

Static is the new Dynamic



NUXTJS



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 Nuxt Team Member

 Contributor @webpack

 Writer @Ultimate Courses

 Teacher @Vue School



Debbie O'Brien



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Debbie O'Brien

<MDE>



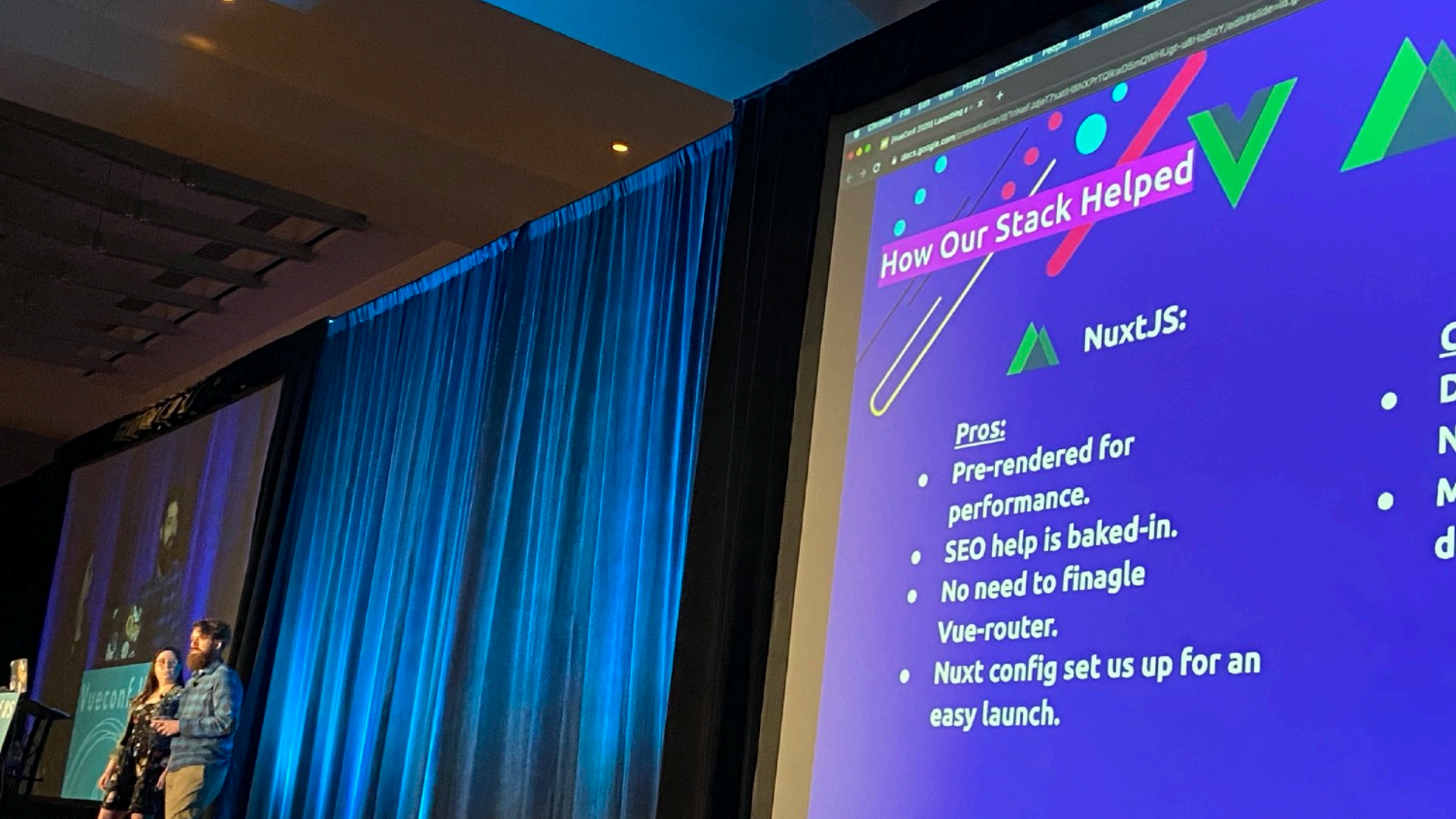
Why Nuxt



Vueconf US

ATX,
Code,
Vue.

 NUXTJS



How Our Stack Helped



Pros:

- Pre-rendered for performance.
- SEO help is baked-in.
- No need to finagle Vue-router.
- Nuxt config set us up for an easy launch.

What else if not SPA?

Server Side Rendering

...on the fly

...at build time (JAMstack)



Nuxt.js

Nuxt Benefits

Automatic **code splitting** for pages

Resource Hints and Http2 support

Smart **prefetching** - prefetch links in the view port

Modern build - target evergreen browsers

Why Static?

Nuxt.js

Generate FAST static sites and code with Vue!

- Server side rendering
 - good SEO
 - 0 wait time for javascript to render content
- Host static site on Netlify for flat files served from a global CDN
- Dynamic component imports
- Images automatically optimized at build time
- Quick page transitions with no page refresh required



NUXTJS

Why Static?

No server: cheaper, safer

Better offline support

Better performance

Reduces Carbon footprint

Climate Change and the Tech Community

orbitadores transmitirán datos del rover 'Mars Curiosity'.

trata de intentar sensibilizar un poco al mundo sobre la necesidad de viajar sin barreras», dijo Ebel en la ciudad alemana de Hanau.



La Antártida, en riesgo por el calentamiento global. El calentamiento global está llevando a un derretimiento masivo «irreversible» del hielo antártico y la eliminación de carbono de la atmósfera es la única solución para retrasar el proceso, dijo ayer una científica. La actividad humana ha intensificado el calentamiento global, lo que podría terminar en un derretimiento de la Antártida, señaló.

Carnav
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del inicio
calles de
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INVEST
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ayuda
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de Neu
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a la for
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undo 11 días
cibir el título
etsu Watanabe,
2 de febrero a
el varón más an-
murió la noche
go, 11 días des-
econocimiento
rld Records.

er registro
vegetal, algo
posible

al no puede for-
es soluble en



La Antártida se derrite bajo sus días más calurosos registrados. Una rápida fusión de la capa de hielo en pleno verano austral en la isla Eagle, junto a la Península Antártica, se hace patente en imágenes de satélite de la NASA. El 6 de febrero, los termómetros de la Base Esperanza alcanzaron 18,3 grados, la temperatura más alta registrada en el continente austral. Foto: NASA / JOSHUA STEVENS

GEMOLOGÍA

Complementario: 18

ACERTANTES

6	1
5+C	4
5	7
4	3.83
3	69.23

LA PRIMITIV

Sorteo

7 | 12 | 25

Complementario: 3

ACERTA

6 + R	
6	
5 + C	
5	
4	1
3	23

JOH

EUROMIL

Sorteo

1 | 4

5 + 2	
5 + 1	
5 + 0	
4 + 2	
4 + 1	

What has this
got to do with us?





But Static *is very* Static
Or is it?

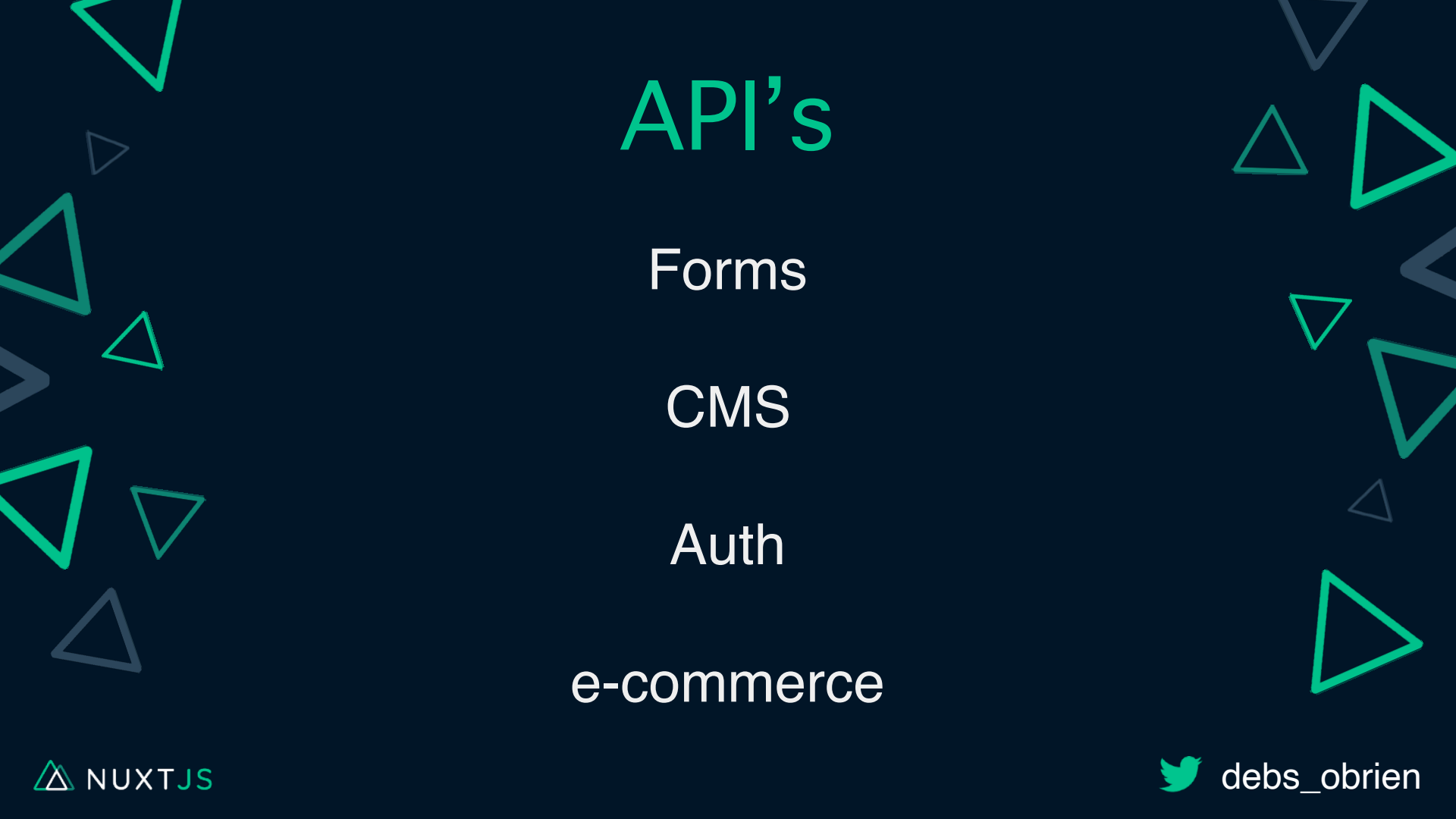






The background is a dark navy blue. It is decorated with numerous teal-colored triangles of various sizes and orientations, scattered primarily along the left and right edges, creating a geometric border effect.

Is static *really* static?



API's

Forms

CMS

Auth

e-commerce

Headless CMS

Contentful

CraftCMS

Storyblok

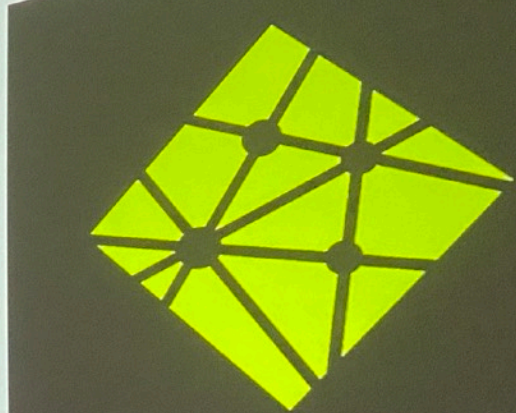
Sanity

Wordpress

Netlify CMS

Easy content management for static sites

- Live previews
- Content saved to github
- Easy authentication with Netlify Identity
- Drafts as branches
- Install is a simple script tag
- Configuration a simple yaml file
- Custom components
- Open source project backed by stable company



Netlify CMS

 Contents

 Media

Quick add ▾



Collections

 Search all

 Blog

Blog

New Blog

View as:  

GraphQL and Nuxt

Netlify Hooks

Netlify CMS

← Writing in Blog collection

CHANGES SAVED

Delete entry

Published ▾

TITLE

Netlify Hooks

PUBLISH DATE

02/09/2020 6:30 PM

DESCRIPTION

Rebuild your static site automatically with Netlify hooks

BODY

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☷

+

Rich Text ☒ Markdown

For static sites we want the site to rebuild depending on a certain actions such as saving data in a database. In order to do this we need to first setup a webhook. With Netlify this is really easy. Once your site is setup and running on Netlify just go to the Build and deploy section of your Netlify account under the settings tab and then scroll to "Build Hooks"

Netlify Hooks

2020-02-09T17:30:50.720Z

Rebuild your static site automatically with Netlify hooks

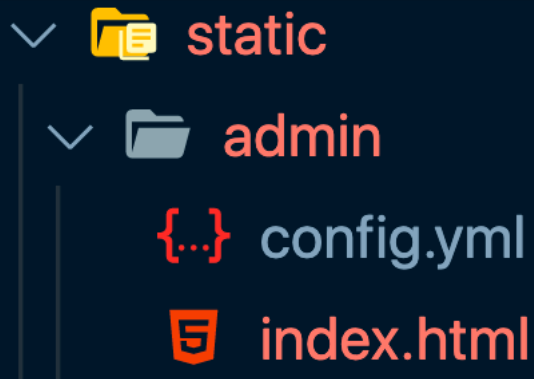
For static sites we want the site to rebuild depending on a certain actions such as saving data in a database. In order to do this we need to first setup a webhook. With Netlify this is really easy. Once your site is setup and running on Netlify just go to the Build and deploy section of your Netlify account under the settings tab and then scroll to "Build Hooks".

Click on the button "Add build hook" and give your hook a name. Choose the branch you would like it to use, master for production or dev for testing for example. Netlify then generates a Netlify build hook URL. This is all you need as Netlify will take care of the rest by triggering a build and deployment of your site when this hook is called.

Build hooks

Build hooks give you a unique URL you can

Netlify CMS



index.html

```
<!DOCTYPE html>
<html>
  <head>
    <meta charset="utf-8" />
    <meta name="viewport" content="width=device-width, initial-scale=1.0" />
    <title>Content Manager</title>
    <script src="https://identity.netlify.com/v1/netlify-identity-widget.js"></script>
  </head>
  <body>
    <!-- Include the script that builds the page and powers Netlify CMS -->
    <script src="https://unpkg.com/netlify-cms@2.0.0/dist/netlify-cms.js"></script>
  </body>
</html>
```

config.yml

```
collections:
  - name: 'blog'
    label: 'Blog'
    format: 'json'
    folder: 'assets/content/blog'
    create: true
    slug: '{{slug}}'
    fields:
      - { label: 'Title', name: 'title', widget: 'string' }
      - { label: 'Publish Date', name: 'date', widget: 'datetime' }
      - { label: 'Body', name: 'body', widget: 'markdown' }
```

blog



index.vue

BLOG LIST

GRAPHQL AND NUXT

Setting up your query with GraphQL, Apollo and Nuxt

NETLIFY HOOKS

Rebuild your static site automatically with Netlify hooks

_blog.vue

GraphQL and Nuxt
Netlify Hooks

NETLIFY HOOKS

For static sites we want the site to rebuild depending on a certain actions such as saving data in a database. In order to do this we need to first setup a webhook. With Netlify this is really easy. Once your site is setup and running on Netlify just go to the Build and deploy section of your Netlify account under the settings tab and then scroll to "Build Hooks".

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Build hooks

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

Nuxt Dynamic Routes

```
generate: {  
  routes() {  
    return fs.readdirSync('./assets/content/blog')  
      .map((file) => {  
        return {  
          route: `/blog/${path.parse(file).name}`,  
          payload: require(`./assets/content/blog/${file}`),  
        }  
      })  
  }  
}
```

Nuxt Crawler

```
generate: {  
  routes() {  
    return fs.readdirSync('./assets/content/blog')  
      .map((file) => {  
        return {  
          route: `/blog/${path.parse(file).name}`,  
          payload: require(`./assets/content/blog/${file}`),  
        }  
      })  
  }  
}
```

Nuxt Crawler

```
<div v-for="post in blogPosts">  
  <nuxt-link :to="`/blog/${post.slug}`">  
    {{ post.title }}  
  </nuxt-link>  
</div>
```


Nuxt Crawler

- ✓ Generated `/blog/netlify-hooks`
- ✓ Generated `/blog/graphql-and-nuxt`

The background of the slide is dark blue. It is decorated with numerous triangles of various sizes and orientations. Some triangles are teal, some are grey, and some are white outlines. They are scattered across the slide, with a higher concentration on the left and right sides, framing the central text.

Not just for blogs

Data



London, UK

SPEAKER
IJS London
2020-04-21



Bern and
Lucerne,
Switzerland

SPEAKER
Switzerland Meetup
2020-04-06
From zero to hero bursting through barriers with
many years of anguish



Texas, USA

SPEAKER
VueConf USA
2020-03-02



Amsterdam,
Holland

SPEAKER
Vue Amsterdam, Frontend Developer Love
2020-02-19



Get realtime GraphQL APIs *instantly*

Hasura is an [open source](#) engine that connects to your databases & microservices and auto-generates a production-ready GraphQL backend.

Add a new table

 **HASURA** v1.0.0

 GRAPHIQL  **DATA**  REMOTE SCHEMAS  EVENTS  **SECURE YOUR ENDPOINT**  

Schema: public

Tables (2) Add Table

 conferences

 workshops

SQL

Add a new table

Table Name

Columns

| 

☐ Nullable

☐ Unique

+ Frequently used columns

Primary Key 

Browse, Modify, Delete

 HASURA v1.0.0

Schema: public

Search table/view/function

Tables (2)

conferences

workshops

SQL

GRAPHIQL DATA REMOTE SCHEMAS EVENTS SECURE YOUR ENDPOINT

You are here: Data > Schema > public > workshops > Browse Rows

workshops

Browse Rows (9) Insert Row Modify Relationships Permissions

Filter

-- column -- -- op -- -- value --

Run query

-- column -- --

--

	id	name	title
   	0516ee9c-1fb7-44b1-b732-25aaed29ff92	Marion Schleifer	Modern and Serverless Web Applications with GraphQL
   	c480c841-1da9-49a3-a489-99ad9da06738	Rolf Haug & Alex Kyriakidis	Scaling applications with Vuex
   	a583ac9b-386a-4a0e-8984-538fea258e15	Swizec Teller	Build and launch a modern JAMstack web app with React, Gra
   	798f9f63-51de-4325-8f40-50f53a26a65c	Evan You	Deep Dive with Vue 3.0
   	16679bef-c684-4c84-b4c6-3a0af720a18b	Harry Roberts	Frontend Performance Building Faster Websites

GraphQL Endpoint

 **HASURA** v1.0.0

 **GRAPHIQL**

 **DATA**

▼ GraphQL Endpoint

POST <https://debbie-codes.herokuapp.com/v1/graphql>

GraphQL Playground

Explorer

query MyQuery

▶ conferences

▶ conferences_aggregate

▶ conferences_by_pk

▼ workshops

☐ distinct_on:

☐ limit:

☐ offset:

▶ order_by:

▶ where:

☒ alt

☐ blogUrl

☒ date

☒ duration

☒ id

☒ img

☒ name

☒ place

☐ slidesUrl

☒ title

☒ topic

☐ url

GraphiQL

▶

Prettify

History

Analyze

Explorer

Voyage↗

```
1 {
2   workshops {
3     alt
4     duration
5     id
6     img
7     name
8     place
9     title
10    topic
11    date
12  }
13 }
14
```

QUERY VARIABLES

1	
---	--

```
{
  "data": {
    "workshops": [
      {
        "alt": "Evan You",
        "duration": "1 day",
        "id": "798f9f63-51de-4325-8f40-50f53a26a65c",
        "img": "evan_you_s7n7nc",
        "name": "Evan You",
        "place": "Vue Toronto",
        "title": "Deep Dive with Vue 3.0",
        "topic": "Vue 3",
        "date": "2019-11-09"
      },
      {
        "alt": "Rolf Haug & Alex Kyriakidis",
        "duration": "1 day",
        "id": "c480c841-1da9-49a3-a489-99ad9da06738",
        "img": "rolf-alex_rbnn1z.png",
        "name": "Rolf Haug & Alex Kyriakidis",
        "place": "Vue London",
        "title": "Scaling applications with Vuex",
        "topic": "Vuex",
        "date": "2019-10-04"
      }
    ]
  }
}
```

Call the GraphQL API

```
modules: [  
  '@nuxtjs/apollo',  
],
```


Apollo

```
import { HttpLink } from ...  
import { InMemoryCache } from ...  
  
const GRAPHCMS_API = 'https://yourEndpoint'  
  
export default () => ({  
  link: new HttpLink({ uri: GRAPHCMS_API }),  
  ...  
})
```

Add our Query

```
import gql from 'graphql-tag'

export const workshops = gql`
  query workshops {
    workshops(order_by: { date: desc }) {
      title
      topic
      date
    }
  }
`
```

Apollo

```
apollo: {  
  $loadingKey: 'loading',  
  workshops: {  
    query: workshops,  
  },  
},
```

Network Tab - Call API



graphql

debbie-codes.herokuapp.com/v1

▼ General

Request URL: https://debbie-codes.herokuapp.com/v1/graphql

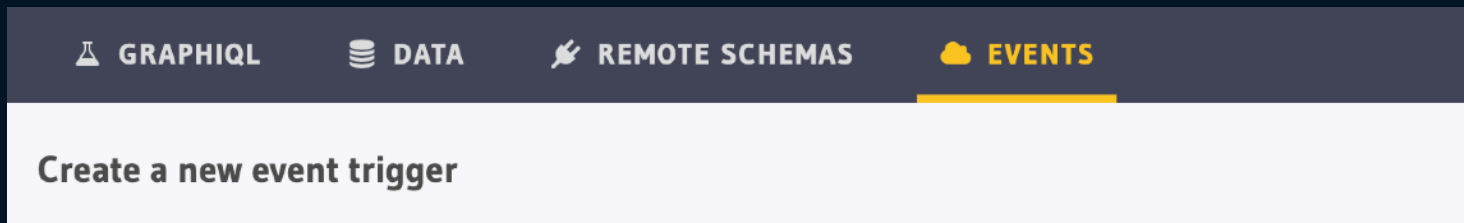
Request Method: POST

Status Code: 🟢 200 OK

Remote Address: 52.19.225.66:443

Referrer Policy: no-referrer-when-downgrade

Generate on Update



Create your trigger

Schema/Table ?

public

Select table

Trigger Operations ?

☐ Insert ☐ Update ☐ Delete ☐ Via console ? [\(Know more\)](#)

Webhook URL ?

URL ▾

http://httpbin.org/post

Netlify Build Hooks

Build hooks

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

Branch to build

master



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

Save

Cancel

Add the URL to Hasura

`https://api.netlify.com/build_hooks/5e4c190828324653346571ad`



Webhook URL ?

URL ▼

Netlify Deploys

Production deploys

Production: master@HEAD **Published**

Feb 18: Deploy triggered by hook: hasura-event-trigger 

Nuxt Hydration

Static Site **becomes** dynamic







Nuxt Static Module

~~Call the **API** on page change~~

Call the **payload** on page change

Call the payload



payload.js

debbie.codes/_nuxt/__payloads/40653440a7cf32df8f5e//conferences

▼ General

Request URL: `https://debbie.codes/_nuxt/__payloads/40653440a7cf32df8f5e//conferences/payload.js`

Request Method: GET

Status Code: ● 200

Remote Address: 167.99.137.12:443

Referrer Policy: no-referrer-when-downgrade



Nuxt Static Module

Instead of Apollo smart queries use `AsyncData`
until `target static` is released

Async Data

```
async asyncData({ app, route, error }) {  
  try {  
    const client = app.apolloProvider.defaultClient  
    const response = await client.query({  
      query: conferencesQuery,  
    })  
    return {  
      conferences: response.data.conferences,  
      ...  
    }  
  }  
}
```

Nuxt Static Module

You don't have to **expose** your **API** to the public

Decide when to publish **new content** from your API by **re-generating** your website

Fully static is much **faster**

API calls have latency - always takes longer

Payload files are **cached** and **offline** support with PWA module

Convert to a static site

```
mode: 'universal',
```

```
nuxt generate
```

target Static

<code>nuxt dev</code>	<code>// start dev server (process.static)</code>
<code>nuxt build</code>	<code>// bundle the vue app in .nuxt/dist/</code>
<code>nuxt export</code>	<code>// create dist/ and pre-render routes</code>

SPA inside a Static site

```
generate: {  
  fallback: true,  
  exclude: [/booking/]  
}
```

Why Static Sites

Why Static?

No server: cheaper, safer

Better offline support

Better performance

Reduces Carbon footprint

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Think Static

Are you?
NUXT







Thank you



Debbie O'Brien

Frontend Tech Lead
Consultant
Open Source Contributor

<https://github.com/debs-obrien/nuxt-boilerplate-project>

