



Using App Router

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# Next.js Project Structure

This page provides an overview of the file and folder structure of a Next.js project. It covers top-level files and folders, configuration files, and routing conventions within the `app` and `pages` directories.

## Top-level folders

<code>app</code>	App Router
<code>pages</code>	Pages Router
<code>public</code>	Static assets to be served
<code>src</code>	Optional application source folder

## Top-level files

Next.js	
<code>next.config.js</code>	Configuration file for Next.js
<code>package.json</code>	Project dependencies and scripts
<code>instrumentation.ts</code>	OpenTelemetry and Instrumentation file
<code>middleware.ts</code>	Next.js request middleware

<code>.env</code>	Environment variables
<code>.env.local</code>	Local environment variables
<code>.env.production</code>	Production environment variables
<code>.env.development</code>	Development environment variables
<code>.eslintrc.json</code>	Configuration file for ESLint
<code>.gitignore</code>	Git files and folders to ignore
<code>next-env.d.ts</code>	TypeScript declaration file for Next.js
<code>tsconfig.json</code>	Configuration file for TypeScript
<code>jsconfig.json</code>	Configuration file for JavaScript

## app Routing Conventions

### Routing Files

<code>layout</code>	<code>.js</code> <code>.jsx</code> <code>.tsx</code>	Layout
<code>page</code>	<code>.js</code> <code>.jsx</code> <code>.tsx</code>	Page
<code>loading</code>	<code>.js</code> <code>.jsx</code> <code>.tsx</code>	Loading UI
<code>not-found</code>	<code>.js</code> <code>.jsx</code> <code>.tsx</code>	Not found UI
<code>error</code>	<code>.js</code> <code>.jsx</code> <code>.tsx</code>	Error UI
<code>global-error</code>	<code>.js</code> <code>.jsx</code> <code>.tsx</code>	Global error UI
<code>route</code>	<code>.js</code> <code>.ts</code>	API endpoint
<code>template</code>	<code>.js</code> <code>.jsx</code> <code>.tsx</code>	Re-rendered layout
<code>default</code>	<code>.js</code> <code>.jsx</code> <code>.tsx</code>	Parallel route fallback page

### Nested Routes

<code>folder</code>	Route segment
<code>folder/folder</code>	Nested route segment

## Dynamic Routes

<code>[folder]</code>	Dynamic route segment
<code>[...folder]</code>	Catch-all route segment
<code>[ [...folder]]</code>	Optional catch-all route segment

## Route Groups and Private Folders

<code>(folder)</code>	Group routes without affecting routing
<code>_folder</code>	Opt folder and all child segments out of routing

## Parallel and Intercepted Routes

<code>@folder</code>	Named slot
<code>(.)folder</code>	Intercept same level
<code>(..)folder</code>	Intercept one level above
<code>(..)(..)folder</code>	Intercept two levels above
<code>(...)folder</code>	Intercept from root

## Metadata File Conventions

### App Icons

<code>favicon</code>	<code>.ico</code>	Favicon file
<code>icon</code>	<code>.ico</code> <code>.jpg</code> <code>.jpeg</code> <code>.png</code> <code>.svg</code>	App Icon file
<code>icon</code>	<code>.js</code> <code>.ts</code> <code>.tsx</code>	Generated App Icon

apple-icon	.jpg .jpeg .png	Apple App Icon file
apple-icon	.js .ts .tsx	Generated Apple App Icon

## Open Graph and Twitter Images

opengraph-image	.jpg .jpeg .png .gif	Open Graph image file
opengraph-image	.js .ts .tsx	Generated Open Graph image
twitter-image	.jpg .jpeg .png .gif	Twitter image file
twitter-image	.js .ts .tsx	Generated Twitter image

## SEO

sitemap	.xml	Sitemap file
sitemap	.js .ts	Generated Sitemap
robots	.txt	Robots file
robots	.js .ts	Generated Robots file

## pages Routing Conventions

### Special Files

_app	.js .jsx .tsx	Custom App
_document	.js .jsx .tsx	Custom Document
_error	.js .jsx .tsx	Custom Error Page
404	.js .jsx .tsx	404 Error Page

## Routes

### Folder convention

`index``.js``.jsx``.tsx`

Home page

`folder/index``.js``.jsx``.tsx`

Nested page

### File convention

`index``.js``.jsx``.tsx`

Home page

`file``.js``.jsx``.tsx`

Nested page

## Dynamic Routes

### Folder convention

`[folder]/index``.js``.jsx``.tsx`

Dynamic route segment

`[...folder]/index``.js``.jsx``.tsx`

Catch-all route segment

`[ [...folder] ]/index``.js``.jsx``.tsx`

Optional catch-all route segment

### File convention

`[file]``.js``.jsx``.tsx`

Dynamic route segment

`[...file]``.js``.jsx``.tsx`

Catch-all route segment

`[ [...file] ]``.js``.jsx``.tsx`

Optional catch-all route segment

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