Nuxt Vue web framework

START HERE

npm create nuxt *<dir>*
Scaffold a project

npx nuxt dev
Start the dev server

npx nuxt add-template page *<name>*
Create a page

npx nuxt module add *<module>*
Install a module

npx nuxt typecheck
Check types

npx nuxt build
Production build

npx nuxt generate
Static site output

npx nuxt preview
Try the build locally

nuxt dev HMR server → `nuxt build` → **.output** Nitro server bundle → `node` → **Run** SSR on Node or edge

CONCEPTS

Files in app/pages, app/components and app/composables are picked up and auto-imported: no import lines needed.

nuxt generate prerenders every route to plain HTML in .output/public for any static host.

PROJECT

npm create nuxt *<dir>*
Scaffold a new project

npx nuxt dev
Start the dev server with HMR
Port also comes from PORT or NUXT_PORT.

npx nuxt build
Production build into .output
Output is a Nitro server; run it with node .output/server/index.mjs.

npx nuxt generate
Prerender to static HTML
Same as build --prerender.

npx nuxt preview
Serve the production build locally
Run build first.

npx nuxt prepare
Generate .nuxt and types
Handy as a postinstall script or in CI before linting.

npx nuxt typecheck
Type-check the whole app
Needs vue-tsc or Golar; offers to install one.

npx nuxt info
Print versions and modules
Paste the output into bug reports; --json for scripts.

npx nuxt cleanup
Delete .nuxt, .output and caches
First thing to try when types or HMR act strange.

npx nuxt upgrade
Upgrade Nuxt and dependencies

DEV SERVER

npx nuxt dev -p *<port>*
Listen on another port
Add --strictPort to fail instead of picking a free one.

npx nuxt dev -o
Open the browser on start

DEV SERVER (cont.)

npx nuxt dev -h *<host>*
Bind to a host or IP

npx nuxt dev --public
Listen on all interfaces
Lets phones and other machines on the LAN reach it.

npx nuxt dev --https
Serve over local HTTPS
Uses a generated, locally trusted certificate.

npx nuxt dev --dotenv *<file>*
Load an extra .env file
Repeatable; later files win.

BUILD & DEPLOY

npx nuxt build --prerender
Build and prerender static routes

npx nuxt build --preset *<name>*
Choose a deploy target
E.g. node-server, vercel, netlify, cloudflare-pages; NITRO_PRESET also works.

npx nuxt analyze
Inspect the bundle size
Experimental; serves a report unless --no-serve or CI is set.

node .output/server/index.mjs
Run the built server
PORT and HOST env vars control where it listens.

SCAFFOLDING

npx nuxt add-template page *<name>*
New page in app/pages

npx nuxt add-template component *<Name>*
New component in app/components

npx nuxt add-template composable *<name>*
New composable in app/composables

npx nuxt add-template layout *<name>*
New layout in app/layouts

npx nuxt add-template middleware *<name>*
New route middleware
Add --global to run it on every route.

npx nuxt add-template plugin *<name>*
New plugin in app/plugins
--client or --server adds a mode suffix.

SCAFFOLDING (cont.)

npx nuxt add-template api *<name>*
New API handler in server/api
Add --get or --post to restrict the method.

MODULES

npx nuxt module add *<module>*
Install and register a module
Edits package.json and the modules list in nuxt.config.

npx nuxt module search *<query>*
Find modules by keyword

npx nuxt module remove *<module>*
Uninstall and unregister a module

DIRECTORIES

Where things go

Path	Holds
`app/pages/`	file-based routes (about.vue, [id].vue)
`app/components/`	auto-imported components
`app/composables/`	auto-imported use* functions
`app/layouts/`	page wrappers, used with <NuxtLayout>
`app/middleware/`	route guards
`app/plugins/`	code that runs when the app starts
`app/utils/`	auto-imported helpers
`server/api/`	handlers served at /api/*
`server/routes/`	handlers served at their path
`server/middleware/`	run on every server request
`public/`	static files served from /
`shared/`	code usable by app and server

app/app.vue is the root component; add <NuxtPage /> there once you have a pages/ folder.

A file in server/api/hello.get.ts answers GET /api/hello only; the .get/.post suffix picks the method.

CONFIG

nuxt.config.ts: modules
List of extensions, loaded in order

CONFIG (cont.)

nuxt.config.ts: runtimeConfig
Env-backed settings
Keys outside public stay server-only; override with NUXT_<KEY> env vars.

nuxt.config.ts: css
Global stylesheets

nuxt.config.ts: app
baseURL, head tags, transitions

nuxt.config.ts: ssr
Turn server rendering on or off
ssr: false gives a client-only SPA.

nuxt.config.ts: routeRules
Per-route caching and rendering
Mix prerender, swr, redirect and ssr: false per path.

nuxt.config.ts: compatibilityDate
Pin behaviour of presets and modules

nuxt.config.ts: devtools
Enable Nuxt DevTools

nuxt.config.ts: nitro
Server engine options

nuxt.config.ts: vite
Pass options to Vite

Env var to config

Env var	Sets
`NUXT_PORT / PORT`	dev and preview port
`NUXT_HOST / HOST`	listen host
`NUXT_<KEY>`	runtimeConfig.<key>
`NUXT_PUBLIC_<KEY>`	runtimeConfig.public
`NITRO_PRESET`	build deploy target

RECIPES

New project

```
npm create nuxt my-app
cd my-app
npx nuxt dev
```

Add a module and a page

```
npx nuxt module add @nuxt/image
npx nuxt add-template page about
# edit app/pages/about.vue
```

Static site

```
npx nuxt generate
npx nuxt preview
# upload .output/public
```

Minimal nuxt.config.ts

```
export default
defineNuxtConfig({
  compatibilityDate:
'2025-07-15',
  modules: ['@nuxt/image'],
  runtimeConfig: { public:
{ apiBase: '' } },
  routeRules: { '/blog/**':
{ prerender: true } },
})
```