Next.js React web framework

CONCEPTS

Folders under app/ are URL segments; a route goes public only once it has a page or route file.

layout shared shell
template re-mounts on nav
error error boundary
loading suspense fallback
not-found 404 boundary
page the route UI

Nesting order of special files in a segment

CREATE AN APP

`npx create-next-app@latest` *`<name>`*
Create a new project

`create-next-app --yes`
Reuse saved prefs or defaults, no prompts

DEV, BUILD, START

`next dev`
Dev server with hot reload

`next dev -p` *`<port>`*
Set the port (or PORT env var)

`next build`
Optimized production build

`next start`
Serve the production build

`next start -p` *`<port>`*
Port for the production server

TOOLS

`next --help`
List commands and options

`next --version`
Print the Next.js version

`next info`
Print system and package versions

`next typegen`
Generate route types without a build

`next typegen && tsc --noEmit`
Type-check routes in CI

TOOLS (cont.)

`next upgrade`
Upgrade Next.js and its codemods

APP ROUTER FILES

`app/layout.tsx`
Shared shell; root one needs <html> and <body>

`app/page.tsx`
UI that makes a route public

`app/loading.tsx`
Fallback shown while a segment streams

`app/error.tsx`
Error boundary; must be a client component

`app/not-found.tsx`
UI for notFound() and unmatched URLs

`app/api/`*`<name>`***`/route.ts`**
Route handler (GET, POST, ...)

`proxy.ts`
Runs before requests; successor of middleware

`next.config.ts`
Framework config (.js and .mjs also work)

`public/`
Static files served from /

ROUTE FOLDERS

`app/blog/page.tsx`
Serves /blog

`app/blog/[slug]/page.tsx`
Dynamic segment

ENVIRONMENT

`.env`
Defaults for every environment

`.env.local`
Local secrets; keep out of git

`NEXT_PUBLIC_`*`<NAME>`***`=value`**
Inlined into browser code at build time

`process.env.`*`<NAME>`*
Read a variable on the server

> Variables without the NEXT_PUBLIC_ prefix stay server-side.