




CityJS™

building a better hammer
the story of Nuxt 4 

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hello 

 nuxt.com •  nitro.unjs.io •  page-speed.dev •  regexp.dev
 fontaine.sh •  elk.zone •  firstcommit.is •  roe.dev

 Experts  Microsoft®
Most Valuable
Professional



Have you used Nuxt before?

Yes



27

Not yet

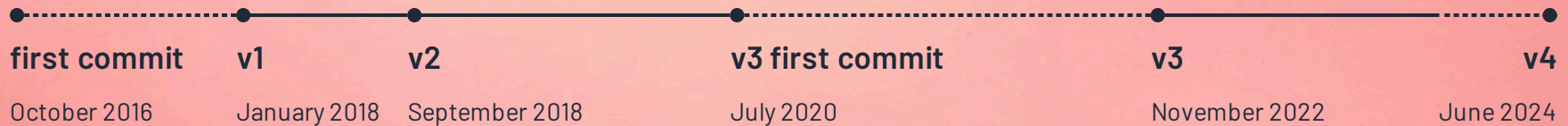


56



what is Nuxt?

- ◆ a **progressive** framework built on **Vue.js** and **Nitro**
- ◆ **zero-effort** start with great DX
- ◆ **best practices** built-in
- ◆ fully **configurable** & easily **extendible**





51.6 k

★ STARS

29.2 MILLION

📈 DOWNLOADS

61 %

📊 NUXT 3 VS NUXT 2



680+
CONTRIBUTORS



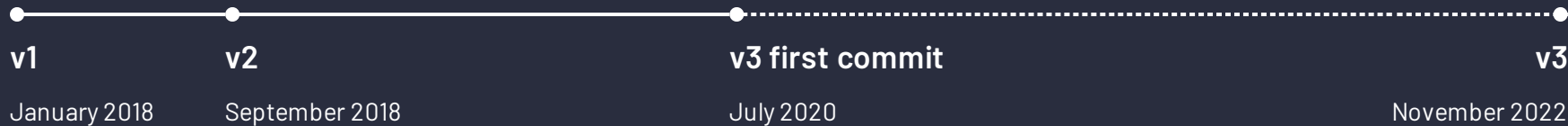


why?

1. reduce cognitive load
2. unlock the power of convention
3. take over the world

~~mistakes were made~~

things we got wrong





- ◆ **scope and time**
- ◆ the importance of **ecosystem**

- ◆ reliance on **internals**
- ◆ repairing a **moving car**

lessons we learnt

hookable

powered by [unjs/hookable](https://github.com/unjs/hookable)

- ◆ allows hooking into every part of nuxt & nitro

```
import { createHooks } from 'hookable'
const hooks = createHooks()

// register a callback
hooks.hook('build:done', async (ctx) => {})

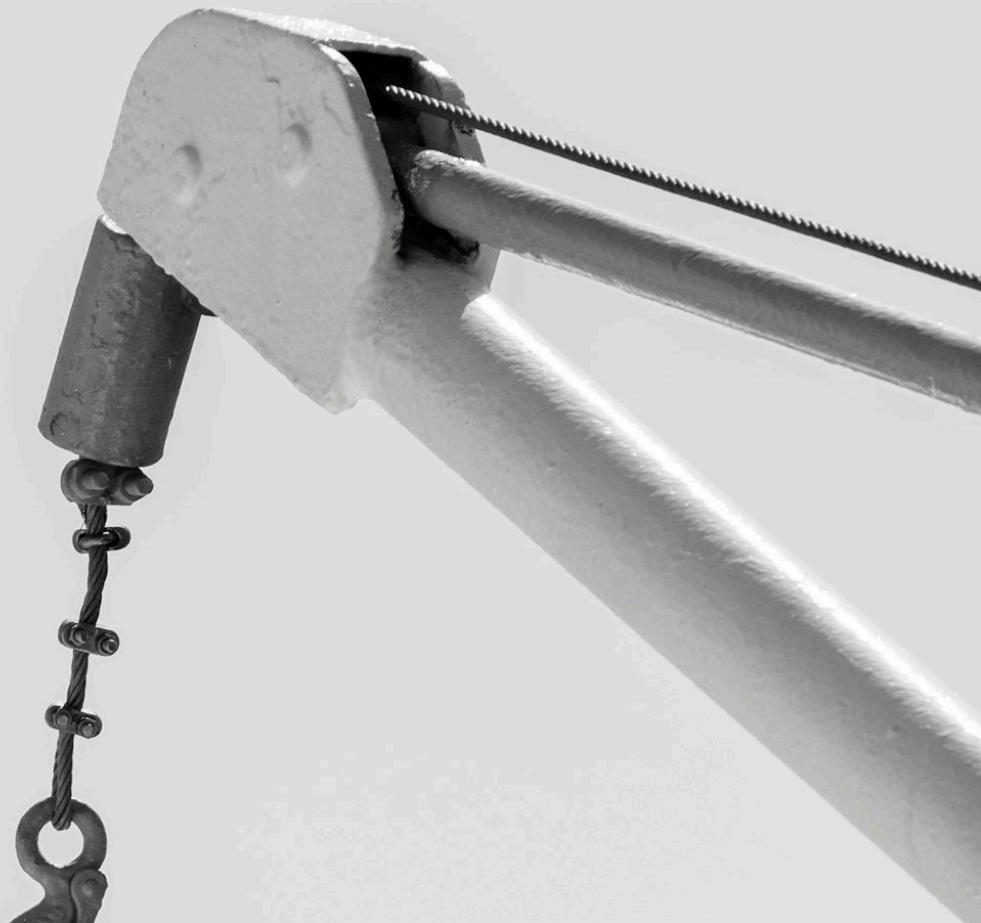
// call hooks
hooks.callHook('build:done', ctx)
```



hookable

powered by [unjs/hookable](#)

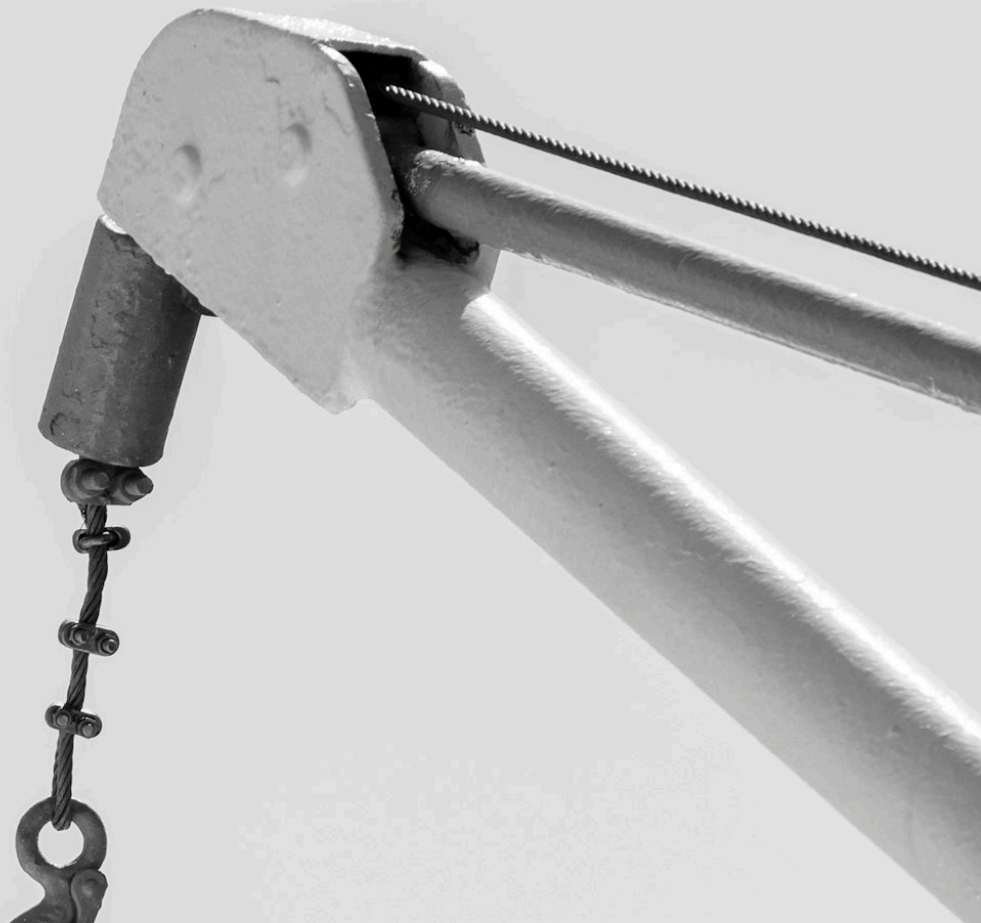
- ◆ allows hooking into every part of nuxt & nitro
- ◆ automatic integration with `console.createTask`



hookable

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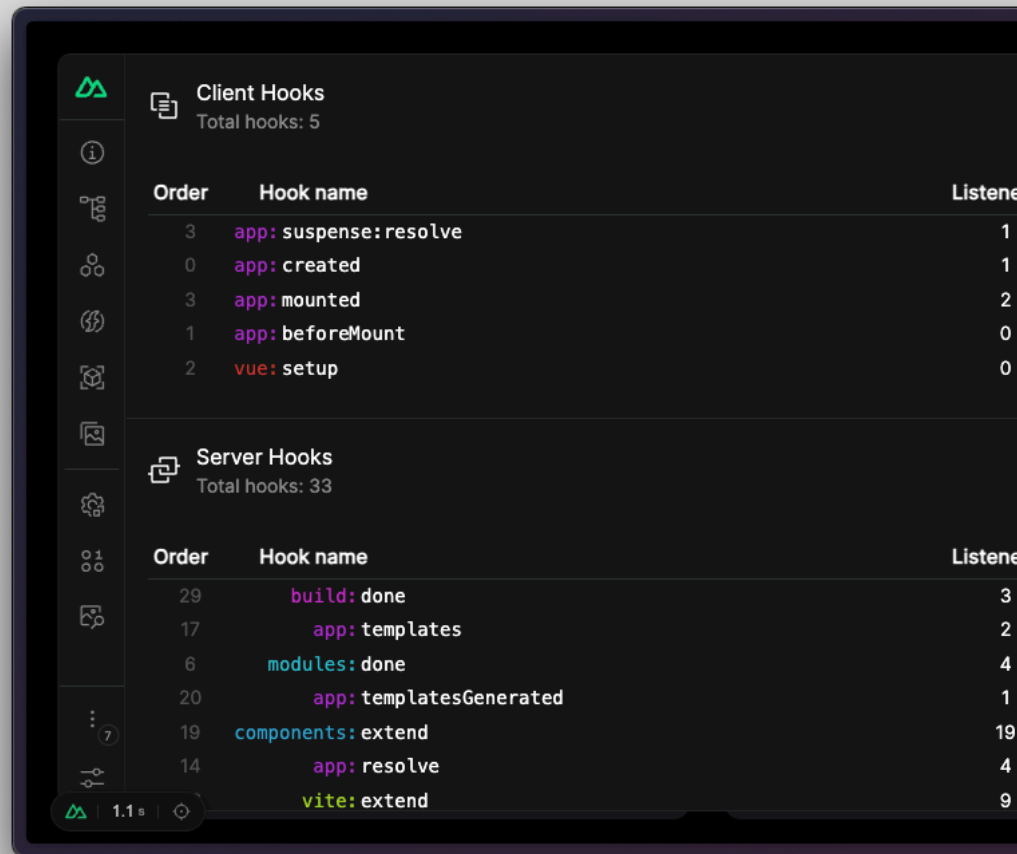
- ◆ allows hooking into every part of nuxt & nitro
- ◆ automatic integration with `console.createTask`
- ◆ async, sync + custom task runners



hookable

powered by [unjs/hookable](https://github.com/unjs/hookable)

- ✦ allows hooking into every part of nuxt & nitro
- ✦ automatic integration with `console.createTask`
- ✦ async, sync + custom task runners
- ✦ debugging mode



pluggable

where possible, make core utilities + components swappable

- ✦ **bundler:** `vite`, `webpack`, `rspack` - powered by [unjs/unplugin](#)
- ✦ **ad-hoc modules:** head, pages, components, imports
- ✦ **layer architecture**

modular

make it possible to build easily

- ✦ **distributable**: public, internal, or local
- ✦ **tooling**: `@nuxt/module-builder`
- ✦ **queryable** from modules dataset + API
- ✦ composable **Nuxt SDK** with `@nuxt/kit`

The screenshot shows the Nuxt Modules website. At the top, there is a navigation bar with the Nuxt logo and links for Docs, Integrations, Resources, Showcase, Enterprise, and Blog. The main heading is "Nuxt Modules" with a subtext: "Discover our list of modules to supercharge your Nuxt project. Created by the Nuxt team and community." Below this, there are two buttons: "Module Author Guide" and "List a module". On the right side, there are two featured module cards: "Nuxt Image" (Official) with the description "Plug-and-play image optimization." and "Nuxt DevTools" (Official) with the description "Visual tools that help you to know your app." Below these, there is a "Categories" section with a search bar and a list of categories: Analytics, CMS, CSS, Database, Devtools, Ecommerce, Extensions, Fonts, Images, Libraries, Monitoring, Payment, and Performance. The main content area displays a grid of module cards. The first card is "devtools" (Official) with the description "Unleash Nuxt Developer Experience. A set of visual tools that help you t..." and statistics: 1.4M downloads, 2.6K stars, and 29 forks. The second card is "pinia" with the description "The Vue Store that you will enjoy using" and statistics: 977.8K downloads, 12K stars, and 26 forks. Other cards for "bun" and "bun" are partially visible at the bottom.

nuxt.com/modules

... from the public registry at [nuxt/modules](https://nuxt.com/modules)

205 +
MODULES

170
MAINTAINERS

1,167
CONTRIBUTORS

13,347,203
DOWNLOADS

130,753
STARS

```
await $fetch('https://api.nuxt.com/modules')
  .then(({ stats }) => console.log(stats))
```



Docs ▾

Integrations ▾

Resources ▾

Showcase

Enterprise ▾

Blog

Nuxt Modules

Discover our list of modules to supercharge your Nuxt project. Created by the Nuxt team and community.

📖 Module Author Guide

+ List a module

Nuxt Image 🧑

Plug-and-play image optimization.

Nuxt DevTools 🧑

Visual tools that help you to know your app.

Categories

- Analytics
- CMS
- CSS
- Database
- Devtools
- Ecommerce
- Extensions
- Fonts
- Images
- Libraries
- Monitoring
- Payment
- Performance

🔍 Search... /



devtools 🧑 Official

Unleash Nuxt Developer Experience.
A set of visual tools that help you t...

📄 1.4M ⭐ 2.6K

👤 29



pinia

The Vue Store that you will enjoy using

📄 977.8K ⭐ 12K

👤 26





prioritise user choice

ROUTING

- ✦ vue-router
- ✦ universal routing

DEPLOY

- ✦ alwaysdata
- ✦ aws lambda
- ✦ aws amplify
- ✦ azure
- ✦ cleavr
- ✦ cloudflare
- ✦ deno deploy
- ✦ digitalocean
- ✦ edgio
- ✦ firebase
- ✦ flightcontrol
- ✦ github pages
- ✦ heroku

✦ iis

- ✦ koyeb
- ✦ netlify
- ✦ platform.sh
- ✦ render.com

- ✦ stormkit
- ✦ vercel
- ✦ zeabur

TESTING

- ✦ jest
- ✦ vitest
- ✦ playwright
- ✦ cypress
- ✦ cucumber

STORIES

- ✦ storybook
- ✦ histoire

KV AND CACHE

- ✦ azure
- ✦ browser
- ✦ capa
- ✦ pref
- ✦ cloudi
- ✦ filesystem
- ✦ github
- ✦ http
- ✦ lru cache
- ✦ memory
- ✦ mongodb
- ✦ netlify blobs
- ✦ overlay

✦ planetscale

- ✦ redis
- ✦ vercel kv

DATABASES

- ✦ bun sqlite
- ✦ postgres d1
- ✦ planetscale
- ✦ postgresql
- ✦ sqlite
- ✦ turso
- ✦ vercel

IMAGES

- ✦ aliyun
- ✦ aws amplify
- ✦ bunny
- ✦ caisy
- ✦ cloudflare
- ✦ cloudimage
- ✦ cloudinary
- ✦ contentful
- ✦ directus
- ✦ edgio
- ✦ fastly
- ✦ glide
- ✦ gumlet
- ✦ hygraph
- ✦ imageengine
- ✦ imagekit
- ✦ imgix
- ✦ ipx

✦ netlify

- ✦ prepr
- ✦ prismic
- ✦ sanity
- ✦ sirv
- ✦ storyblok
- ✦ strapi
- ✦ twicpics
- ✦ unsplash
- ✦ uploadcare
- ✦ vercel
- ✦ weserv

FONTS

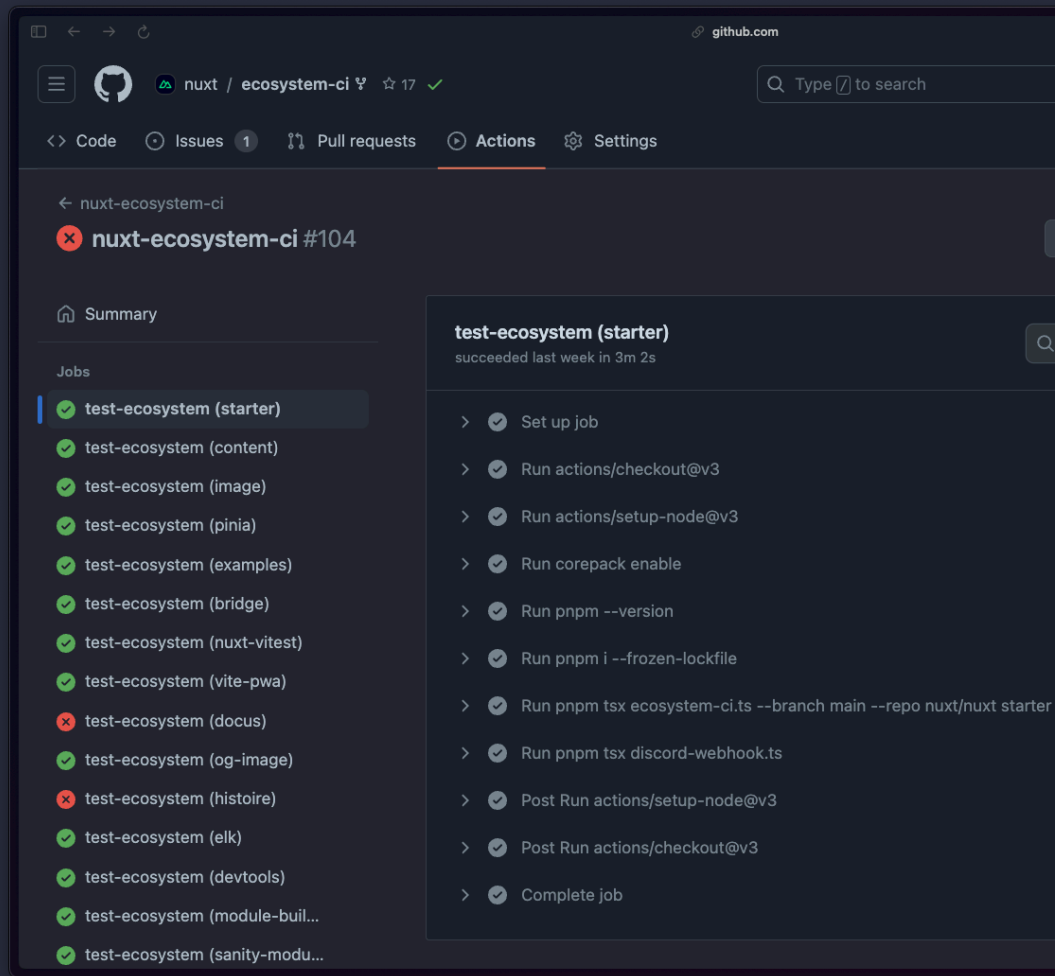
- ✦ google
- ✦ adobe
- ✦ bunny
- ✦ fontshare
- ✦ local

90+
PROVIDERS

balancing stability

prioritising planning and reliability

- ✦ reliable release schedule
- ✦ tested with nuxt/ecosystem-ci



github.com

nuxt / ecosystem-ci 17 ✓

Code Issues 1 Pull requests Actions Settings

nuxt-ecosystem-ci

nuxt-ecosystem-ci #104

Summary

Jobs




- ✓ **test-ecosystem (starter)**
- ✓ test-ecosystem (content)
- ✓ test-ecosystem (image)
- ✓ test-ecosystem (pinia)
- ✓ test-ecosystem (examples)
- ✓ test-ecosystem (bridge)
- ✓ test-ecosystem (nuxt-vitest)
- ✓ test-ecosystem (vite-pwa)
- ✗ test-ecosystem (docus)
- ✓ test-ecosystem (og-image)
- ✗ test-ecosystem (histoire)
- ✓ test-ecosystem (elk)
- ✓ test-ecosystem (devtools)
- ✓ test-ecosystem (module-buil...)
- ✓ test-ecosystem (sanity-modu...)

test-ecosystem (starter)
succeeded last week in 3m 2s




- > ✓ Set up job
- > ✓ Run actions/checkout@v3
- > ✓ Run actions/setup-node@v3
- > ✓ Run corepack enable
- > ✓ Run pnpm --version
- > ✓ Run pnpm i --frozen-lockfile
- > ✓ Run pnpm tsx ecosystem-ci.ts --branch main --repo nuxt/nuxt starter
- > ✓ Run pnpm tsx discord-webhook.ts
- > ✓ Post Run actions/setup-node@v3
- > ✓ Post Run actions/checkout@v3
- > ✓ Complete job

balancing stability with innovation ✨

allowing space for new development
















- ✦ server components  HUANG-JULIEN with deep reactivity
- ✦ app manifests  DANIELROE and build caching  PIO
- ✦ View Transitions API and automatic reload and state restoration
- ✦ zero-JS and zero-Vue runtime modes ⚡
- ✦ inline route rules (with `defineRouteRules`) and build-time metadata extraction
- ✦ 👉 multi-app support, a.k.a Nuxt 'module federation'

balancing stability with innovation ✨


- ✦ nuxt/test-utils  DANIELROE · ANTFU working within `vitest` ecosystem  SHEREMET-VA
- ✦ collaborating with  ECOSYSTEM-CI
- ✦ forward compatibility: `future` and `features` namespaces
- ✦ 👉 downstream testing action
- ✦ 👉 incremental code migration
- ✦ 🙏 an invitation to feedback + testing

balancing stability with innovation ✨

'Baseline features' and  WEB-PLATFORM-DX

 Baseline Widely available	    ^
 Baseline 2022 NEWLY AVAILABLE	    v
 Limited availability	    v

balancing stability **with innovation** ✨

- ✦ built-in, cross-platform WebSocket support
- ✦ WebAssembly possibilities
- ✦ new JS runtimes and deployment targets
- ✦ collaborating with  GOOGLECHROMELABS Aurora team on performance

balancing stability with innovation ✨

✦ informative usage information with

[nuxt/telemetry](#)



PI0 · DANIELROE · ATINUX

✦ evaluating impact from real-world projects

http.
archive

The screenshot shows the NuxtOSS interface. On the left is a navigation menu with options: Overview, Data Flow, Playground, Time Series, Tokens, DATA PROJECT, and Pipes (16). The main area displays a data project named 'nuxt_devtools'. Below the project name, there is a description field and a button 'How to add a parameter'. A list of tables is shown, including 'nuxt_devtools_active_tabs', 'nuxt_devtools_events', 'nuxt_devtools_versions', 'nuxt_devtools_3', 'nuxt_projects_per_version', 'nuxt_sessions', 'nuxt_sessions_per_month', 'nuxt2_sessions_per_day', 'nuxt2_sessions_per_month', 'nuxt3_modules_projects', 'nuxt3_modules_and_date', 'nuxt3_sessions_per_day', 'nuxt3_sessions_per_month', and 'os_per_day'. A query editor is open, showing a SQL query:

```
1 SELECT
2   tab,
3   count(tab) as total,
4   count(distinct(context_projectHash)) as total_projects
5 FROM telemetry_v1_event_devtools where event == 'tab'
6 group by tab
7 order by total desc
```

 Below the query, it indicates '35.01MB processed, (662.33k rows x 3 columns) in 24.69ms'. A table of results is displayed at the bottom:

tab	total	total_projects
modules-pages	10199	4014
modules-components	8918	3711



what about nuxt 4?

- ✦ HYPE
- ✦ **thoughtful** breaking changes
- ✦ opt-in and out
- ✦ focus on **migration** experience

what about nuxt 4?

✨ new default directory structure

```
app/
├ components/
├ composables/
├ layouts/
├ middleware/
├ pages/
├ plugins/
└ app.vue

public/
server/
├ api/
├ middleware/
├ plugins/
└ routes/

nuxt.config.ts

modules/
```



what about nuxt 4?

- 🔥 opting-in to more performant defaults
- ✦ shallow reactive payloads
- ✦ non-reactive runtime configuration (?)
- ✦ using native browser cache




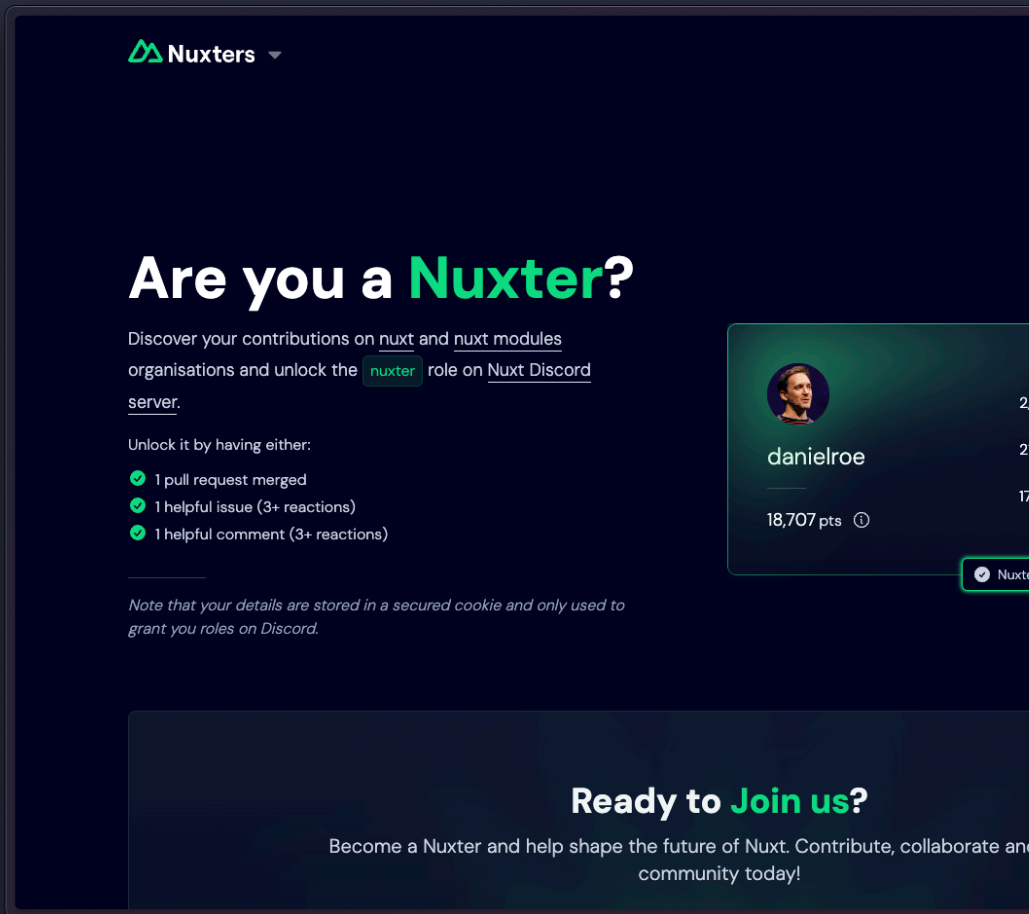
what about nuxt 4?

🚧 implementing best practices

- ✦ absolute paths in `builder:watch` hook
- ✦ removing `pending` boolean in favour of `status`

want to help?

- ✦ docs with syntax + API usage  ATINUX · ANTFU
- ✦ Discord and GitHub for help and contribution
- ✦ we want to recognise you at nuxters.nuxt.com
- ✦ ... and a final offer 🙏




Are you a Nuxter?

Discover your contributions on [nuxt](#) and [nuxt modules](#) organisations and unlock the [nuxter](#) role on [Nuxt Discord server](#).

Unlock it by having either:

- ✔ 1 pull request merged
- ✔ 1 helpful issue (3+ reactions)
- ✔ 1 helpful comment (3+ reactions)

Note that your details are stored in a secured cookie and only used to grant you roles on Discord.



danielroe


18,707 pts ⓘ

Ready to **Join us?**

Become a Nuxter and help shape the future of Nuxt. Contribute, collaborate and join our community today!

Daniel Roe

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 @danielcroe

 @daniel@roe.dev

Interested ... ?

- ◆ check out the docs on nuxt.com
- ◆ follow [@nuxt_js](https://twitter.com/nuxt_js) on Twitter or [@nuxt@webtools](https://mastodon.social/@nuxt@webtools) on Mastodon
- ◆ join chat.nuxt.dev to discuss

