

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

```

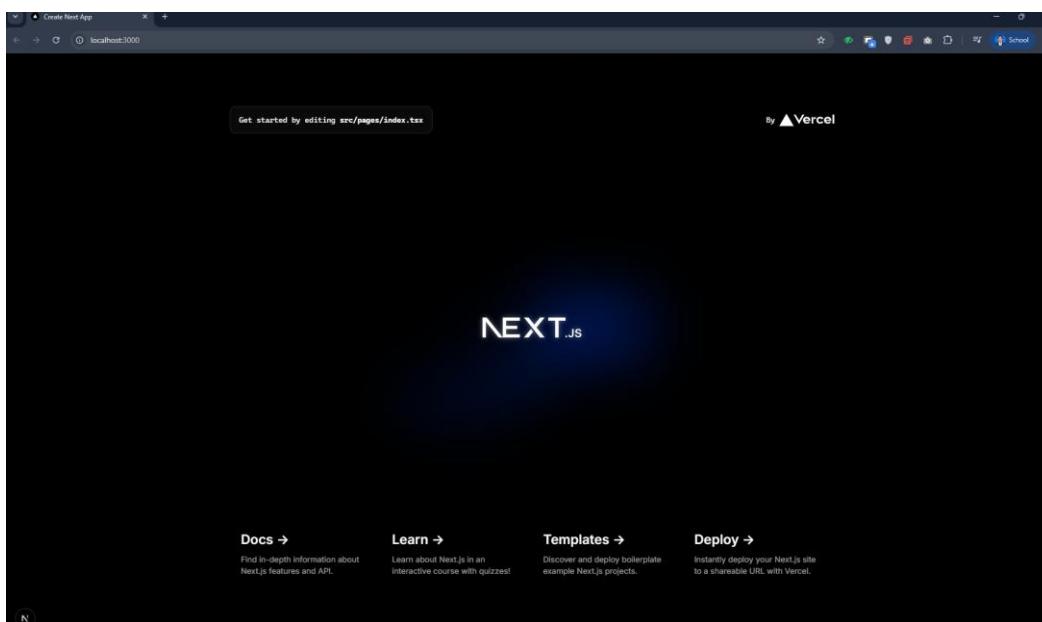
PS D:\1.MateriKuliah\2026-ganjil\PemogramanFramework\Code\praktikum\my-app> npm run dev
> my-app@0.1.0 dev ...
  ▲ Next.js 16.1.6 (Turbopack)
  - Local:          http://localhost:3000
  - Network:        http://192.168.1.28:3000

  ✓ 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

```

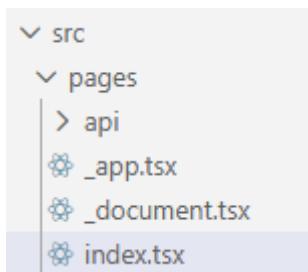
3. Buka browser dan akses: <http://localhost:3000>



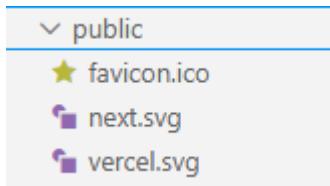
Langkah 4 – Mengenal Struktur Folder

Amati folder utama:

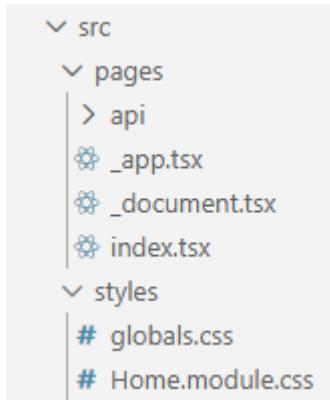
- pages/ → tempat routing halaman



- public/ → asset statis



- styles/ → file CSS



- package.json → konfigurasi project

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

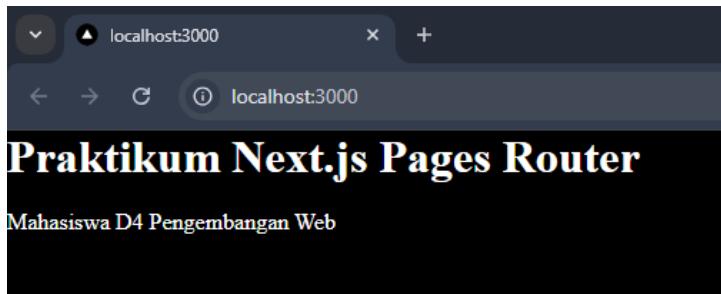
```
praktikum > my-app > (1) .gitignore
  1  # See https://help.github.com/articles/ignoring-files/ for more about ignoring files.
  2
  3  # dependencies
  4  /node_modules
  5  /.npm
  6  .npm.js
  7
  8  # testing
  9  /coverage
 10
 11  # next.js
 12  /.next/
 13  /out/
 14
 15  # production
 16  /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:

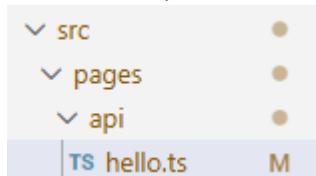
```
praktikum > my-app > src > pages > index.tsx > ...
  1 import Head from 'next/head'
  2 import Image from 'next/image'
  3 import { Inter } from 'next/font/google'
  4 import styles from '@/styles/Home.module.css'
  5
  6 const inter = Inter({ subsets: ['latin'] })
  7
  8 Windsurf: Refactor | Explain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

4. Simpan dan lihat perubahan di browser.



Langkah 6 – Modifikasi API

1. Buka folder api



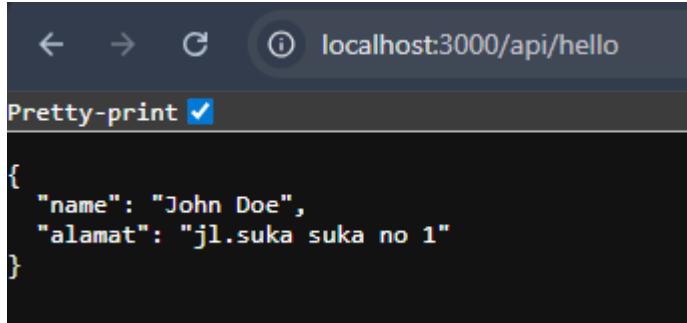
2. Modifikasi hello.ts

```

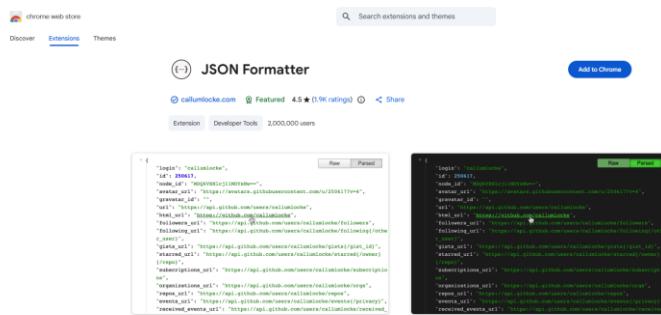
TS hello.ts M X
praktikum > my-app > src > pages > api > TS hello.ts > [e] Data
  1 // Next.js API route support: https://nextjs.org/docs/api-routes/introduction
  2 import type { NextApiRequest, NextApiResponse } from 'next'
  3
  4 Windsurf: Refactor | Explain
  5 type Data = {
  6   name: string
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

```

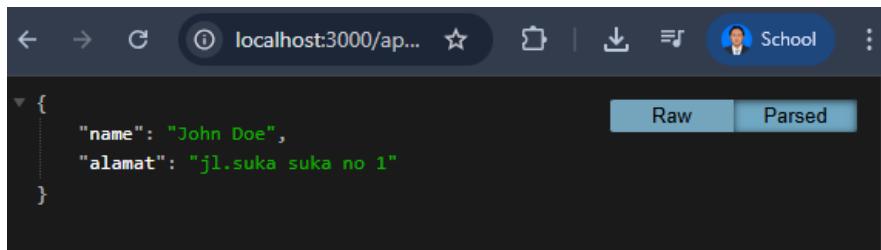
3. Jalankan browser dengan Alamat <http://localhost:3000/api/hello>



4. Tambahkan extensions chrome

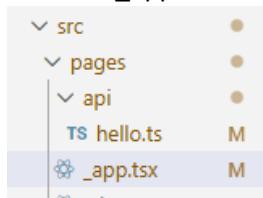


5. Jalankan browser chrome



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 Windsurf: Refactor | Explain | Generate JSDoc | X
5 export default function App({ Component, pageProps }: AppProps) {
6   return <Component {...pageProps} />
7 }
```

3. Jalankan localhost

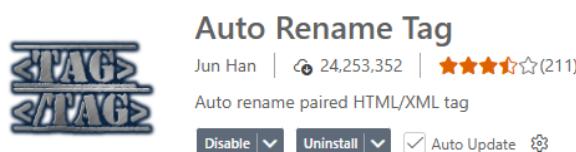


Praktikum Next.js Pages Router

Mahasiswa D4 Pengembangan Web

Langkah 8 – Setup ext pada VSCode (opsional)

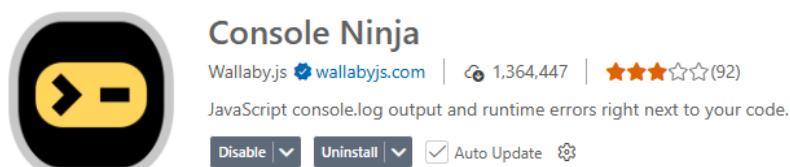
1. Auto rename



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



3. Console Ninja



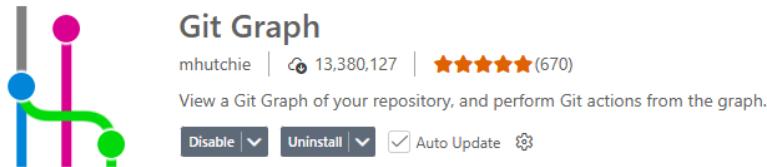
4. VS Code ES7+ React/Redux/React-Native/JS snippets



5. VS Code ESLint extension



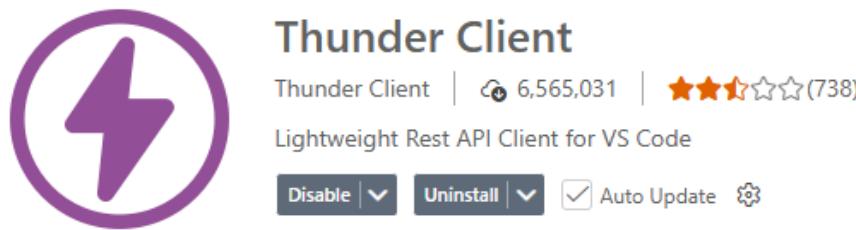
6. Git Graph extension for Visual Studio Code



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 ?