JOBSHEET 01

SETUP PROJECT NEXT.JS MENGGUNAKAN PAGES ROUTER

PEMOGRAMAN BERBASIS FRAMEWORK

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TI-3E / 19

TEKNOLOGI INFORMASI

D. Langkah Kerja Praktikum

Langkah 1 - Pengecekan Lingkungan

1. Buka terminal / command prompt.
2. Jalankan perintah berikut:
3. node -v
4. npm -v
5. Git -V

```
PS D:\2026-Ganjil> cd PemogramanFramework
PS D:\2026-Ganjil\PemogramanFramework> cd Code
PS D:\2026-Ganjil\PemogramanFramework\Code> node -v v20.11.1
PS D:\2026-Ganjil\PemogramanFramework\Code> npm -v
10.2.4
PS D:\2026-Ganjil\PemogramanFramework\Code> git -v
git version 2.52.0.windows.1
```

Langkah 2 – Membuat Project Next.js

1. Buat direktori baru dan masuk ke direktori kerja

```
PS D:\2026-Ganjil\PemogramanFramework\Code> mkdir praktikum


    Directory: D:\2026-Ganjil\PemogramanFramework\C
    ode


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```

2. Jalankan perintah:

```
PS D:\2026-Ganjil\PemogramanFramework\Code\praktikum> npx create-next-app@13.4.7

Installing dependencies:
- react
- react-dom
- next
- typescript
- @types/react
- @types/node
- @types/react-dom
- eslint
- eslint-config-next


added 338 packages, and audited 339 packages in 2m

136 packages are looking for funding
  run `npm fund` for details

found 0 vulnerabilities
Initialized a git repository.

Success! Created my-app at D:\2026-Ganjil\PemogramanFramework\Code\praktikum\my-app

A new version of `create-next-app` is available!
You can update by running: npm i -g create-next-app

npm notice
npm notice New major version of npm available! 10.2.4 -> 11.10.0
npm notice Changelog: https://github.com/npm/cli/releases/tag/v11.10.0
npm notice Run npm install -g npm@11.10.0 to update!
npm notice
```

3. Kita menggunakan versi 13.4.7 bukan yang latest (npx create-next-app@latest nextjs-pagesrouter) dan Tunggu hingga proses instalasi selesai.
4. Masuk ke folder projectnya

```
PS D:\2026-Ganjil\PemogramanFramework\Code\praktikum> cd .\my-app\
PS D:\2026-Ganjil\PemogramanFramework\Code\praktikum\my-app>
```

Langkah 3 – Menjalankan Server Development

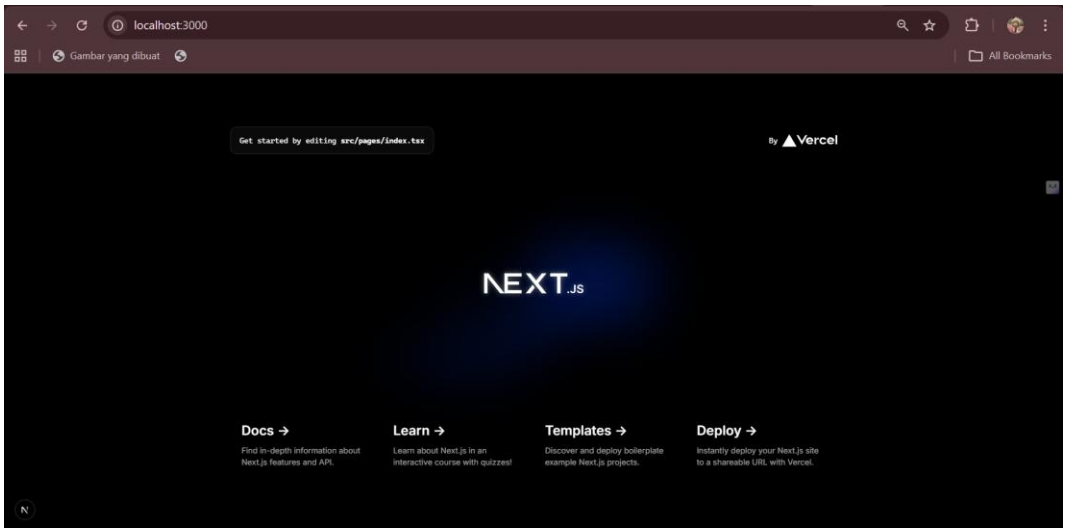
1. Masuk ke folder project:

```
PS D:\2026-Ganjil\PemogramanFramework\Code\praktikum> cd .\my-app\
PS D:\2026-Ganjil\PemogramanFramework\Code\praktikum\my-app>
```

2. Jalankan aplikasi:
   npm run dev

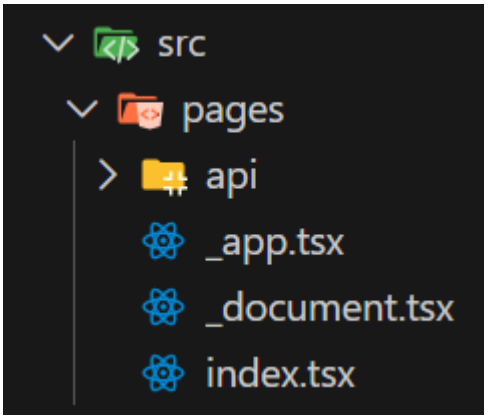
```
PS D:\2026-Ganjil\PemogramanFramework\Code\praktikum\my-app> npm run dev

> my-app@0.1.0 dev
> next dev

▲ Next.js 16.1.6 (Turbopack)
- Local:         http://localhost:3000
- Network:       http://192.168.80.1:3000

✓ Starting...
Attention: Next.js now collects completely anonymous telemetry regarding usage.
This information is used to shape Next.js' roadmap and prioritize features.
You can learn more, including how to opt-out if you'd not like to participate in this a
nonymous program, by visiting the following URL:
https://nextjs.org/telemetry


  We detected TypeScript in your project and reconfigured your tsconfig.json file for y
ou.
  The following mandatory changes were made to your tsconfig.json:

        - jsx was set to react-jsx (next.js uses the React automatic runtime)

✓ Ready in 712ms
```

3. Buka browser dan akses: http://localhost:3000

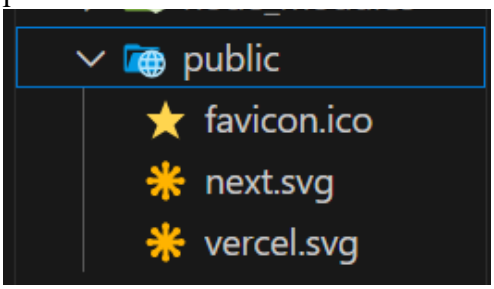


Langkah 4 – Mengenal Struktur Folder

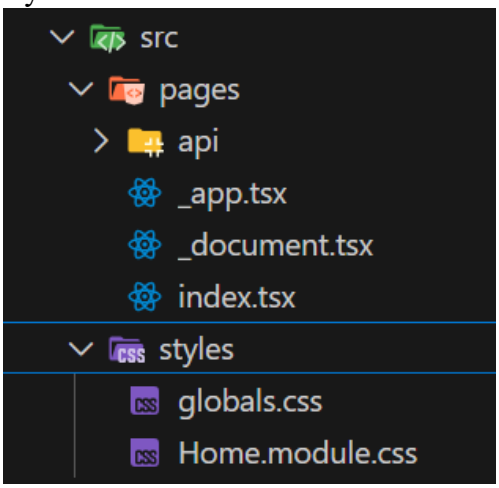
- Amati folder utama:
    - pages/ → tempat routing halaman



- public/ → aset statis



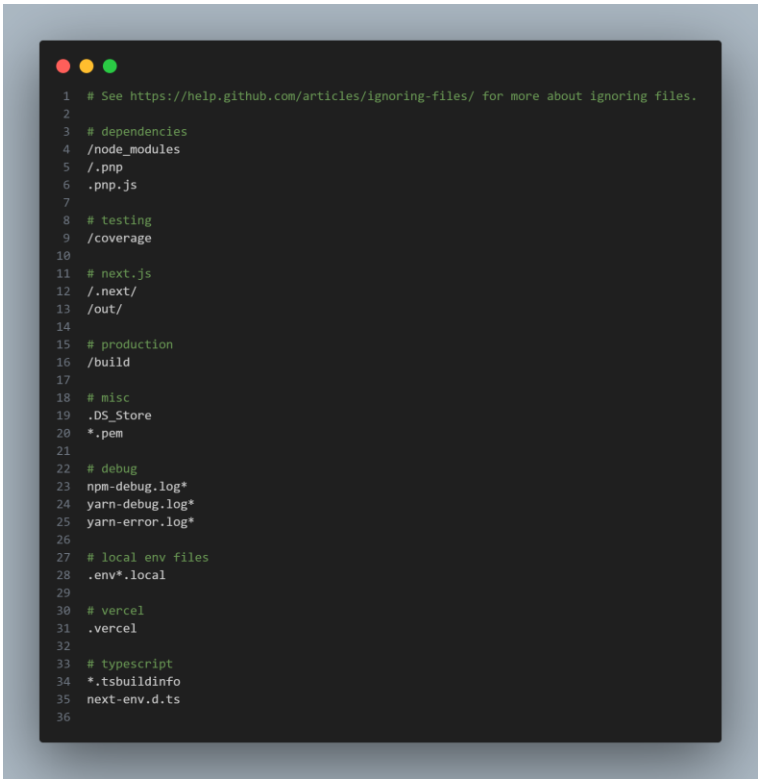
- styles/ → file CSS



- package.json → konfigurasi project

```json
{
  "name": "my-app",
  "version": "0.1.0",
  "private": true,
  "scripts": {
    "dev": "next dev",
    "build": "next build",
    "start": "next start",
    "lint": "next lint"
  },
  "dependencies": {
    "@types/node": "25.2.3",
    "@types/react": "19.2.14",
    "@types/react-dom": "19.2.3",
    "eslint": "9.39.2",
    "eslint-config-next": "16.1.6",
    "next": "16.1.6",
    "react": "19.2.4",
    "react-dom": "19.2.4",
    "typescript": "5.9.3"
  }
}
```

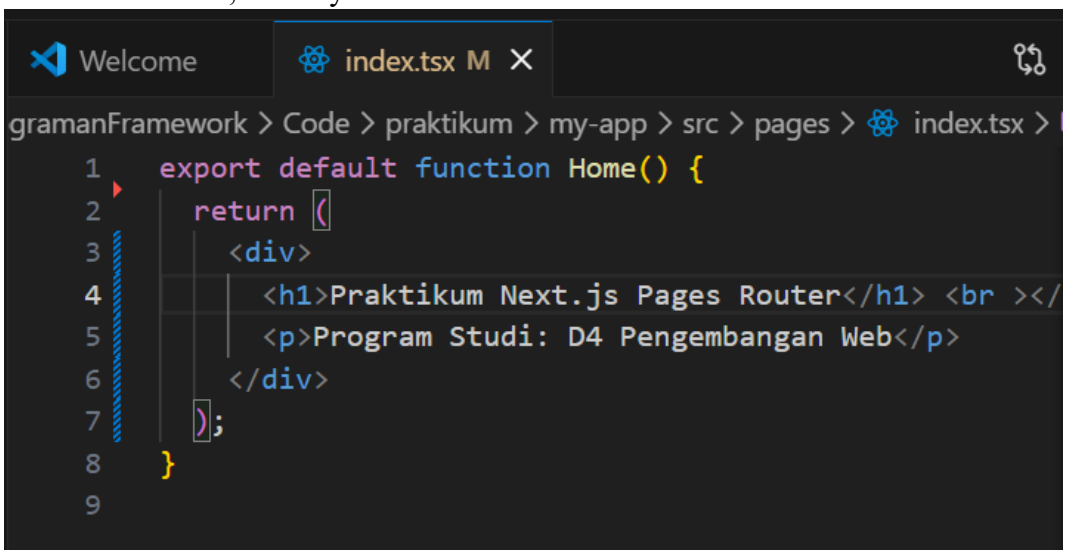
- gitIgnore -> file konfigurasi di Git yang berfungsi untuk memberitahu Git file atau folder apa saja yang TIDAK perlu di-track / di-commit ke repository.



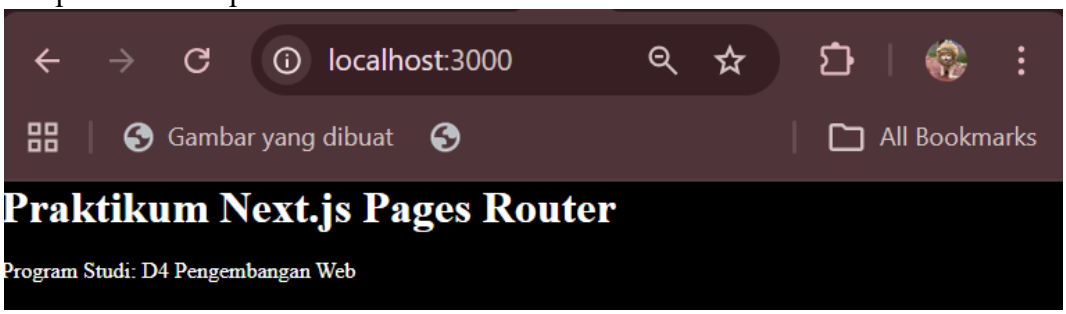
```
# See https://help.github.com/articles/ignoring-files/ for more about ignoring files.

# dependencies
/node_modules
/.pnp
.pnp.js

# testing
/coverage

# next.js
/.next/
/out/

# production
/build

# misc
.DS_Store
*.pem

# debug
npm-debug.log*
yarn-debug.log*
yarn-error.log*

# local env files
.env*.local

# vercel
.vercel

# typescript
*.tsbuildinfo
next-env.d.ts
```

Langkah 5 – Modifikasi Halaman Utama

1. Buka file:
2. pages/index.js
3. Ubah isi halaman, misalnya:

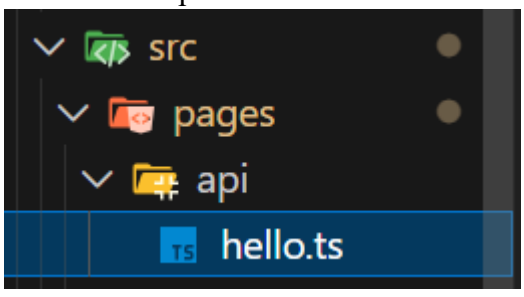


4. Simpan dan lihat perubahan di browser



Langkah 6 – Modifikasi API

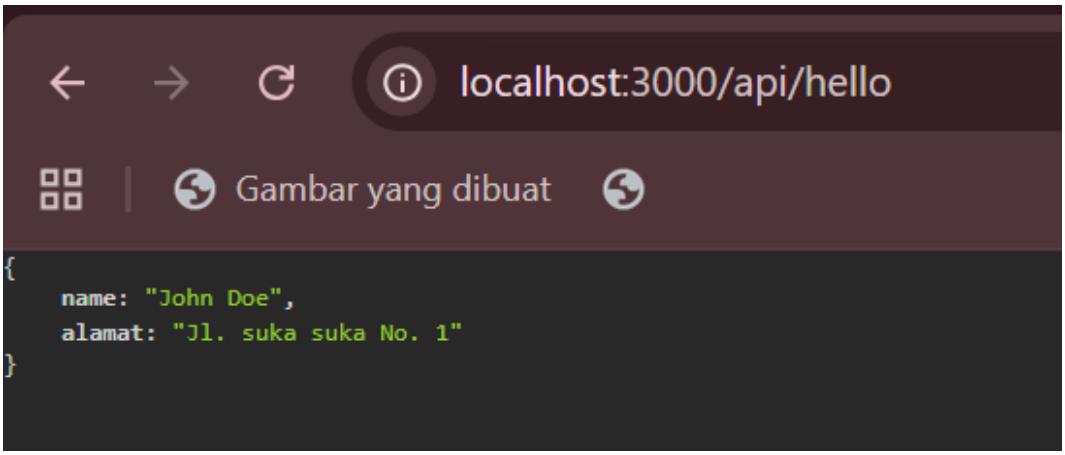
1. Buka folder api



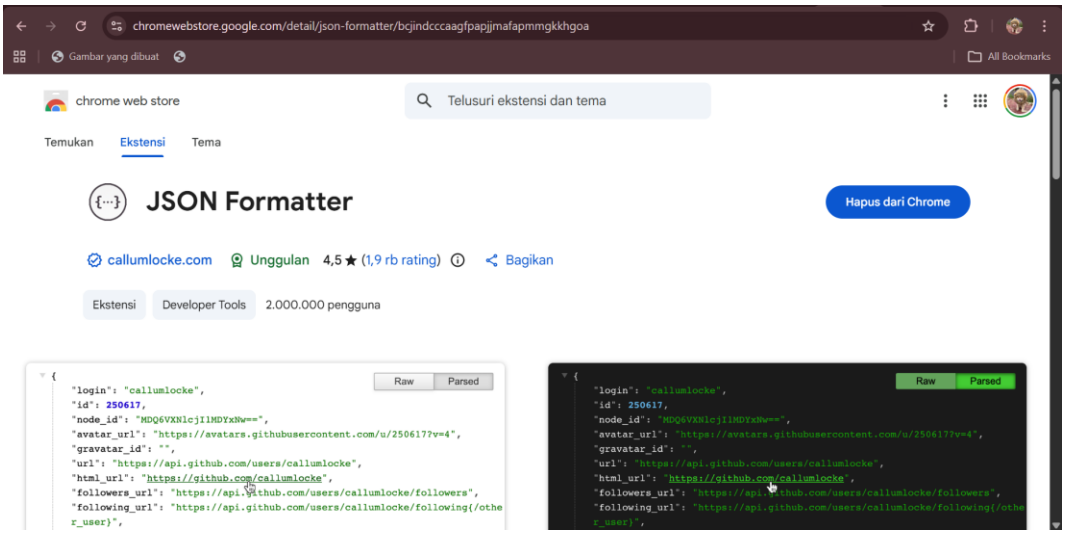
2. Modifikasi hello.ts

```ts
// Next.js API route support: https://nextjs.org/docs/api-routes/introduction
import type { NextApiRequest, NextApiResponse } from 'next'

type Data = {
  name: string
  alamat: string
}

export default function handler(
  req: NextApiRequest,
  res: NextApiResponse<Data>
) {
  res.status(200).json({ name: 'John Doe', alamat: 'Jl. suka suka No. 1' })
}

```

3. Jalankan browser dengan Alamat http://localhost:3000/api/hello



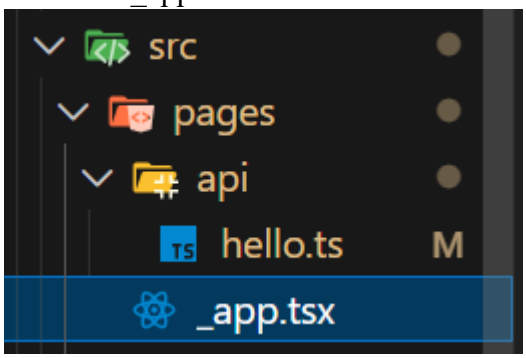
4. Tambahkan extensions chrome



5. Jalankan browser chrome

Langkah 7 – Modifikasi Background

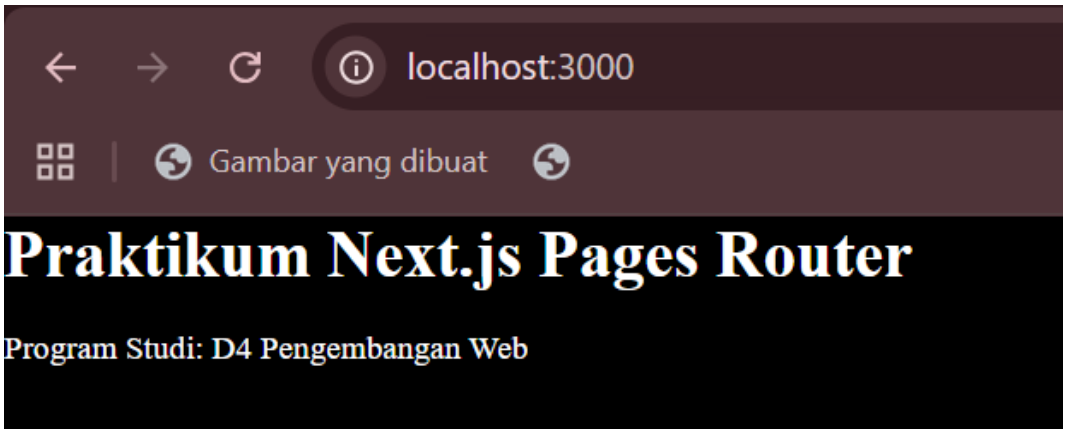
1. Buka file _app.tsx



2. Modifikasi menjadi berikut

```
import '@/styles/globals.css'
import type { AppProps } from 'next/app'

export default function App({ Component, pageProps }: AppProps) {
  return <Component {...pageProps} />
}

```

3. Jalankan localhost



1. Tugas Praktikum

Tugas 1 (Wajib)

• Buat halaman baru about.js di folder pages.

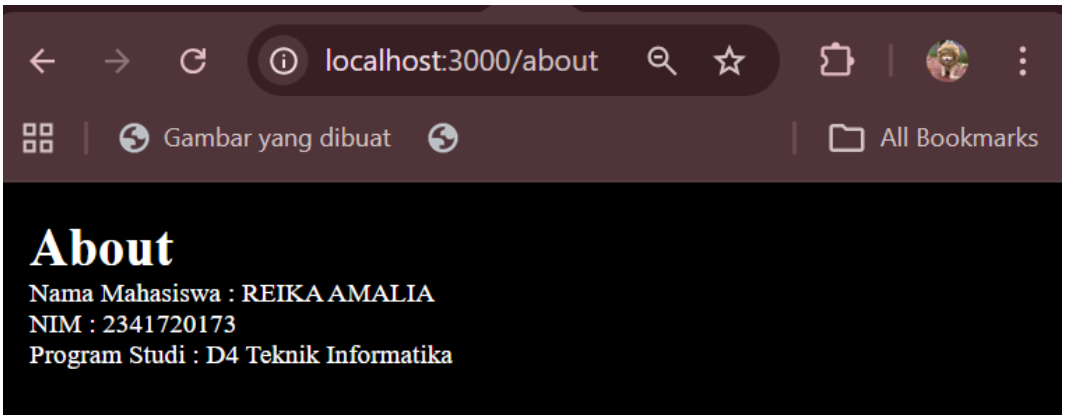
• Tampilkan:

o Nama Mahasiswa

o NIM

o Program Studi

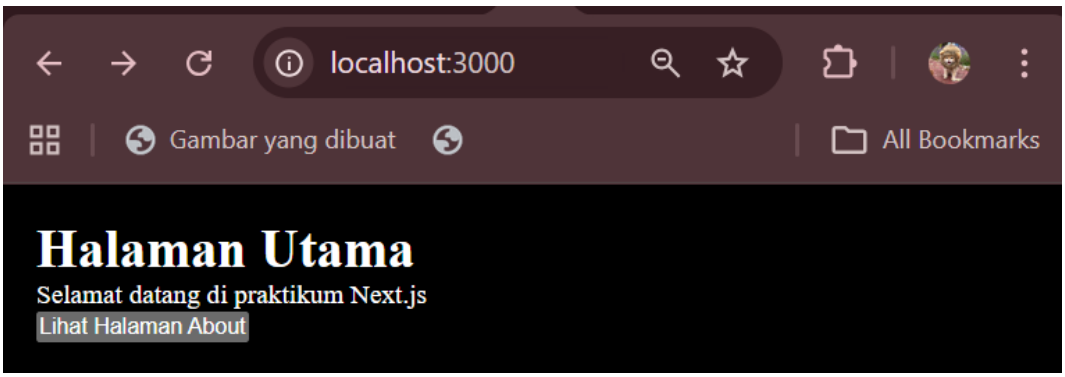
```
export default function About() {
  return (
    <div style={{ padding: "20px" }}>
      <h1>Halaman About</h1>

      <p>Nama Mahasiswa : REIKA AMALIA</p>
      <p>NIM : 2341720173</p>
      <p>Program Studi : D4 Teknik Informatika</p>
    </div>
  );
}

```



Tugas 2 (Pengayaan)

• Tambahkan minimal 1 link navigasi dari halaman utama ke halaman about.

```tsx
import Link from "next/link";

export default function Home() {
  return (
    <div style={{ padding: "20px" }}>
      <h1>Halaman Utama</h1>

      <p>Selamat datang di praktikum Next.js</p>

      <Link href="/about">
        <button>Lihat Halaman About</button>
      </Link>
    </div>
  );
}

```



F. Pertanyaan Refleksi

1) Mengapa Pages Router disebut sebagai routing berbasis file?

- Karena di Next.js kita tidak bikin routing manual seperti pakai react-router. Cukup buat file di folder pages, otomatis jadi alamat URL. Misal pages/about.tsx langsung bisa diakses ke /about. Jadi struktur folder = struktur halaman web.

2) Apa perbedaan Next.js dengan React standar (CRA)?

- Kalau React biasa (Create React App) kita harus pasang banyak library sendiri, misalnya routing, SEO, optimasi, dll. Sedangkan Next.js sudah nyediain bawaan seperti routing otomatis, server-side rendering, dan performa lebih bagus. Next.js itu React yang sudah “siap pakai” buat web production.

3) Apa fungsi perintah npm run dev?

- Untuk menjalankan project dalam mode development. Jadi kita bisa lihat website di localhost, dan setiap ada perubahan kode langsung update otomatis tanpa perlu refresh manual.

4) Apa perbedaan npm run dev dan run build ?

- npm run dev dipakai saat ngoding (masih proses bikin, ada hot reload).
  npm run build dipakai kalau project sudah selesai dan mau disiapkan ke versi production supaya lebih cepat dan optimal.