

Leave your legacy code
behind and go Nuxt



NUXTJS

We have a problem

Too much legacy code

Hard to scale

Front and backend code mixed together

Too many dependencies

Old Tech stacks

JSF

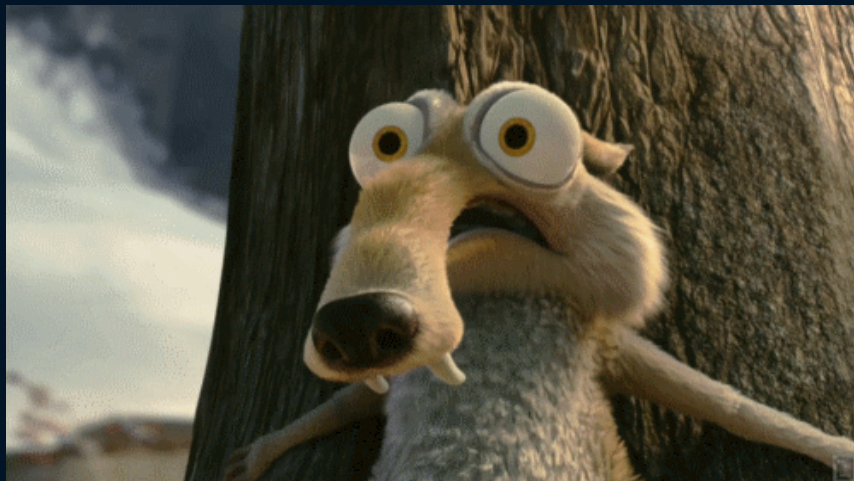
PHP

ASP

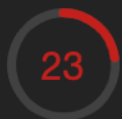
Front and Back mixed together

Unmaintainable Code

```
<Ui:fragment rendered="#{CatalogoBean.campaign.countdown}">
  <div style="width:360px;margin:0 auto;margin-top:70px;">
    <span style="display:none;" id="text_days">
      <g:get name="listado" anchorid="landing.days" defaulttext="DAYS"/></span>
      <p id="countdown" style="width:500px;font-size:30px;margin-top:50px;color:#fff;"></p>
    </div>
  </ui:fragment>
```



Bad Performance



Performance



Accessibility



Best Practices



SEO



Progressive Web App



Performance



Accessibility



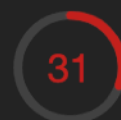
Best Practices



SEO



Progressive Web App



Performance



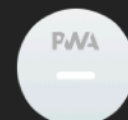
Accessibility



Best Practices



SEO



Progressive Web App



Performance



Accessibility



Best Practices



SEO



Progressive Web App

What are we doing about it?

Nothing

Dumping more code on top of it



What? Why?

No Time

No Money

Afraid to take the migration step



What should we be doing?

Migrating



Where do we start?

Piece by piece

Break up your project

Create and ship

Where do we start?

Convince yourself
then your team
then your boss



Where do we start?

Know your tools

Know what your capable of

Know what you can deliver

Where do we start?

Run performance tests to compare

Create prototypes

Just do it

Go Nuxt



Debbie O'Brien

Frontend Tech Lead



@Patterson Agency in Mallorca



Mentor @OpenClassrooms



Tech Degree Moderator @Treehouse



Contributor @webpack



Contributor @Nuxt



Writer @Ultimate Courses



Teacher @Vue School



debs_obrien



Debbie O'Brien



Debbie O'Brien

Running

Cycling

Skiing

IV Degree Blackbelt in Taekwondo



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Debbie O'Brien

Patterson Travel: Case Study

Separate Front and Back

Moving from working with mixed code to code separation between Front and Back

How do Front and Back communicate?

JSON

The JSON war



Decide who is responsible for what

Header and Footer - Front
Content and shopping cart - Back



Invest in your team



Frontend *Masters*

Lead your code

Make sure your code looks like it was written by one person

Create Standards



ESLint



Prettier



Pre Commit Hooks: Husky

```
"scripts": {  
  "",  
},  
  
"husky": {  
  "hooks": {  
    "pre-commit": "cross-env PRE_COMMIT=true lint-staged"  
  }  
},
```

Use Pull Requests

D **dobrien** 4/10/2019
i don't understand

T **tmichel**
Same re
value and

D **dobrien** 4
are

D **dobrien**
can we n

T **tmichel**
On it, ma

T **tmichel**
done (wi

D **dobrien**
perfect

D **dobrien** completed the pull request

✓ Approved by **T** **tmichel**

T **tmichel** joined as a reviewer

D **dobrien** set the pull request to automatically complete when all policies succeed.

FT [PattersonTravelWeb]\Front Team was added as a required reviewer

Created by **D** **dobrien**

D **dobrien**
ok good be
an example:
<https://vuejs.org/v2/>
please change in them

Resolved ▾
ate. See the docs for

a change in all of
-eq ▾

Resolved ▾

Test your code

Should you write tests at the start, while coding, or when finished developing?

I don't care

Just write tests

Test your code



Document your code

Use VuePress

Frontend Documentation



[Home](#)

[Development](#)

[Vue](#)

[Nuxt](#)

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travel

Frontend Documentation

Everyting you need to know to work on this project

Get Started →

Generate your files

Use Hygen

```
$ hygen new component
```

```
✓ Name: · base debbie
```

```
✓ Blocks: · template, script, style
```

```
Loaded templates: _templates
```

```
  added: components/_base-debbie.vue
```

```
  added: components/_base-debbie.unit.js
```

```
✨ Done in 6.01s.
```

Think first, code later

Think and plan or draw before you write



Create your own components

Don't just dump big heavy component libraries into your code when you don't need them

Build your own

Dropdown Component

EN ▾

English


Español

Català

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Dropdown Component

```
<div>  
  <span @click="toggle">  
    {{ locale }}  
    <SVGOChevron />  
  </span>  
  <ul v-show="isOpen">  
    <li  
      v-for="lang in languages"  
      :key="lang.code"  
      @click="toggle"  
    >  
      <nuxt-link :to="switchLocalePath(lang.code)" exact>  
        {{ lang.name }}  
      </nuxt-link>  
    </li>  
  </ul>  
</div>
```



Dropdown Component

```
data: function() {  
  return {  
    isOpen: false,  
  }  
},
```



```
methods: {  
  toggle: function() {  
    this.isOpen = !this.isOpen  
  }  
},
```



Accordion Component

Cost Savings



Professionalism, agility and flexibility



Knowledge, commitment and involvement



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Professionalism, agility and flexibility



Being a business travel management agency allows us to be extremely agile in our processes and to provide a bespoke service for our clients, adapting to their needs as much as possible. Furthermore, all of our business travel co-pilots have more than 10 years' experience in the industry and can offer you a comprehensive service with the following guarantees:

International Experience

60% of our clients are international companies. Currently, we have clients in over 40 countries. We offer them corporate travel management services and organise their business travel in an efficient and professional way.

Customised billing

By department, by individual, by project - we adapt to help reduce your administrative costs.

Assistance and service 24/7, 365 days a year

Your trusted business travel advisor will always be available on

Accordion Component

```
<div>  
  <div @click="toggleItem">  
    <h2>  
      <slot name="title"> </slot>  
    </h2>  
    <SVGOCross :class="{ 'rotate-45': !show }" />  
  </div>  
  <div v-show="show">  
    <slot name="content"></slot>  
  </div>  
</div>
```



Accordion Component

```
data: function() {  
  return {  
    show: false,  
  }  
},
```



```
methods: {  
  toggleItem: function() {  
    this.show = !this.show  
  }  
},
```



Accordion Component

```
<BaseAccordion>
```

```
  <template v-slot:title>  
    {{ title }}  
  </template>
```



```
  <template v-slot:content>  
    {{ text }}  
  </template>
```



```
</BaseAccordion>
```

Hero components?

Hello, we are [patterson.travel](#), the co-pilot of your brand's trips. The agency that designs, coordinates and manages your company's trips and events. For the day-to-day or special occasions.

Our mission: Co-piloting your company's trips as if it was our own

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travel

“Just like everything that matters in life, a great trip is a work of art”.

[André Suarès.](#)

Use Named Slots

```
<div>
  <h1 v-if="$slots.title" class="title">
    <slot name="title"></slot>
  </h1>
  <span v-if="$slots.subTitle" class="sub-title">
    <slot name="subtitle"></slot>
  </span>
  <blockquote v-if="$slots.quote" class="quote">
    <slot name="quote"></slot>
  </blockquote>
  <p v-if="$slots.author" class="author">
    <slot name="author"></slot>
  </p>
</div>
```

Add the slots you need

```
<BaseHero>
  <template v-slot:title>
    {{ title }}
  </template>
  <template v-slot:quote>
    {{ quote }}
  </template>
  <template v-slot:author>
    {{ author }}
  </template>
</BaseHero>
```


Styles

Use Tailwind

end of conversation



Styles

Stop adding big libraries of styles that you never use

Stop creating styles for everything

Think utilities first

Styles

CSS Stats

GitHub

[http://\[REDACTED\]/assets/css/styles.css](http://[REDACTED]/assets/css/styles.css)

1.18 MB

12.4k

Rules

16.3k

Selectors

30.2k

Declarations

220

Properties

Total Declarations

Font Size

2,260

Float

532

Width

1,878

Height

765

Color

1,946

Background Color

1,195

Styles

CSS Stats

[GitHub](#)

**Patterson.travel - Agencia de Viajes
Especializada en Empresas**

16 KB

382

Rules

449

Selectors

502

Declarations

74

Properties

Total Declarations

Font Size

31

Float

0

Width

40

Height

12

Color

18

Background Color

15

Styles

Utilities classes === less code to maintain

A utility-first CSS framework



Tailwind CSS

Add a PWA



Kyle Simpson

Kyle Simpson is an evangelist of the open web, passionate about all things JavaScript. He writes books, teaches JavaScript, speaks, and contributes to the world of OSS. Developers have watched over 300,000 hours of Kyle's courses here on Frontend Masters!



Learn How To Build Service Workers for Sites and PWAs
with Kyle Simpson

Or you can Just use Nuxt

Nuxt PWA

Registers a service worker for offline caching

generates `manifest.json` file

adds SEO friendly meta data

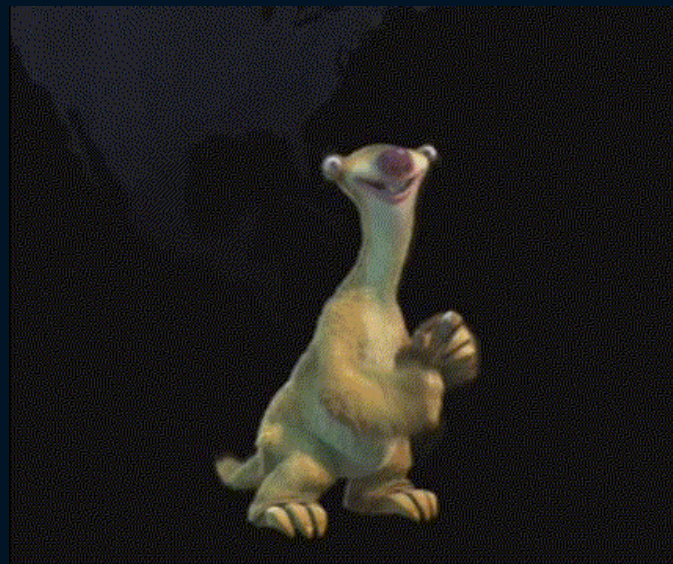
generates different size app icons

Add a PWA in 3 steps

1 `yarn add @nuxtjs/pwa`

```
2 {  
  modules: [  
    '@nuxtjs/pwa',  
  ],  
}
```

3 upload the image to static folder



PWA Tips

By default the PWA name === package.json name

Set it in Nuxt to be merged with your meta

```
meta: {  
  name: 'Patterson Travel',  
  description: 'Patterson Travel Agency',  
  author: 'Patterson Agency',  
},
```

Build Static Sites

Nuxt Static Sites are faster

They act like a SPA

Due to the hydration process

Static site with SPA Benefits

Static Site + Dynamic Content

Patterson.Travel === Nuxt generated static site

Booking Engine will not be static

Can we mix?

Of Course

Static Site + Dynamic Content

Just use the `<no-ssr >` component

```
<template>
  <div>
    <TheHeader />
    <no-ssr placeholder="Loading...">
      <!-- this component will only be rendered on client-side -->
      <BookingEngine />
    </no-ssr>
    <TheFooter />
  </div>
</template>
```

Run Performance Tests

Be aware of what your shipping

Use the wepack analyser

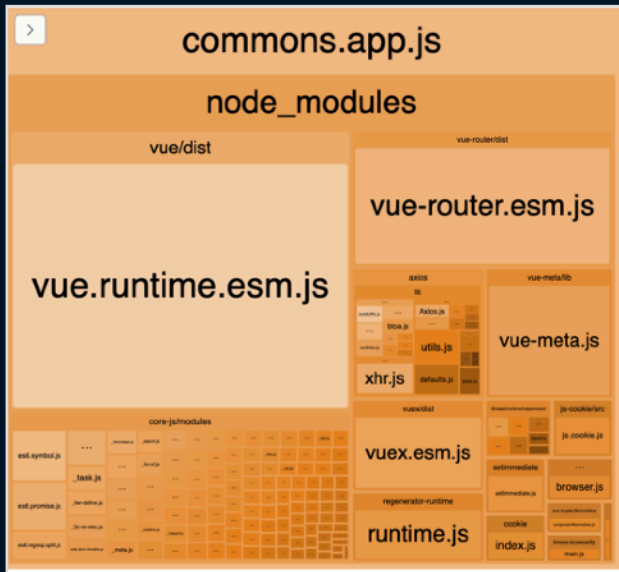
Run an audit in chrome dev tools

Check your css with CSS Stats

Analyze your bundle

Asset	Size	Chunks	Chunk Names
../server/modern.manifest.json	21.8 KiB	[emitted]	
16bffb63528b153637fe.js	4.83 KiB	9	[emitted] pages/bookingIspo
181d36c8add2de554ea5.js	9.1 KiB	17	[emitted] pages/mice
28fbb8e52ec02b17a688.js	1.36 KiB	18	[emitted] pages/privacy
3c7cd4eba5d435aedad6.js	75.4 KiB	23	[emitted] vendors.app
45406ac61bdab28ce68e.js	4.25 KiB	29	[emitted]
4b9052f8a9694e171a60.js	9.1 KiB	20	[emitted] pages/trips
4cc3066f478255fa048a.js	9.07 KiB	16	[emitted] pages/index
578a584e37899ad1c1f9.js	1.89 KiB	27	[emitted]
608145bd5dfd9b40e6eb.js	1.13 KiB	11	[emitted] pages/conditions
688ed2170e40cdfc24af.js	1.69 KiB	13	[emitted] pages/cookies
6eadb7a4154d6f144d69.js	9.14 KiB	19	[emitted] pages/services
700a9f66bdbf5ab1252b.js	1.24 KiB	26	[emitted]
72aaf5ae8dab1b21b359.js	3.04 KiB	24	[emitted]
77b29359a95a5f57b158.js	45.4 KiB	1	[emitted] lang-ca
7c435a8e36a21a39f9fa.js	9.72 KiB	14	[emitted] pages/corporate
81899d97c56b805f37b0.js	1.11 KiB	5	[emitted]
942eb14595052a9c6812.js	45.8 KiB	3	[emitted] lang-es
97205f6fd1369238f7e0.js	6.29 KiB	10	[emitted] pages/bookings
9d3786f2b9b7ab658fd4.js	2.52 KiB	25	[emitted]
9d696e8cf42c3e8d9d10.js	8.45 KiB	8	[emitted] pages/about
9de5eaa41b677a8e34c0.js	850 bytes	28	[emitted]
LICENSES	1.19 KiB	[emitted]	
b64543b2ee461ae816b7.js	42.5 KiB	2	[emitted] lang-en

yarn build -a



FoamTree

Improve your code

Nuxt gives you code splitting by routes for free

But **you** have to:

Code Split your components



How does Code Splitting work?

How a Module gets to the BROWSER with webpack!

Module
dep | dep | dep | dep | dep | dep

Hi! I'm a module!! I can't wait to work in the BROWSER!

Wow! This is cozy! I've been shuffled around and sorted topologically, are we there yet?

Whoa there!! Cool your jets. We need to get you ready before you enter the Big Sky.

First, you'll need to jump in this container in the browser. We'll be using some magic to help you.

Compilation

Entry point

Module

Module
dep | dep | dep | dep | dep | dep

Compilation

In finally rendered!!! Browserland and be safe to have it.

require and import statements have to go!! The Parser gave me special instructions for "rendering" those dependencies you have there!!! Dependency Templates: Dependency Factory.

Chunk template
module template
module template
dep template

Dep. Factory

Dep. Template

```
function(require, module, webpack) {  
  var webpack_harmonized;  
  }  
  function(..., ...webpack_exports) {  
  }  
}
```

Ask Sean Larkin

Code Split your components

Just change this:

```
import BaseHero from '~/components/BaseHero.vue'
```

```
components: {  
  BaseHero,  
},
```

to this:

```
components: {  
  BaseHero: () => import('~/components/BaseHero.vue'),  
},
```

Lazy Load your translations

```
locales: [  
  {  
    code: 'en',  
    iso: 'en-US',  
    name: 'English',  
    file: 'en.js',  
  },  
],
```

```
lazy: true,  
langDir: 'i18n/',
```

Lazy load your images

```
yarn add v-lazy-image
```

```
import Vue from 'vue'  
import VLazyImage from  
  'v-lazy-image'  
Vue.component('VLazyImage', VLazyImage)
```

```
plugins: [  
  '~/plugins/lazy-load-images.js',  
],
```

Use a CDN for your images

```
<v-lazy-image src="https://res.cloudinary.com/idemo/image/upload/q_auto,f_auto/cloudinary"/>
```



Improve your SEO

```
head() {  
  return {  
    title: 'Patterson Agency',  
    meta: [  
      {  
        hid: 'description',  
        name: 'description',  
        content: 'The agency that designs, coordinates...',  
      },  
    ],  
  },  
},
```

Put Accessibility first

Use labels for forms

Use aria tags

Be careful with colour contrasts

Use your tools

Chrome dev tools for accessibility

patterson_
travel

Congress bookings

Services

About us

Contact

Client Area

EN ▾

a.text-nav.nav-item.text-4xl.xl:text-base.border-s... 60.5 x 32
Color #5E5D5D
Font 16px "Circular Std ...
Padding 0px 0px 8px
Contrast Aa 5.04

Hello, we are patterson.travel, the co-

Modern mode

Build two versions of your app:

modern bundle: browsers that support **ES modules**,

legacy bundle: targets older browsers that do not

```
"build": "nuxt build --modern",  
"generate": "nuxt generate --modern",
```

Be proud of your code



Hello, we are patterson.travel, the co-



Performance



Accessibility




Best Practices



SEO



Progressive Web App


Score scale:  90-100  50-89  0-49

Performance



Metrics


First Contentful Paint

1.0 s 

First Meaningful Paint

1.7 s 


Speed Index

1.2 s 

First CPU Idle

2.1 s 

Time to Interactive

2.3 s 

Estimated Input Latency

20 ms 

So what are you waiting for?

Do you still have an excuse or
are you going to leave your
legacy code behind?

Are you
NUXT?

Thank you



Thank you



Debbie O'Brien

Frontend Tech Lead
Consultant

Open Source Contributor



@debs_obrien