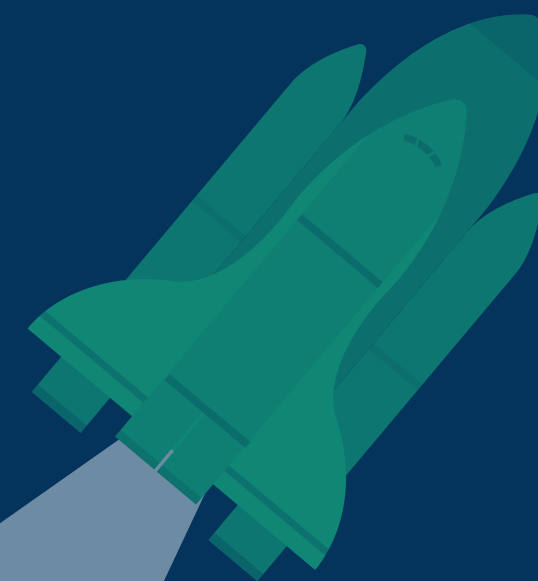


NUXT PERFORMANCES

By Debbie O'Brien





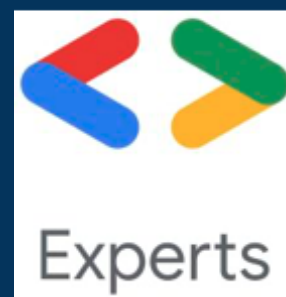
Debbie O'Brien

Head of Learning and
Developer Advocate - NuxtJS

Teacher @Vue School



AP20



What I will Cover

Nuxt

webpack

PWA



NUXT PERFORMANCES: OUT OF THE BOX



Code Splitting

Automatically split your code into smaller bundles



Http Compression

Serves GZIP by default



Minified Code

Code is minified by default



ETag

Web cache validation



webpack

Code splitting

ROUTE BASED CHUNKS

SPLIT CHUNKS

LINK PRELOADING

SMART LINK PREFETCHING

DYNAMIC IMPORTS

MAGIC COMMENTS

BUNDLE ANALYZER

Name
index.js
app.js
app.js
app.js
runtime.js
contact.js
courses.js
podcasts.js
interviews.js
guest-live-streams.js
02a32f83.js
index.js
featured-posts.js
analytics.js
injected.js
netlify-identity-widget.js

ROUTE BASED CHUNKS

All pages have their own chunks



/PAGES

Add a .vue file to the pages directory



Router.js file

Your router.js file is created and maintained automatically for you

```
const _c04a7b64 = () => interopDefault(import('../pages/about.vue' /* webpackChunkName: "pages/about" */))
const _707b3b34 = () => interopDefault(import('../pages/blog/index.vue' /* webpackChunkName: "pages/blog/index" */))
const _23b6ab4a = () => interopDefault(import('../pages/conferences/index.vue' /* webpackChunkName: "pages/conferences/index" */))
const _16b03b21 = () => interopDefault(import('../pages/contact.vue' /* webpackChunkName: "pages/contact" */))
const _a906132e = () => interopDefault(import('../pages/resources/index.vue' /* webpackChunkName: "pages/resources/index" */))

const emptyFn = () => {}

Vue.use(Router)

export const routerOptions = {
  routes: [
    {
      path: "/about",
      component: _c04a7b64,
      name: "about"
    },
    {
      path: "/blog",
      component: _707b3b34,
      name: "blog"
    },
    {
      path: "/conferences",
      component: _23b6ab4a,
      name: "conferences"
    },
    {
      path: "/contact",
      component: _16b03b21,
      name: "contact"
    },
    {
      path: "/resources",
      component: _a906132e,
      name: "resources"
    },
    {
```




```
t(import('../pages/about.vue' /* webpackChunkName: "pages/about" */))  
t(import('../pages/blog/index.vue' /* webpackChunkName: "pages/blog/index" */))  
t(import('../pages/conferences/index.vue' /* webpackChunkName: "pages/conferences/index" */))  
t(import('../pages/contact.vue' /* webpackChunkName: "pages/contact" */))  
t(import('../pages/resources/index.vue' /* webpackChunkName: "pages/resources/index" */))
```

Router.js file

Dynamic Imports for lazy
loading of routes



```
t(import(' ../pages/about.vue' /* webpackChunkName: "pages/about" */))
t(import(' ../pages/blog/index.vue' /* webpackChunkName: "pages/blog/index" */))
t(import(' ../pages/conferences/index.vue' /* webpackChunkName: "pages/conferences/index" */))
t(import(' ../pages/contact.vue' /* webpackChunkName: "pages/contact" */))
t(import(' ../pages/resources/index.vue' /* webpackChunkName: "pages/resources/index" */))
```

Router.js file

webpackChunkName to
easier see names of your
chunks

Lazy Load Components

```
<MyComponent />
```

Prefix with "Lazy"

```
<LazyMyComponent />
```



Chunks		Chunk Names
	1	[emitted] components/PlanetsList
2,	1	[emitted] pages/_slug
	3	[emitted] pages/about
	4	[emitted] pages/index
5,	1	[emitted] pages/planet

SPLIT CHUNKS

Prevents duplication by separating chunks into shared chunks

```
<link rel="preload" href="/_nuxt/runtime.js" as="script">
<link rel="preload" href="/_nuxt/commons/app.js" as="script">
<link rel="preload" href="/_nuxt/vendors/app.js" as="script">
<link rel="preload" href="/_nuxt/app.js" as="script">
<link rel="preload" href="/_nuxt/pages/index.js" as="script">
```

```
<script src="/_nuxt/runtime.js" defer></script>
<script src="/_nuxt/pages/index.js" defer></script>
<script src="/_nuxt/commons/app.js" defer></script>
<script src="/_nuxt/vendors/app.js" defer></script>
<script src="/_nuxt/app.js" defer></script>
```

SCRIPT PRELOADING

Resource will also be needed during the current navigation

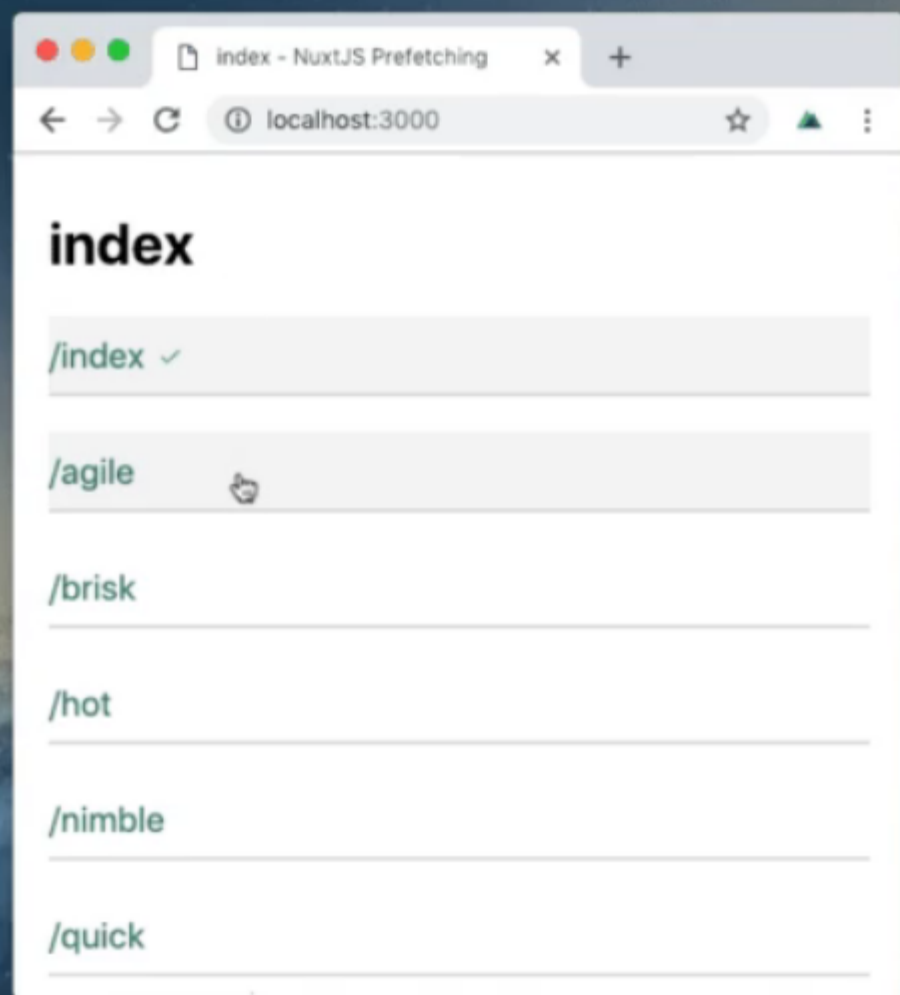


Name	Status	Initiator	Size	Time	Priority
index.js	200	(index)	38.0 kB	4 ms	High
app.js	200	(index)	1.1 MB	28 ms	High
app.js	200	(index)	31.2 MB	341 ms	High
app.js	200	(index)	4.2 MB	52 ms	High
runtime.js	200	(index)	38.9 kB	3 ms	High
contact.js	200	runtime.js:919	98.2 kB	5 ms	Low
courses.js	200	runtime.js:919	71.8 kB	5 ms	Low
podcasts.js	200	runtime.js:919	23.6 kB	5 ms	Low
interviews.js	200	runtime.js:919	23.8 kB	4 ms	Low
guest-live-streams.js	200	runtime.js:919	24.4 kB	5 ms	Low
02a32f83.js	200	runtime.js:919	93.0 kB	6 ms	Low
index.js	200	runtime.js:919	45.4 kB	4 ms	Low
featured-posts.js	200	runtime.js:919	50.0 kB	3 ms	Low
analytics.js	200	vue-analytics.js?028...	18.8 kB	78 ms	Low
injected.js	200	content.js:11	389 kB	19 ms	Low
netlify-identity-widget.js	200	(index)	52.1 kB	163 ms	Low

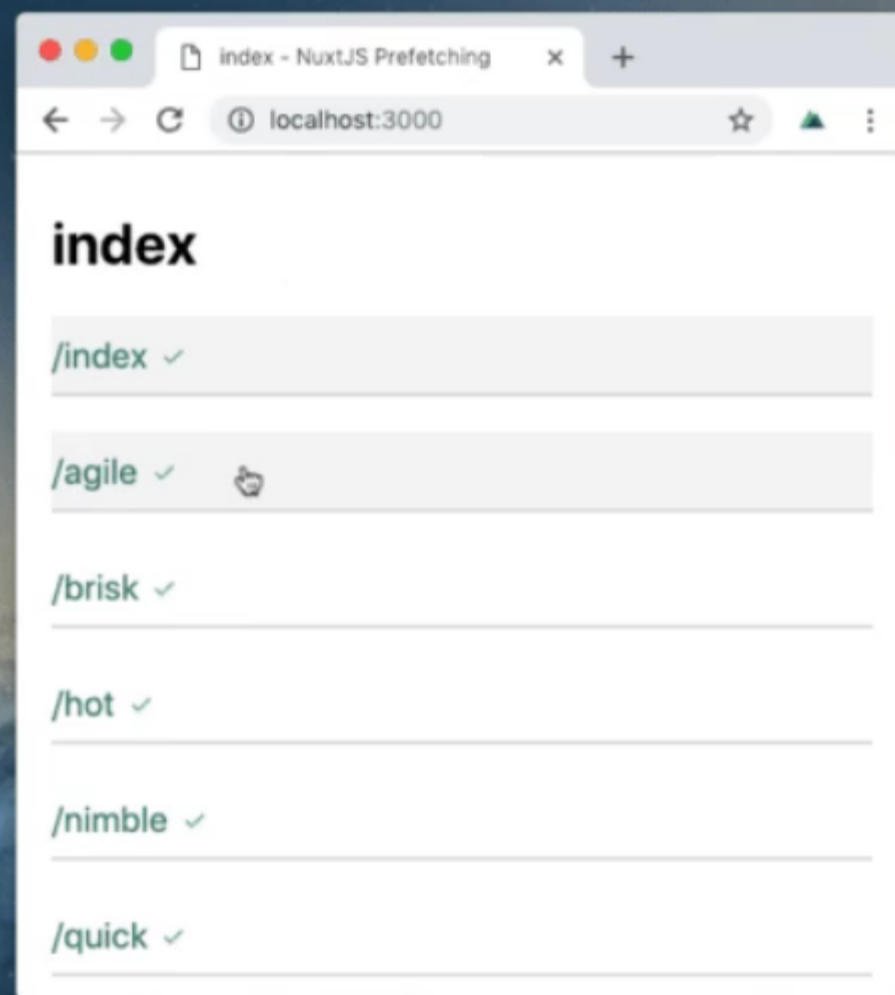
SMART LINK PREFETCHING

Instructs the browser to prefetch in idle time





Nuxt.js v2.3.0 (fast 3G)

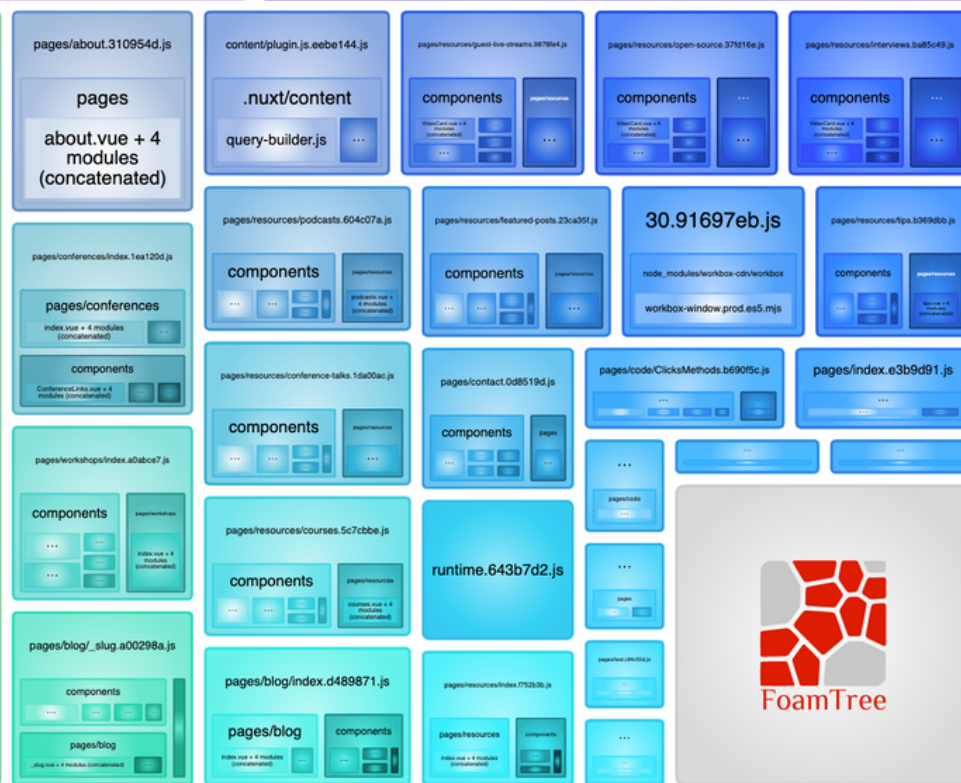
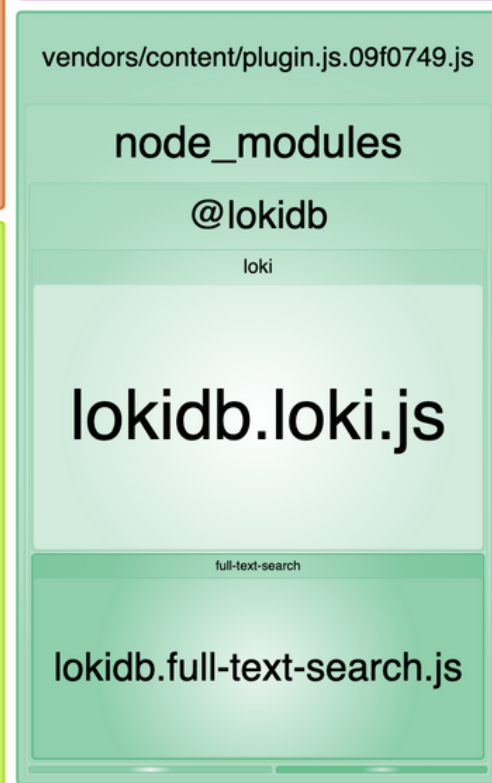
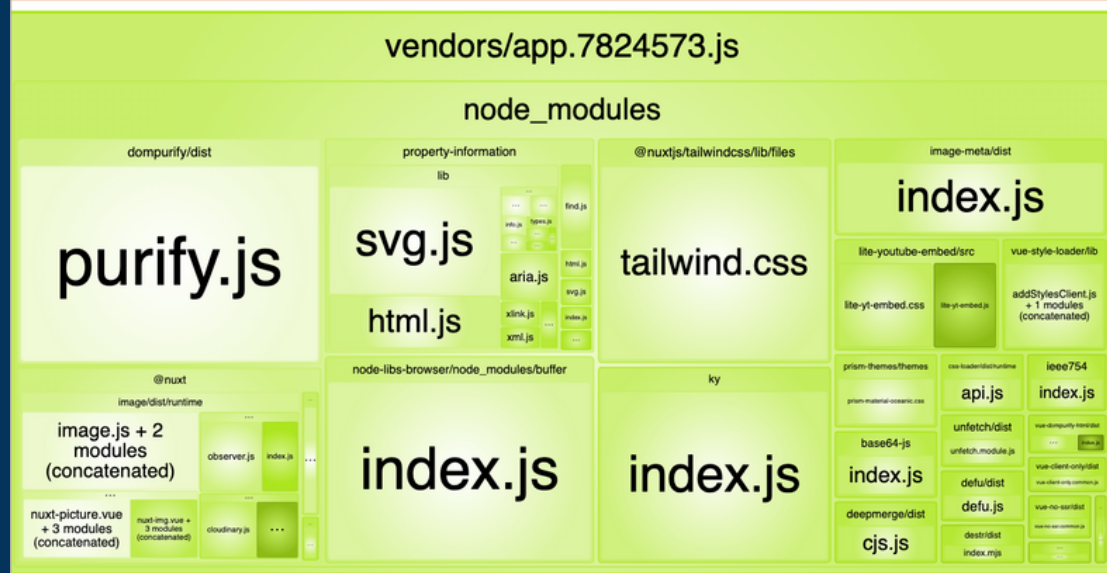
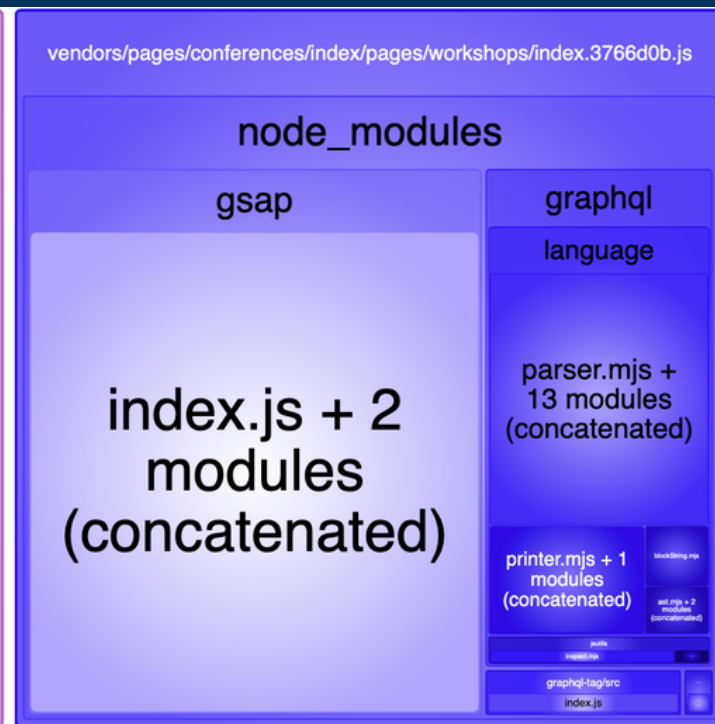
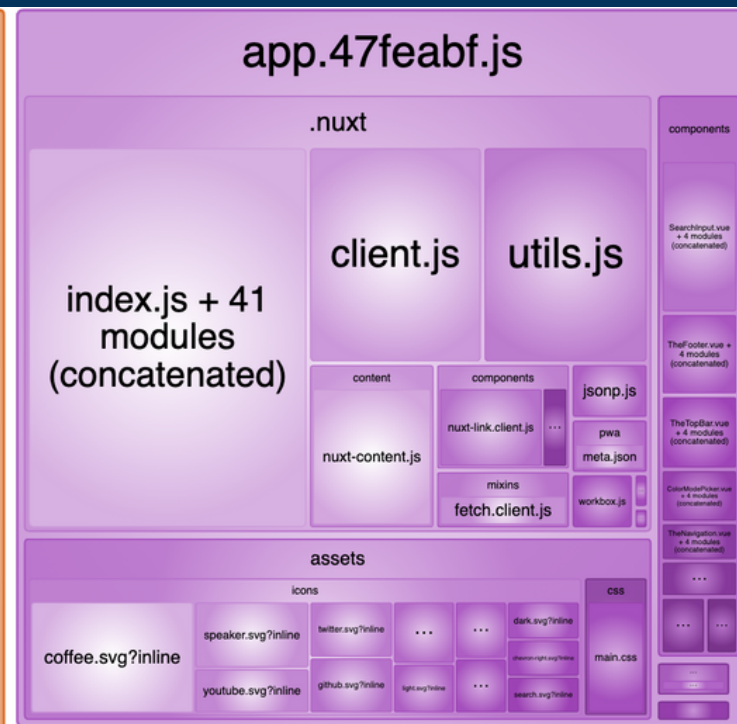
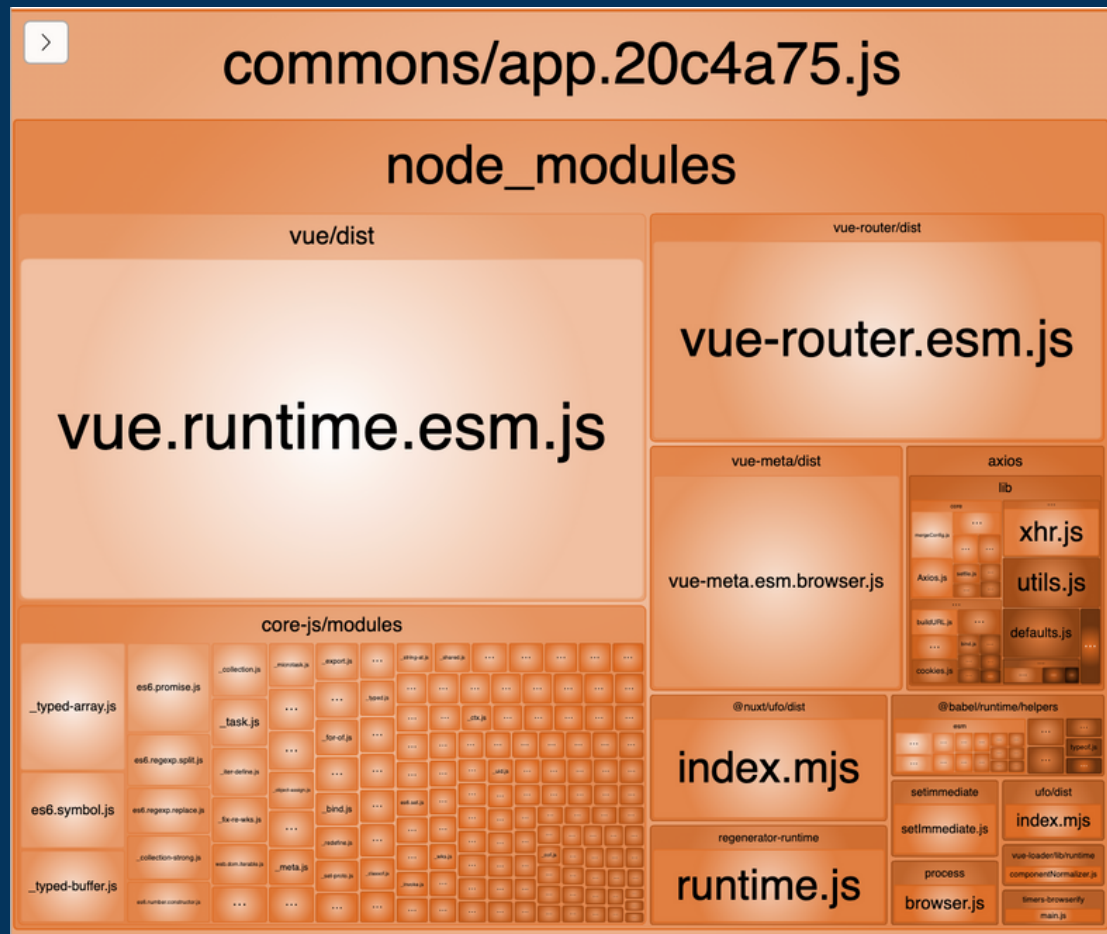


Nuxt.js v2.4.0 (fast 3G)

SMART LINK PREFETCHING

Instructs the browser to prefetch in idle time





Analyze
your bundle

yarn build --analyze

NUXT PERFORMANCES: MODULES



PWA

Progressive Web App with a single install



Nuxt Image

Make your images more performant



Google Font Loader

Easily load your Google fonts



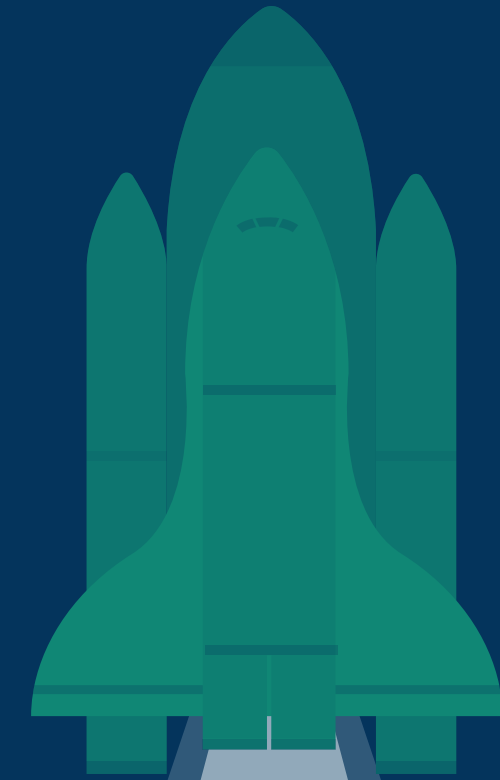
AMP

Google amp with a single install

Zero Config

PWA

PROGRESSIVE WEB APPS ALLOW
YOUR NUXT APP TO BE
INSTALLED BY ANYONE,
ANYWHERE, ON ANY DEVICE



Service Workers

Offline Update on reload Bypass for network

https://nuxtjs.org/

Source [sw.js](#)

Received 26/01/2021, 11:53:01

Status ● #1594 activated and is running [stop](#)

Clients <https://nuxtjs.org/> [focus](#)

<https://nuxtjs.org/resources> [focus](#)

<https://nuxtjs.org/blog/introducing-smart-prefetching#introducing-smart...>

Push

Sync

Periodic Sync

Registers a service worker
for offline caching



App Manifest

[manifest.421b2c67.json](#)

Identity

Name NuxtJS

Short name nuxtjs.org

Presentation

Start URL [/?standalone=true](#)

Theme color #00C58E

Background color #ffffff

Orientation

Display standalone

Automatically generate
manifest.json file



Primary icon
as used by Chrome



64x64px
image/png



120x120px
image/png



144x144px
image/png



152x152px
image/png



192x192px
image/png



Automatically generates
app icons with different
sizes























progressive web app

These checks validate the aspects of a progressive web app. [Learn more.](#)

Installable

-  Web app manifest meets the installability requirements 

PWA Optimised

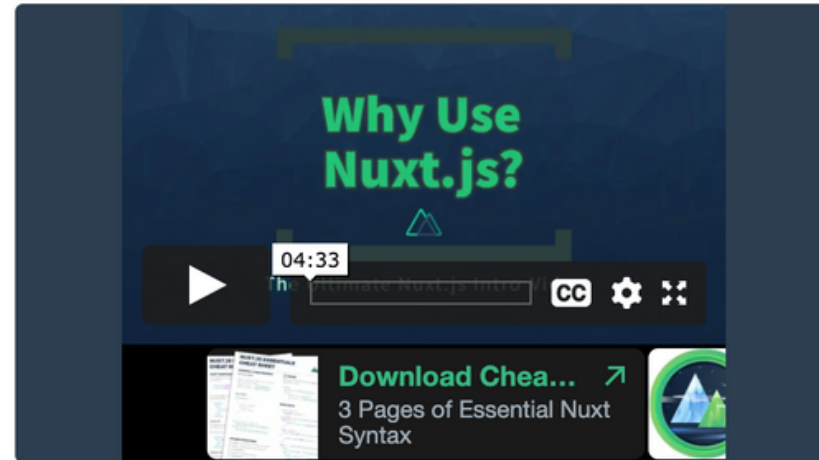
-  Registers a service worker that controls page and `start_url` 
-  Redirects HTTP traffic to HTTPS 
-  Configured for a custom splash screen 
-  Sets a theme colour for the address bar. 
-  Content is sized correctly for the viewport 
-  Has a `<meta name="viewport">` tag with `width` or `initial-scale` 
-  Provides a valid `apple-touch-icon` 
-  Manifest has a maskable icon 

Lighthouse test passes



The Intuitive Vue Framework

Build your next Vue.js application with confidence using NuxtJS.
An open source framework making web development simple and powerful.



Video produced by Vue Mastery , download their free Nuxt Cheat Sheet.

GET STARTED

33K+ GITHUB STARS

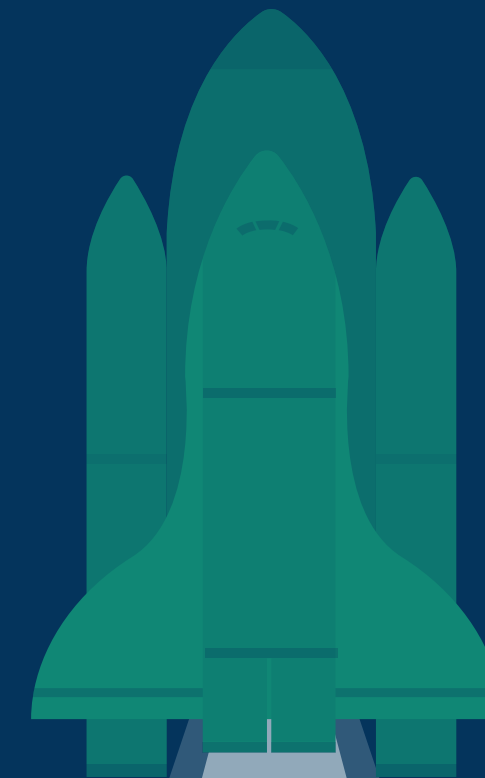
Get NuxtJS updates to your inbox each month

Why NuxtJS



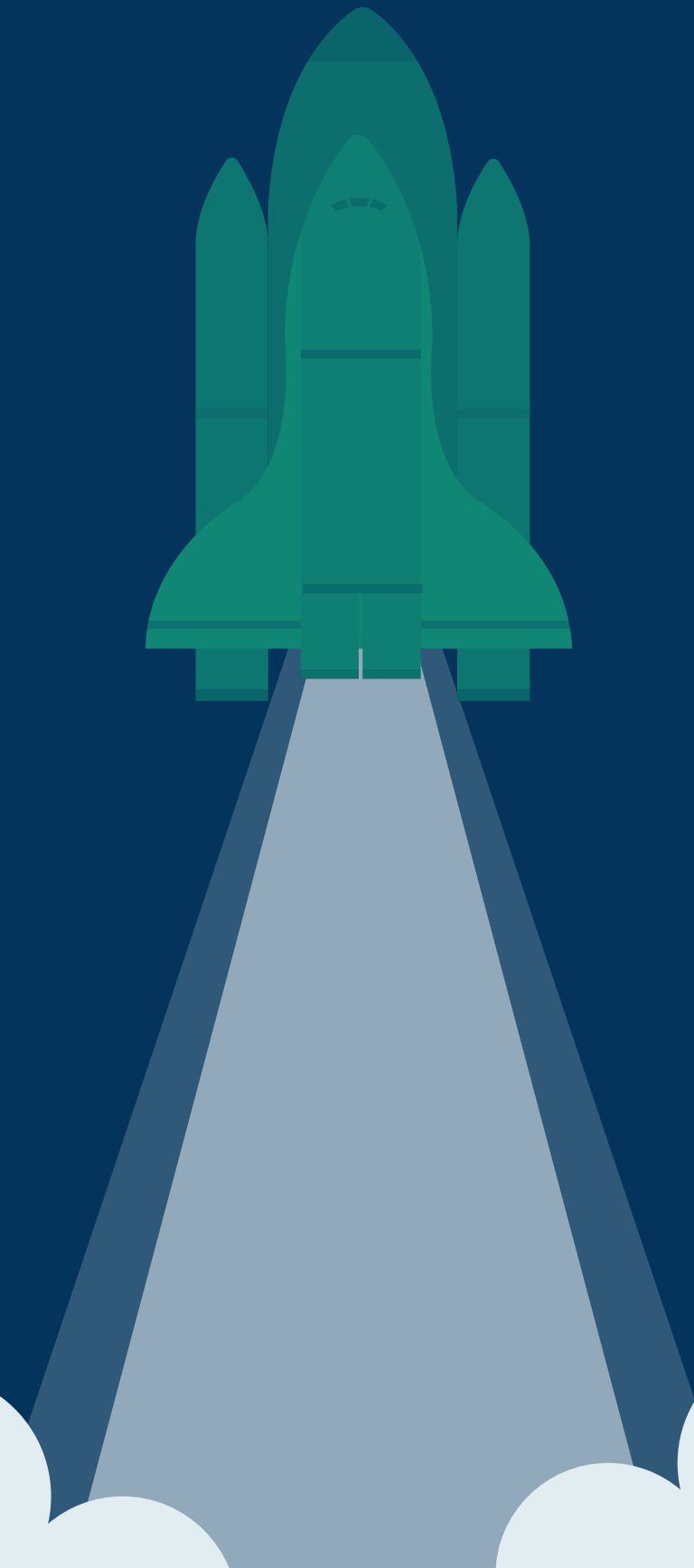
Google Fonts

ADD DNS-PREFETCH, PRECONNECT
AND PRELOAD



AMP

ACCELERATED MOBILE PAGES



NUXT IMAGE

LAZY LOADING

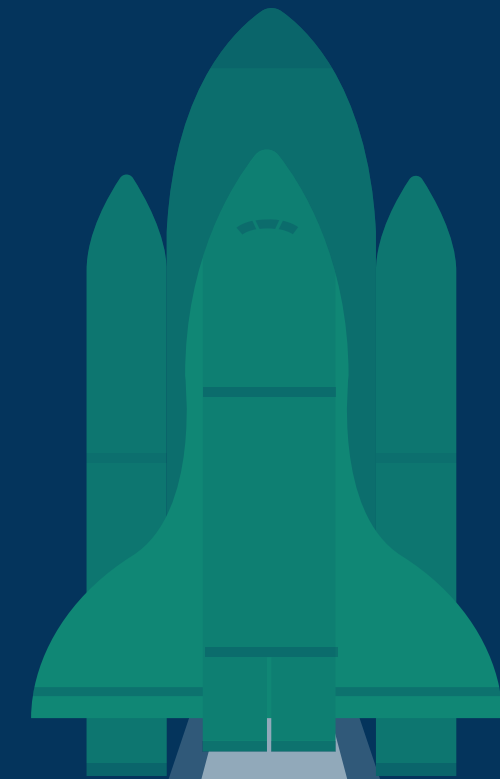
FULL STATIC SUPPORT

CDN SUPPORT

GENERATE RESPONSIVE SIZES

```
<nuxt-img src="/nuxt-icon.png" />
```

```
<nuxt-picture src="/nuxt-icon.png" />
```



NUXT IMAGE



preset="jpg-cover"

predefined sets of image modifiers



fit="cover", fit="fill"

Specifies the size of the images



loading="lazy"

Automatically add lazy loading



format="webp"

Serve images in specific format



quality="80"

Select the quality you want



Prevent layout shifting

Sets size of the image based on the aspect ratio

Use with your favourite provider



```
<nuxt-img  
  provider="cloudinary"  
  src="/main.png"  
  width="300"  
  height="169"  
  :modifiers="{ roundCorner: '0:100' }"  
>
```

NUXT PICTURE

```
<div>  
<picture>  
  <source srcset="...">  
    
</picture>
```



placeholder

Small, low quality image for when image is loading



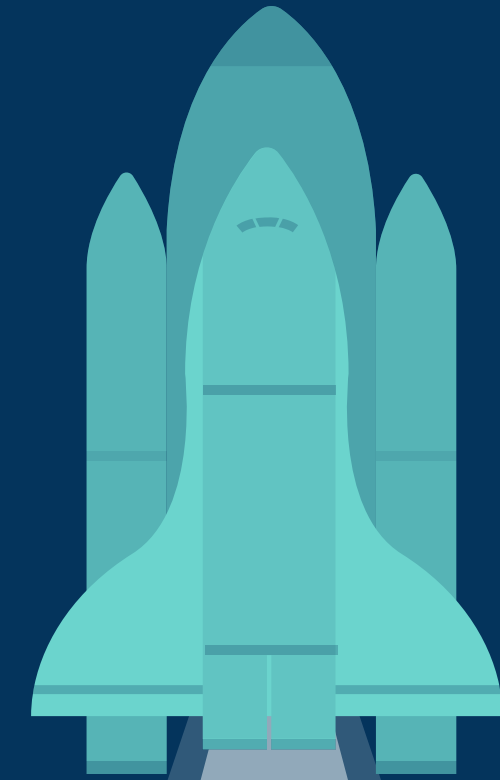
format="webp" / "avif"

Serve modern format webp when browser supports it



Be Performant

Be Nuxt





DARE MIGHTY THINGS

Exploring our solar system



VueTelescope Open

INFO

VUE VERSION 2.6.12	FRAMEWORK NuxtJS	UI FRAMEWORK Tailwind CSS
RENDERING Universal	DEPLOYMENT Server	

PLUGINS

vue-router vue-meta vue-apollo vuex

NUXT MODULES

@nuxtjs/axios @nuxtjs/apollo

Exploring our solar system

Studying Earth to better understand climate change

Tracking and studying asteroids and comets

Creating robots to go where humans can't

Developing technology to improve life on Earth

NEXT LANDING

DEEP SPACE NETWORK

ASTEROID WATCH



@debs_obrien

THANK YOU



TWITTER

debs_obrien



LINKEDIN

Debbie O'Brien



YOUTUBE

youtube.com/c/DebbieOBrien

