

SERVERLESS FRONT-END DEPLOYMENTS

using npm





WHY, HELLO THERE



@INDEXZERO

GITHUB

TWITTER



GoDaddy™

ENG. DIRECTOR

UX PLATFORM

BOARD MEMBER, NODE.JS FOUNDATION

FORMERLY FOUNDER at NODEJITSU

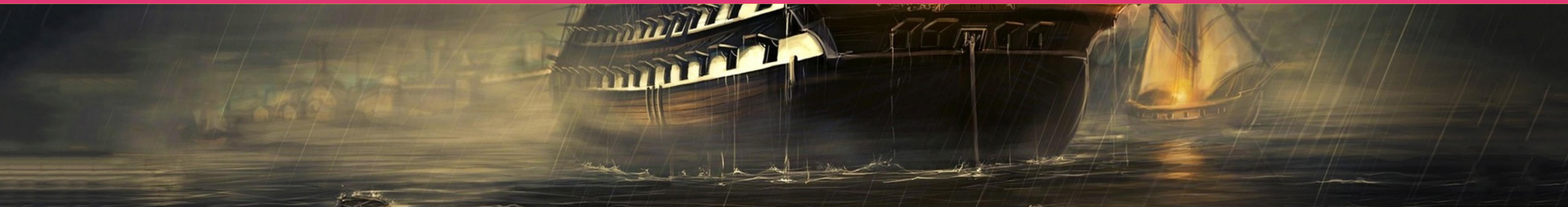
WHAT ARE



WHAT ARE
SERVERLESS FRONT-
END DEPLOYMENTS?

A dramatic illustration of a large steamship and a sailboat in a stormy sea, with rain streaks across the frame.

WHAT ARE SERVLESS FRONT- END DEPLOYMENTS?





THE ACT OF SERVING





THE ACT OF SERVING

NEW FUNCTIONALITY

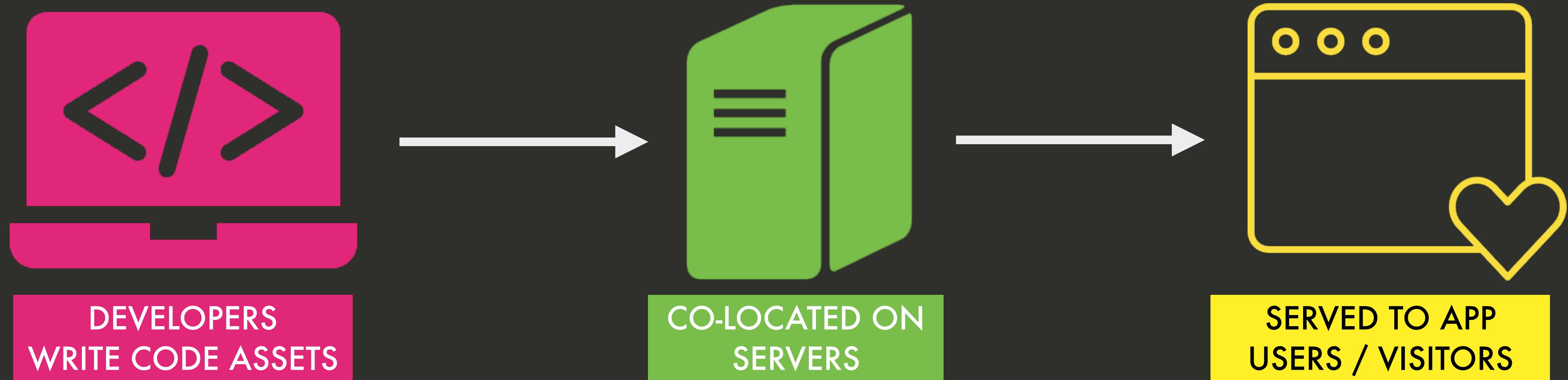
TO VISITORS

TYPICAL



FRONT-ENDS

TYPICAL



FRONT-ENDS

YOUR NODE.JS APP

```
app.use(express.static('public'));
```

YOUR INDEX.HTML

```
<script src='/js/app.min.js'></script>
```



YOUR NODE.JS APP

```
app.use(express.static('public'));
```

YOUR INDEX.HTML

```
<script src='/js/app.min.js'></script>
```

ANY FRONT-END CHANGE REQUIRES

A SERVER CHANGE

THIS MAKES



THIS MAKES



USING A CDN

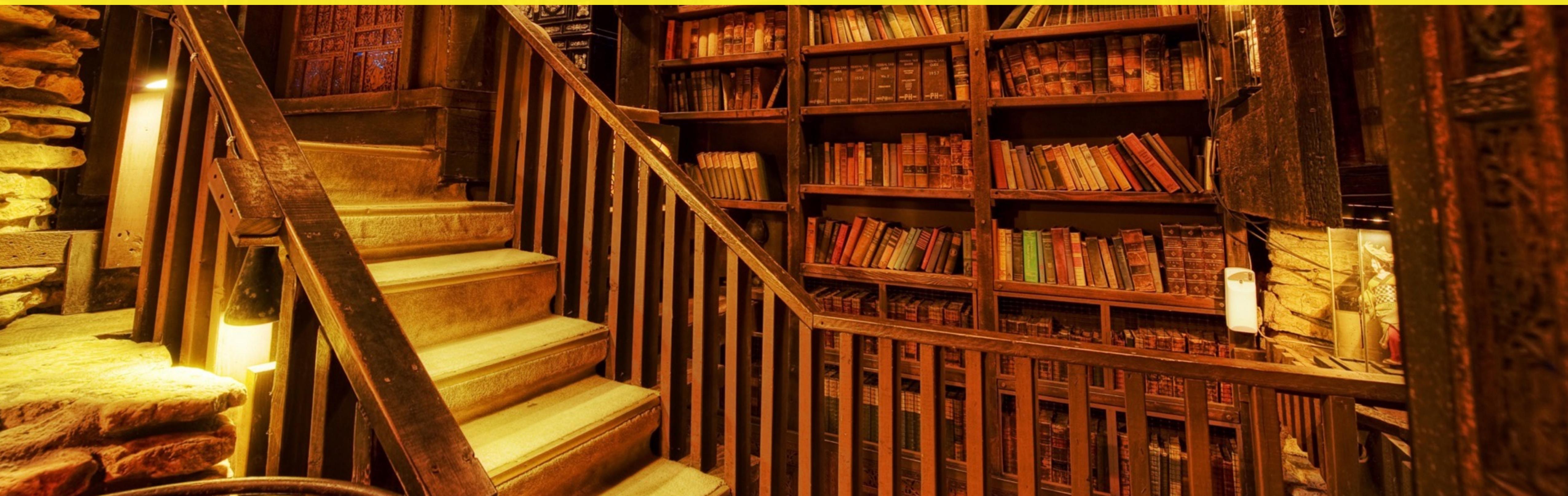
IMPERATIVE

YOUR NODE.JS APP

```
app.use(express.static('public'));
```

YOUR INDEX.HTML

```
<script src='/js/app.min.js'></script>
```

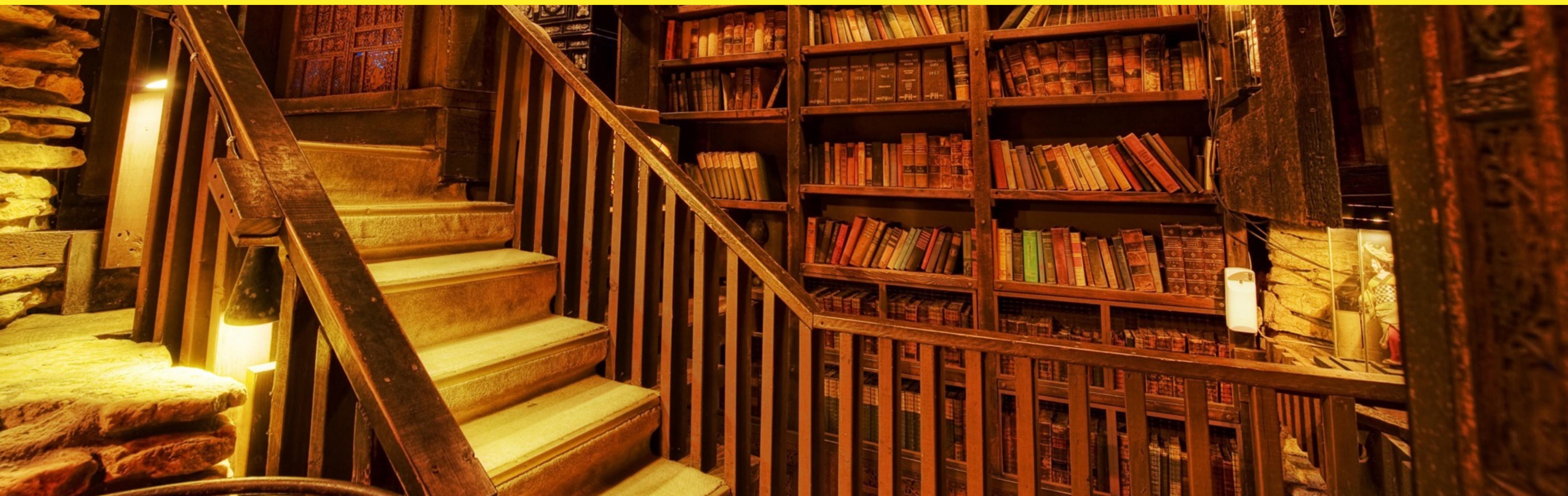


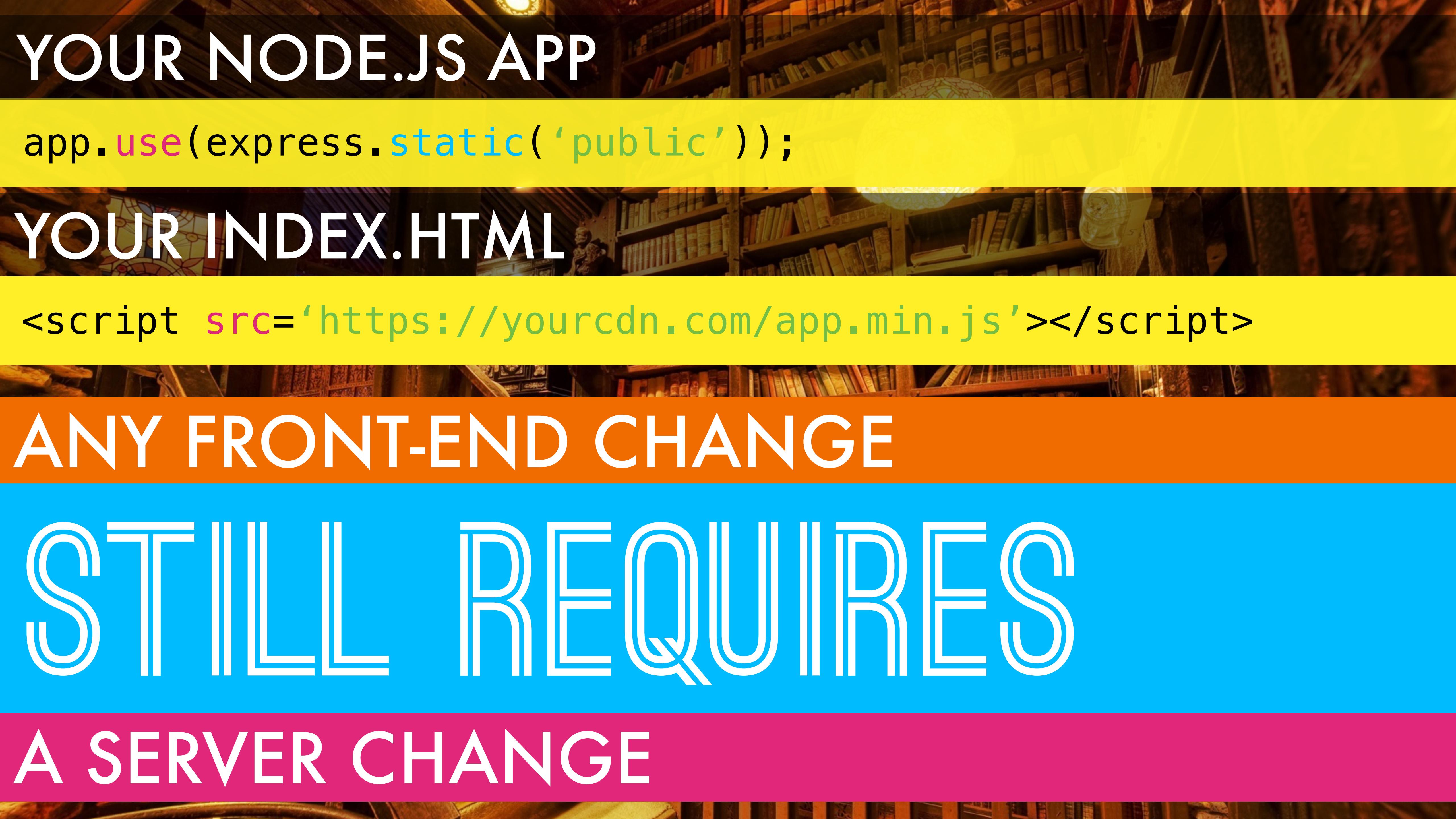
YOUR NODE.JS APP

```
app.use(express.static('public'));
```

YOUR INDEX.HTML

```
<script src='https://yourcdn.com/app.min.js'></script>
```





YOUR NODE.JS APP

```
app.use(express.static('public'));
```

YOUR INDEX.HTML

```
<script src='https://yourcdn.com/app.min.js'></script>
```

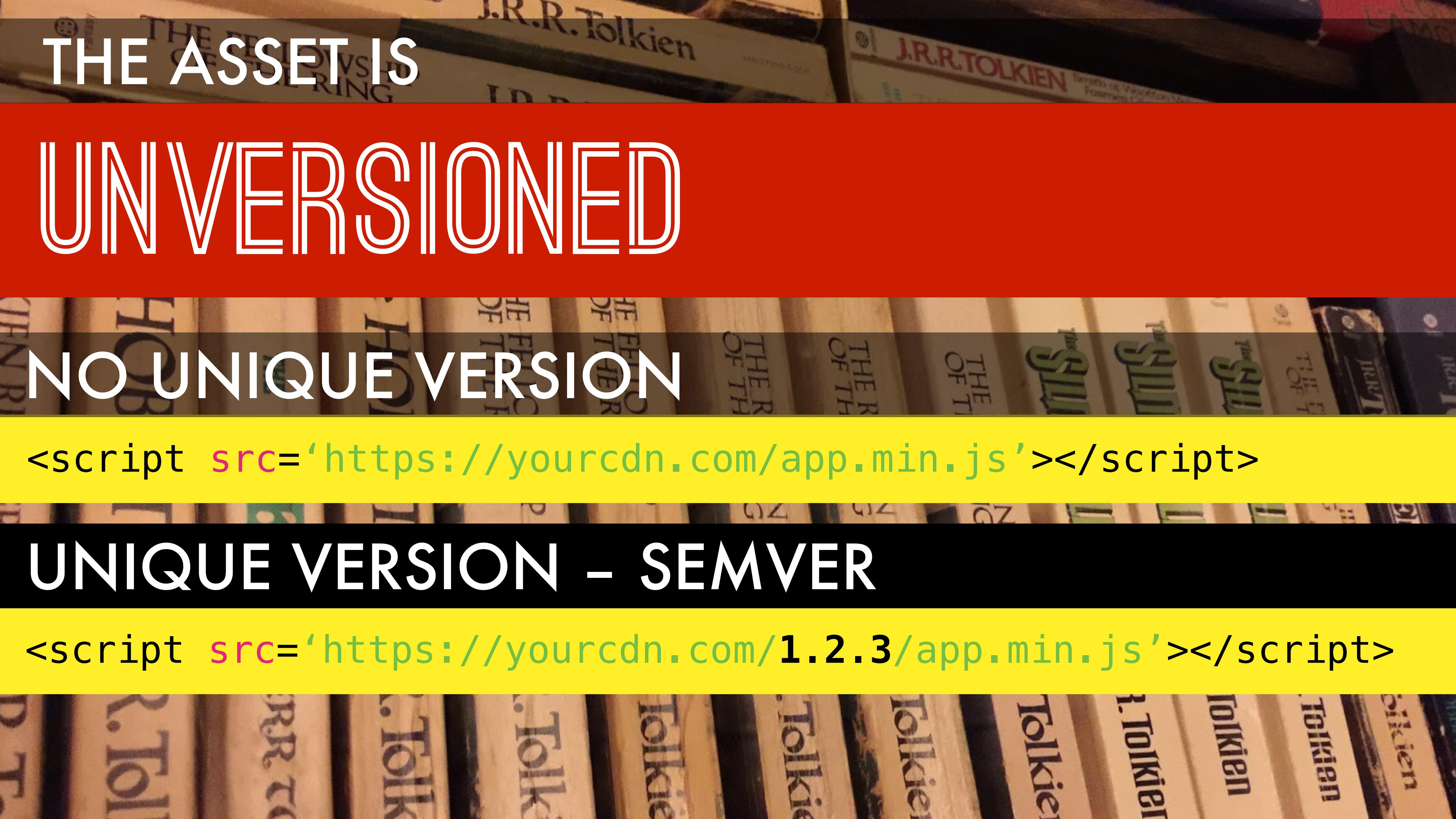
ANY FRONT-END CHANGE

STILL REQUIRES

A SERVER CHANGE

THE ASSET IS UNVERSIONED





THE ASSET IS

UNVERSIONED

NO UNIQUE VERSION

```
<script src='https://yourcdn.com/app.min.js'></script>
```

UNIQUE VERSION - SEMVER

```
<script src='https://yourcdn.com/1.2.3/app.min.js'></script>
```



THE ASSET IS

UNVERSIONED

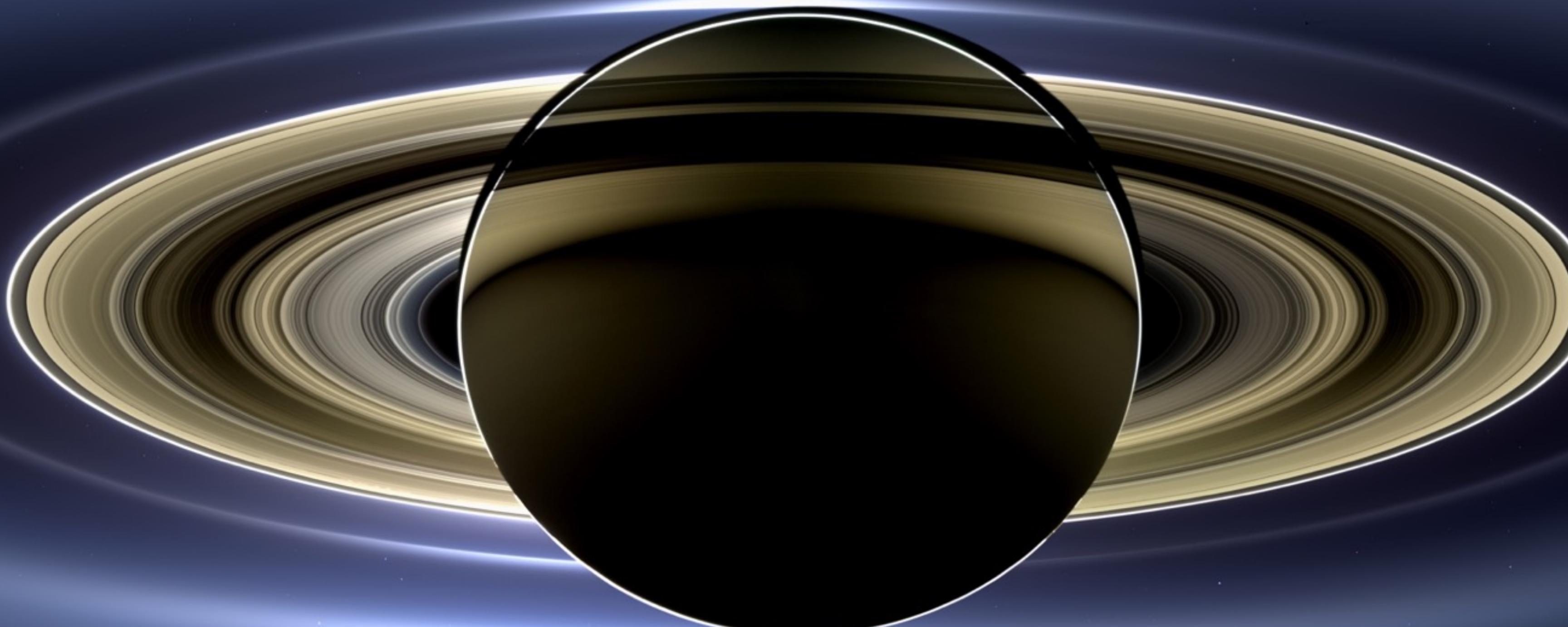
NO UNIQUE VERSION

```
<script src='https://yourcdn.com/app.min.js'></script>
```

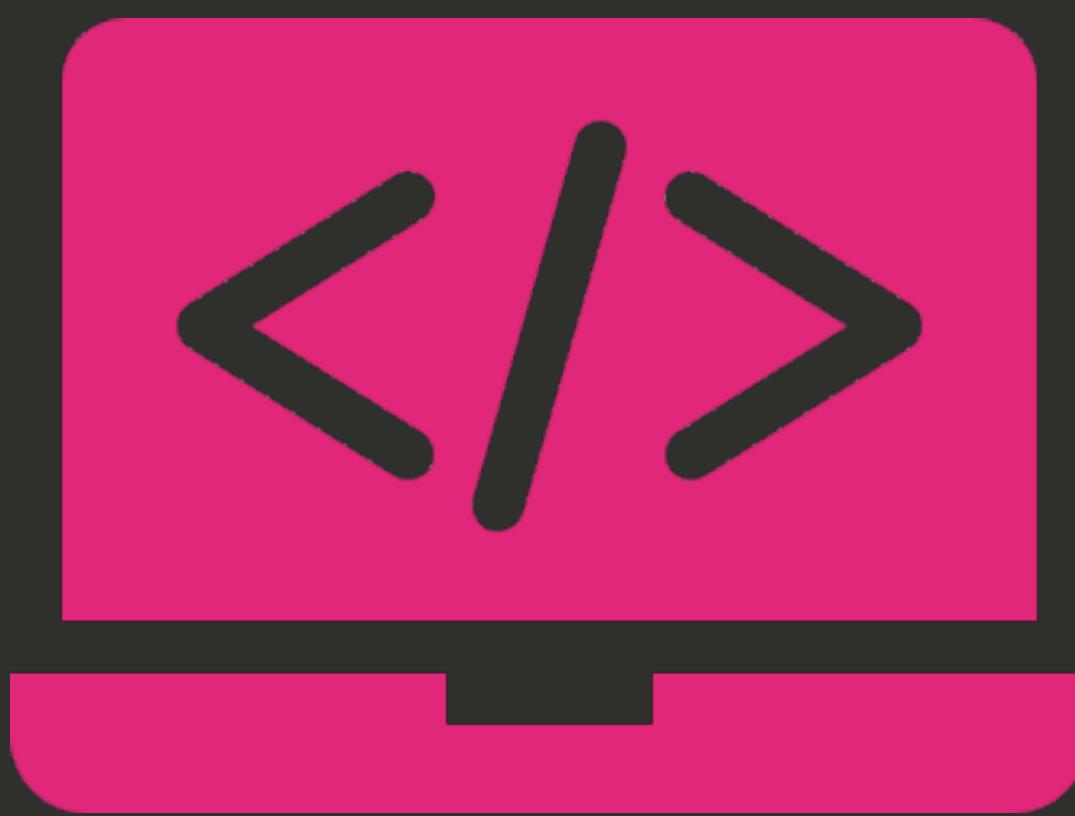
UNIQUE VERSION - ASSET SHA

```
<script src='https://yourcdn.com/a023ffe/app.min.js'></script>
```

HOW TO APPROACH



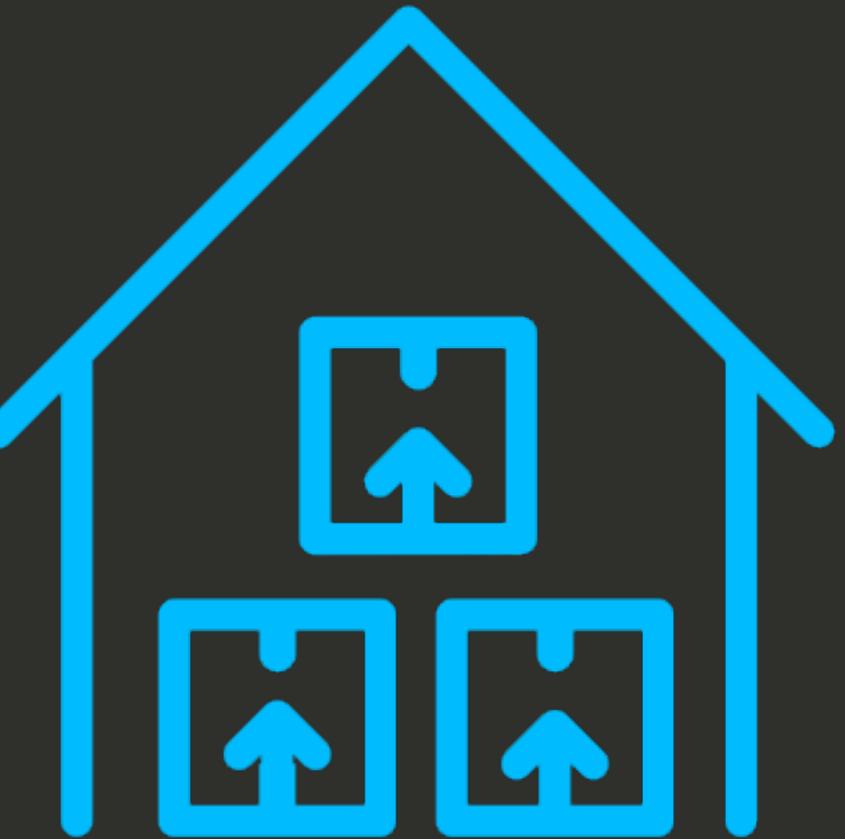
SERVERLESS DEPLOYMENTS?



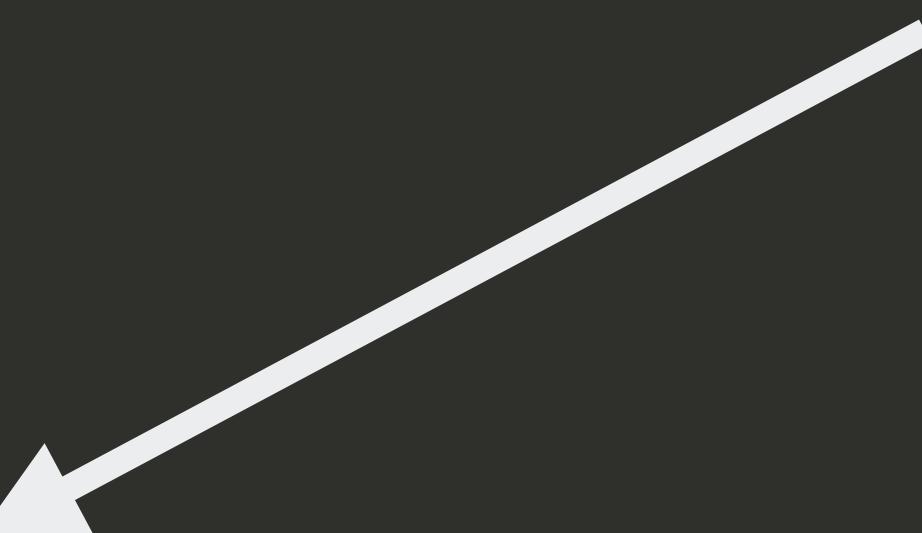
DEVELOPERS
WRITE CODE ASSETS



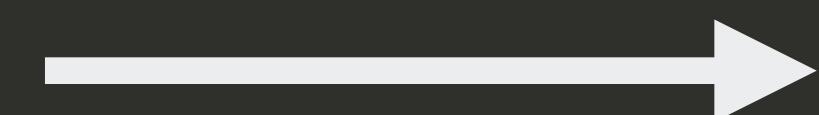
SERVERS GETS
NEW VERSION



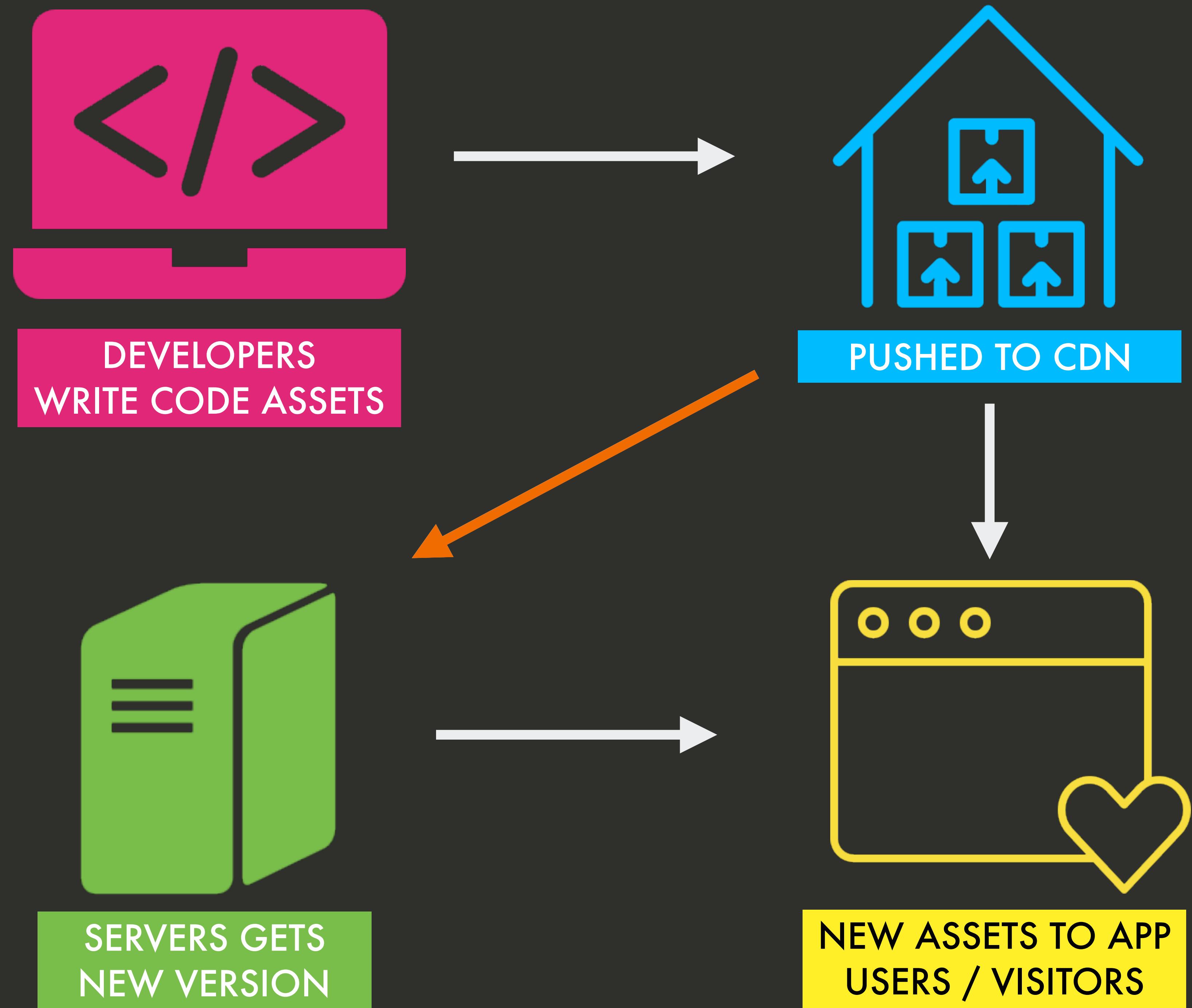
PUSHED TO CDN



NEW ASSETS TO APP
USERS / VISITORS



HOW DOES THE SERVER RECEIVE NEW VERSIONS?





— SCIENCE CAT SAYS —
"GOOD QUESTION"

HOW DOES YOUR APP KNOW TO SERVE THIS?

```
<script src='https://yourcdn.com/a023ffe/app.min.js'></script>
```



— SCIENCE CAT SAYS —

"GOOD QUESTION"

HOW DOES YOUR APP KNOW TO SERVE THIS?

```
<script src='https://yourcdn.com/a023ffe/app.min.js'></script>
```

INSTEAD OF THIS?

```
<script src='https://yourcdn.com/b347aa0/app.min.js'></script>
```



— SCIENCE CAT SAYS —
"GOOD QUESTION"

HOW DOES YOUR APP KNOW TO SERVE THIS?

```
<script src='https://yourcdn.com/a023ffe/app.min.js'></script>
```

INSTEAD OF THIS?

```
<script src='https://yourcdn.com/b347aa0/app.min.js'></script>
```

OR PERHAPS THIS?

```
<script src='https://yourcdn.com/ff03598/app.min.js'></script>
```

— SCIENCE CAT SAYS —
"GOOD QUESTION"



FIRST
YOU MUST KNOW





FIRST
YOU MUST KNOW

WHAT PRODUCTION

MEANS



INTERNATIONALIZATION



INTERNATIONALIZATION

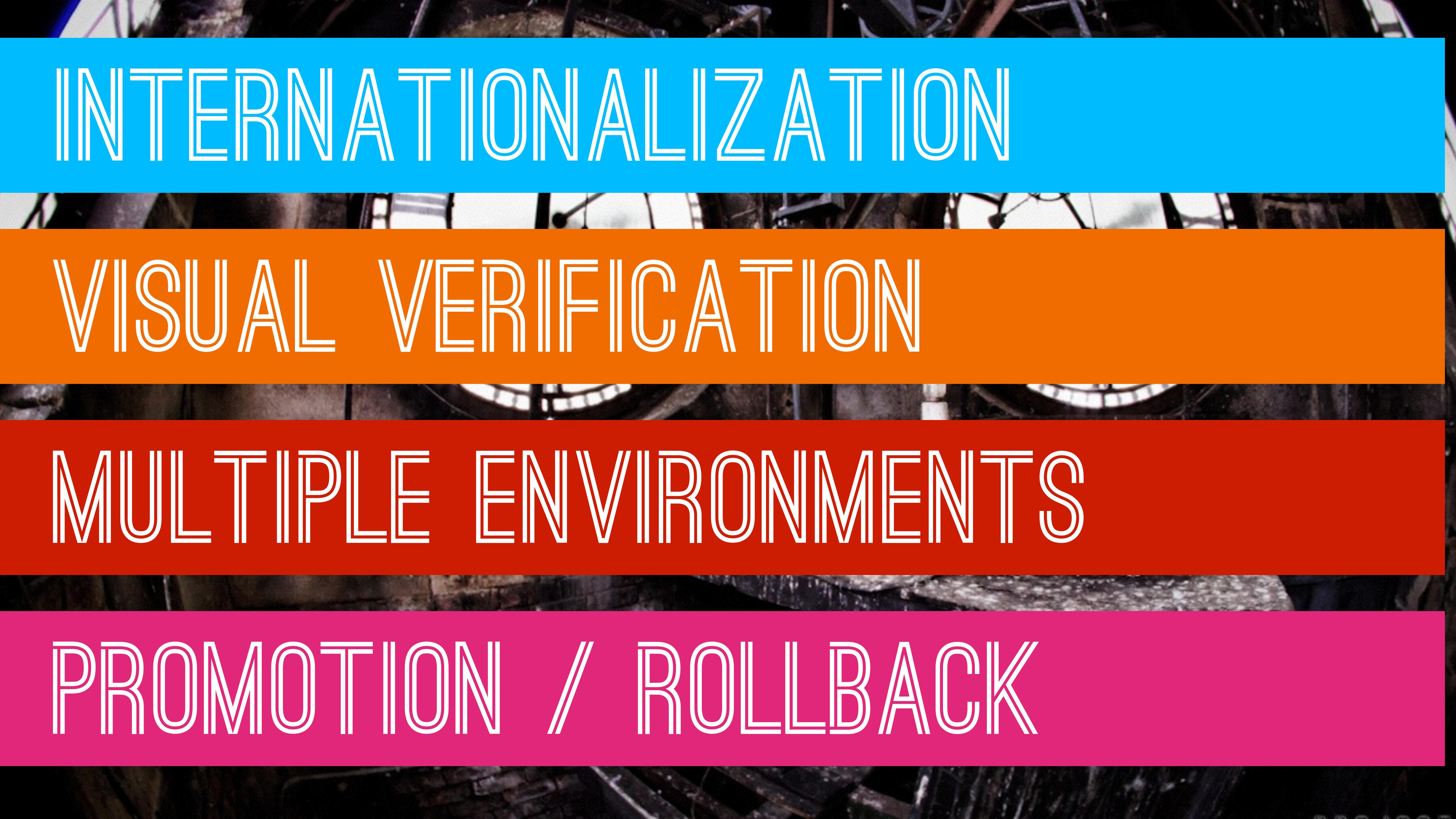
VISUAL VERIFICATION



INTERNATIONALIZATION

VISUAL VERIFICATION

MULTIPLE ENVIRONMENTS



INTERNATIONALIZATION

VISUAL VERIFICATION

MULTIPLE ENVIRONMENTS

PROMOTION / ROLLBACK





SERVER-LESS FRONT-END DEPLOYMENTS

REQUIRES AN EXTERNAL SERVICE

KNOWING WHAT VERSION(S) SHOULD

BE RUNNING IN WHAT ENVIRONMENTS

FOR ANY OR ALL LOCALES



SERVER-LESS FRONT-END DEPLOYMENTS

REQUIRES AN EXTERNAL SERVICE

KNOWING WHAT VERSION(S) SHOULD

BE RUNNING IN WHAT ENVIRONMENTS

FOR ANY OR ALL LOCALES

GOT IT? GREAT!

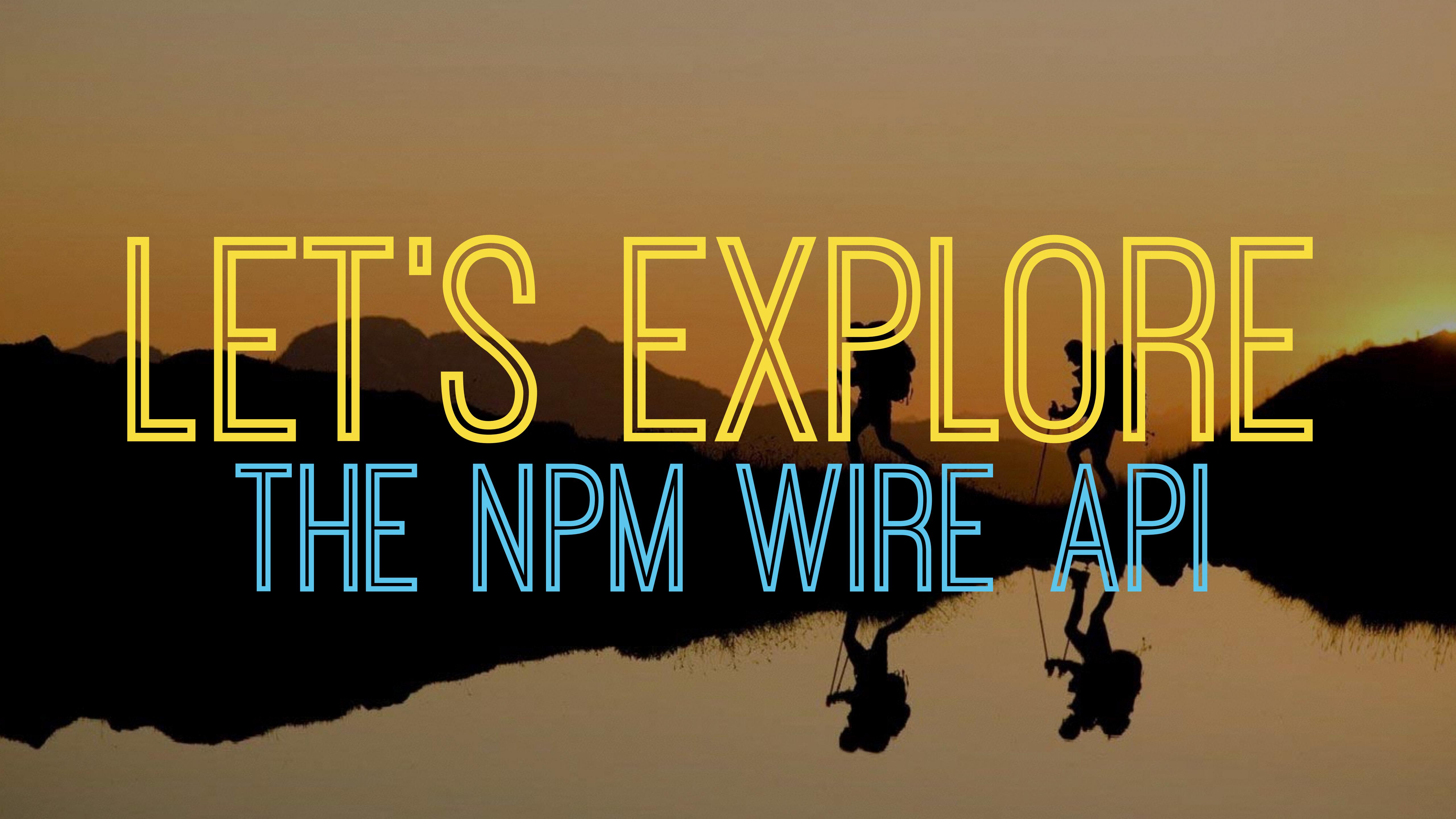
EXCUSE ME ... I ... I ...



EXCUSE ME ... I ... I ...



I WAS TOLD THIS TALK WAS
ABOUT NPM

A silhouette of two people on a swing against a sunset background. The sky is a warm orange and yellow, with dark silhouettes of mountains in the distance. The swing is positioned in the center, with two people sitting on it, facing each other.

LET'S EXPLORE
THE NPM WIRE API



NPM-REGISTRY-COUCHAPP



NPM-REGISTRY-COUCHAPP

“THIS THING I HACKED TOGETHER IN A WEEKEND” - @mikeal

REWRITES

Once upon a time



REWRITES



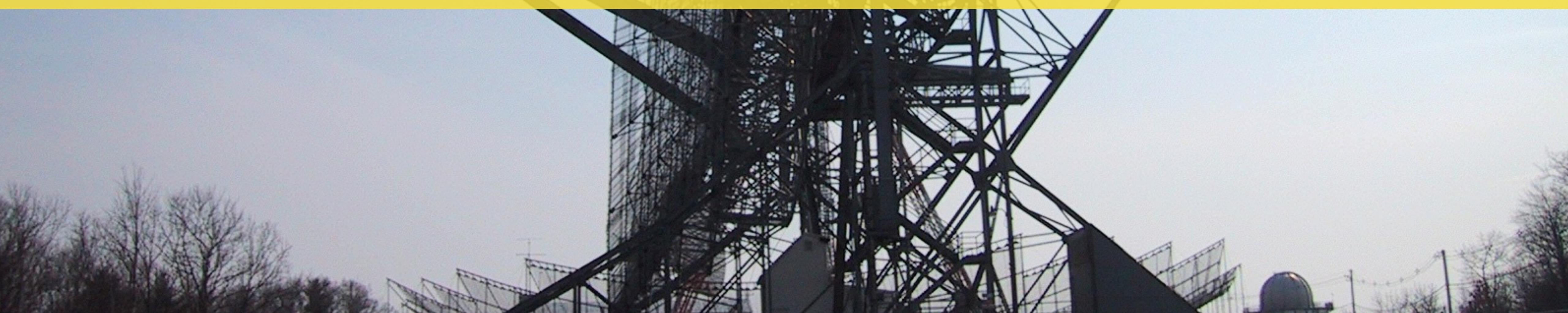
The screenshot shows a web browser window with the following details:

- Tab:** npm-registry-couchapp/rev
- Address Bar:** GitHub, Inc. [US] <https://github.com/npm/npm-registry-couchapp/blob/master/registry/rewrites.js#L88-L99>
- Toolbar:** Includes icons for back, forward, search, and various browser settings.
- Content Area:** Displays a block of JSON code for rewrite rules. The code is highlighted with a yellow background for lines 88 through 99, which correspond to the code shown in the image.

```
81
82     , { from: "/npm/public/registry/:pkg/_attachments/:att", to: ".../:pkg/:att", method: "GET" }
83     , { from: "/npm/public/registry/:pkg/_attachments/:att/:rev", to: ".../:pkg/:att", method: "PUT" }
84     , { from: "/npm/public/registry/:pkg/_attachments/:att/-rev/:rev", to: ".../:pkg/:att", method: "PUT" }
85     , { from: "/npm/public/registry/:pkg/_attachments/:att/:rev", to: ".../:pkg/:att", method: "DELETE" }
86     , { from: "/npm/public/registry/:pkg/_attachments/:att/-rev/:rev", to: ".../:pkg/:att", method: "DELETE" }
87
88     , { from: "/:pkg/-/:att", to: ".../:pkg/:att", method: "GET" }
89     , { from: "/:pkg/-/:att/:rev", to: ".../:pkg/:att", method: "PUT" }
90     , { from: "/:pkg/-/:att/-rev/:rev", to: ".../:pkg/:att", method: "PUT" }
91     , { from: "/:pkg/-/:att/:rev", to: ".../:pkg/:att", method: "DELETE" }
92     , { from: "/:pkg/-/:att/-rev/:rev", to: ".../:pkg/:att", method: "DELETE" }
93
94     , { from: "/:pkg", to: "/_update/package/:pkg", method: "PUT" }
95     , { from: "/:pkg/-rev/:rev", to: "/_update/package/:pkg", method: "PUT" }
96
97     , { from: "/:pkg/:version", to: "_update/package/:pkg", method: "PUT" }
98     , { from: "/:pkg/:version/-rev/:rev", to: "_update/package/:pkg"
99         , method: "PUT" }
100
101    , { from: "/:pkg/:version/-tag/:tag", to: "_update/package/:pkg"
102        , method: "PUT" }
103    , { from: "/:pkg/:version/-tag/:tag/-rev/:rev", to: "_update/package/:pkg"
104        , method: "PUT" }
105
106    , { from: "/_metadata/:pkg", to: "_update/metadata/:pkg", method: "PUT" }
```

NPM-REGISTRY-COUCHAPP IS STILL
THE BEST DOCUMENTATION OF THE

NPM WIRE API



NPM-REGISTRY-COUCHAPP IS STILL
THE BEST DOCUMENTATION OF THE

TRY IT YOURSELF

NPM C SET LOGLEVEL INFO

npm view <pkg>

GET /:PKG



npm view <pkg>@<version>

GET /:PKG/:VERSION



npm pack <pkg>

GET /:PKG/-/:ATT

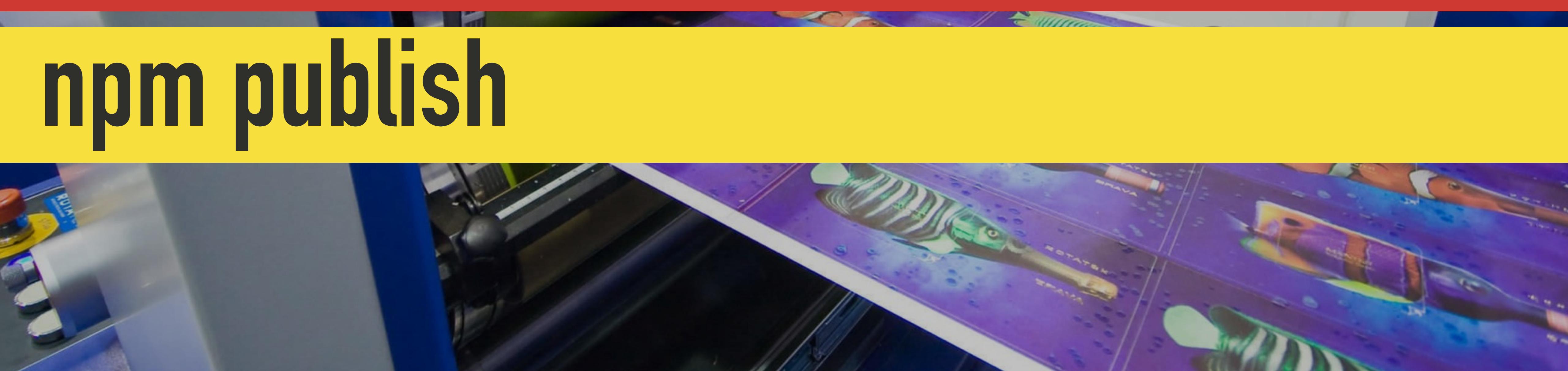


```
npm dist-tag add <pkg>@<version> <tag>
```

```
PUT /-/PACKAGE/:PKG/DIST-TAGS/:TAG
```



PUT /:PKG



npm publish



NPM PUBLISH PAYLOAD



`npm install registry-mock -g`

`registry-echo`


```
{ _id: 'test-publish03',
  name: 'test-publish03',
  description: 'Just a test',
  'dist-tags': { latest: '1.0.0' },
  versions:
  { '1.0.0':
    { name: 'test-publish03',
      version: '1.0.0',
      description: 'Just a test',
      main: 'index.js',
      scripts: [Object],
      author: '',
      license: 'ISC',
      readme: 'ERROR: No README data found!',
      gitHead: 'c3a43b57be250d6debeeedefff150add7cc0c184'
      _id: 'test-publish03@1.0.0',
      _shasum: '6e78734fff0347a9596abb5d3b0360fda6f1a899',
      _from: '.',
      _npmVersion: '3.7.1',
      _nodeVersion: '4.2.2',
      _npmUser: [Object],
      maintainers: [Object],
      dist: [Object] } },
  readme: 'ERROR: No README data found!',
  maintainers: [ { name: 'garbage!!user', email: 'anyvalid@email.com' } ],
  _attachments:
  { 'test-publish03-1.0.0.tgz':
    { content_type: 'application/octet-stream',
      data: '{{BIG-BASE64-TARBALL}}',
      length: 568 } } }
```



A black and white photograph of a vintage car, possibly a 1960s Chevrolet, parked in a lot. The car is positioned in the foreground, angled towards the viewer. In the background, there is a modern building with a grid-like structure on its roof. The overall composition is a mix of old and new.

LET'S TALK ABOUT



LET'S TALK ABOUT
DEVELOPER WORKFLOW

BUILD (VERB)

1. CONSTRUCT BY PUTTING PARTS OR MATERIAL TOGETHER OVER A PERIOD OF TIME.



TRIGGER A NEW BUILD

PROMOTE A BUILD TO ENV

ROLLBACK A BUILD IN ENV

LIST BUILDS ACROSS ENVS

NPM PUBLISH

PROMOTE A BUILD TO ENV

ROLLBACK A BUILD IN ENV

LIST BUILDS ACROSS ENVS

NPM PUBLISH

NPM DIST=TAG ADD

NPM DIST=TAG ADD

LIST BUILDS ACROSS ENVS

NPM PUBLISH

NPM DIST=TAG ADD

NPM DIST=TAG ADD

NPM DIST=TAG LS



WAREHOUSE.AI ENABLES



WAREHOUSE.AI ENABLES

SERVERLESS-DEPLOYS OF YOUR



WAREHOUSE.AI ENABLES

SERVERLESS-DEPLOYS OF YOUR

FRONT-END CODE BY PROVIDING



WAREHOUSE.AI ENABLES

SERVERLESS-DEPLOYS OF YOUR

FRONT-END CODE BY PROVIDING

AUTOMATED BUILDS PUSHED TO ANY



WAREHOUSE.AI ENABLES

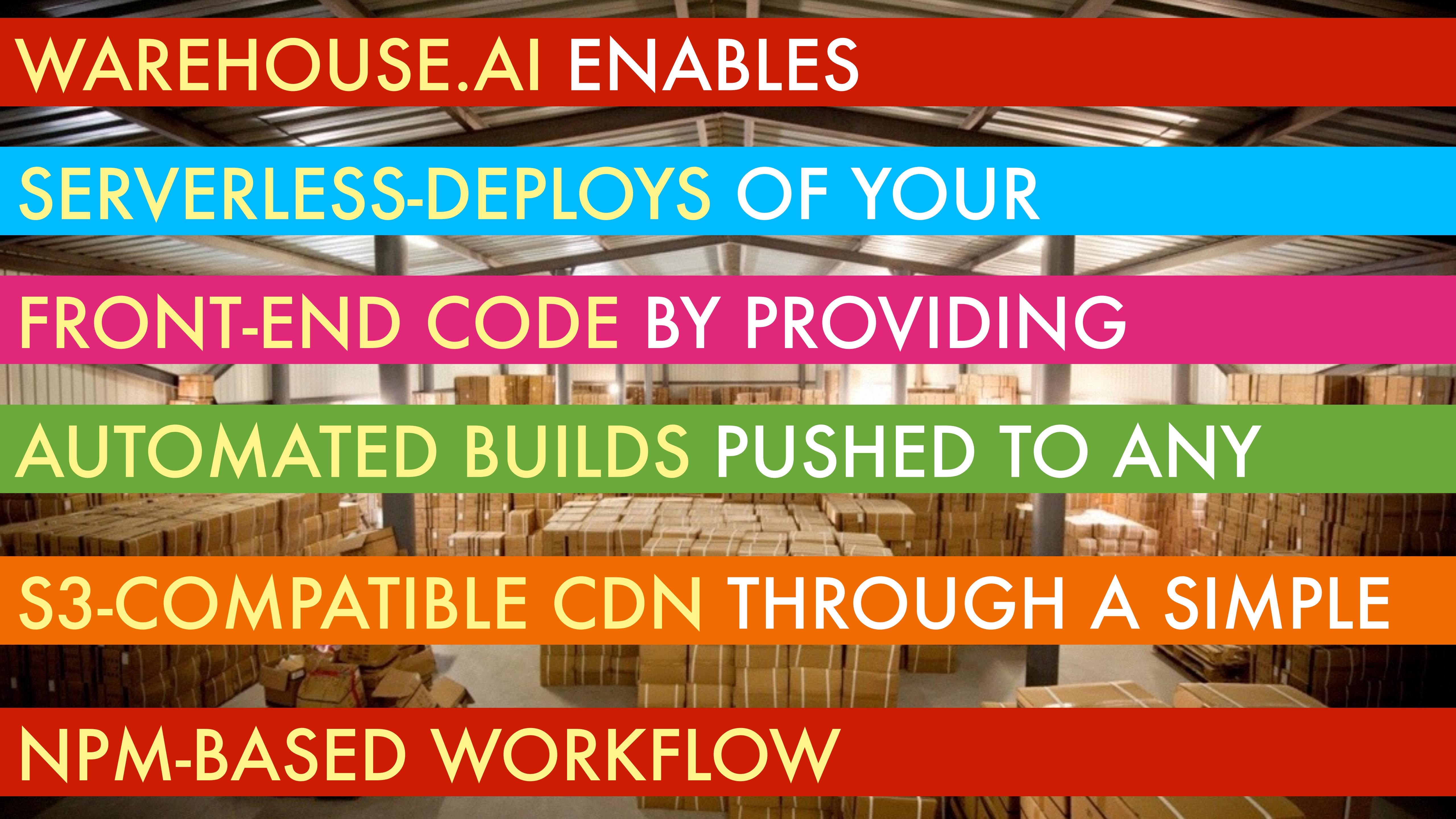
SERVERLESS-DEPLOYS OF YOUR

FRONT-END CODE BY PROVIDING

AUTOMATED BUILDS PUSHED TO ANY

S3-COMPATIBLE CDN THROUGH A SIMPLE



A photograph of a large industrial warehouse. The floor is concrete, and the ceiling is made of a series of rectangular metal beams. Numerous stacks of cardboard boxes are piled high in the background, filling the space. The lighting is bright, coming from overhead industrial lights.

WAREHOUSE.AI ENABLES

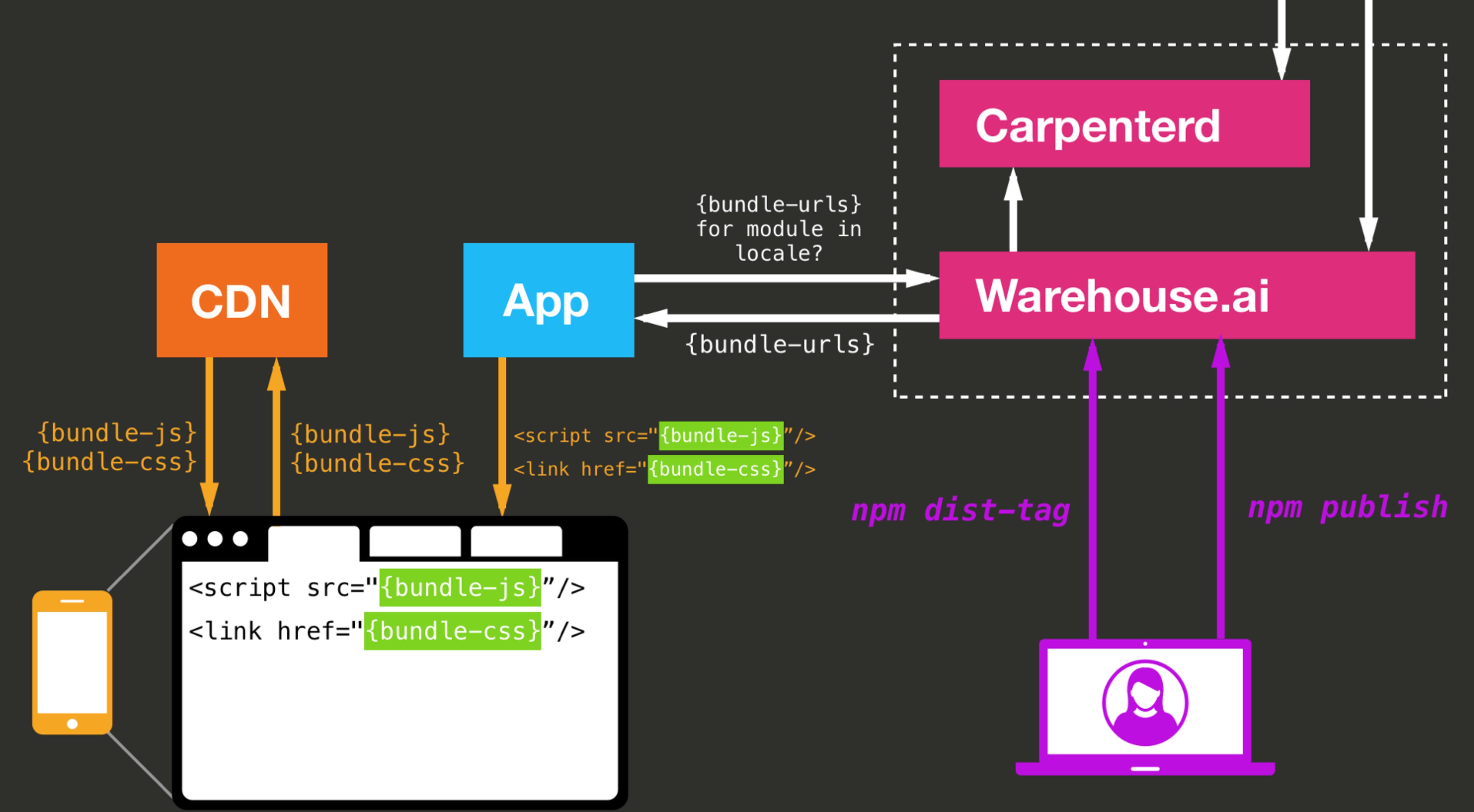
SERVERLESS-DEPLOYS OF YOUR

FRONT-END CODE BY PROVIDING

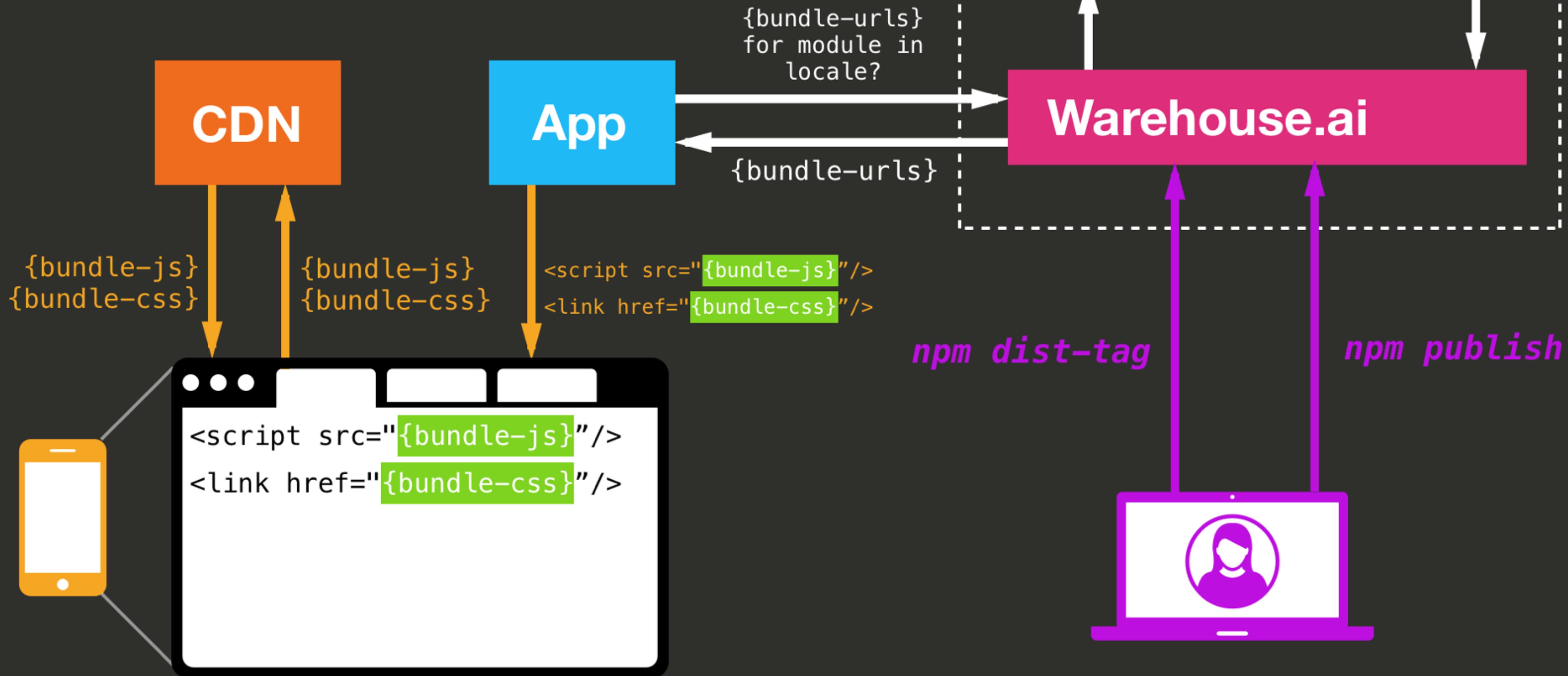
AUTOMATED BUILDS PUSHED TO ANY

S3-COMPATIBLE CDN THROUGH A SIMPLE

NPM-BASED WORKFLOW

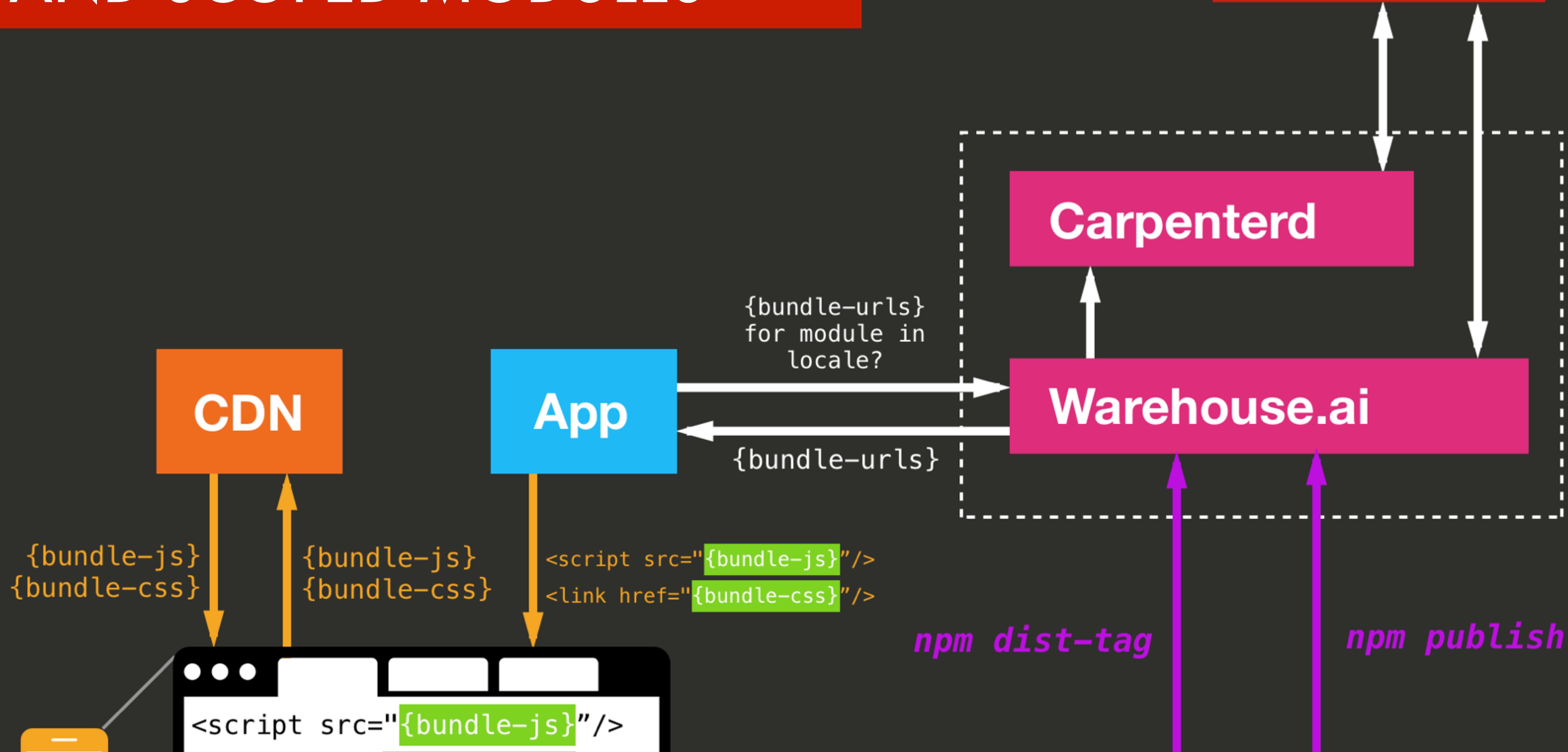


WORKS WITH ANY REGISTRY AND SCOPED MODULES

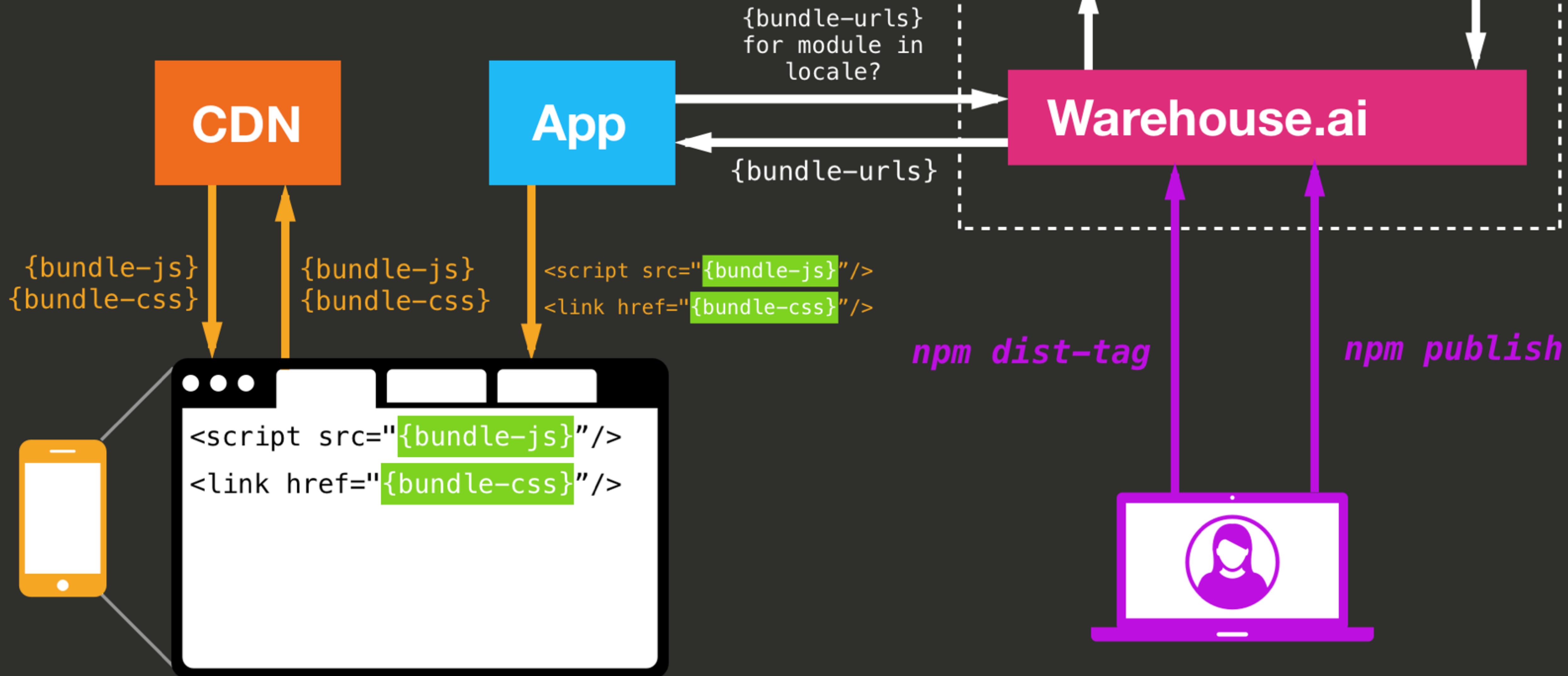


WORKS WITH ANY REGISTRY
AND SCOPED MODULES

Any npm registry



WORKS WITH ANY REGISTRY AND SCOPED MODULES







TRY IT OUT!



TRY IT OUT!

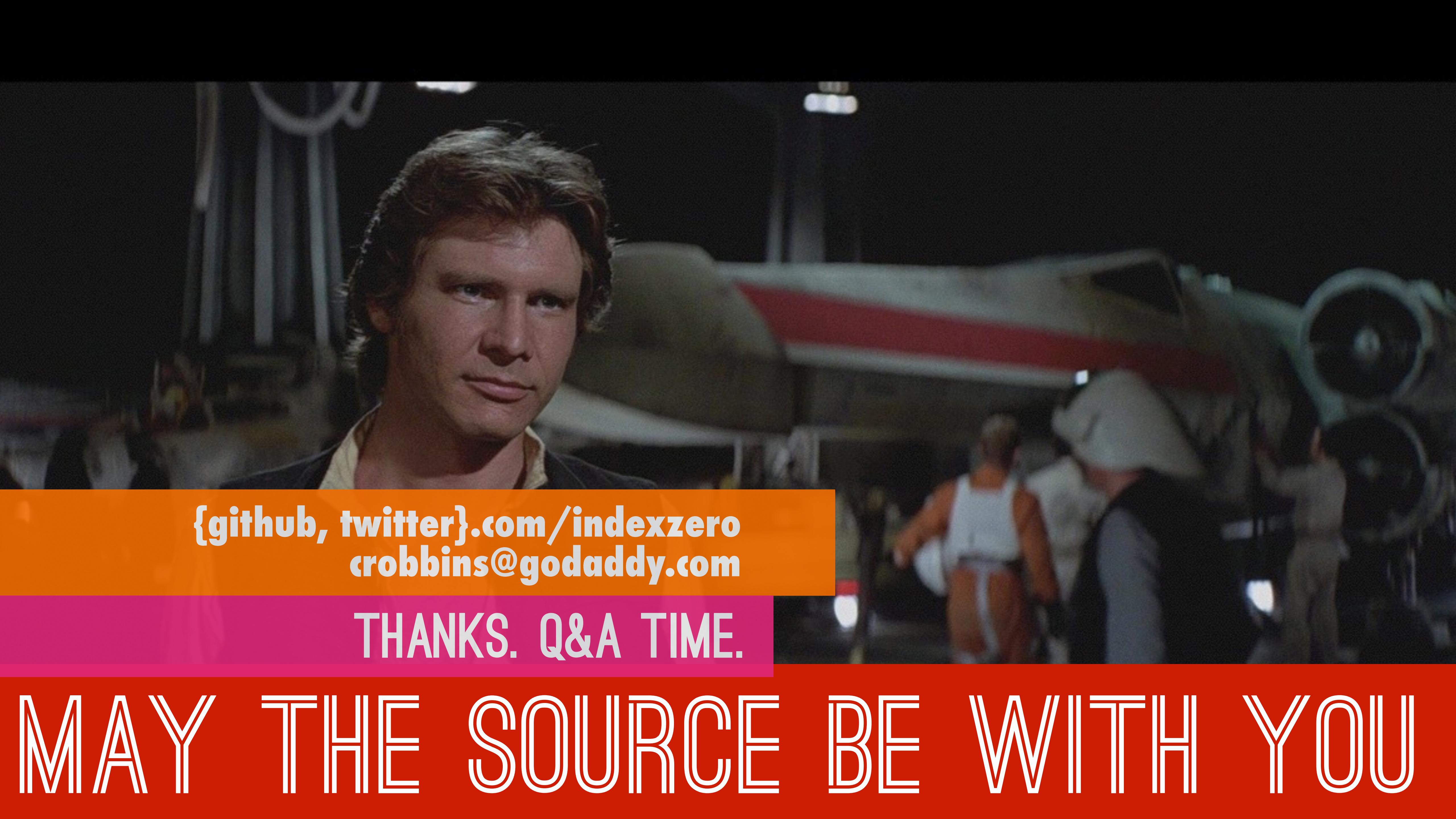
[GITHUB.COM/GODADDY/WAREHOUSE.AI](https://github.com/godaddy/warehouse.ai)

[GITHUB.COM/GODADDY/CARPENTERD](https://github.com/godaddy/carpenterd)



THANKS. Q&A TIME.

MAY THE SOURCE BE WITH YOU



{github, twitter}.com/indexzero
crobbins@godaddy.com

THANKS. Q&A TIME.

MAY THE SOURCE BE WITH YOU



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GITHUB.COM/GODADDY/CARPENTERD

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c Robbins@godaddy.com

THANKS. Q&A TIME.

MAY THE SOURCE BE WITH YOU