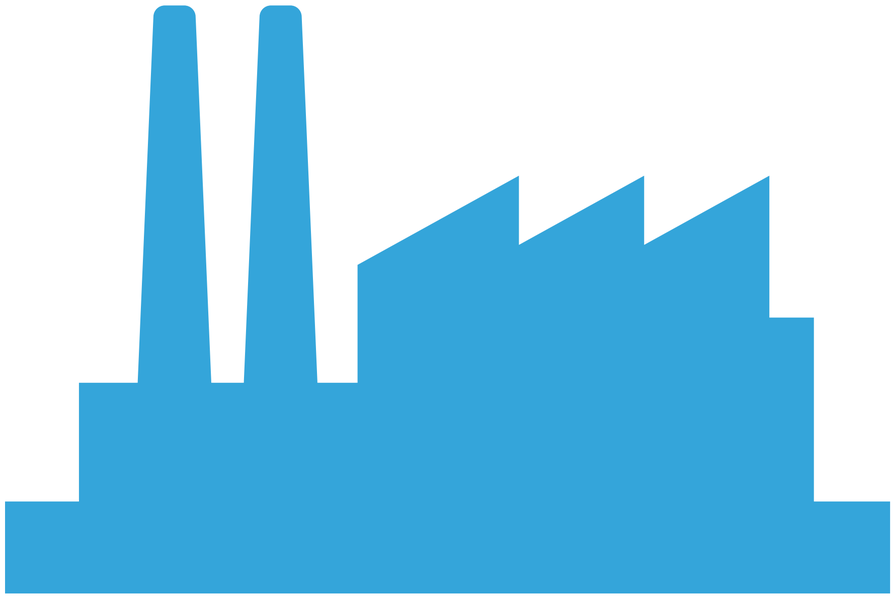
ADOPTION AND BUY-IN

Hold Workshops / Build Hype

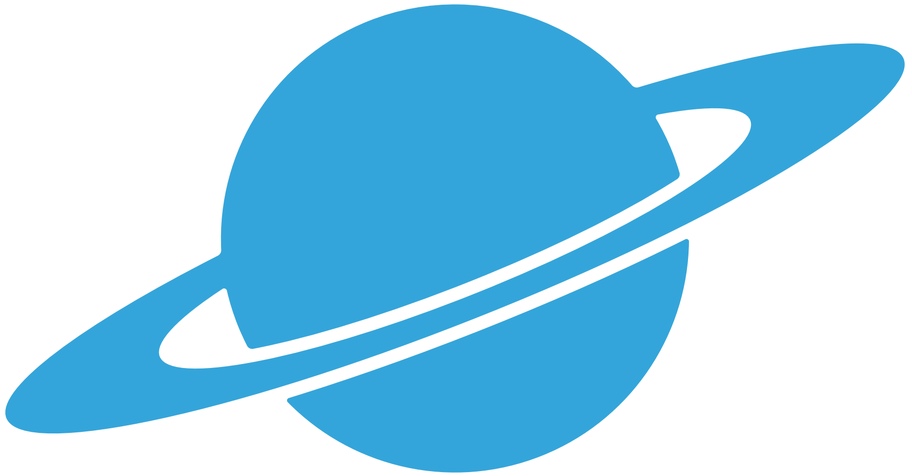
WE DECIDED TO BUILD A PROTOTYPE VERSION OF PAYPAL.ME



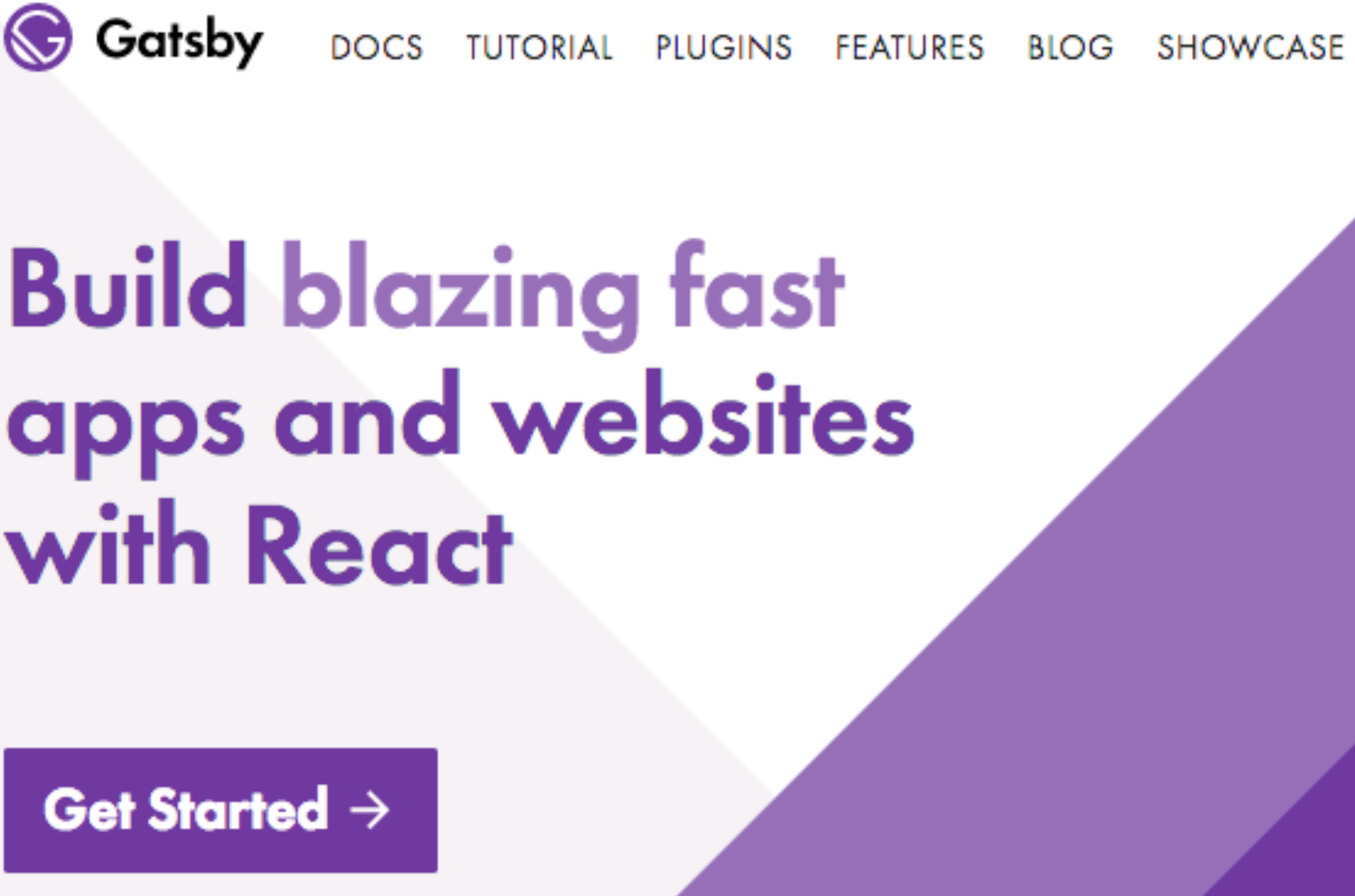
BUILD OUT TOOLING SO THAT ANY TEAM COULD MAKE A STATIC APP

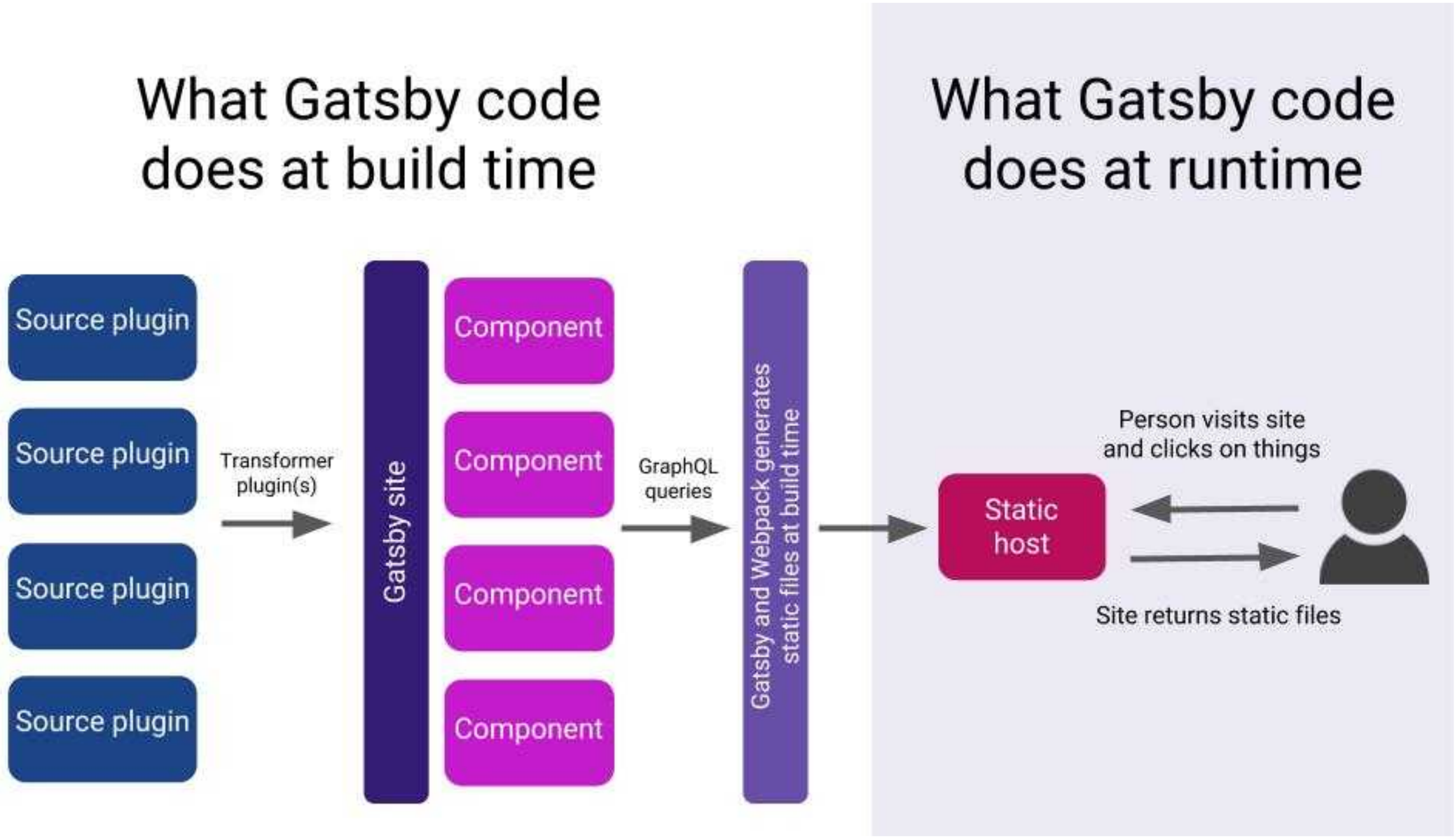


A TOOL TO GENERATE OUR STATIC ASSETS



A PLACE TO HOST THEM


Gatsby
DOCS
TUTORIAL
PLUGINS
FEATURES
BLOG
SHOWCASE
Build blazing fast apps and websites with React
Get Started →



https://www.gatsbyjs.org

```
> gatsby new qcon2019

info Creating new site from git: https://github.com/gatsbyjs/gatsby-starter-default.g
Cloning into 'qcon2019'...
remote: Enumerating objects: 5, done.
remote: Counting objects: 100% (5/5), done.
remote: Compressing objects: 100% (5/5), done.
remote: Total 1077 (delta 0), reused 2 (delta 0), pack-reused 1072
Receiving objects: 100% (1077/1077), 1.93 MiB | 1.72 MiB/s, done.
Resolving deltas: 100% (610/610), done.
success Created starter directory layout
info Installing packages...
  ✔ cwebp pre-build test passed successfully
  ✔ mozjpeg pre-build test passed successfully
  ✔ pngquant pre-build test passed successfully

added 1884 packages from 1136 contributors in 53.286s
```

```
 > gatsby develop

success open and validate gatsby-configs — 0.006 s
success load plugins — 0.144 s
success onPreInit — 0.797 s
success delete html and css files from previous builds — 0.004 s
success initialize cache — 0.006 s
success copy gatsby files — 0.074 s
success onPreBootstrap — 0.005 s
success source and transform nodes — 0.047 s
success building schema — 0.262 s
success update schema — 0.100 s
Generating image thumbnails [==============================] 6/6 0.2 secs 100%
info bootstrap finished - 7.107 s

 DONE  Compiled successfully in 3592ms

You can now view qcon2019 in the browser.

  http://localhost:8000/
```

Home | Gatsby Default Starter

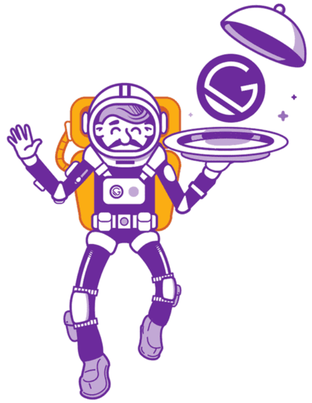
localhost:8000

Gatsby Default Starter

Hi people

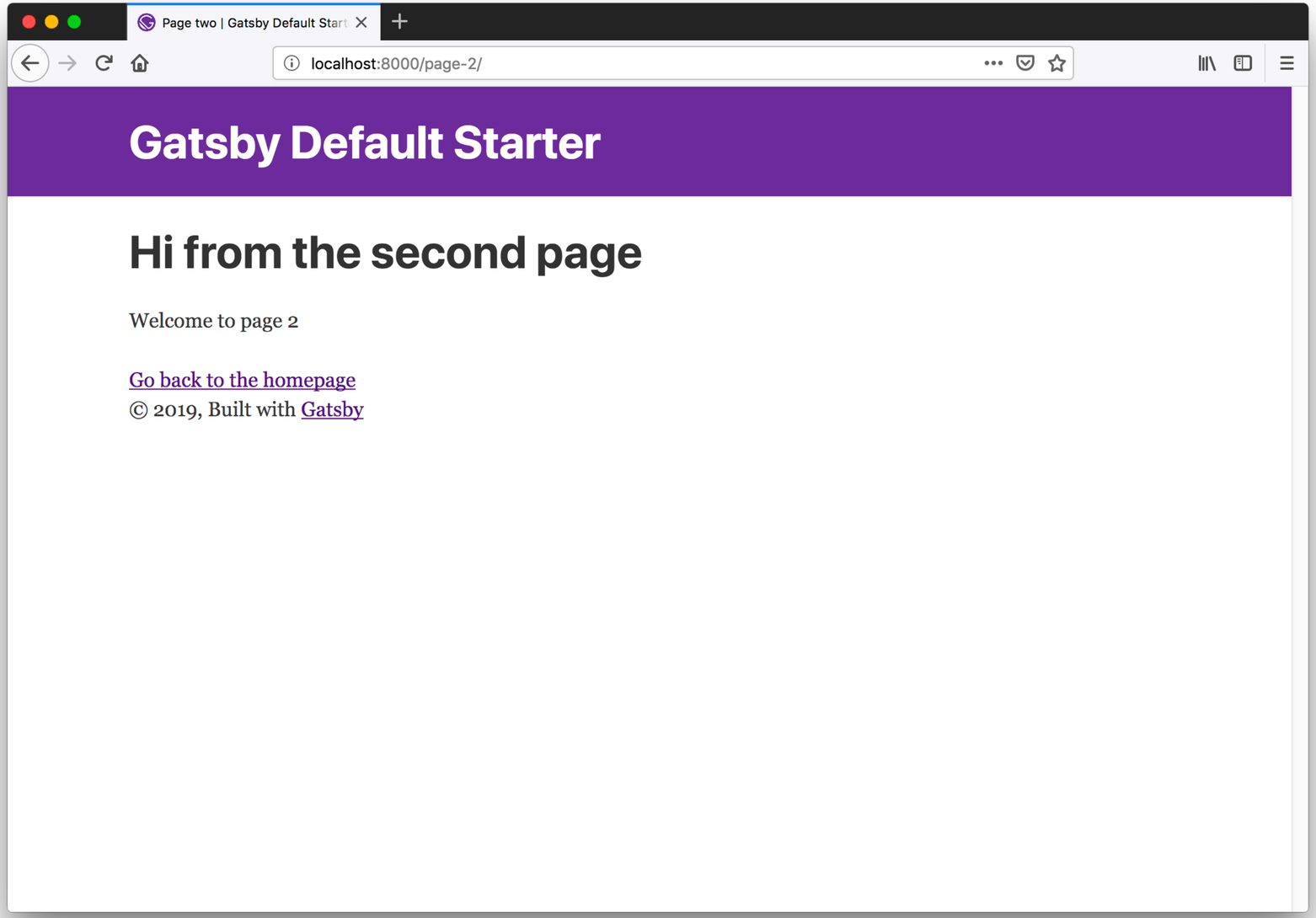
Welcome to your new Gatsby site.

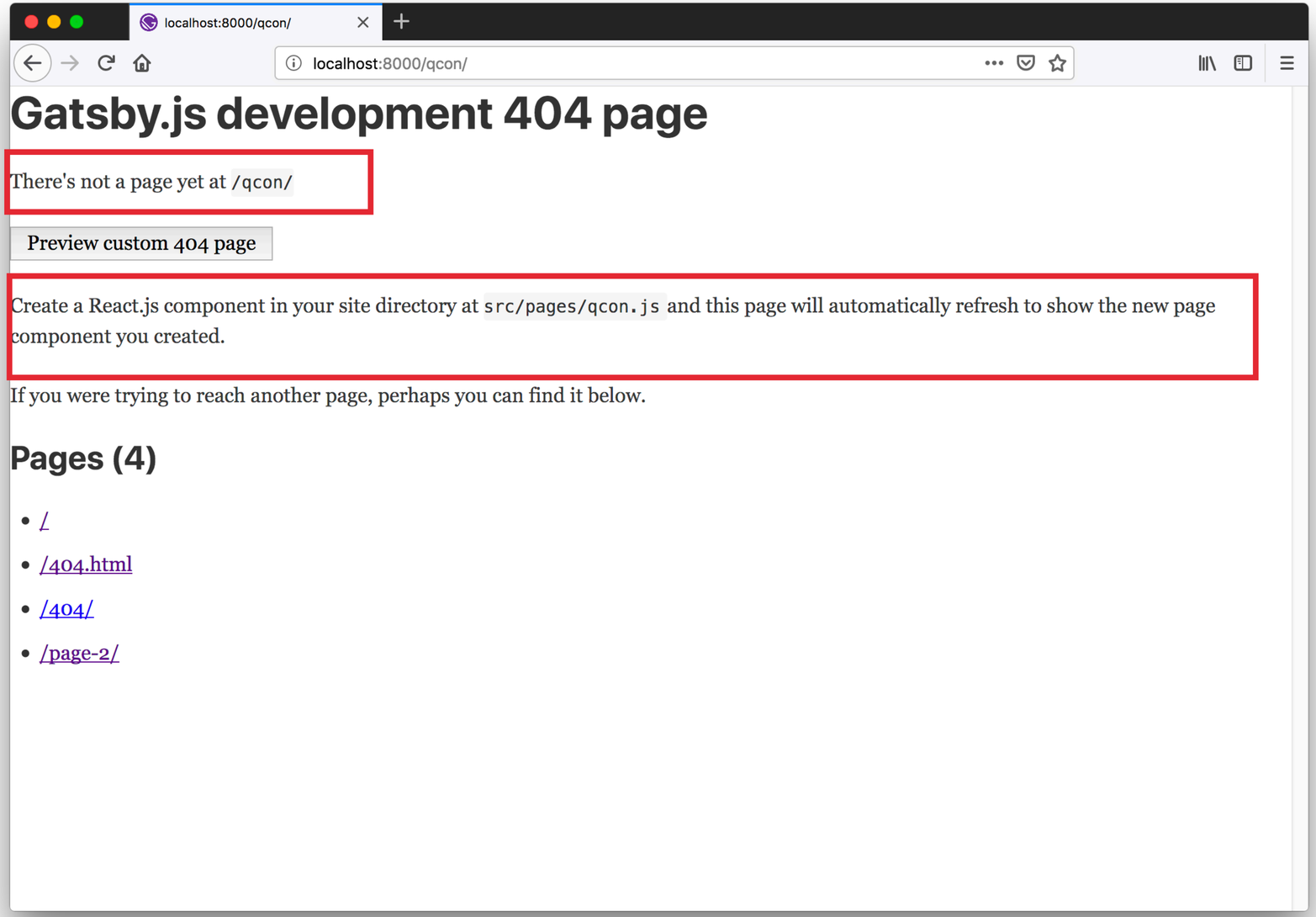
Now go build something great.

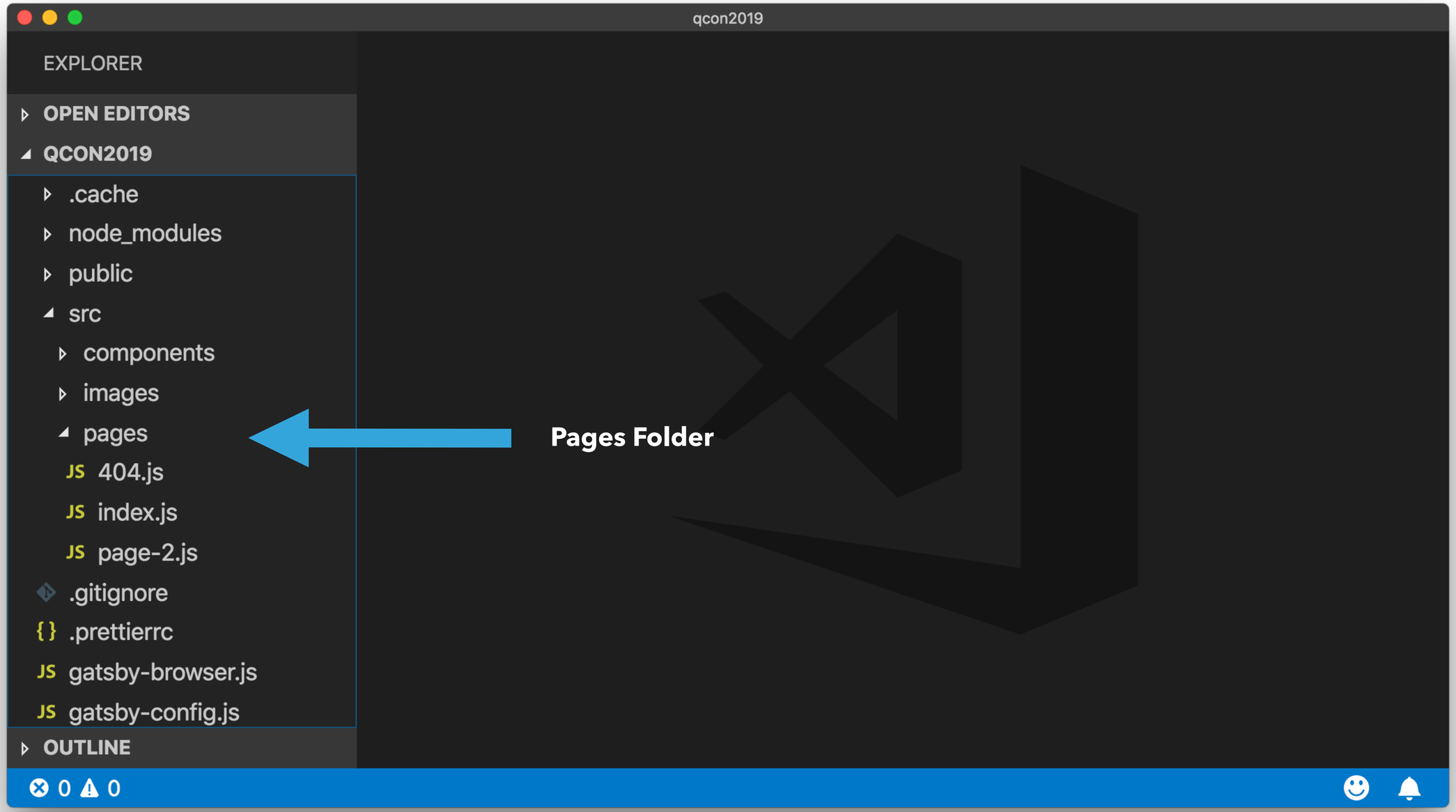


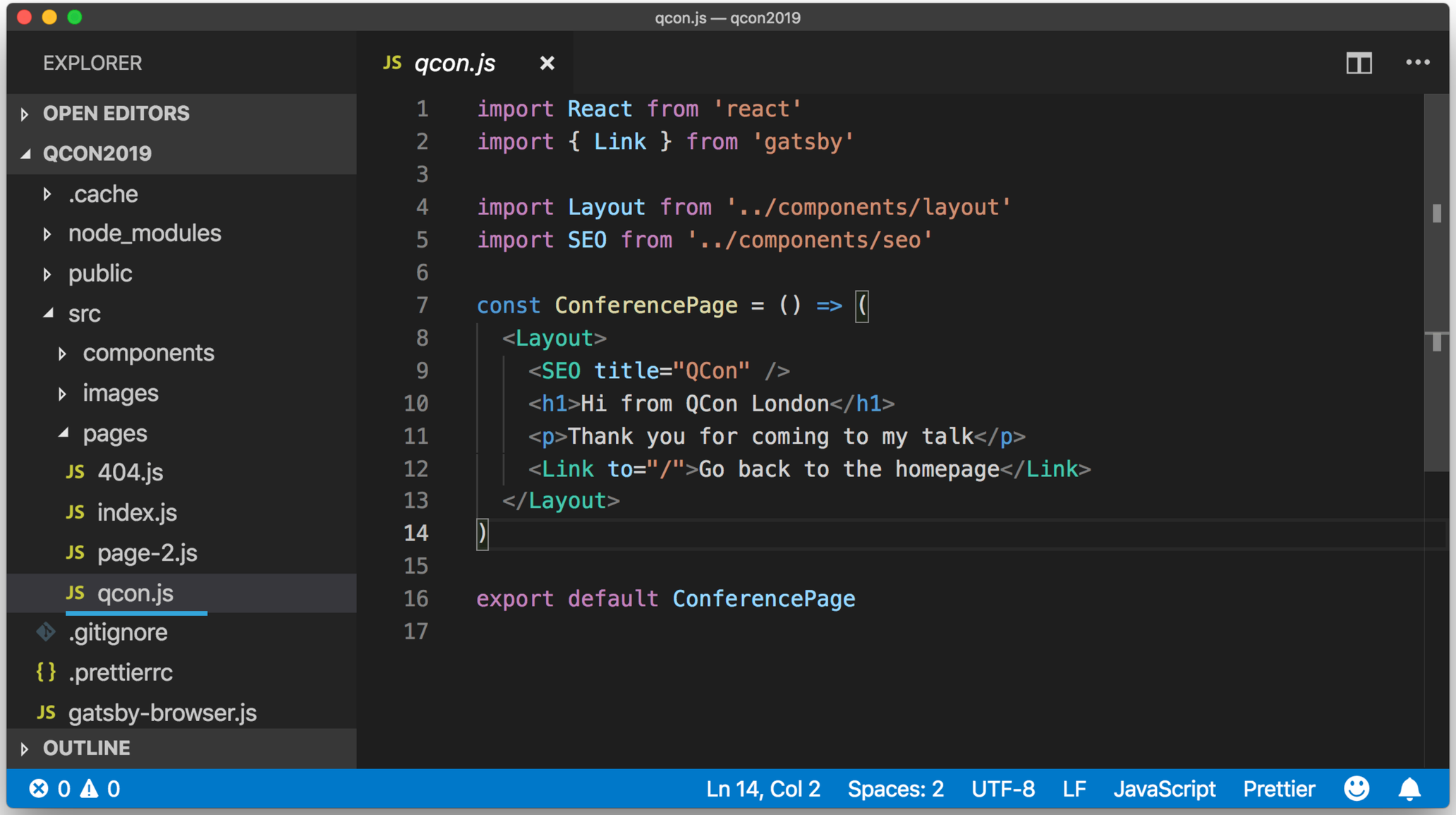
Go to page 2

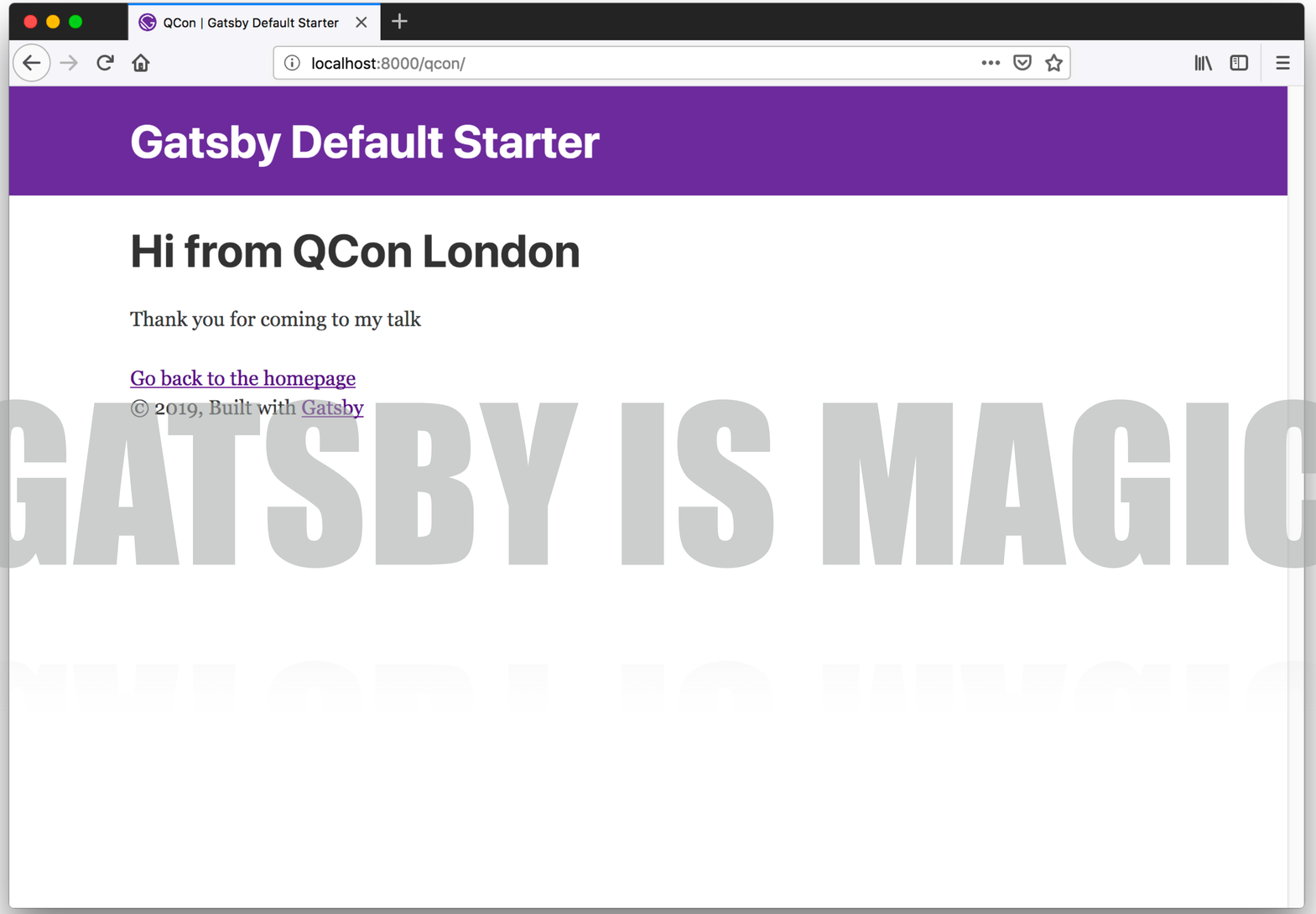
© 2019, Built with Gatsby


Page two | Gatsby Default Start
localhost:8000/page-2/
Gatsby Default Starter
Hi from the second page
Welcome to page 2
Go back to the homepage
© 2019, Built with Gatsby


localhost:8000/qcon/
localhost:8000/qcon/
Gatsby.js development 404 page
There's not a page yet at /qcon/
Preview custom 404 page
Create a React.js component in your site directory at src/pages/qcon.js and this page will automatically refresh to show the new page component you created.
If you were trying to reach another page, perhaps you can find it below.
Pages (4)
/
/404.html
/404/
/page-2/


qcon2019
EXPLORER
OPEN EDITORS
QCON2019
.cache
node_modules
public
src
components
images
pages
404.js
index.js
page-2.js
.gitignore
.prettierrc
gatsby-browser.js
gatsby-config.js
OUTLINE
0 0
Pages Folder


qcon.js — qcon2019
EXPLORER
OPEN EDITORS
QCON2019
.cache
node_modules
public
src
components
images
pages
404.js
index.js
page-2.js
qcon.js
.gitignore
.prettierrc
gatsby-browser.js
OUTLINE
qcon.js
1 import React from 'react'
2 import { Link } from 'gatsby'
3
4 import Layout from '../components/layout'
5 import SEO from '../components/seo'
6
7 const ConferencePage = () => (
8 <Layout>
9 <SEO title="QCon" />
10 <h1>Hi from QCon London</h1>
11 Thank you for coming to my talk
12 <Link to="/">Go back to the homepage</Link>
13 </Layout>
14)
15
16 export default ConferencePage
17
0 0
Ln 14, Col 2
Spaces: 2
UTF-8
LF
JavaScript
Prettier



GATSBY IS MAGIC

{ PORTING AN EXISTING REACT SITE TO GATSBY ISN'T VERY HARD }

PayPal.Me

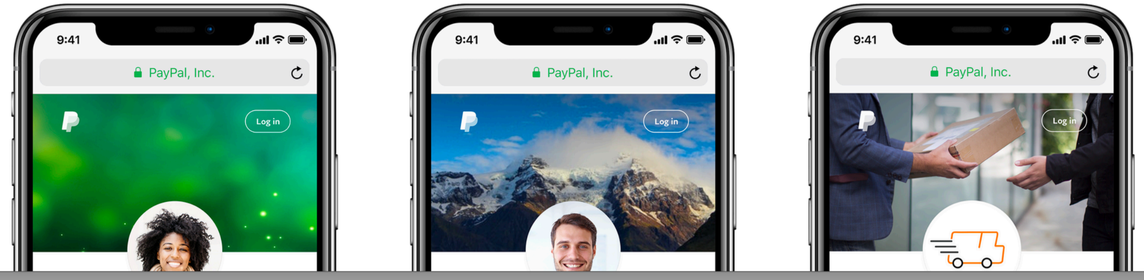
PayPal, Inc. (US) https://www.paypal.me

PayPal About PayPal.Me Terms My PayPal.Me

Help others know it's you they're paying.

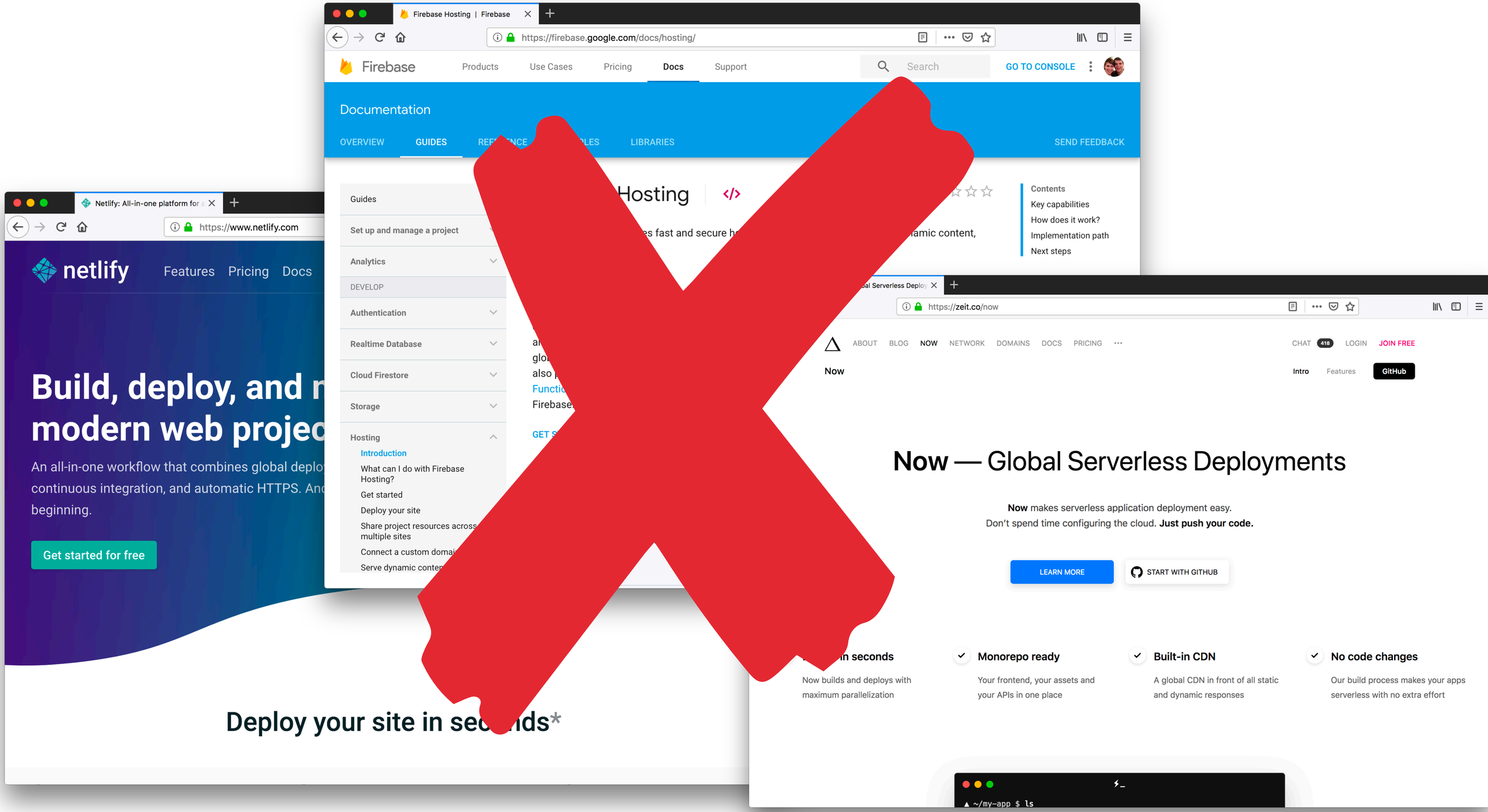
Create your link, share it, and start receiving money. Split a bill with friends or accept payments from customers. Anyone can use it.

Create Your PayPal.Me Link

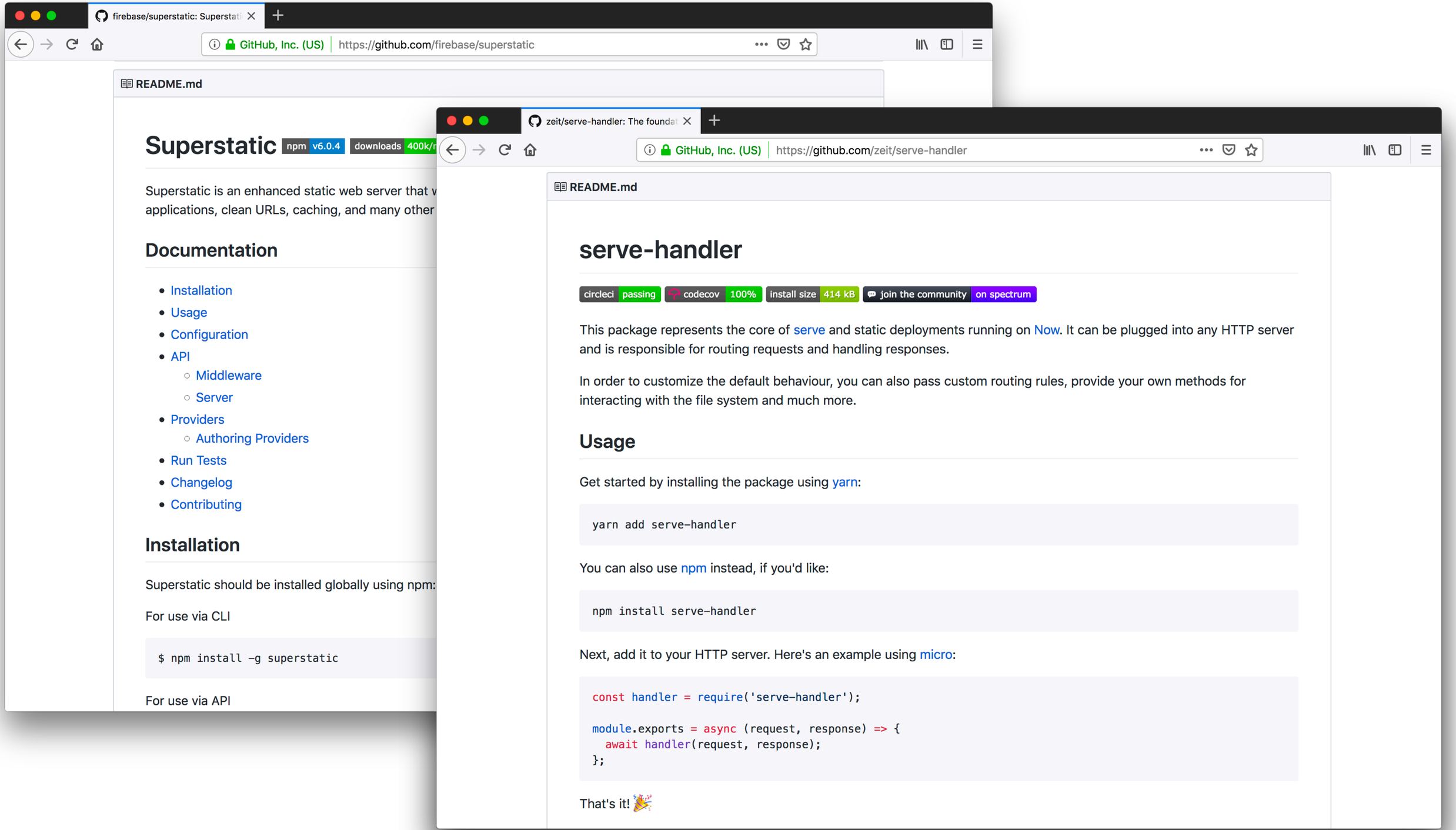


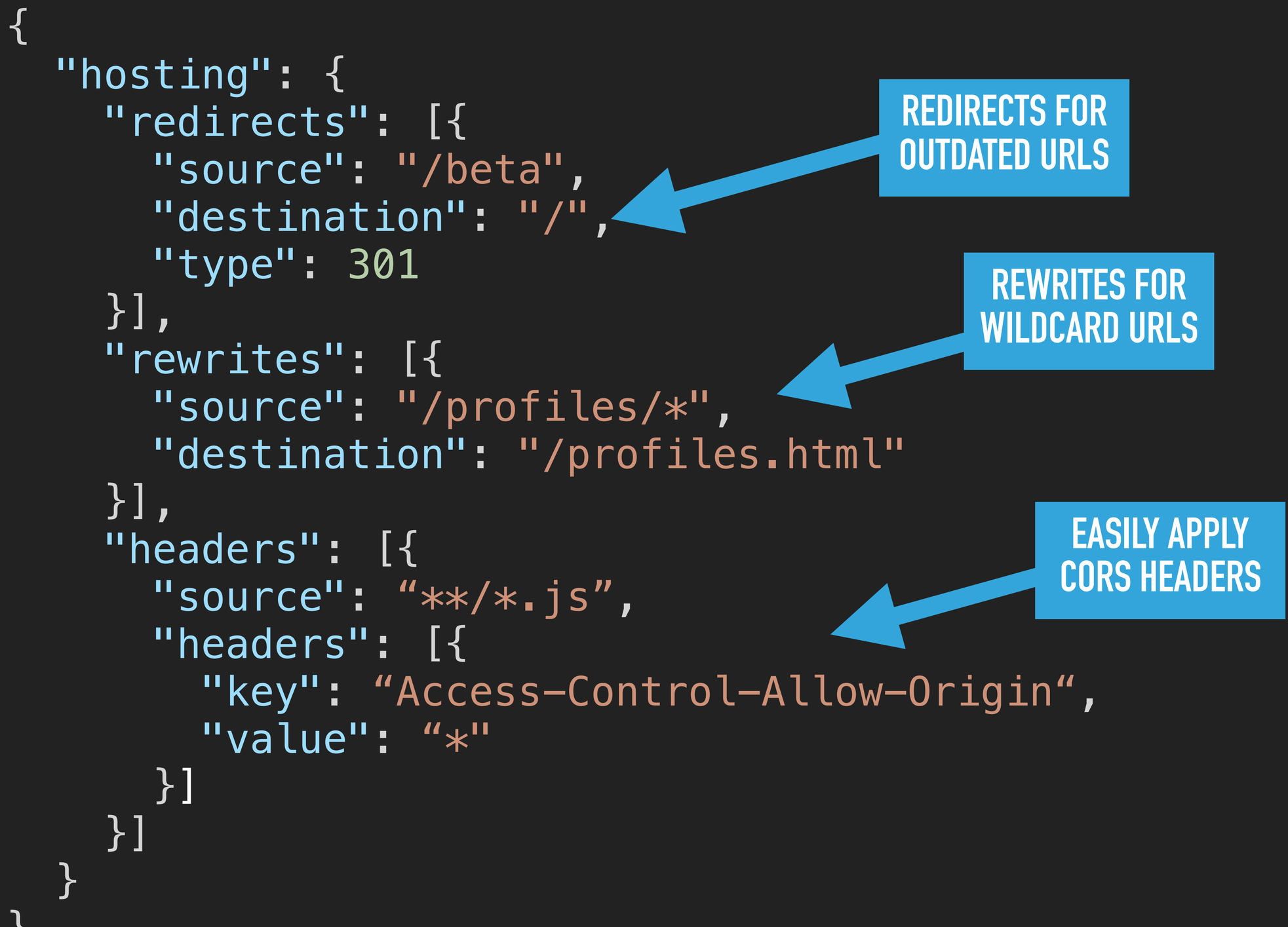
```
> gatsby build

success open and validate gatsby-configs — 0.063 s
success load plugins — 0.130 s
success onPreInit — 0.741 s
success onPreBootstrap — 0.004 s
success source and transform nodes — 0.035 s
success building schema — 0.211 s
success createPages — 0.000 s
success update schema — 0.096 s
success extract queries from components — 0.096 s
success run graphql queries — 0.046 s — 8/8 177.64 queries/second
success write out page data — 0.003 s
success write out redirect data — 0.001 s
success onPostBootstrap — 0.284 s
info bootstrap finished - 4.976 s
success Building production JavaScript and CSS bundles — 8.634 s
success Building static HTML for pages — 0.604 s — 5/5 22.57 pages/second
info Done building in 14.22 sec
```

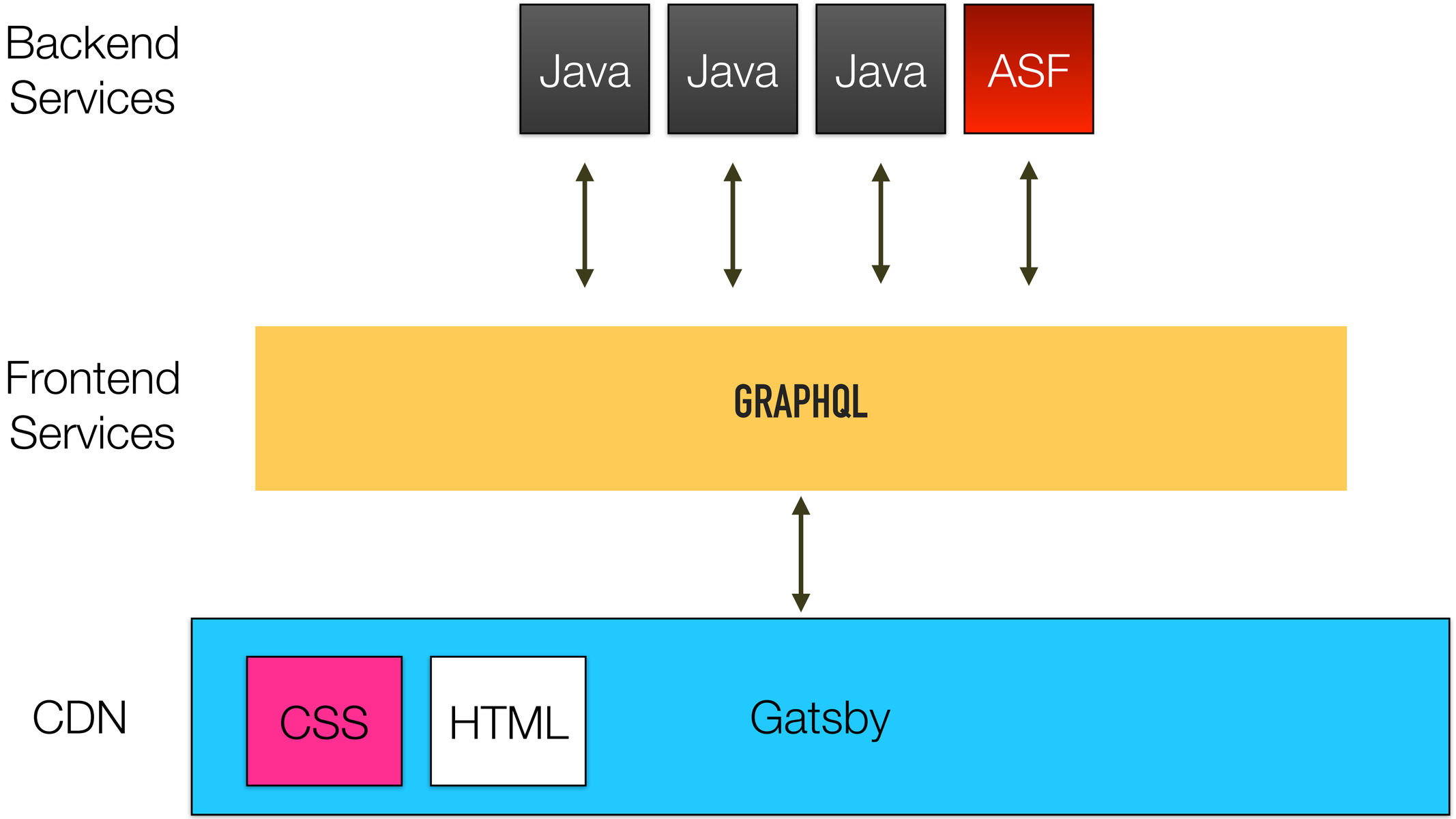
```
> ls public

index.html
404.html
0-9bd0c85834a3a93b1f79.js
app-04084b8a557f707b6868.js
pages-manifest-e4b2639aaf09a35adca0.js
component---src-pages-404-js-d2285ef859a157145c5f.js
component---src-pages-index-js-fb8583164602255204fc.js
component---src-pages-page-2-js-32e895d1268581b61c23.js
component—src-pages-qcon-js-7f23b1bc9d18fc3f2d1e.js
component---src-pages-404-js.fc0360e935268c0b4b8c.css
component---src-pages-index-js.fc0360e935268c0b4b8c.css
component---src-pages-page-2-js.fc0360e935268c0b4b8c.css
component---src-pages-qcon-js.fc0360e935268c0b4b8c.css
chunk-map.json
manifest.webmanifest
page-2/
icons/
404/
```

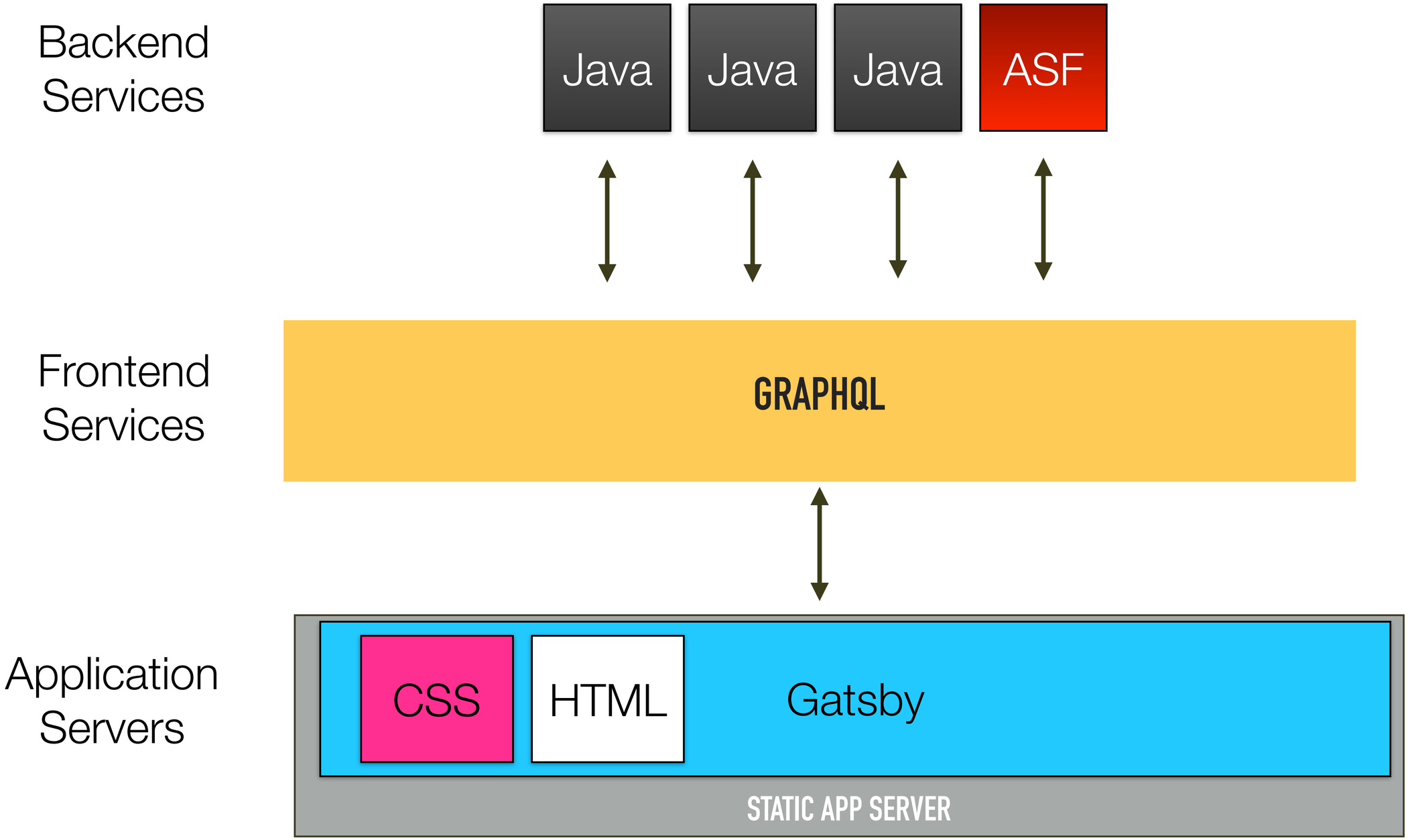

Firebase Hosting | Firebase
https://firebase.google.com/docs/hosting/
Firebase
Products
Use Cases
Pricing
Docs
Support
Search
GO TO CONSOLE
Documentation
OVERVIEW
GUIDES
LIBRARIES
SEND FEEDBACK
Guides
Set up and manage a project
Analytics
DEVELOP
Authentication
Realtime Database
Cloud Firestore
Storage
Hosting
Introduction
What can I do with Firebase Hosting?
Get started
Deploy your site
Share project resources across multiple sites
Hosting
Contents
Key capabilities
How does it work?
Implementation path
Next steps
Netlify: All-in-one platform for
https://www.netlify.com
netlify
Features
Pricing
Docs
Get started for free
Deploy your site in seconds*
https://zeit.co/now
ABOUT
BLOG
NOW
NETWORK
DOMAINS
DOCS
PRICING
CHAT
418
LOGIN
JOIN FREE
Now
Intro
Features
GitHub
Now — Global Serverless Deployments
Now makes serverless application deployment easy.
Don't spend time configuring the cloud. Just push your code.
LEARN MORE
START WITH GITHUB
Monorepo ready
Your frontend, your assets and your APIs in one place
Built-in CDN
A global CDN in front of all static and dynamic responses
No code changes
Our build process makes your apps serverless with no extra effort
▲ ~/my-app $ ls

LET'S BUILD THE JAMSTACK DX
INSIDE OUR OWN PRIVATE CLOUD

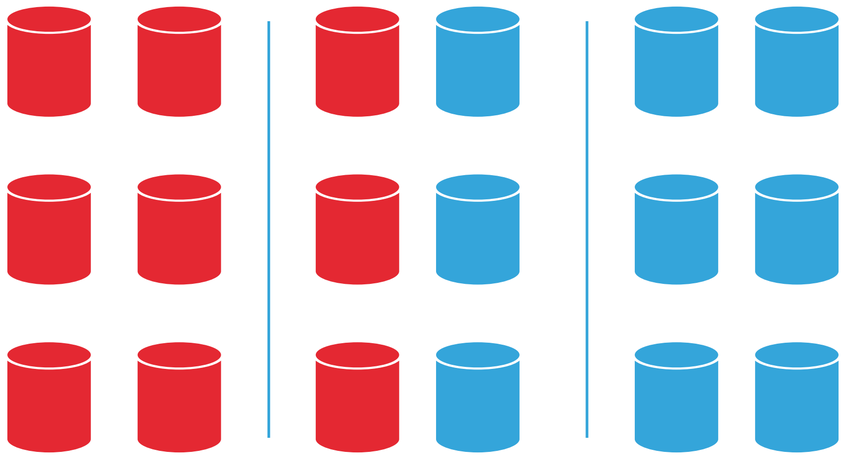

firebase/superstatic: Superstati
GitHub, Inc. (US)
https://github.com/firebase/superstatic
README.md
Superstatic
npm v6.0.4
downloads 400k/
Superstatic is an enhanced static web server that v
applications, clean URLs, caching, and many other
Documentation
Installation
Usage
Configuration
API
Middleware
Server
Providers
Authoring Providers
Run Tests
Changelog
Contributing
Installation
Superstatic should be installed globally using npm:
For use via CLI
$ npm install -g superstatic
For use via API
zeit/serve-handler: The foundat
GitHub, Inc. (US)
https://github.com/zeit/serve-handler
README.md
serve-handler
circleci passing
codecov 100%
install size 414 kB
join the community on spectrum
This package represents the core of serve and static deployments running on Now. It can be plugged into any HTTP server and is responsible for routing requests and handling responses.
In order to customize the default behaviour, you can also pass custom routing rules, provide your own methods for interacting with the file system and much more.
Usage
Get started by installing the package using yarn:
yarn add serve-handler
You can also use npm instead, if you'd like:
npm install serve-handler
Next, add it to your HTTP server. Here's an example using micro:
const handler = require('serve-handler');
module.exports = async (request, response) => {
await handler(request, response);
};
That's it!


{
"hosting": {
"redirects": [{
"source": "/beta",
"destination": "/",
"type": 301
}],
"rewrites": [{
"source": "/profiles/*",
"destination": "/profiles.html"
}],
"headers": [{
"source": “**/*.js”,
"headers": [{
"key": “Access-Control-Allow-Origin“,
"value": “*"
}]
}]
}
REDIRECTS FOR OUTDATED URLS
REWRITES FOR WILDCARD URLS
EASILY APPLY CORS HEADERS


Backend
Services
Java
Java
Java
ASF
Frontend
Services
GRAPHQL
CDN
CSS
HTML
Gatsby


Backend Services
Java
Java
Java
ASF
Frontend Services
GRAPHQL
Application Servers
CSS
HTML
Gatsby
STATIC APP SERVER

EACH APP SERVER CONTAINS ITS OWN ASSETS



PRODUCTION

STAGING

STATIC APPS ADOPTION PLAN

PHASE 1: STATIC APP SUPPORT

- Add static app capabilities to our current build & deploy pipeline
- Allow app devs to *mostly* focus on UI server piece
- “1-minute deploy” to staging

PHASE 2: STATIC APPS AS A SERVICE

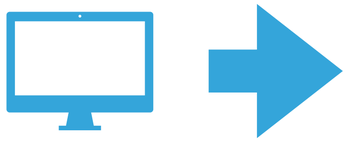
- Developer can *completely* ignore app server
- “1-minute deploy” to production
- Infra team on the hook now if anything stops working

/paypalme
/summary
/home
STATIC APP SERVICE
APP MAPPINGS
CLOUD STORAGE
ALL TEAMS SHARE A SINGLE SERVICE TO SERVE THEIR APPS

/paypalme

/summary

/home

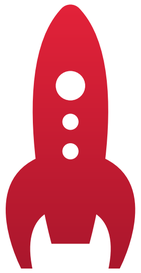


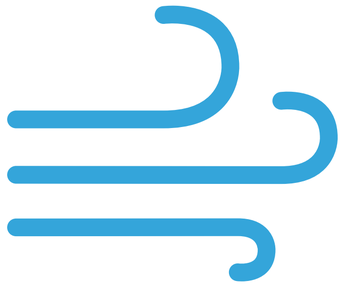
STATIC APP SERVICE

APP MAPPINGS

ROLLBACK

3. Update Mappings





1. Generates Files

2. Push them to Cloud

RETRACING OUR STEPS

WHEN DOING THE RIGHT THING IS POSSIBLE, BUT NOT EASY, CONSIDER CHANGING YOUR ARCHITECTURE

JAMSTACK PROVIDES A STABLE & PERFORMANT ARCHITECTURE BY DEFAULT

INSTEAD OF SIMPLE STATIC SITES WE ARE CHOOSING TO TO BUILD FULLY INTERACTIVE STATIC APPS

THESE APPS ARE VERY STABLE AND VERY FAST

AND THE DEVELOPER EXPERIENCE IS AWESOME

EVEN AFTER HAVING TO BUILD A LOT OF OUR OWN INFRASTRUCTURE WE THINK ITS GOING TO BE WORTH THE INVESTMENT

OUR DEVELOPERS ARE GOING TO LOVE IT

AND WE THINK YOU WILL TOO

JAMSTACK IS GOING TO BE HUGE

THANK YOU