



Introduction to React JS

A colorful illustration depicting a large, stylized computer monitor as a central hub. On the screen, a blue atomic symbol is prominent. Several human figures are interacting with the screen: one person stands on top of the screen holding a large white sheet with a magnifying glass icon; another person stands to the right, pointing at the screen; a third person is on the left, holding a blue folder; and a fourth person is at the bottom left, holding a yellow folder. The background is a light blue circle with a white outline of a computer mouse on the right. The overall theme is digital technology and science.

```

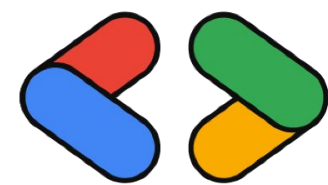
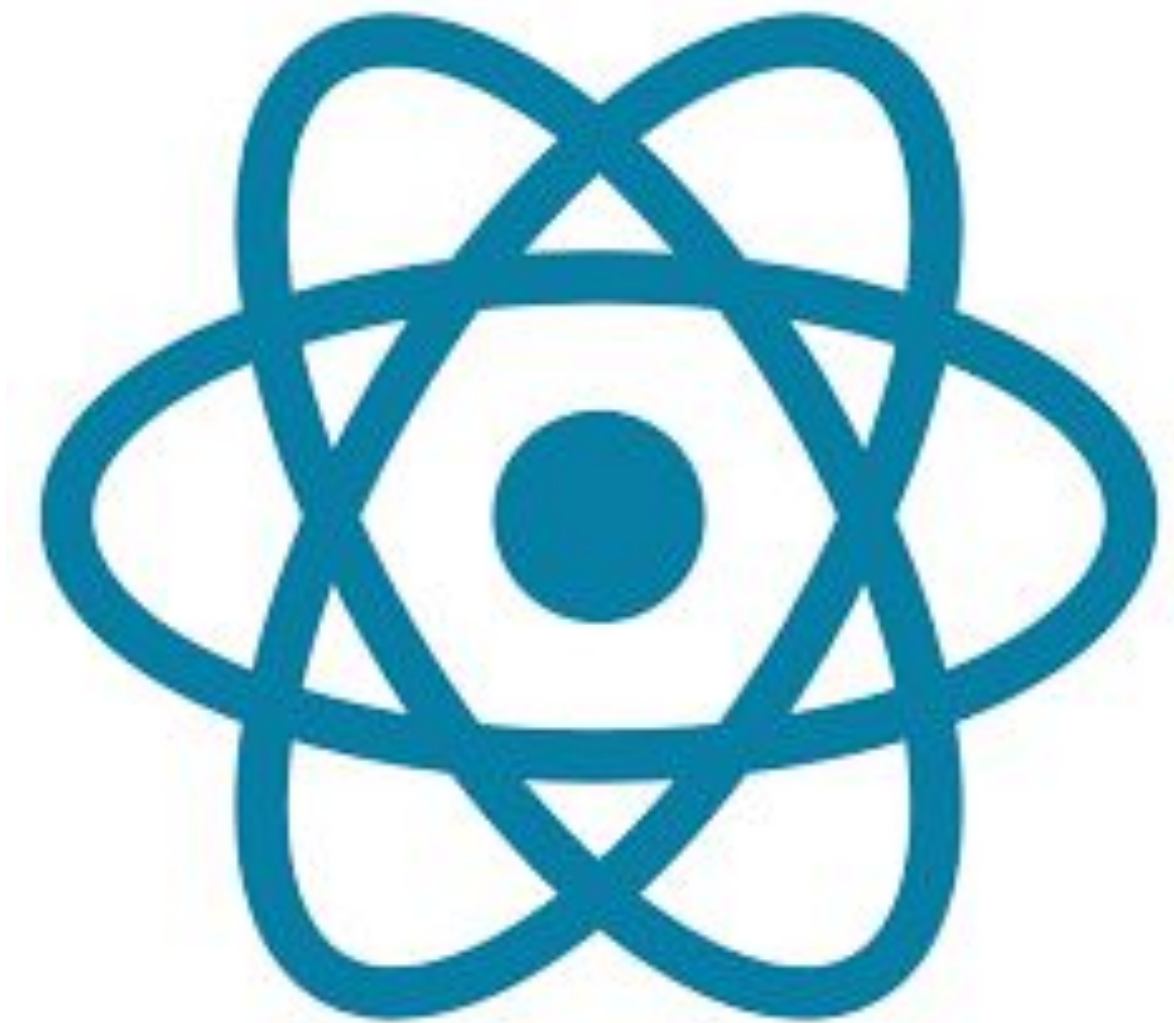
    filterByOrg ? study.lead_organization === filterByOrg : true
    filterByStatus ? study.status === filterByStatus : true
    (filterByStatus ? filterByStatus : true)
  }
}

function filterStudies({ studies, filterByOrg, filterByStatus }) {
  return studies.filter(study => {
    filterByOrg ? study.lead_organization === filterByOrg : true
    filterByStatus ? study.status === filterByStatus : true
    (filterByStatus ? filterByStatus : true)
  })
}

```

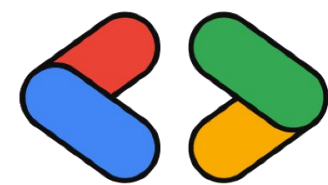
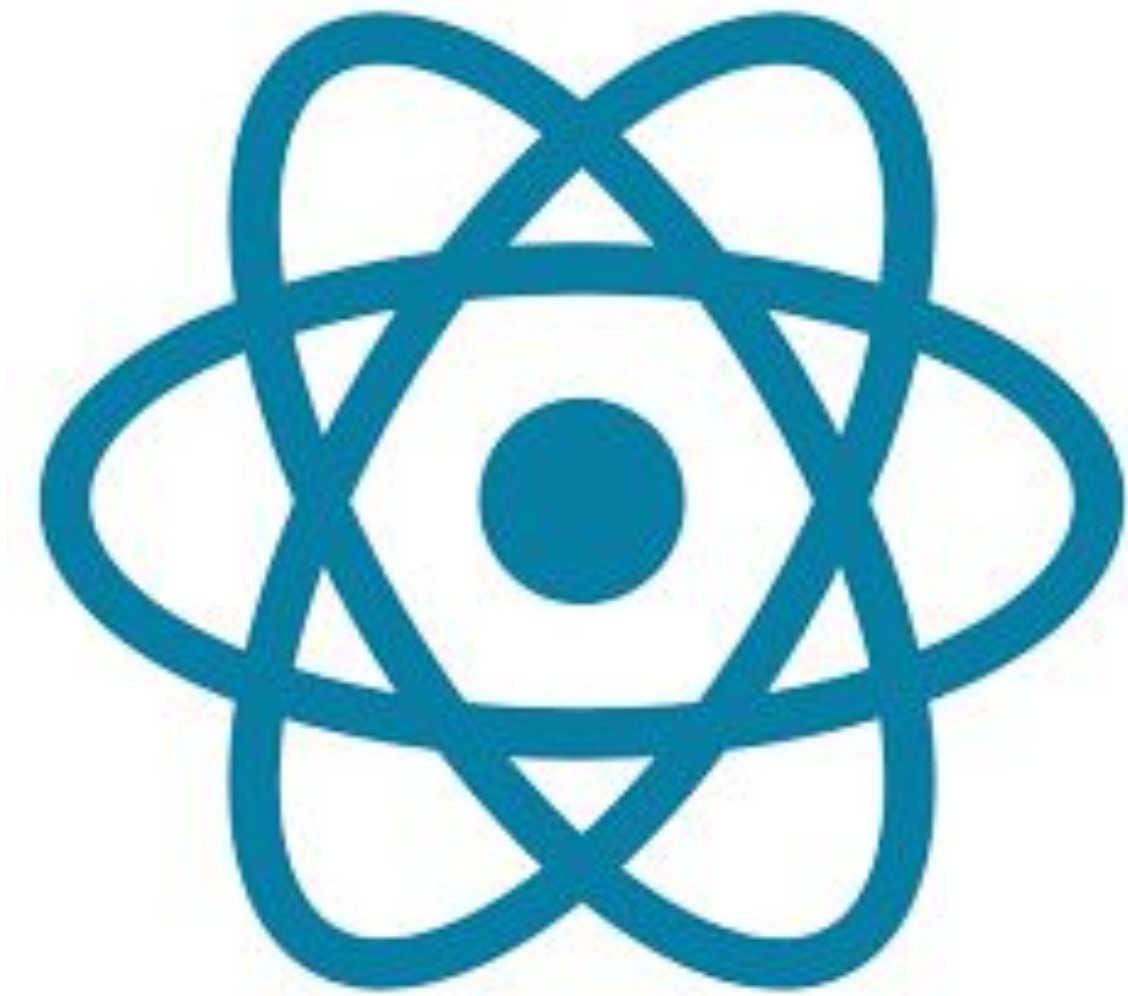

What is React JS

- Library JavaScript untuk membangun UI
- Berbasis components
- Declarative UI



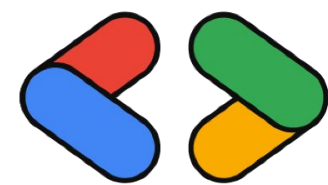
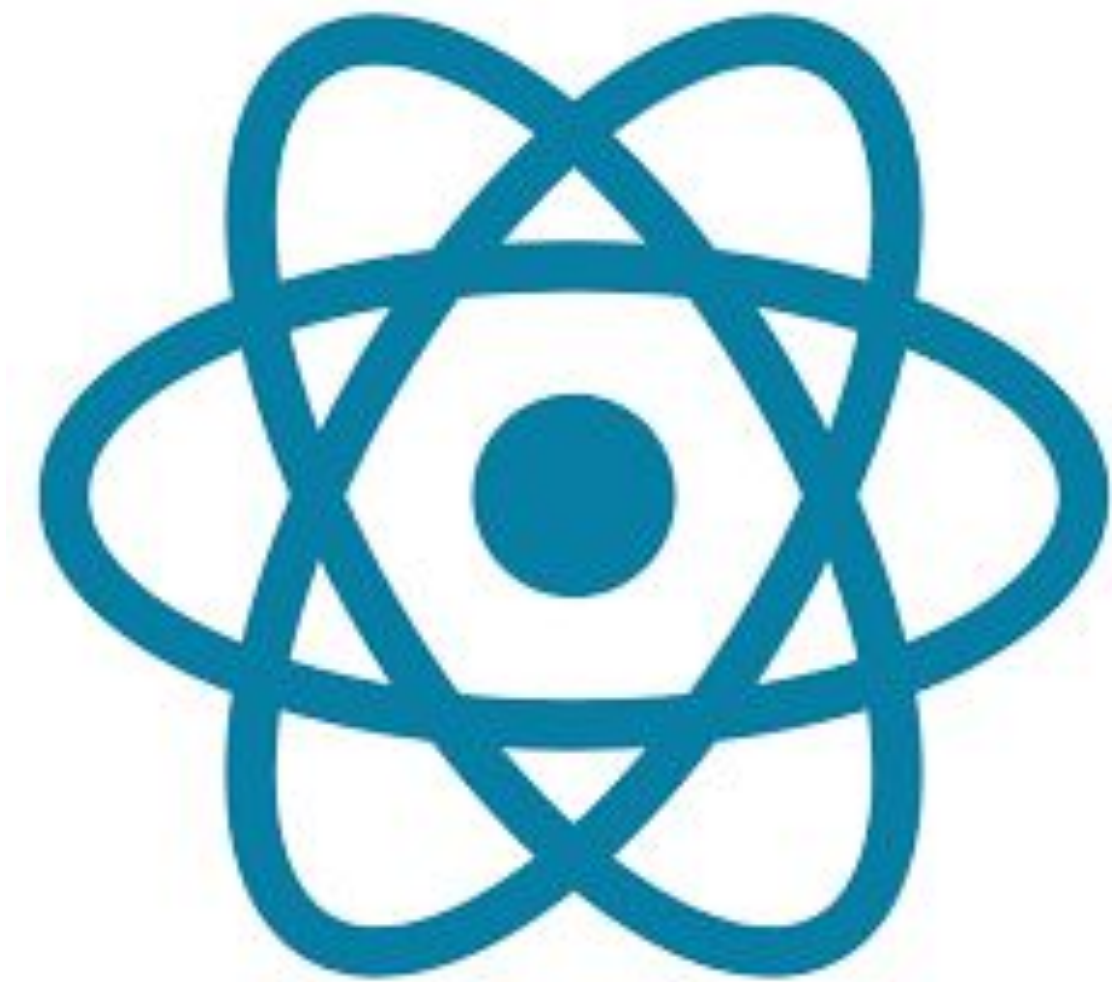
SPA Concept

- Single Page Application
- Satu halaman *HTML*
- Konten berubah tanpa reload



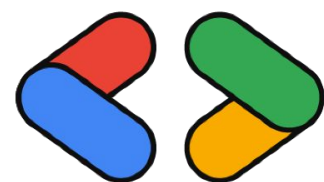
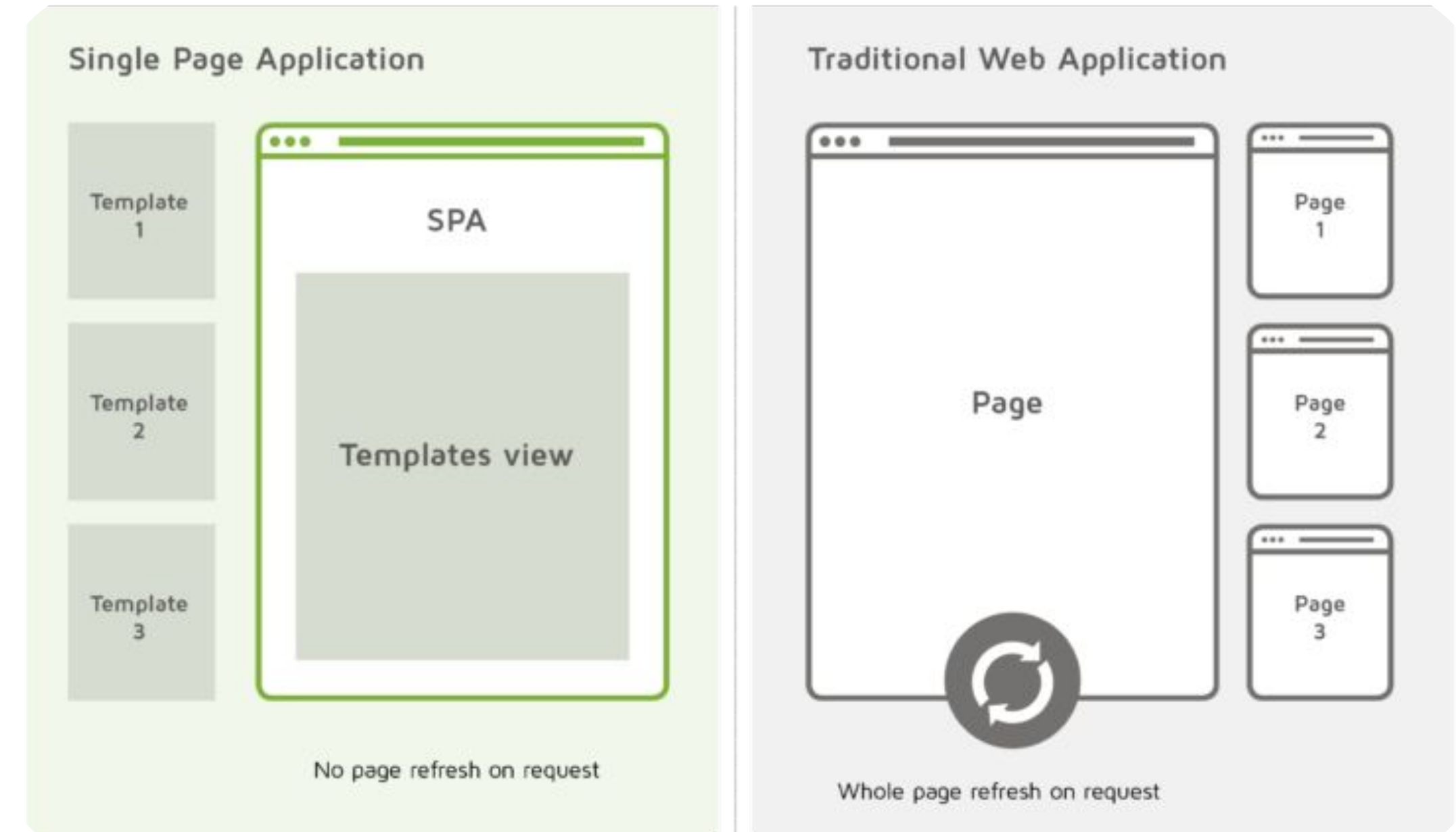
Setup React Project

- Node.js terinstall
- Package Manager (NPM)
- Tooling (Vite)



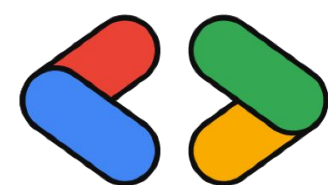
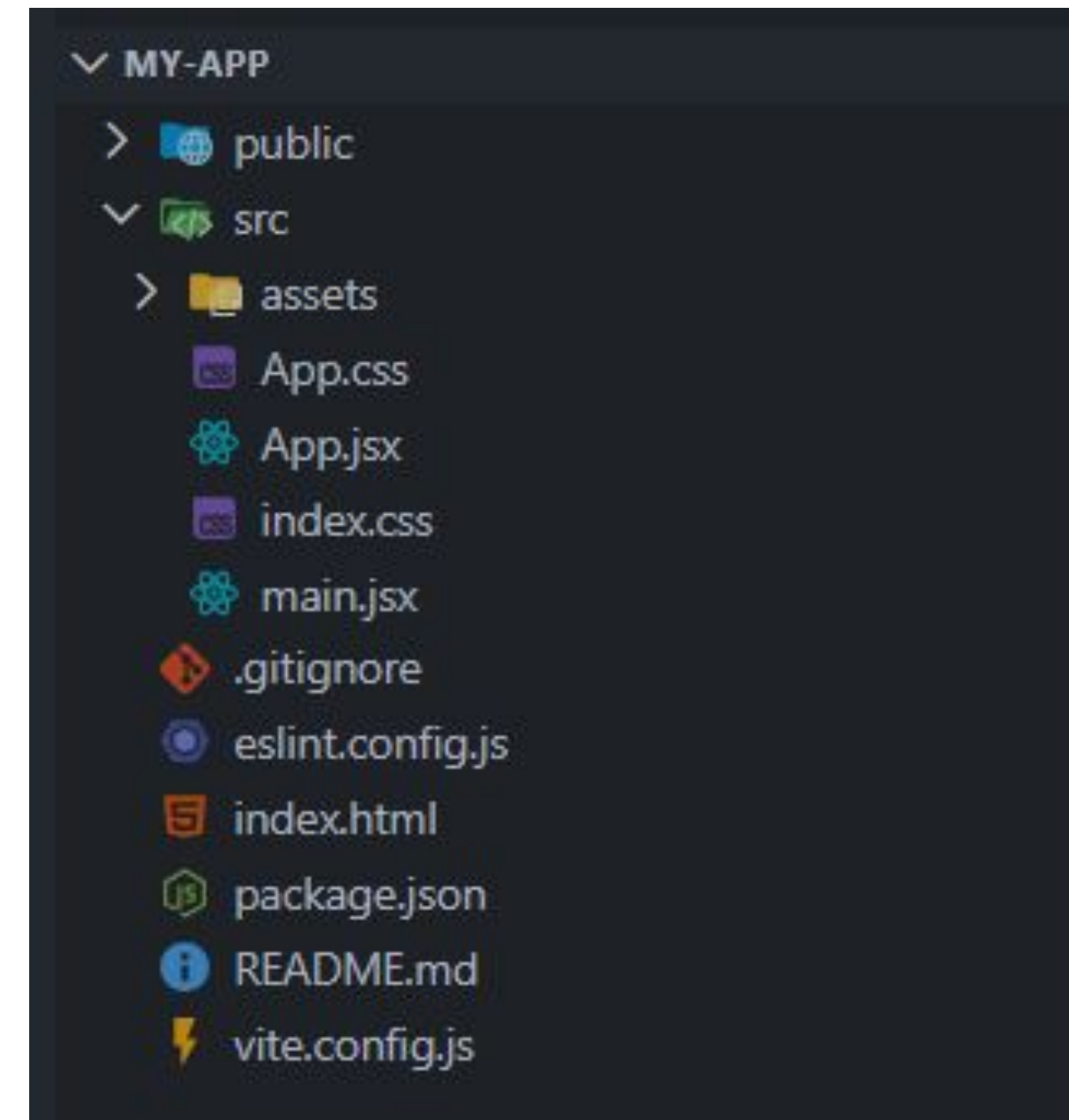
SPA Concept

- Single Page Application
- Satu halaman *HTML*
- Konten berubah tanpa reload



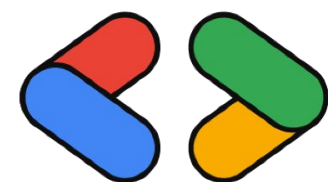
React Project Structure

- *index.html* → *container*
- *src/* → *dapur utama*
- *main.jsx* → *entry point react*
- *app.jsx* → *komponen utama*



JSX

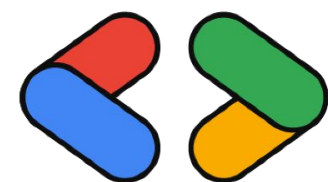
- JavaScript Syntax Extension
- Mirip HTML di dalam JavaScript
- Digunakan untuk mendeskripsikan UI



JSX Rules

- Harus punya satu parent
- Gunakan *className* untuk styling
- Bisa pakai JavaScript expression

```
function Profile() {  
  const nama = "Ello";  
  return (  
    <div>  
      <h1 className="judul">Halo, {nama}!</h1>  
    </div>  
  );  
}
```



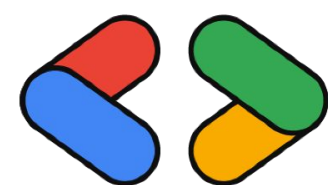
Component Concept

- Komponen → bagian UI
- Berupa function
- Mengembalikan JSX

```
function Header() {  
  return <h1>Header</h1>  
}
```

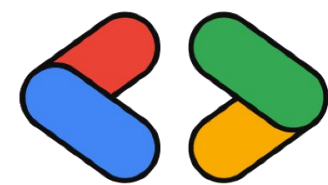
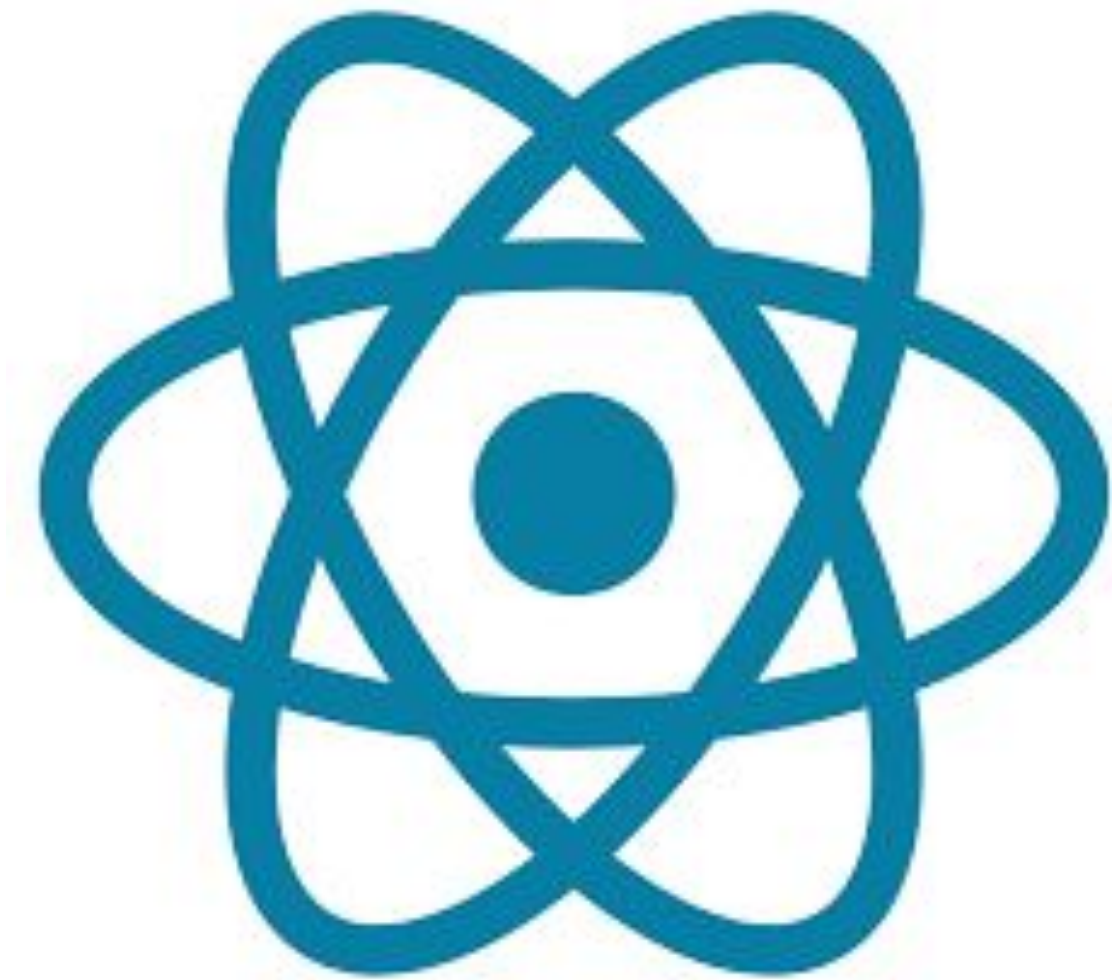
Using Component

```
function App() {  
  return <Header />  
}
```



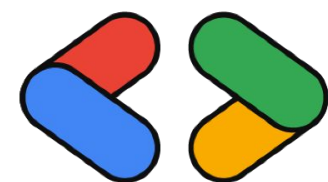
How React Renders UI

- UI berdasarkan data
- React me-render ulang saat data berubah
- Fokus ke hasil, bukan proses



Initialize & Run Project

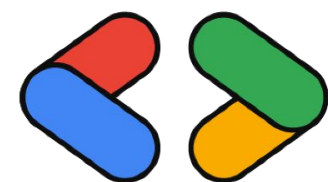
```
npm create vite@latest project-name  
npm install  
npm run dev
```



Let's Code



React Docs

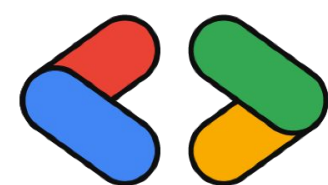


Google Developer Group
Universitas Sriwijaya

Challenge! (FE Member Only*)

1. Buatlah project React JS pertama kamu (Boleh pakai tugas tailwind sebelumnya)
2. implementasikan penggunaan *components*
3. Kerjakan di repository github masing-masing
4. Lakukan pull request ke Frontend Development GDGoC UNSRI 25/26 untuk memasukkan link repo github anda di folder /3-introduction-to-react/task.txt

Selamat Mencoba ~



Google Developer Group
Universitas Sriwijaya



Thank You !