



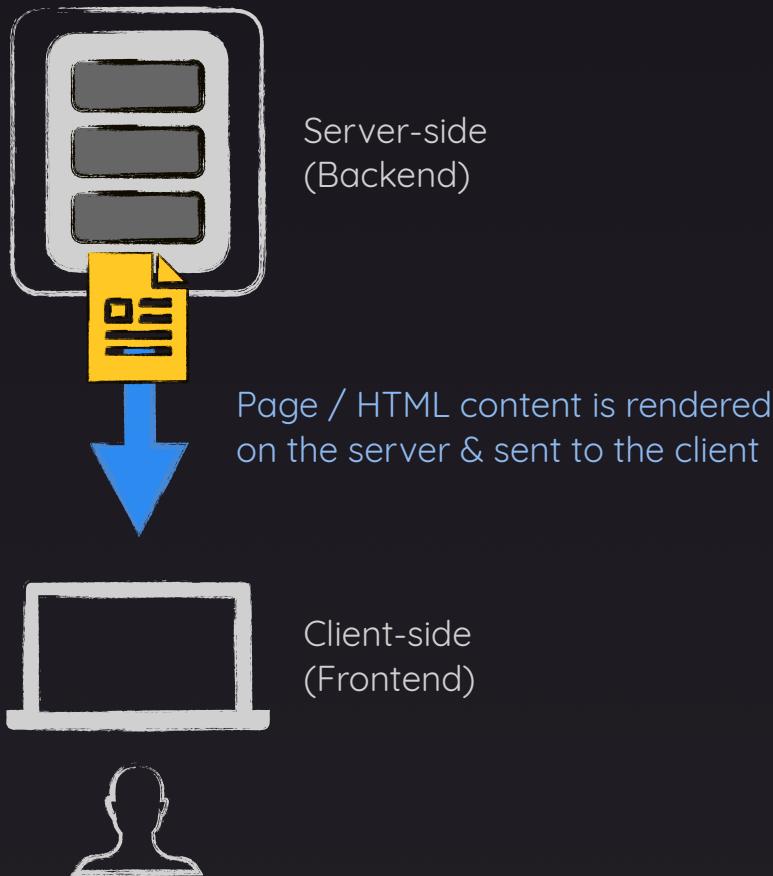
NextJS Essentials

The Core Concepts You Must Know

- ▶ Routing, Pages & Components
- ▶ Fetching & Sending Data
- ▶ Styling, Images & Metadata

Maximilian Schwarzmüller — “NextJS - The Complete Guide”

NextJS Renders Pages On The Server



Vanilla React Apps Render On The Client



Server-side
(Backend)



Only returns one single HTML file which
contains the client-side JS code



Client-side
(Frontend)

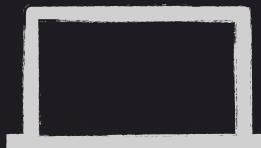
The visible content is
generated & rendered
on the client-side (by the
client-side React code)



With NextJS, You Build Fullstack Applications



Server-side
(Backend)



Client-side
(Frontend)

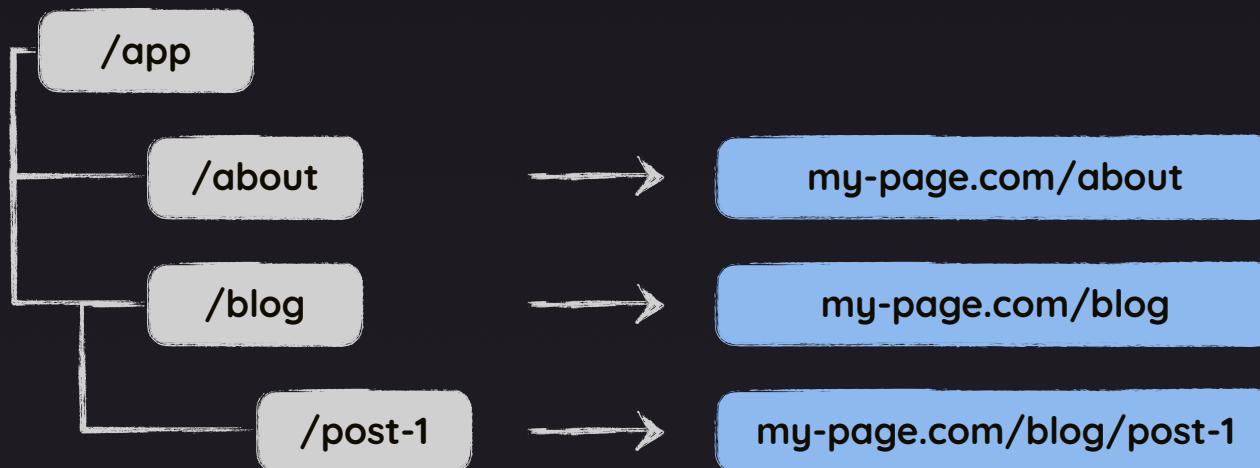


Maximilian Schwarzmüller – “NextJS - The Complete Guide”

Filesystem-based Routing

NextJS uses files & folders to define routes

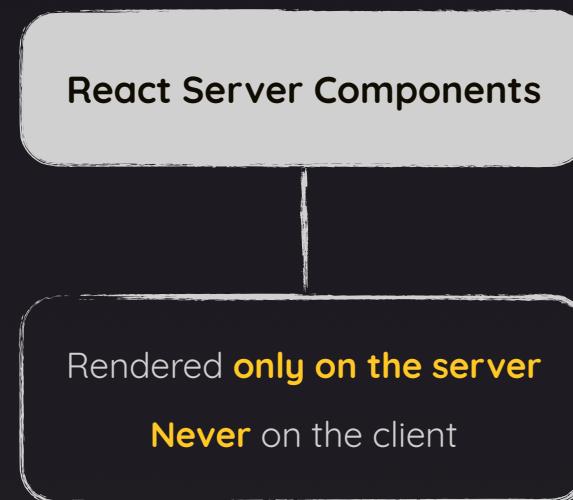
Only files & folders inside the “app” folder are considered!



NextJS Works With React Server Components

Components which require a special “environment”

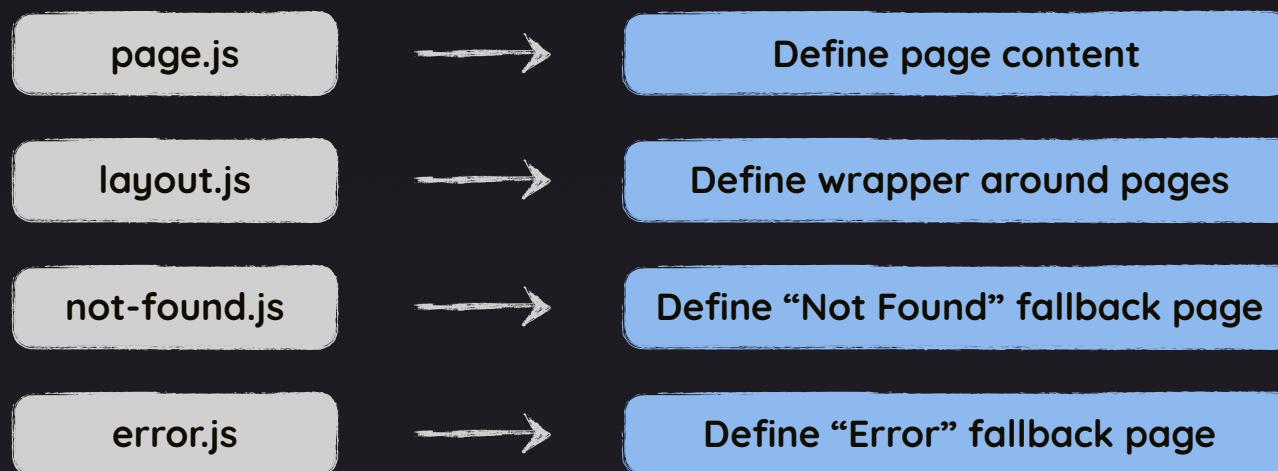
NextJS provides such an environment



Filenames Matter!

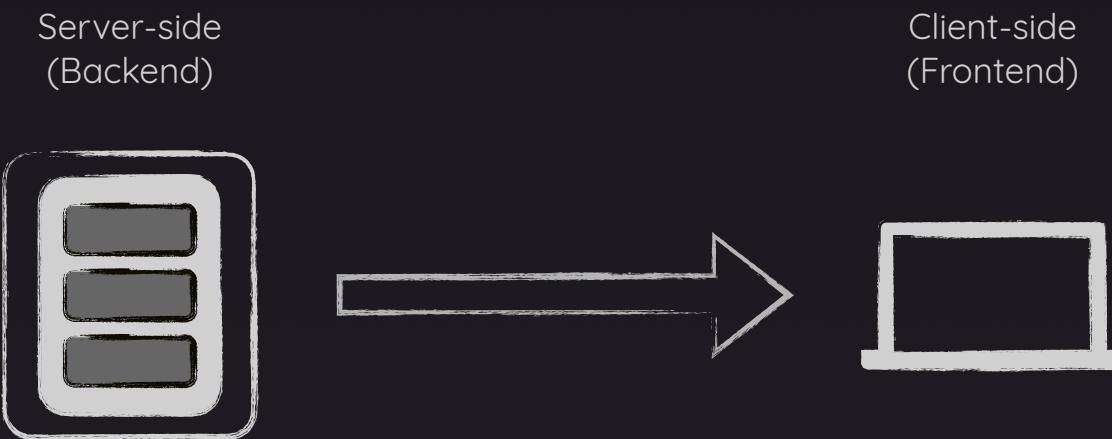
NextJS relies on reserved, special filenames

But the filenames only matter inside the “app” folder



And others — covered later!

Server- & Client-side Working Together



The backend **executes the server component functions** & hence derives the to-be-rendered HTML code

The client-side **receives & renders** the to-be-rendered HTML code

Exercise

Create three routes

/meals

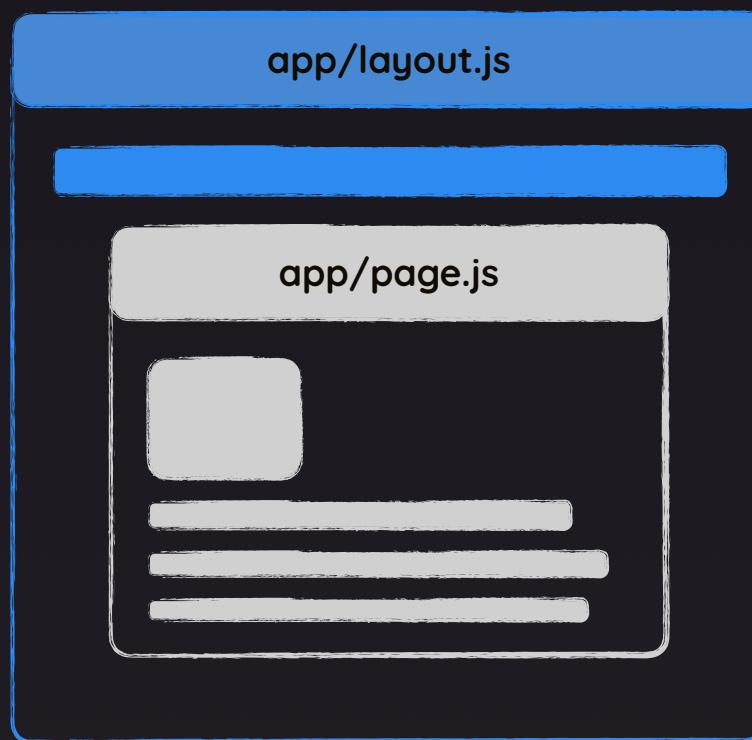
/meals/share

/community

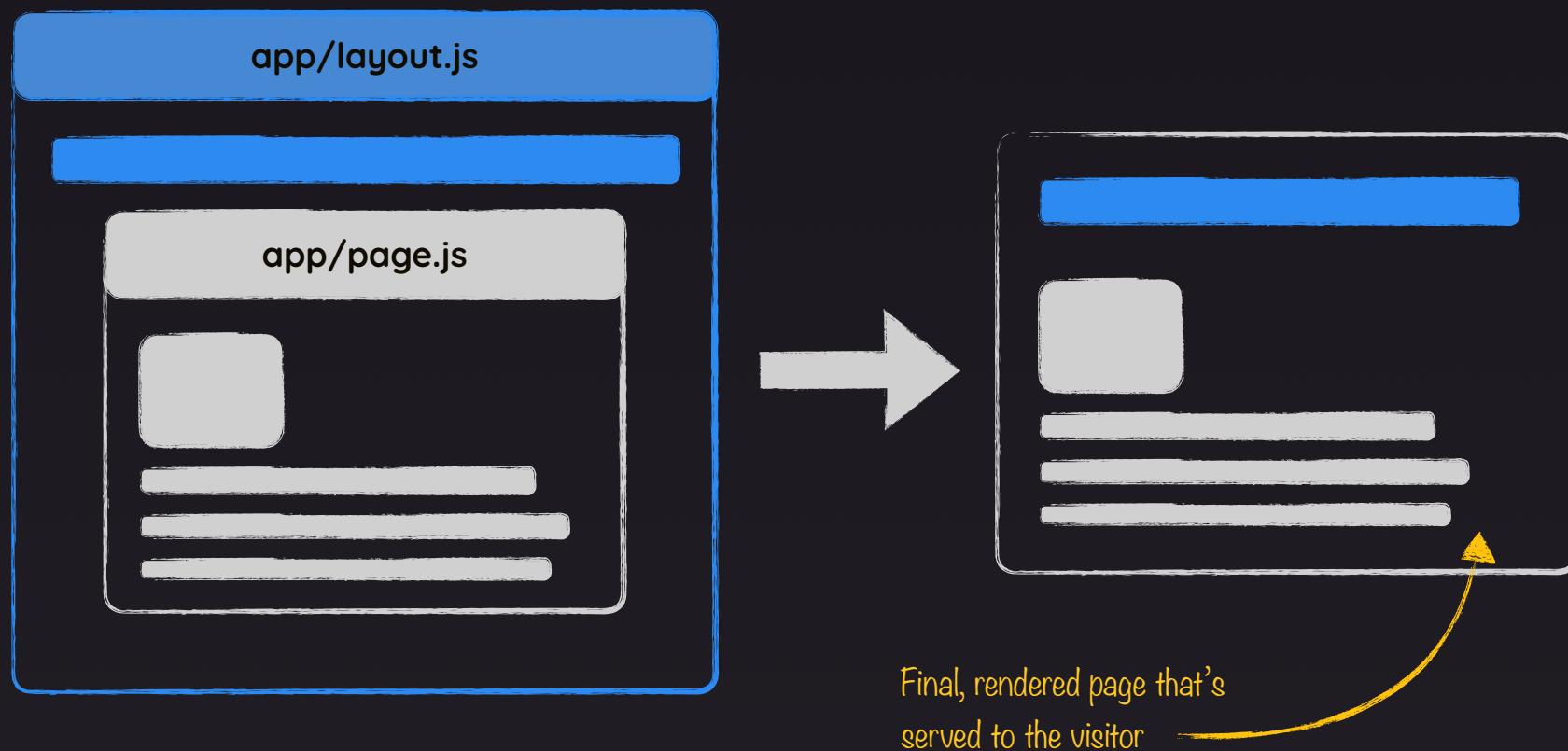
Create a dynamic route

/meals/<some slug>

Pages & Layouts



Pages & Layouts



Server vs Client Components



React Server Components (RSC)

Components that are **only** rendered on the server

By default, all React components (in NextJS apps) are RSCs

Advantage: Less client-side JS, great for SEO



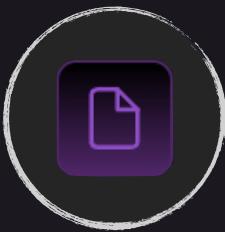
Client Components

Components that are **pre-rendered** on the server but then also **potentially on the client**

Opt-in via “use client” directive

Advantage: Client-side interactivity

Two Approaches For Building NextJS Apps



Pages Router

Has been around for many years

Very stable

Used in many existing NextJS projects

Allows you to build feature-rich fullstack apps with React



App Router

Introduced with NextJS 13

Marked as stable but still relatively new & partially buggy

Supports modern Next & React features (→ fullstack React apps)

The future of NextJS

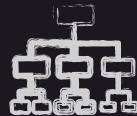
Key Features & Benefits



Fullstack Apps

NextJS blends frontend + backend (in the same project)

Advantage: Frontend and backend tasks are part of the same project



File-based Routing

Routes are configured via the filesystem (folders + files)

Advantage: No code-based configuration or extra packages for routing required

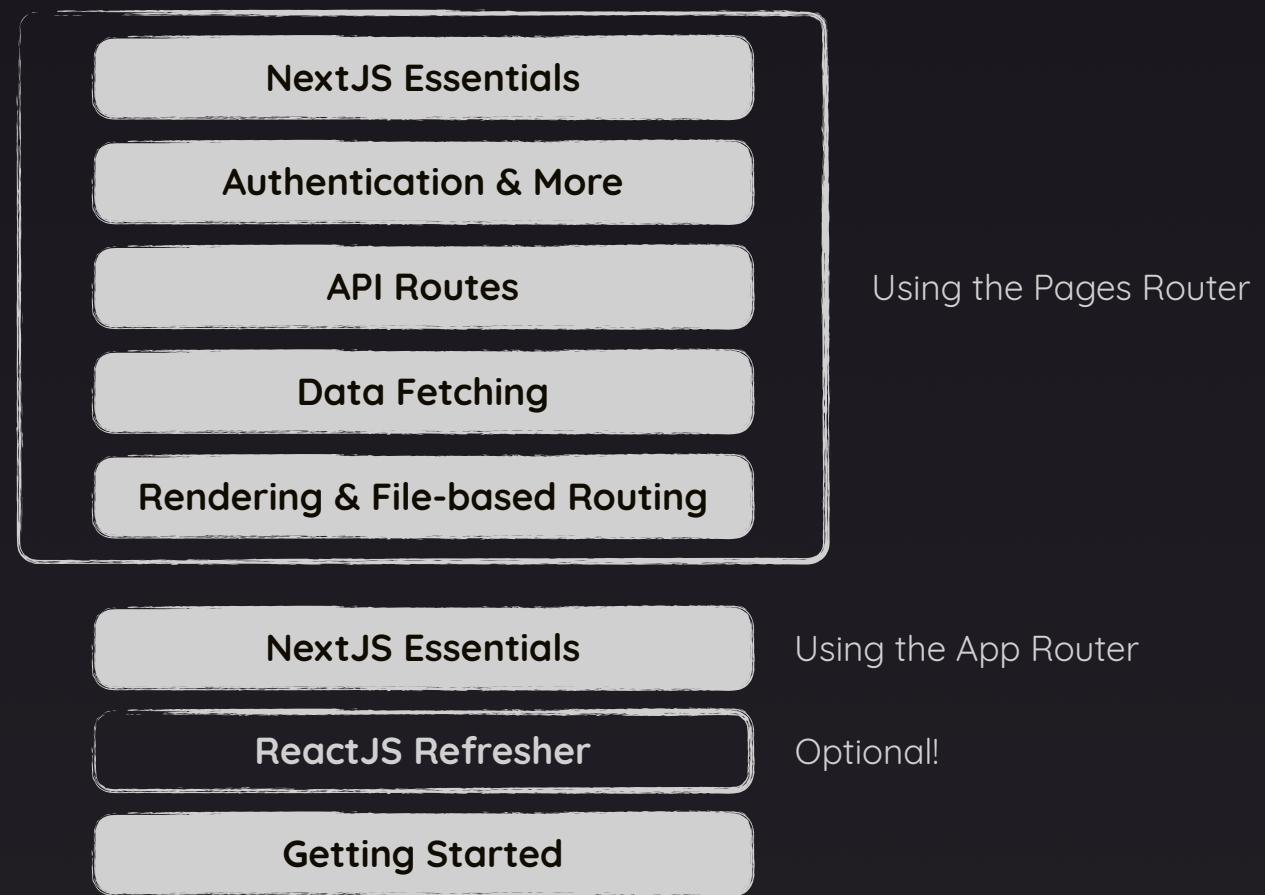


Server-side Rendering

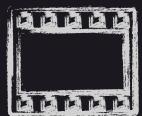
By default, NextJS (pre-) renders all pages on the server

Advantage: The finished HTML page (incl. content) is sent to the client (→ great for SEO)

About The Course



How To Get The Most Out Of This Course



Watch The Videos

Watch them at your pace!
(use the video player controls)

Pause & rewind if needed

Take your time!



Practice!

Pause videos & try the next
steps on your own

Build demo projects & revisit
course projects



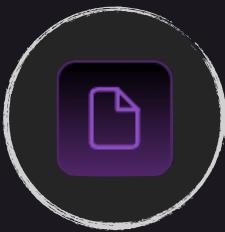
Support

Use the code snapshots &
attachments

Ask & answer in the Q&A
section

Find like-minded developers
on Discord

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The future of NextJS

App Router NextJS Essentials

Routing & Page Rendering

React Server Components vs Client Components

Styling

Working with Images & Metadata

Data Fetching

Data Mutation & Server Actions

File Upload

App Router → Pages Router

Maximilian Schwarzmüller — “NextJS - The Complete Guide”

I added the App Router section
after the initial course release

Learning about the Pages Router can still
make a lot of sense!