

JOBSHEET PRAKTIKUM

Mata Kuliah: Pemograman Framework

Program Studi: D4 (Sarjana Terapan)

Topik Praktikum: Setup Project Next.js menggunakan Pages Router

Alokasi Waktu: 2 × 50 menit

Model Pembelajaran: Praktikum Berbasis Proyek

A. Capaian Pembelajaran Praktikum (CPMK-Praktikum)

Setelah menyelesaikan praktikum ini, mahasiswa mampu:

1. Menjelaskan konsep dasar framework **Next.js**.
 2. Membuat project Next.js menggunakan **Pages Router**.
 3. Menjalankan aplikasi Next.js pada server pengembangan.
 4. Mengidentifikasi struktur folder utama pada project Next.js.
 5. Memodifikasi halaman awal (index.js) pada Pages Router.
-

B. Dasar Teori Singkat

Next.js adalah framework React yang menyediakan fitur siap pakai seperti routing berbasis file, optimasi performa, dan dukungan rendering modern. Pada **Pages Router**, routing ditentukan oleh struktur folder `pages/`, di mana setiap file JavaScript akan otomatis menjadi halaman (route).

Contoh:

- `pages/index.js` → `/`
 - `pages/about.js` → `/about`
-

C. Alat dan Bahan

Perangkat Lunak

- Node.js (versi LTS)
- NPM atau Yarn
- Code Editor (Visual Studio Code)
- Browser (Chrome / Firefox)
- GIT

Perangkat Keras

- Laptop/PC Mahasiswa

D. Langkah Kerja Praktikum

Langkah 1 – Pengecekan Lingkungan

1. Buka terminal / command prompt.
2. Jalankan perintah berikut:
3. `node -v`

```
● PS D:\1.MateriKuliah\2026-ganjil\PemogramanFramework\Code> node -v
v24.13.0
● PS D:\1.MateriKuliah\2026-ganjil\PemogramanFramework\Code> npm -v
11.6.2
❖ PS D:\1.MateriKuliah\2026-ganjil\PemogramanFramework\Code> █
```

4. `npm -v`

```
● PS D:\1.MateriKuliah\2026-ganjil\PemogramanFramework\Code> node -v
v24.13.0
● PS D:\1.MateriKuliah\2026-ganjil\PemogramanFramework\Code> npm -v
11.6.2
❖ PS D:\1.MateriKuliah\2026-ganjil\PemogramanFramework\Code> █
```

5. Pastikan Node.js dan npm sudah terinstal. Jika belum terinstall maka Install pada alamat berikut : <https://nodejs.org/en/download>
6. `Git -V`

```
● PS D:\1.MateriKuliah\2026-ganjil\PemogramanFramework\Code> git -v
git version 2.48.1.windows.1
○ PS D:\1.MateriKuliah\2026-ganjil\PemogramanFramework\Code> █
```

7. Jika belum install maka install pada alamat berikut : <https://git-scm.com/install/windows>

Langkah 2 – Membuat Project Next.js

1. Buat direktori baru dan masuk ke direktori kerja

```
● PS D:\1.MateriKuliah\2026-ganjil\PemogramanFramework\Code> mkdir praktikum
```

Directory: D:\1.MateriKuliah\2026-ganjil\PemogramanFramework\Code

Mode	LastWriteTime	Length	Name
----	-----	-----	-----
d-----	2/7/2026 4:13 AM		praktikum

```
● PS D:\1.MateriKuliah\2026-ganjil\PemogramanFramework\Code> cd praktikum
○ PS D:\1.MateriKuliah\2026-ganjil\PemogramanFramework\Code\praktikum> █
```

2. Jalankan perintah:

```
PS D:\1.MateriKuliah\2026-ganjil\PemogramanFramework\Code\praktikum> npx create-next-app@13.4.7
✓ What is your project named? ... my-app
✓ Would you like to use TypeScript with this project? ... No / Yes
✓ Would you like to use ESLint with this project? ... No / Yes
✓ Would you like to use Tailwind CSS with this project? ... No / Yes
✓ Would you like to use `src/` directory with this project? ... No / Yes
✓ Use App Router (recommended)? ... No / Yes
✓ Would you like to customize the default import alias? ... No / Yes
Creating a new Next.js app in D:\1.MateriKuliah\2026-ganjil\PemogramanFramework\Code\praktikum\my-app.

Using npm.

Initializing project with template: default

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

:|
```

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

```
PS D:\1.MateriKuliah\2026-ganjil\PemogramanFramework\Code\praktikum> cd .\my-app\
PS D:\1.MateriKuliah\2026-ganjil\PemogramanFramework\Code\praktikum\my-app> |
```

5. Tunggu hingga proses instalasi selesai.

Langkah 3 – Menjalankan Server Development

1. Masuk ke folder project:

```
PS D:\1.MateriKuliah\2026-ganjil\PemogramanFramework\Code\praktikum> cd .\my-app\
PS D:\1.MateriKuliah\2026-ganjil\PemogramanFramework\Code\praktikum\my-app> |
```

2. Jalankan aplikasi:

npm run dev

```
PS D:\1.MateriKuliah\2026-ganjil\PemogramanFramework\Code\praktikum\my-app> npm run dev
```

```
> my-app@0.1.0 dev ...
```

```
▲ Next.js 16.1.6 (Turbopack)
```

```
- Local:      http://localhost:3000  
- Network:    http://192.168.1.28:3000
```

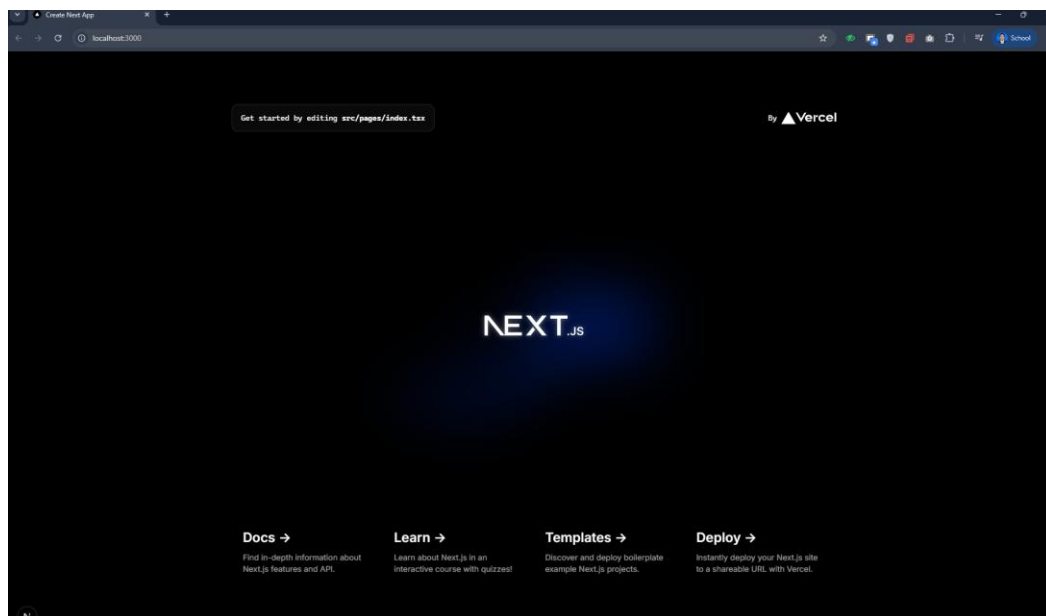
```
✓ Starting...
```

```
We detected TypeScript in your project and reconfigured your tsconfig.json file for you.  
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 2.2s
```

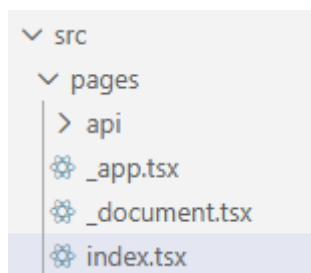
3. Buka browser dan akses: <http://localhost:3000>



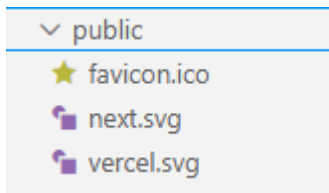
Langkah 4 – Mengenal Struktur Folder

Amati folder utama:

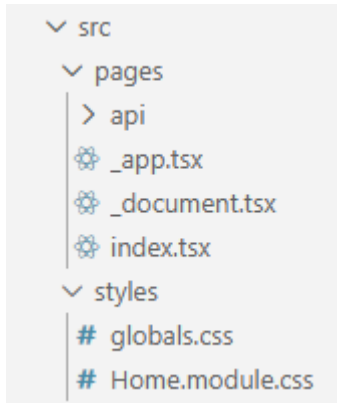
- pages/ → tempat routing halaman



- public/ → aset statis



- styles/ → file CSS



- package.json → konfigurasi project

```
praktikum > my-app > {} package.json > {} dependencies
1  {
2    "name": "my-app",
3    "version": "0.1.0",
4    "private": true,
5    "scripts": {
6      "dev": "next dev",
7      "build": "next build",
8      "start": "next start",
9      "lint": "next lint"
10   },
11   "dependencies": {
12     "@types/node": "25.2.1",
13     "@types/react": "19.2.13",
14     "@types/react-dom": "19.2.3",
15     "eslint": "9.39.2",
16     "eslint-config-next": "16.1.6",
17     "next": "16.1.6",
18     "react": "19.2.4",
19     "react-dom": "19.2.4",
20     "typescript": "5.9.3"
21   }
22 }
23
```

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

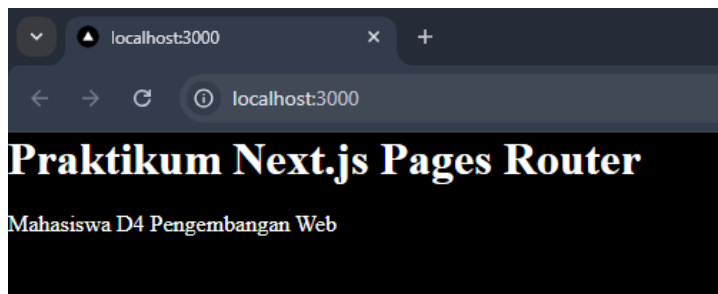
```
praktikum > my-app > .gitignore
1  # See https://help.github.com/articles/ignoring-files/ for more about ignoring files.
2
3  # dependencies
4  /node_modules
5  /.pnp
6  .pnp.js
7
8  # testing
9  /coverage
10
11 # next.js
12 /.next/
13 /out/
14
15 # production
16 /build
17
18 # misc
19 .DS_Store
20 *.pem
21
22 # debug
23 npm-debug.log*
24 yarn-debug.log*
25 yarn-error.log*
26
27 # local env files
28 .env*.local
```

Langkah 5 – Modifikasi Halaman Utama

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

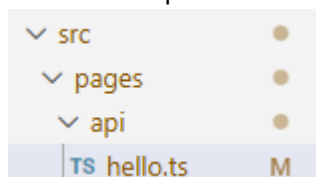
```
praktikum > my-app > src > pages > index.tsx > ...
1  import Head from 'next/head'
2  import Image from 'next/image'
3  import { Inter } from 'next/font/google'
4  import styles from '@/styles/Home.module.css'
5
6  const inter = Inter({ subsets: ['latin'] })
7
8  export default function Home() {
9    return (
10     <div>
11       <h1>Praktikum Next.js Pages Router</h1> <br />
12       <p>Mahasiswa D4 Pengembangan Web</p>
13     </div>
14   )
15 }
16
17
```

4. Simpan dan lihat perubahan di browser.



Langkah 6 – Modifikasi API

1. Buka folder api



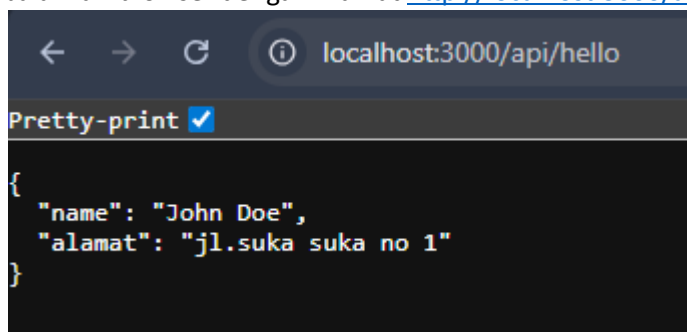
2. Modifikasi hello.ts

```

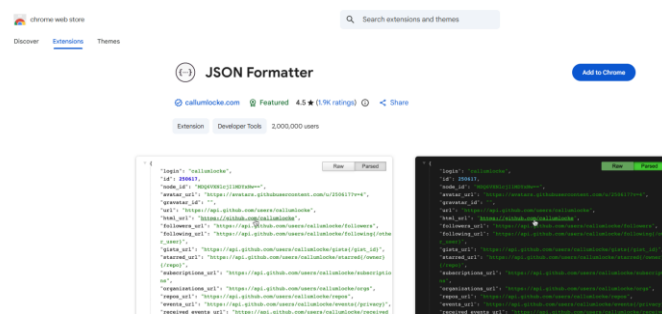
TS hello.ts M X
praktikum > my-app > src > pages > api > TS hello.ts > Data
1 // Next.js API route support: https://nextjs.org/docs/api-routes/introduction
2 import type { NextApiResponse } from 'next'
3
4 Windsurf: Refactor | Explain
5 type Data = {
6   name: string
7   alamat: string
8 }
9
10 Windsurf: Refactor | Explain | Generate JSDoc | X
11 export default function handler(
12   req: NextApiResponse,
13   res: NextApiResponse<Data>
14 ) {
15   res.status(200).json({ name: 'John Doe', alamat: 'jl.suka suka no 1' })
16 }

```

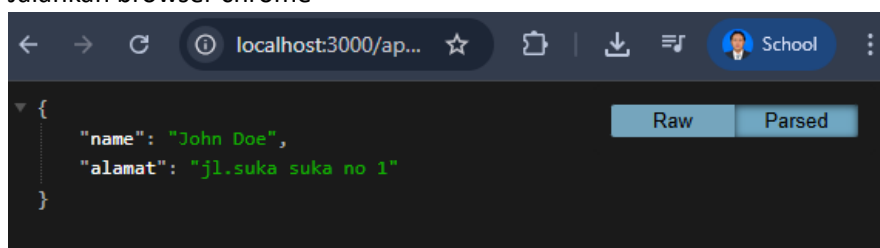
3. Jalankan browser dengan Alamat <http://localhost:3000/api/hello>



4. Tambahkan extensions chrome

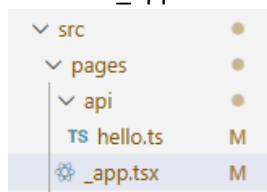


5. Jalankan browser chrome



Langkah 7 – Modifikasi Background

1. Buka file _app.tsx



2. Modifikasi menjadi berikut

```
praktikum > my-app > src > pages > _app.tsx > ...
1 // import '@styles/globals.css'
2 import type { AppProps } from 'next/app'
3
4 export default function App({ Component, pageProps }: AppProps) {
5   return <Component {...pageProps} />
6 }
7
```

3. Jalankan localhost



Praktikum Next.js Pages Router

Mahasiswa D4 Pengembangan Web

Langkah 8 – Setup ext pada VSCode (opsional)

1. Auto rename



Auto Rename Tag

Jun Han | 24,253,352 | ★★★★★ (211)

Auto rename paired HTML/XML tag

Disable Uninstall Auto Update

2. Windsurf Plugin: Free AI-powered code acceleration toolkit



Windsurf Plugin (formerly Codeium): AI Coding Autocomplete and Chat for Pyth

Windsurf | 3,440,883 | ★★★★★ (1455)

The modern coding superpower: free AI code acceleration plugin for your favorite languages. Type less. Code more. Ship faster.

Disable Uninstall Switch to Pre-Release Version Auto Update

3. Console Ninja



Console Ninja

Wallaby.js | wallabyjs.com | 1,364,447 | ★★★★★ (92)

JavaScript console.log output and runtime errors right next to your code.

Disable Uninstall Auto Update

4. VS Code ES7+ React/Redux/React-Native/JS snippets



ES7+ React/Redux/React-Native snippets

dznajder | 16,608,833 | ★★★★★ (84)

Extensions for React, React-Native and Redux in JS/TS with ES7+ syntax. Customizable. Built-in integration with prettier.

Disable Uninstall Auto Update

5. VS Code ESLint extension



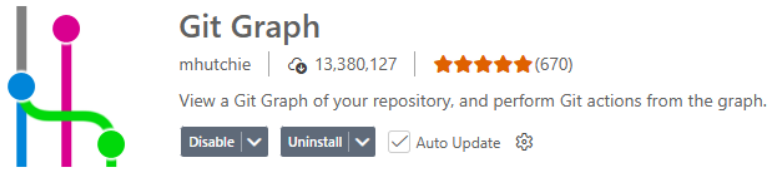
ESLint

Microsoft | microsoft.com | 48,064,791 | ★★★★★ (247)

Integrates ESLint JavaScript into VS Code.

Disable Uninstall Switch to Pre-Release Version Auto Update

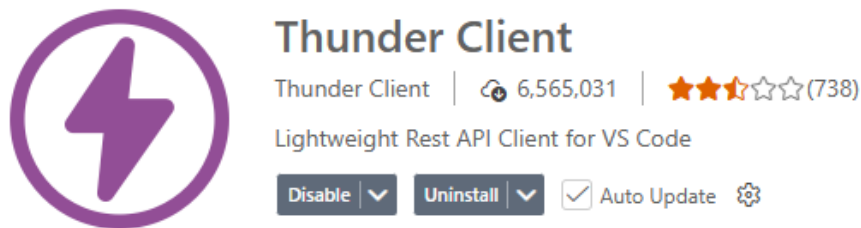
6. Git Graph extension for Visual Studio Code



7. Prettier



8. Asa



E. Tugas Praktikum

Tugas 1 (Wajib)

- Buat halaman baru about.js di folder pages.
- Tampilkan:
 - Nama Mahasiswa
 - NIM
 - Program Studi

Tugas 2 (Pengayaan)

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

F. Pertanyaan Refleksi

1. Mengapa Pages Router disebut sebagai routing berbasis file?
2. Apa perbedaan Next.js dengan React standar (CRA)?
3. Apa fungsi perintah npm run dev?
4. Apa perbedaan npm run dev dan run build ?