

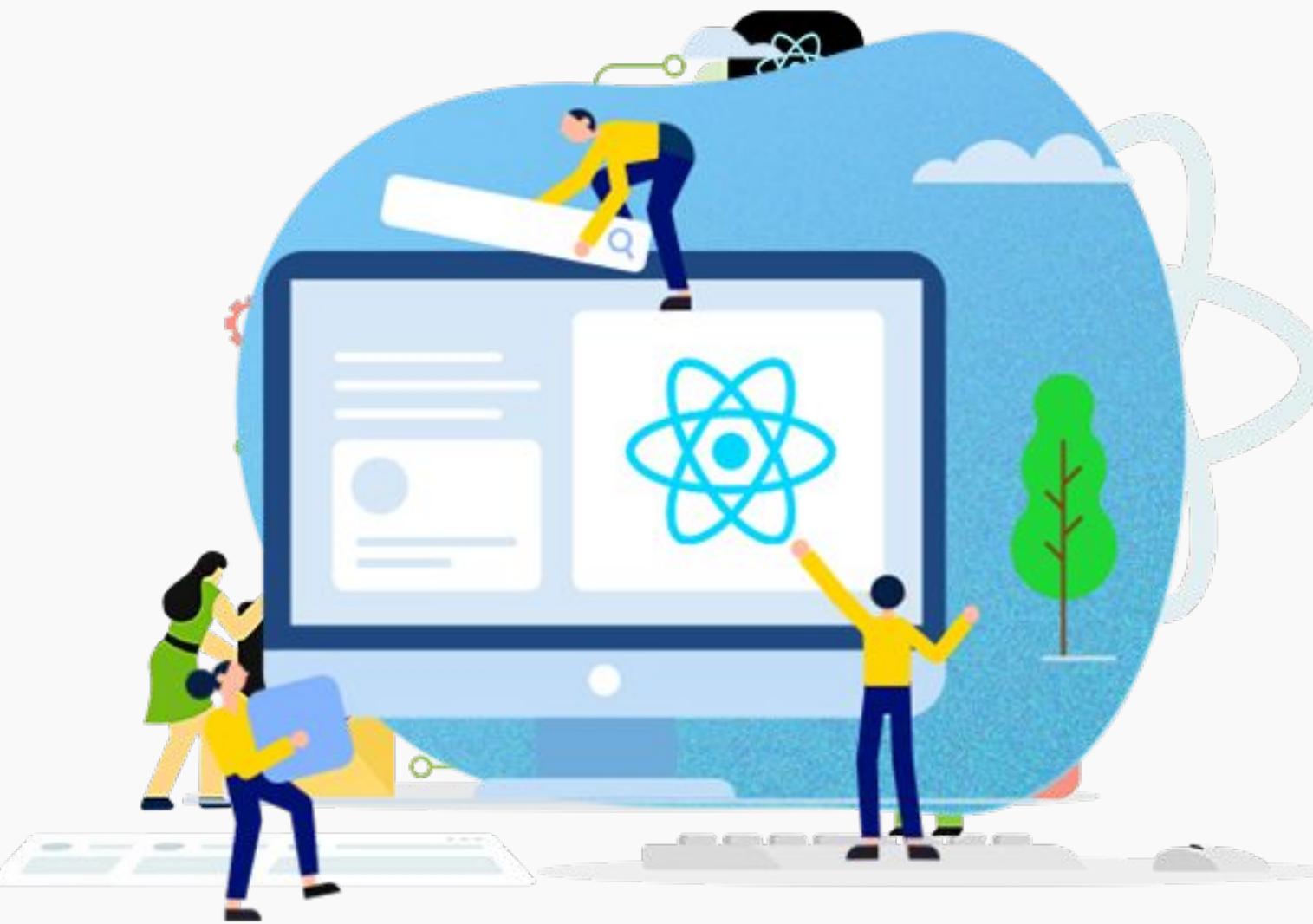
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# Learning 3

# Introduction

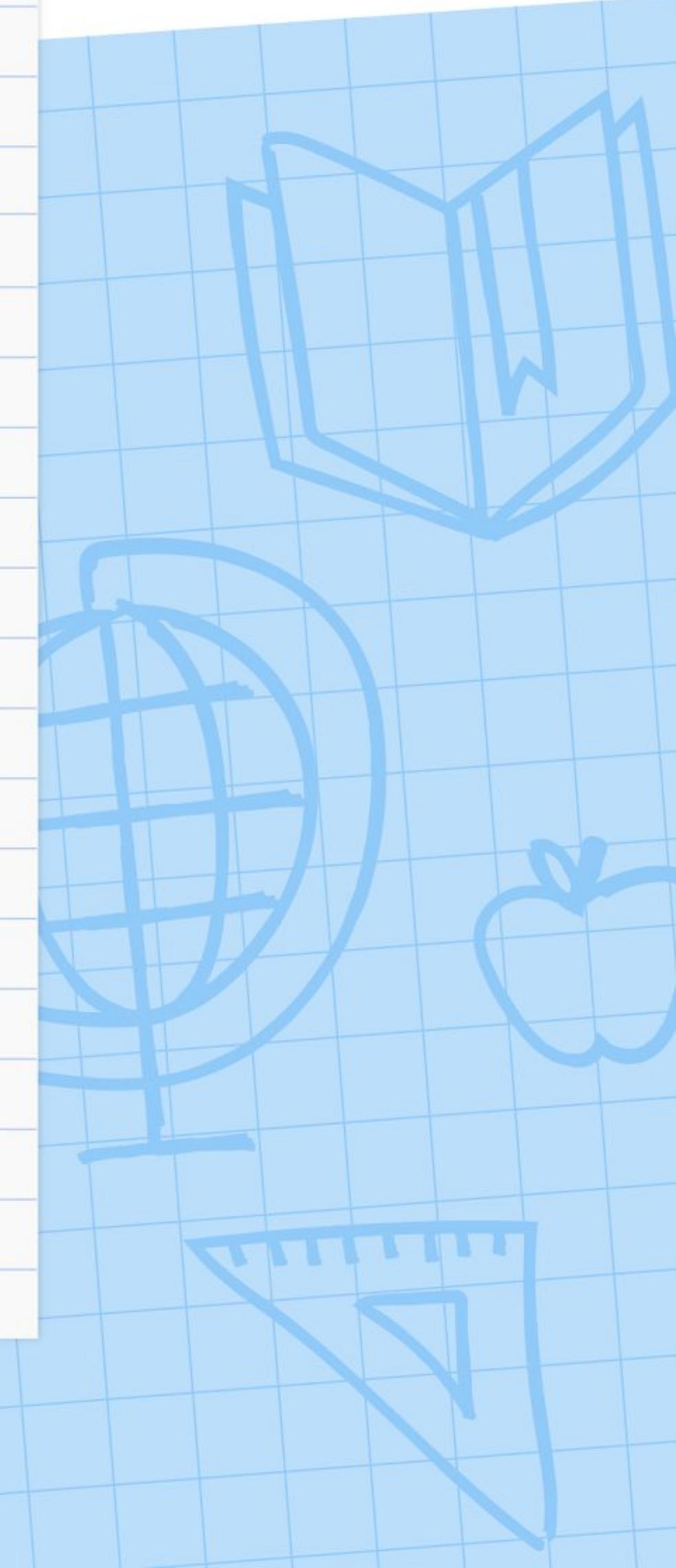
# to React JS

*Build UI with components*



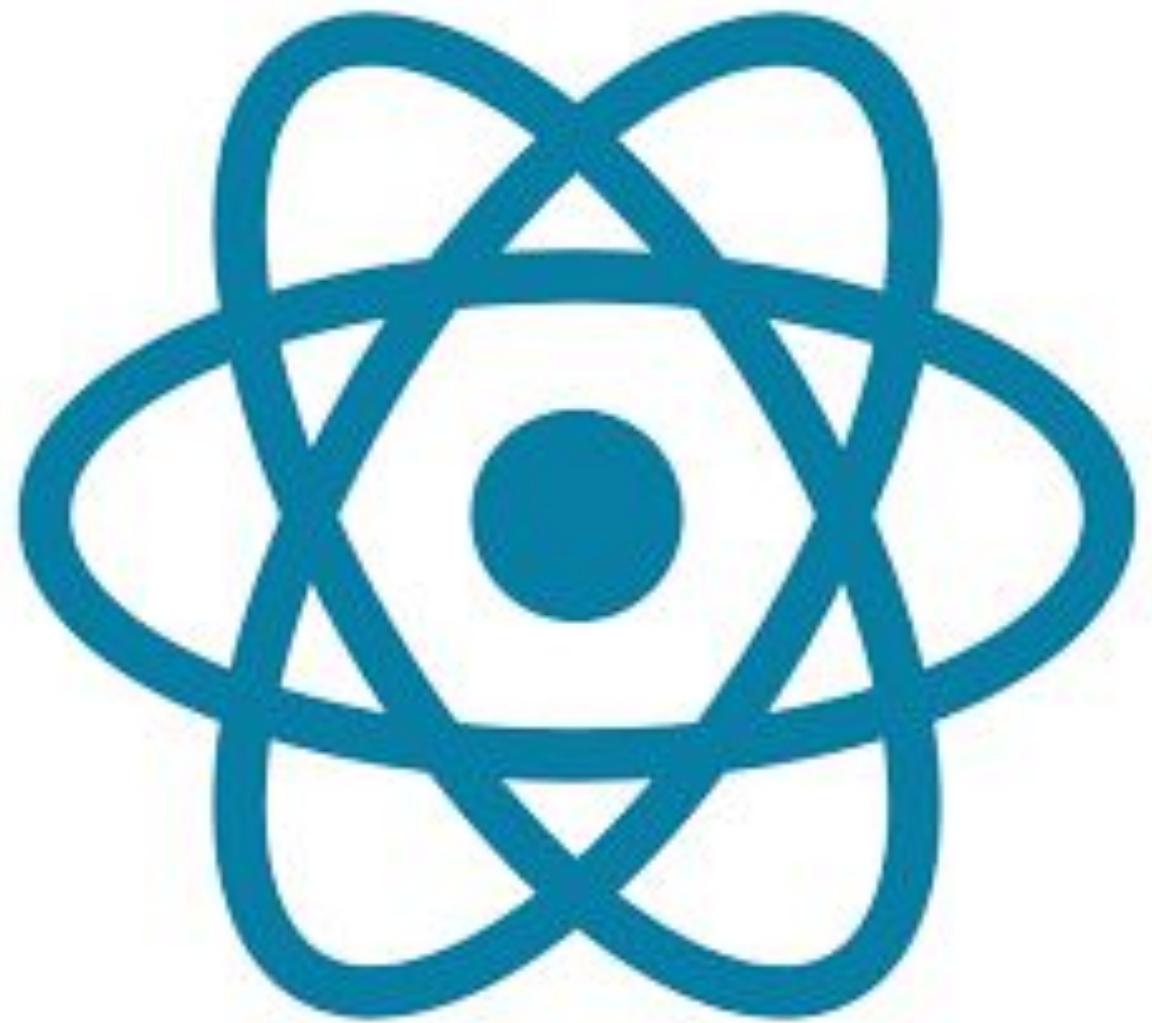
```
const filterByOrg = study => study.lead_organization === filterByOrg;
const filterStatus = filterByStatus ? study.status === filterByStatus : true;
const filterPatchStatus = patchStatus ? study.patch_status === patchStatus : true;
```

```
function filterStudies({ studies, filterByOrg = null, filterByStatus = null, filterPatchStatus = null }) {
  return studies.filter(study => {
    if (filterByOrg) {
      if (!study.lead_organization) return false;
      if (filterByOrg !== study.lead_organization) return false;
    }
    if (filterStatus) {
      if (!study.status) return false;
      if (filterStatus !== study.status) return false;
    }
    if (filterPatchStatus) {
      if (!study.patch_status) return false;
      if (filterPatchStatus !== study.patch_status) return false;
    }
    return true;
  });
}
```



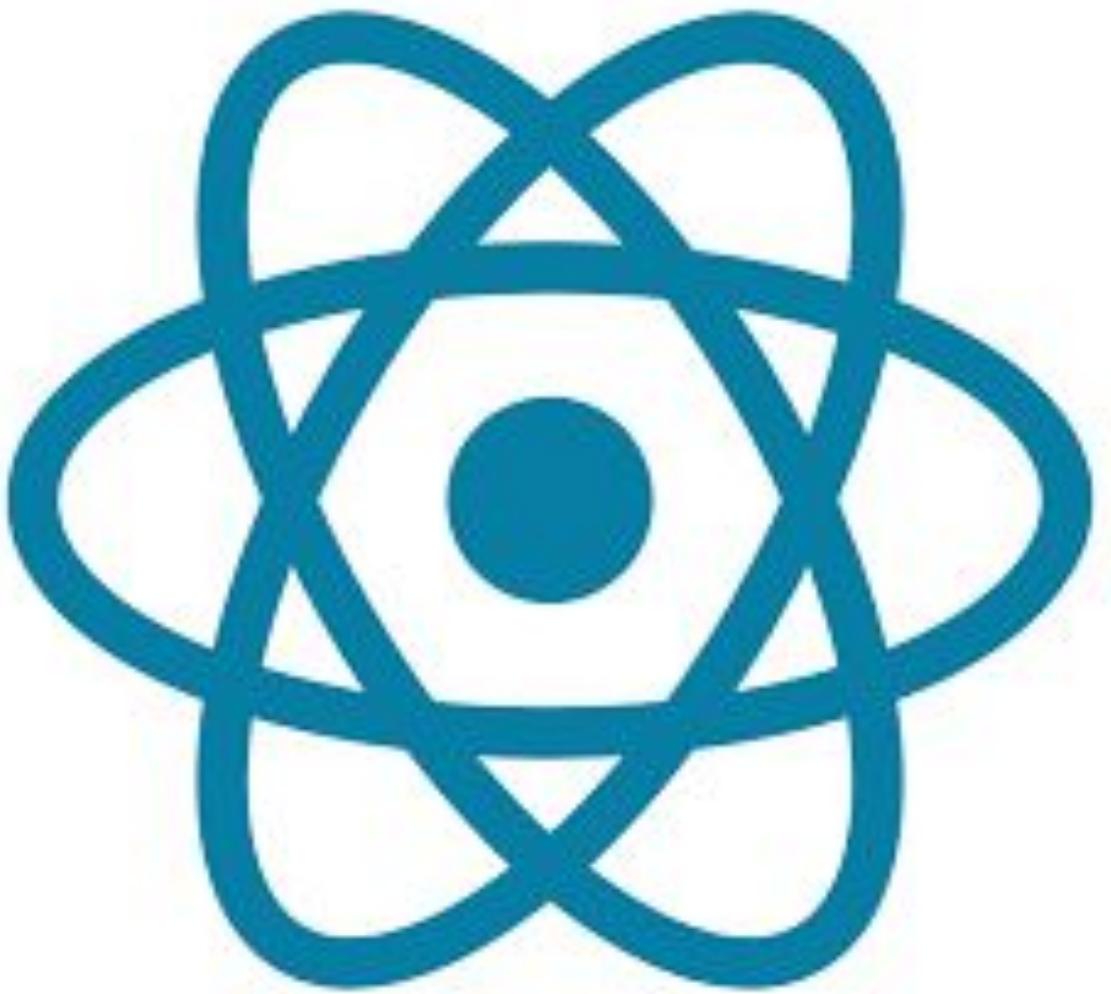
# What is React JS

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



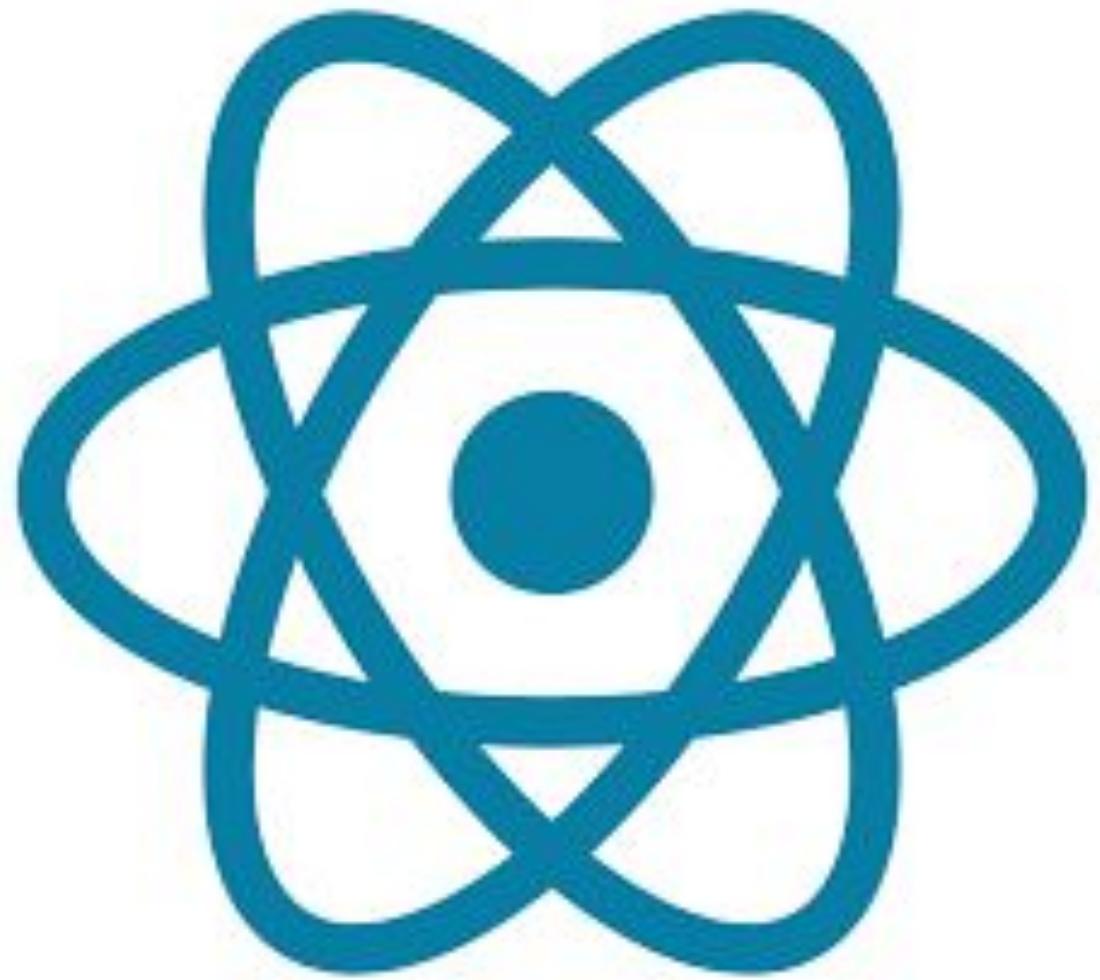
# SPA Concept

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



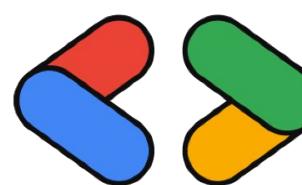
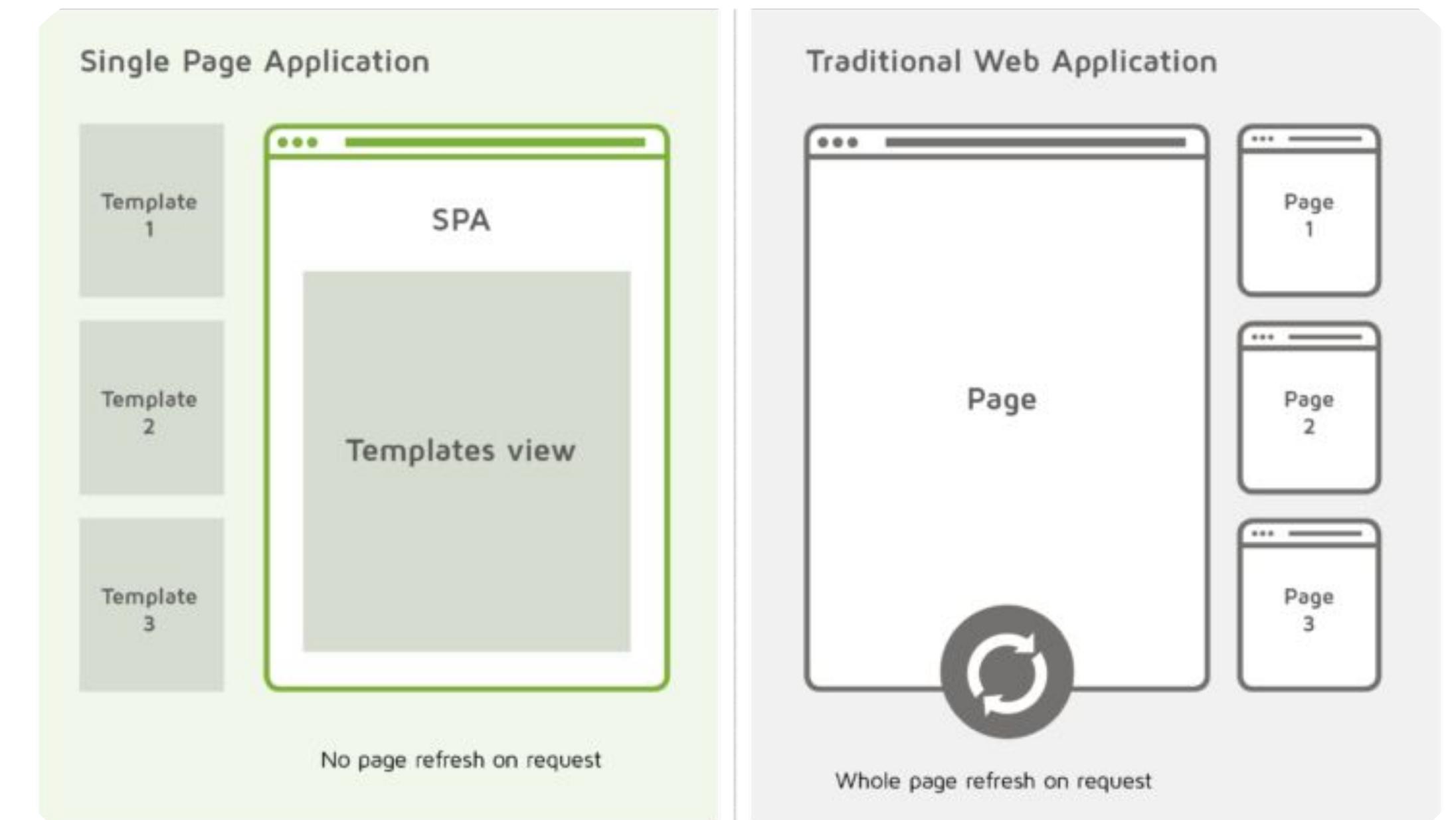
# Setup React Project

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



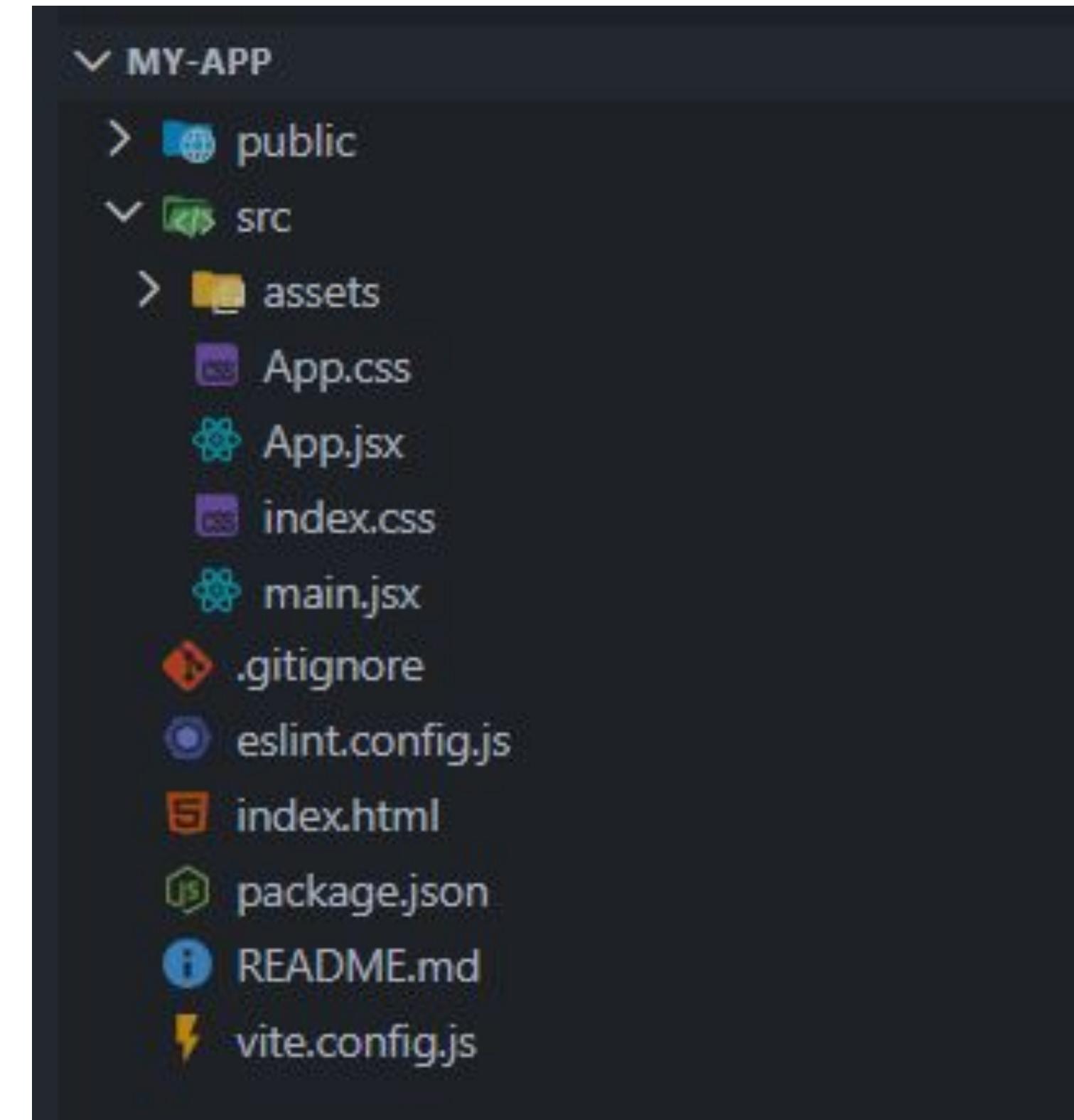
# SPA Concept

- Single Page Application
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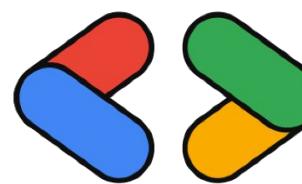
# React Project Structure

- *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

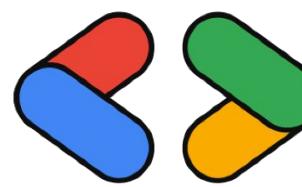


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# JSX Rules

- 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>  
  );  
}
```



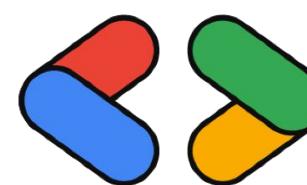
# Component Concept

- Komponen → bagian UI
- Berupa function
- Mengembalikan JSX

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

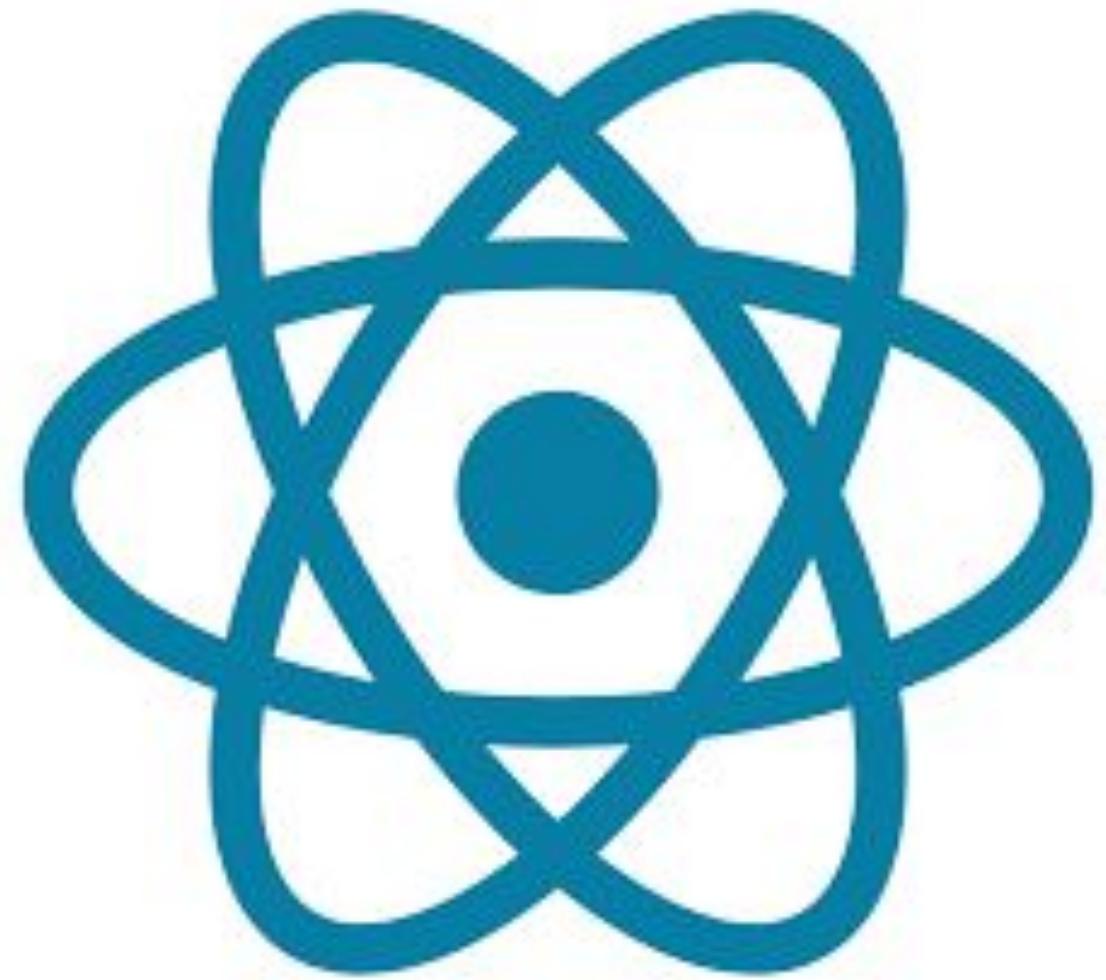
# Using Component

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



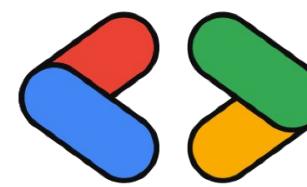
# How React Renders UI

- 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
```



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# Let's Code

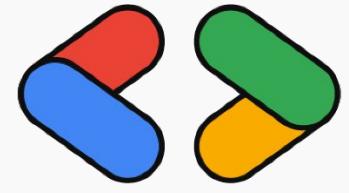


[React Docs](#)

# 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 ~*



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# Thank You !

```
filterByOrg = filterByOrg ? study.team_organization === filterByOrg : true
filterStatus = filterByStatus ? study.status === filterByStatus : true
filterPatchStatus = filterPatchStatus ? study.patch_status === filterPatchStatus : true

function filterStudies({ studies, filterByOrg = true, filterStatus = true, filterPatchStatus = true }) {
  return studies.filter(study => filterByOrg && filterStatus && filterPatchStatus)
}
```

