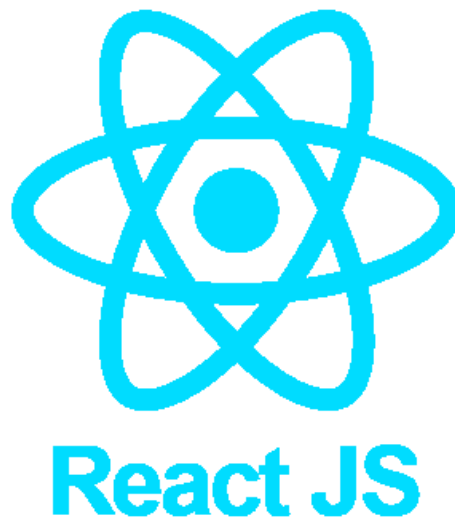


# MODUL PERKULIAHAN INSTITUT WIDYA PRATAMA



## PEMROGRAMAN BERBASIS WEB 1 REACT JS



### DESKRIPSI MATAKULIAH

Pada mata kuliah ini mahasiswa belajar mendesain dan membuat web statis maupun dinamis dengan menerapkan perintah format teks HTML, gambar, List, menyusun elemen-elemen Form HTML, mengatur web layout dengan CSS dan Framework, serta Javascript dan jQuery.

### CAPAIAN PEMBELAJARAN

Mahasiswa diharapkan memiliki kemampuan sebagai Front-End Web Developer yang mampu membangun website statis dan dinamis, menerapkan prinsip-prinsip desain responsif, menggunakan tools modern seperti Git, Bootstrap, dan React dan berkolaborasi dalam tim menggunakan GitHub serta mendeploy website ke internet.

### DOSEN PENGAMPU

Taufikqurrohman, M.Kom

INSTITUT WIDYA PRATAMA

# REACT JS

## CAPAIAN PEMBELAJARAN

Mahasiswa memahami konsep dasar React dan mampu membuat aplikasi web sederhana.

## MATERI PEMBELAJARAN

- Alat dan Bahan
- Praktikum

## MATERI

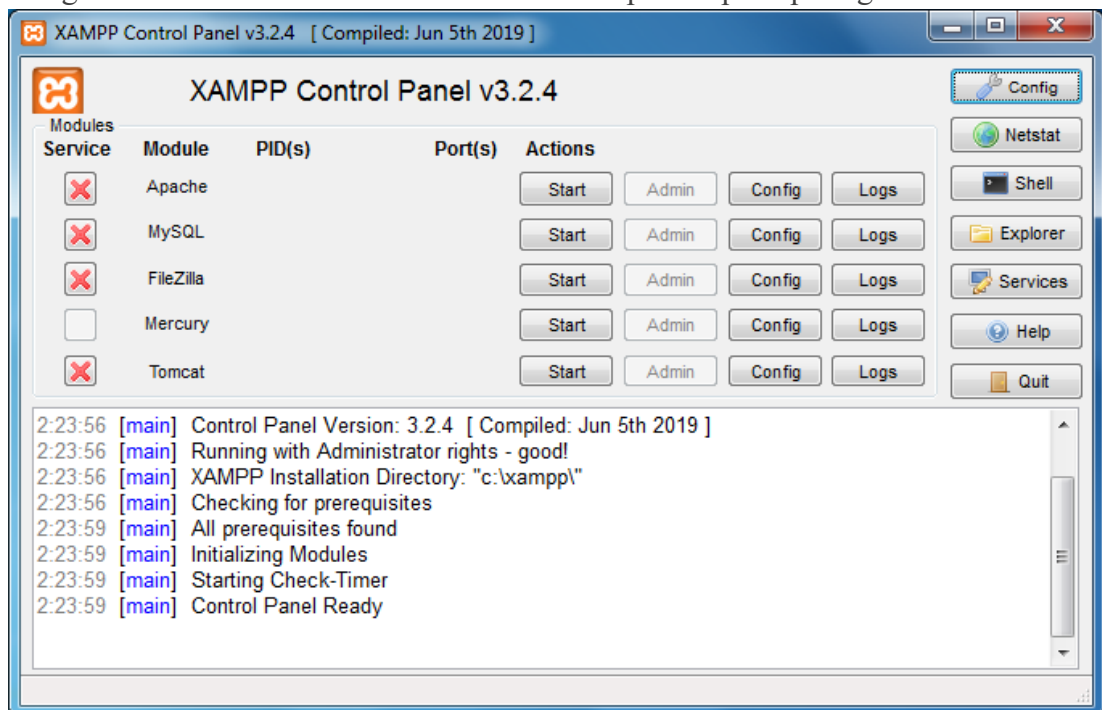
### A. Alat dan Bahan

Praktikum 1 berisi materi tentang pengenalan instalasi perangkat lunak yang akan digunakan selama kuliah/praktikum, mencakup:

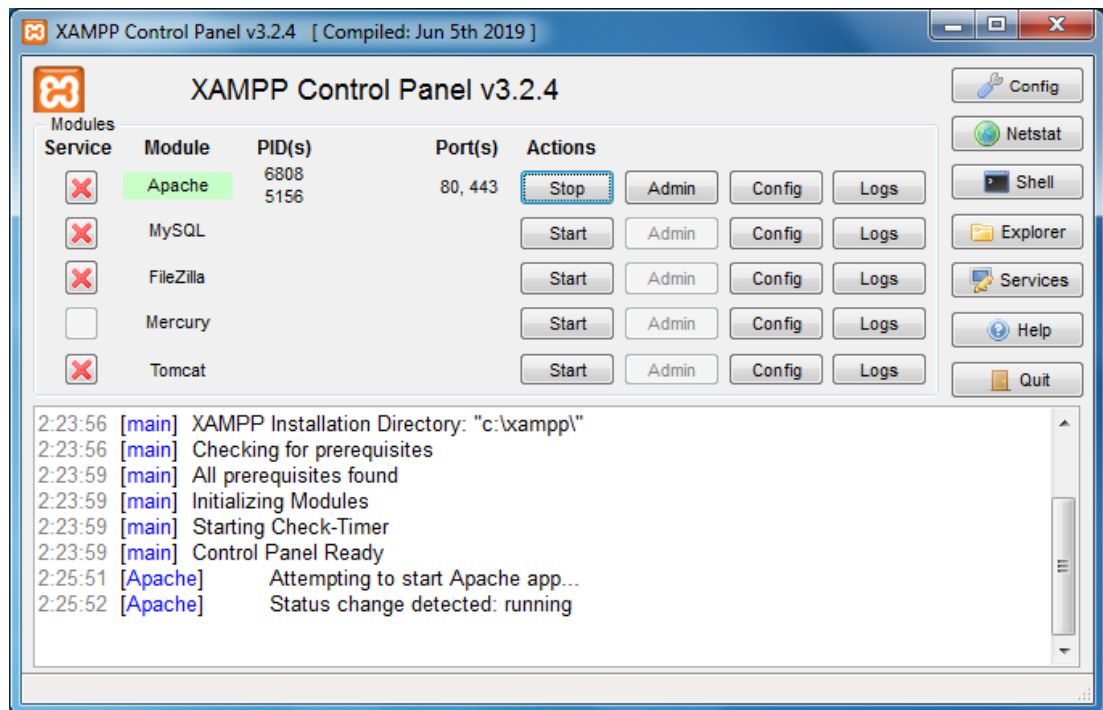
1. Apache Web Server
2. Teks Editor
3. Web Browser

### B. Praktikum

1. Instal dan nyalakan XAMPP
  - a. Yang belum instal silahkan diinstal dulu
  - b. Yang sudah ada silahkan buka file XAMPP sampai tampil seperti gambar dibawah



- c. Jalankan Apache dengan cara tekan tombol start sehingga tampil seperti pada gambar berikut



2. Buat folder **Pertemuan 13** pada folder **XAMPP/htdocs/PBW1**

3. Cek instalasi node.js gunakan kode berikut pada  
**node -v** dan **npm -v**  
apabila versi tidak keluar berarti node.js belum terinstal
4. Download dan instal node.js apabila node.js belum terinstall  
Link download node.js [Node.js – Download Node.js®](#)
5. Buat proyek aplikasi menggunakan perintah

### **npx create-react-app pbw1-p13**

```
C:\xampp\htdocs\PBW1>cd "Pertemuan 13"

C:\xampp\htdocs\PBW1\Pertemuan 13>npx create-react-app pbw1-p13

Creating a new React app in C:\xampp\htdocs\PBW1\Pertemuan 13\pbw1-p13.

Installing packages. This might take a couple of minutes.
Installing react, react-dom, and react-scripts with cra-template...

added 1325 packages in 2m

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

Initialized a git repository.

Installing template dependencies using npm...

added 18 packages, and changed 1 package in 12s

269 packages are looking for funding
  run `npm fund` for details
Removing template package using npm...

removed 1 package, and audited 1343 packages in 6s

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

9 vulnerabilities (3 moderate, 6 high)

To address all issues (including breaking changes), run:
  npm audit fix --force

Run `npm audit` for details.
Git commit not created Error: Command failed: git commit -m "Initialize project using Create React App"
    at genericNodeError (node:internal/errors:983:15)
    at wrappedFn (node:internal/errors:537:14)
    at checkExecSyncError (node:child_process:882:11)
    at execSync (node:child_process:954:15)
    at tryGitCommit (C:\xampp\htdocs\PBW1\Pertemuan 13\pbw1-p13\node_modules\react-scripts\scripts\init.js:62:5)
    at module.exports (C:\xampp\htdocs\PBW1\Pertemuan 13\pbw1-p13\node_modules\react-scripts\scripts\init.js:350:25)
    at [eval]:3:14
    at runScriptInThisContext (node:internal/vm:209:10)
    at node:internal/process/execution:449:12
    at [eval]-wrapper:6:24 {
  status: 128,
  signal: null,
  output: [ null, null, null ],
  pid: 3028,
  stdout: null,
  stderr: null
}
Removing .git directory...

Success! Created pbw1-p13 at C:\xampp\htdocs\PBW1\Pertemuan 13\pbw1-p13
Inside that directory, you can run several commands:

  npm start
    Starts the development server.

  npm run build
    Bundles the app into static files for production.

  npm test
    Starts the test runner.

  npm run eject
    Removes this tool and copies build dependencies, configuration files
    and scripts into the app directory. If you do this, you can't go back!

We suggest that you begin by typing:

  cd pbw1-p13
  npm start

Happy hacking!

C:\xampp\htdocs\PBW1\Pertemuan 13>
```

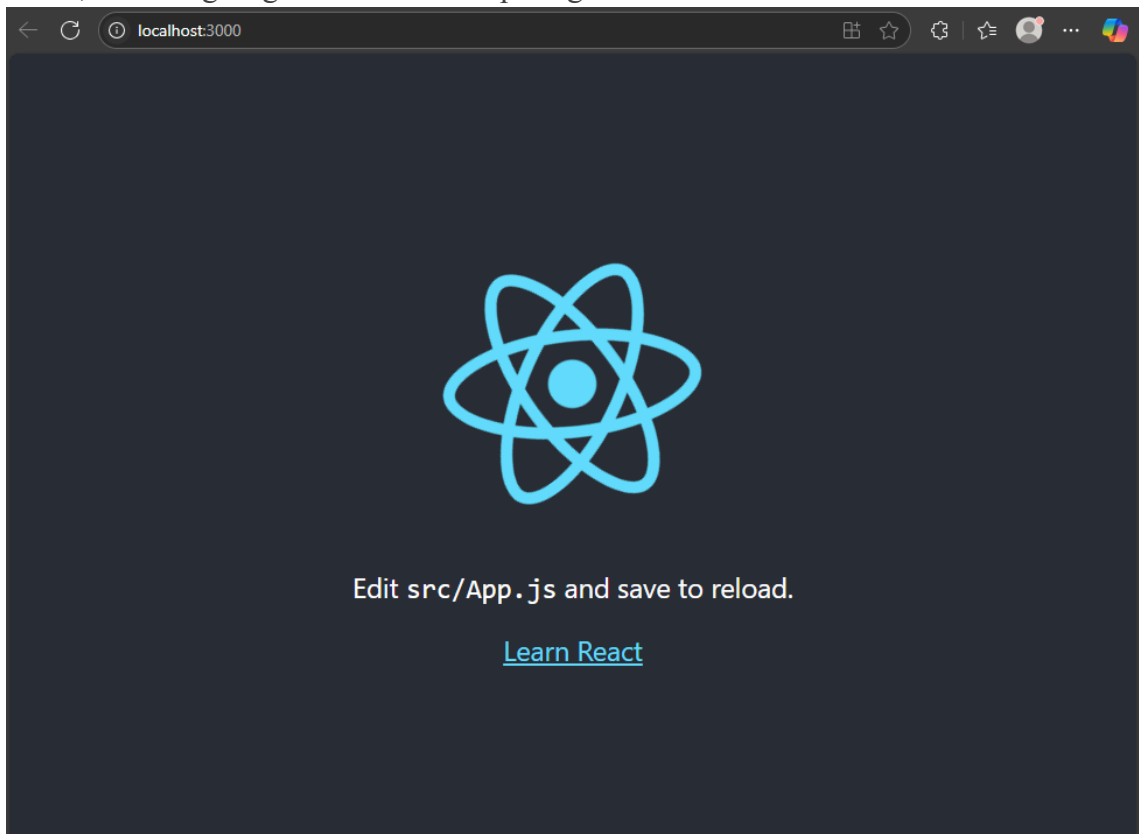
6. Masuk ke folder pbw1-p13 dengan perintah **cd pbw1-p13**

```
C:\xampp\htdocs\PBW1\Pertemuan 13>cd pbw1-p13  
C:\xampp\htdocs\PBW1\Pertemuan 13\pbw1-p13>
```

7. Jalankan webnya dengan perintah **npm start**

```
C:\xampp\htdocs\PBW1\Pertemuan 13\pbw1-p13>npm start  
  
> pbw1-p13@0.1.0 start  
> react-scripts start  
  
(node:12984) [DEP_WEBPACK_DEV_SERVER_ON_AFTER_SETUP_MIDDLEWARE] DeprecationWarning: 'onAfterSetupMiddleware' option is deprecated. Please use the 'setupMiddlew  
ares' option.  
(Use 'node --trace-deprecation ...' to show where the warning was created)  
(node:12984) [DEP_WEBPACK_DEV_SERVER_ON_BEFORE_SETUP_MIDDLEWARE] DeprecationWarning: 'onBeforeSetupMiddleware' option is deprecated. Please use the 'setupMiddl  
ewares' option.  
Starting the development server...  
Compiled successfully!  
  
You can now view pbw1-p13 in the browser.  
  
Local:      http://localhost:3000  
On Your Network: http://192.168.100.106:3000  
  
Note that the development build is not optimized.  
To create a production build, use npm run build.  
  
webpack compiled successfully
```

Maka, akan langsung buka halaman seperti gambar berikut



8. Buka **App.css** yang ada di folder **XAMPP/htdocs/PBW1/Pertemuan 13/pbw1-p13/src** dan rubah kode menjadi seperti gambar dibawah

```
* {
  margin: 0;
  box-sizing: border-box;
}

body {
  font-family: "Lucida Sans", sans-serif;
}

.grid-container {
  display: grid;
  grid-template-areas:
    'header header header header header header'
    'menu menu menu menu menu menu'
    'main main main main main main'
    'footer footer footer footer footer footer';
  gap: 10px;
  background-color: white;
  padding: 10px;
}

.grid-container > div {
  padding: 10px;
  font-size: 16px;
}
```

```
.item1 {
  grid-area: header;
  background-color: purple;
  text-align: center;
  color: #ffffff;
}

.item1 > h1 {
  font-size: 40px;
}

.item2 {
  grid-area: menu;
}

.item2 ul {
  list-style-type: none;
  display: inline-flex;
  margin: 0;
  padding: 0;
}

.item2 li {
  padding: 15px;
  margin: 7px;
  background-color: #33b5e5;
  color: #ffffff;
}

.item2 li:hover {
  background-color: #0099cc;
}

.item2 a:link {
  color: black;
  text-decoration: none;
}

.item2 a:visited {
  color: white;
}

.item2 a:active {
  color: black;
}

.item3 {
  grid-area: main;
}

.item3 > h1 {
  font-size: 30px;
  margin-bottom: 7px;
}

.item3 > p {
  margin-bottom: 7px;
}
```



```
.item4 {
  grid-area: left;
  border: 2px solid #0099cc;
  background-color: white;
  padding: 15px;
  color: #000000;
}

.item4 > h2 {
  font-size: 20px;
  padding-bottom: 10px;
}

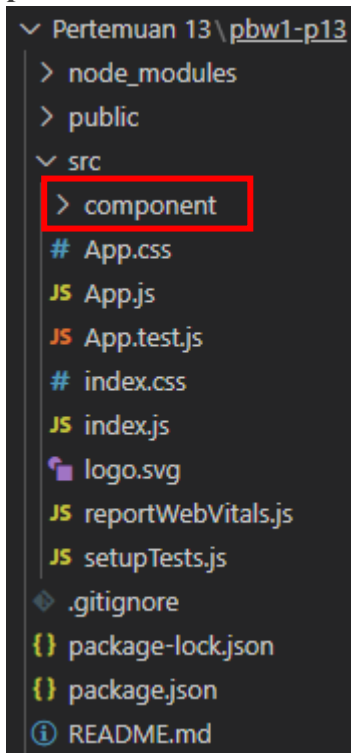
.item4 li {
  padding: 5px;
  margin-bottom: 5px;
}

.item5 {
  grid-area: footer;
  background-color: #0099cc;
  color: #ffffff;
  text-align: center;
}

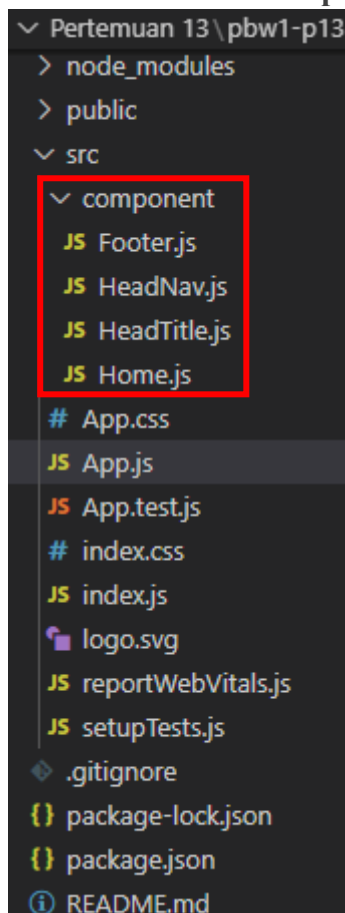
@media only screen and (max-width: 600px) {
  .item1 {grid-area: 1 / span 6;}
  .item2 {grid-area: 2 / span 6;}
  .item2 ul{display: grid;}
  .item3 {grid-area: 3 / span 6;}
  .item4 {grid-area: 4 / span 6;}
  .item5 {grid-area: 5 / span 6;}
}

@media only screen and (min-width: 600px) and (max-width: 1023px){
  .item1 {grid-area: 1 / span 6;}
  .item2 {grid-area: 2 / span 1;}
  .item2 ul{display: grid;}
  .item3 {grid-area: 2 / span 4;}
  .item4 {grid-area: 3 / span 6;}
  .item5 {grid-area: 4 / span 6;}
}
```

9. Buatlah folder **component** pada folder **XAMPP/htdocs/PBW1/Pertemuan 13/pbw1-p13/src**



10. Buat file **HeadTitle.js**, **HeadNav.js**, **Home.js**, **Footer.js** dan simpan pada folder **XAMPP/htdocs/PBW1/pbw1-p13/src/component**



11. Buka **HeadTitle.js** pada folder **XAMPP/htdocs/PBW1/Pertemuan 13/pbw1-p13/src/component** dan rubah kode menjadi seperti gambar dibawah

```
import '../App.css';

function HeadTitle() {
  return (
    <div class="item1"><h1>Pemrograman Berbasis Web 1</h1></div>
  );
}

export default HeadTitle;
```

12. Buka **HeadNav.js** pada folder **XAMPP/htdocs/PBW1/ Pertemuan 13/pbw1-p13/src/component** dan rubah kode menjadi seperti gambar dibawah

```
import '../App.css';

function HeadNav() {
  return (
    <div class="item2">
      <ul>
        <li><a href="/">Home</a></li>
        <li><a href="/materi">Materi</a></li>
        <li><a href="/about">About</a></li>
        <li><a href="/contact">Contact</a></li>
      </ul>
    </div>
  );
}

export default HeadNav;
```

13. Buka **Home.js** pada folder **XAMPP/htdocs/PBW1/ Pertemuan 13/pbw1-p13/src/component** dan rubah kode menjadi seperti gambar dibawah

```
import '../App.css';

function Home() {
  return (
    <div class="item3">
      <h1>Pokok Materi</h1>
      <ol>
        <li>Web Development</li>
        <li>HTML</li>
        <li>CSS</li>
        <li>Javascript</li>
      </ol>
    </div>
  );
}

export default Home;
```

14. Buka **Footer.js** pada folder **XAMPP/htdocs/PBW1/ Pertemuan 13/pbw1-p13/src/component** dan rubah kode menjadi seperti gambar dibawah

```
import '../App.css';

function Footer() {
  return (
    <div class="item5"><p>Semester Genap Tahun Ajaran 2024-2025</p></div>
  );
}

export default Footer;
```

15. Buka **App.js** pada folder **XAMPP/htdocs/PBW1/ Pertemuan 13/pbw1-p12/src** dan rubah kode menjadi seperti gambar dibawah

```
import HeadTitle from './component/HeadTitle';
import HeadNav from './component/HeadNav';
import Home from './component/Home';
import Footer from './component/Footer';
import './App.css';

function App() {
  return (
    <div class="grid-container">
      <HeadTitle/>
      <HeadNav/>
      <Home/>
      <Footer/>
    </div>
  );
}

export default App;
```

Maka hasil akhir akan tampil seperti gambar berikut

## Pemrograman Berbasis Web 1

[Home](#)[Materi](#)[About](#)[Contact](#)

### Pokok Materi

1. Web Development
2. HTML
3. CSS
4. Javascript

Semester Genap Tahun Ajaran 2024-2025

16. Ketikkan perintah **npm install react-router-dom**

```
C:\xampp\htdocs\PBW1\Pertemuan 13\pbw1-p13>npm install react-router-dom

added 5 packages, and audited 1347 packages in 10s

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

9 vulnerabilities (3 moderate, 6 high)

To address all issues (including breaking changes), run:
  npm audit fix --force

Run `npm audit` for details.
```

17. Buka **HeadNav.js** pada folder **XAMPP/htdocs/PBW1/Pertemuan 13/pbw1-p13/src/component** dan rubah kode menjadi seperti gambar dibawah

```
import { Link } from 'react-router-dom';
import '../App.css';

function HeadNav() {
  return (
    <div class="item2">
      <ul>
        <li><Link to="/">Home</Link></li>
        <li><Link to="/materi">Materi</Link></li>
        <li><Link to="/about">About</Link></li>
        <li><Link to="/contact">Contact</Link></li>
      </ul>
    </div>
  );
}

export default HeadNav;
```

18. Buat file dengan nama **About.js** dan simpan pada folder **XAMPP/htdocs/PBW1/Pertemuan 13/pbw1-p13/src/component** serta tambahkan kode berikut

```
import '../App.css';

function About() {
  return (
    <div class="item3">
      <h1>About</h1>
      <p>
        React.js, atau sering disebut React, adalah sebuah pustaka JavaScript (library) sumber terbuka yang digunakan untuk membangun antarmuka pengguna (UI) yang interaktif pada aplikasi web dan mobile. React populer karena kemampuannya dalam memecah tampilan aplikasi menjadi komponen-komponen yang dapat digunakan kembali, serta efisiensi dalam memperbarui tampilan aplikasi dengan konsep Virtual DOM.
      </p>
    </div>
  );
}

export default About;
```

19. Buka **App.js** pada folder **XAMPP/htdocs/PBW1/Pertemuan 13/pbw1-p13/src** dan rubah kode menjadi seperti gambar dibawah

```
import { BrowserRouter, Route, Routes } from 'react-router-dom';
import HeadTitle from './component/HeadTitle';
import HeadNav from './component/HeadNav';
import Home from './component/Home';
import About from './component/About';
import Footer from './component/Footer';
import './App.css';

function App() {
  return (
    <BrowserRouter>
    <div class="grid-container">
      <HeadTitle/>
      <HeadNav/>
      <Routes>
        <Route path="/" element={<Home />} />
        <Route path="/about" element={<About />} />
      </Routes>
      <Footer/>
    </div>
    </BrowserRouter>
  );
}

export default App;
```

20. Install bootstrap di React JS menggunakan react bootstrap dengan perintah **npm i react-bootstrap bootstrap**

```
C:\xampp\htdocs\PBW1\Pertemuan 13\pbw1-p13>npm i react-bootstrap bootstrap

added 23 packages, and audited 1370 packages in 13s

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

9 vulnerabilities (3 moderate, 6 high)

To address all issues (including breaking changes), run:
  npm audit fix --force

Run `npm audit` for details.
```

21. Buka file **index.js** pada folder **XAMPP/htdocs/PBW1/Pertemuan 13/pbw1-p13/src** dan tambahkan kode berikut

```
import React from 'react';
import ReactDOM from 'react-dom/client';
import './index.css';
import App from './App';
import reportWebVitals from './reportWebVitals';
import 'bootstrap/dist/css/bootstrap.min.css';

const root = ReactDOM.createRoot(document.getElementById('root'));
root.render(
  <React.StrictMode>
    <App />
  </React.StrictMode>
);

// If you want to start measuring performance in your app, pass a function
// to log results (for example: reportWebVitals(console.log))
// or send to an analytics endpoint. Learn more: https://bit.ly/CRA-vitals
reportWebVitals();
```

22. Buka file **index.html** pada folder **XAMPP/htdocs/PBW1/Pertemuan 13/pbw1-p13/public** dan tambahkan kode berikut

```
<title>React App</title>
</head>
<body>
  <noscript>You need to enable JavaScript to run this app.</noscript>
  <div id="root"></div>
  <!--
    This HTML file is a template.
    If you open it directly in the browser, you will see an empty page.

    You can add webfonts, meta tags, or analytics to this file.
    The build step will place the bundled scripts into the <body> tag.

    To begin the development, run `npm start` or `yarn start`.
    To create a production bundle, use `npm run build` or `yarn build`.
  -->
  <script
    src="https://cdn.jsdelivr.net/npm/react-bootstrap@next/dist/react-bootstrap.min.js" crossorigin></script>
</body>
</html>
```



23. Buka **App.css** yang ada di folder **XAMPP/htdocs/PBW1/Pertemuan 13/pbw1-p13/src** dan rubah kode menjadi seperti gambar dibawah

```
* {
  margin: 0;
  box-sizing: border-box;
}

body {
  font-family: "Lucida Sans", sans-serif;
}

.grid-container {
  display: grid;
  grid-template-areas:
    'header header header header header header'
    'menu menu menu menu menu menu'
    'main main main main main main'
    'footer footer footer footer footer footer';
  background-color: white;
  padding: 10px;
}

.grid-container > div {
  font-size: 16px;
}

.item1 {
  grid-area: header;
}
```

```
.item2 {  
  grid-area: menu;  
}  
  
.item2 ul {  
  list-style-type: none;  
  display: inline-flex;  
}  
  
.item2 li:hover {  
  background-color: #0d6efd;  
}  
  
.item2 a:link {  
  color: black;  
  text-decoration: none;  
}  
  
.item2 a:visited {  
  color: white;  
}  
  
.item2 a:active {  
  color: black;  
}  
  
.item3 {  
  grid-area: main;  
}
```

```
.item5 {  
  grid-area: footer;  
}  
  
@media only screen and (max-width: 600px) {  
  .item1 {grid-area: 1 / span 6;}  
  .item2 {grid-area: 2 / span 6;}  
  .item2 ul{display: grid;}  
  .item3 {grid-area: 3 / span 6;}  
  .item4 {grid-area: 4 / span 6;}  
  .item5 {grid-area: 5 / span 6;}  
}  
  
@media only screen and (min-width: 600px) and (max-width: 1023px){  
  .item1 {grid-area: 1 / span 6;}  
  .item2 {grid-area: 2 / span 2;}  
  .item2 ul{display: grid;}  
  .item3 {grid-area: 2 / span 4;}  
  .item4 {grid-area: 3 / span 6;}  
  .item5 {grid-area: 4 / span 6;}  
}
```

24. Buka file **HeadTitle.js** pada folder **XAMPP/htdocs/PBW1/Pertemuan 13/pbw1-p13/src/component** dan rubah kode menjadi seperti gambar berikut

```
import '../App.css';  
  
function HeadTitle() {  
  return (  
    <div className="item1 text-center bg-primary text-white"><h1 className='m-4'>Pemrograman Berbasis Web 1</h1></div>  
  );  
}  
  
export default HeadTitle;
```

25. Buka file **HeadNav.js** pada folder **XAMPP/htdocs/PBW1/Pertemuan 13/pbw1-p13/src/component** dan rubah kode menjadi seperti gambar berikut

```
import { Link } from 'react-router-dom';  
import '../App.css';  
  
function HeadNav() {  
  return (  
    <div className="item2 bg-info">  
      <ul className='m-0 p-0'>  
        <li className='fs-5 p-1 ps-2 pe-2'><Link to="/">Home</Link></li>  
        <li className='fs-5 p-1 ps-2 pe-2'><Link to="/materi">Materi</Link></li>  
        <li className='fs-5 p-1 ps-2 pe-2'><Link to="/about">About</Link></li>  
        <li className='fs-5 p-1 ps-2 pe-2'><Link to="/contact">Contact</Link></li>  
      </ul>  
    </div>  
  );  
}  
  
export default HeadNav;
```

26. Buka file **Home.js** pada folder **XAMPP/htdocs/PBW1/Pertemuan 13/pbw1-p13/src/component** dan rubah kode menjadi seperti gambar berikut

```
import '../App.css';

function Home() {
  return (
    <div className="item3 p-2">
      <h1 className='ps-2'>Pokok Materi</h1>
      <ol className='m-0 ps-5'>
        <li>Web Development</li>
        <li>HTML</li>
        <li>CSS</li>
        <li>Javascript</li>
      </ol>
    </div>
  );
}

export default Home;
```

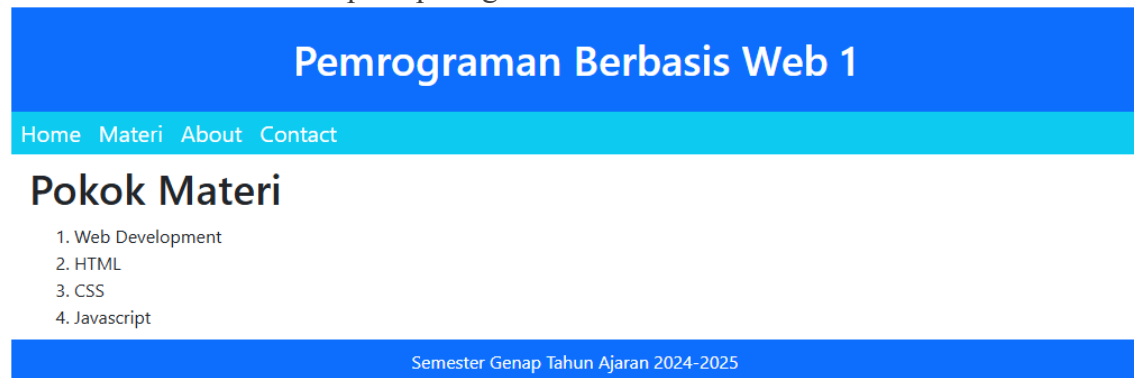
27. Buka file **Footer.js** pada folder **XAMPP/htdocs/PBW1/Pertemuan 13/pbw1-p13/src/component** dan rubah kode menjadi seperti gambar berikut

```
import '../App.css';

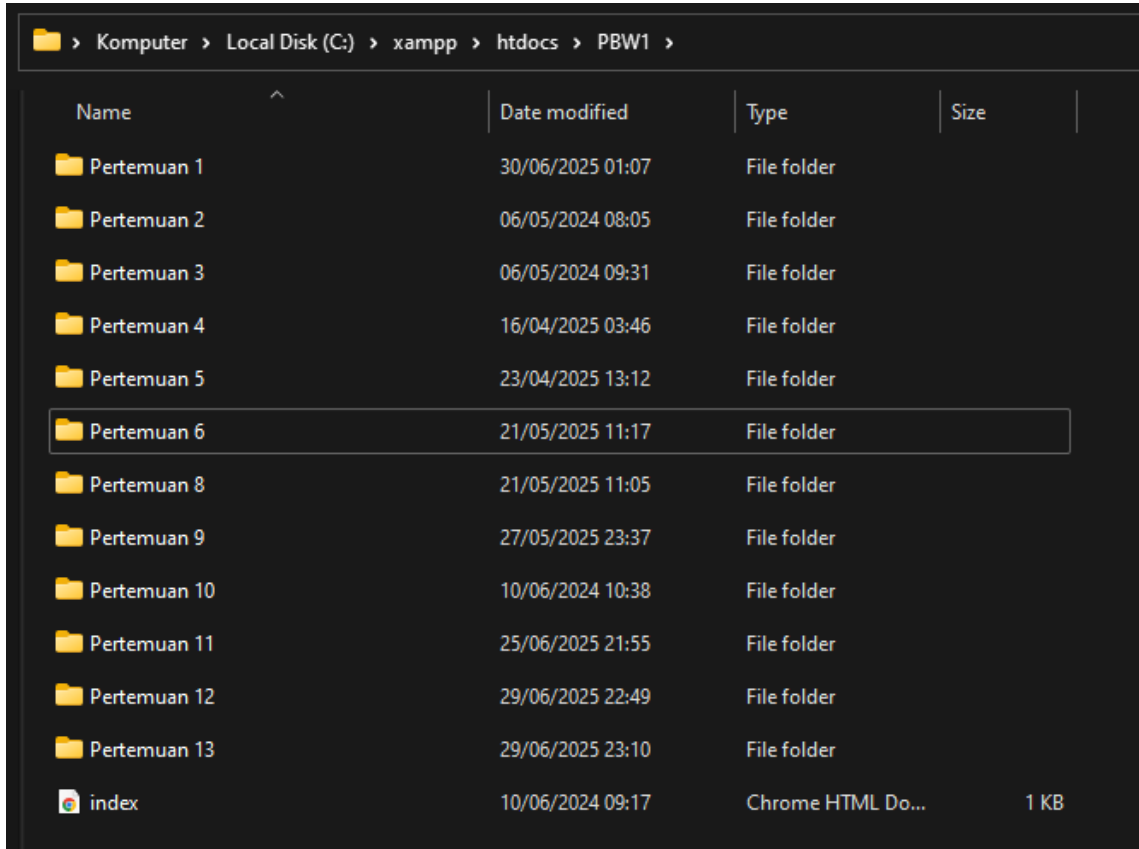
function Footer() {
  return (
    <div class="item5 text-center text-white bg-primary">
      <p className='m-2'>Semester Genap Tahun Ajaran 2024-2025</p>
    </div>
  );
}

export default Footer;
```

Maka hasil akhir akan tampil seperti gambar berikut



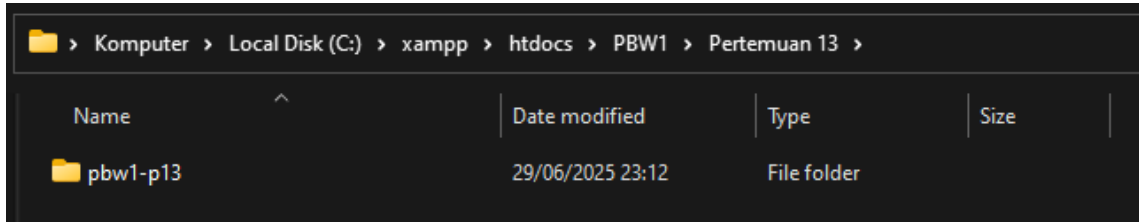
## 28. Tampilan folder PBW1



File Explorer path: > Komputer > Local Disk (C:) > xampp > htdocs > PBW1 >

| Name         | Date modified    | Type              | Size |
|--------------|------------------|-------------------|------|
| Pertemuan 1  | 30/06/2025 01:07 | File folder       |      |
| Pertemuan 2  | 06/05/2024 08:05 | File folder       |      |
| Pertemuan 3  | 06/05/2024 09:31 | File folder       |      |
| Pertemuan 4  | 16/04/2025 03:46 | File folder       |      |
| Pertemuan 5  | 23/04/2025 13:12 | File folder       |      |
| Pertemuan 6  | 21/05/2025 11:17 | File folder       |      |
| Pertemuan 8  | 21/05/2025 11:05 | File folder       |      |
| Pertemuan 9  | 27/05/2025 23:37 | File folder       |      |
| Pertemuan 10 | 10/06/2024 10:38 | File folder       |      |
| Pertemuan 11 | 25/06/2025 21:55 | File folder       |      |
| Pertemuan 12 | 29/06/2025 22:49 | File folder       |      |
| Pertemuan 13 | 29/06/2025 23:10 | File folder       |      |
| index        | 10/06/2024 09:17 | Chrome HTML Do... | 1 KB |

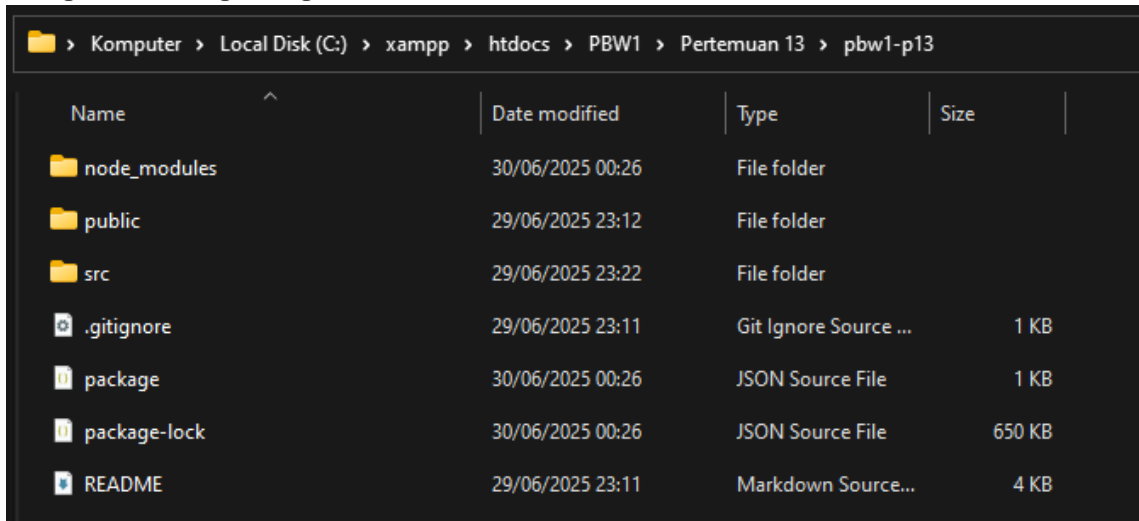
## 29. Tampilan folder pertemuan 13



File Explorer path: > Komputer > Local Disk (C:) > xampp > htdocs > PBW1 > Pertemuan 13 >

| Name     | Date modified    | Type        | Size |
|----------|------------------|-------------|------|
| pbw1-p13 | 29/06/2025 23:12 | File folder |      |

## 30. Tampilan folder pbw1-p13



File Explorer path: > Komputer > Local Disk (C:) > xampp > htdocs > PBW1 > Pertemuan 13 > pbw1-p13

| Name         | Date modified    | Type                  | Size   |
|--------------|------------------|-----------------------|--------|
| node_modules | 30/06/2025 00:26 | File folder           |        |
| public       | 29/06/2025 23:12 | File folder           |        |
| src          | 29/06/2025 23:22 | File folder           |        |
| .gitignore   | 29/06/2025 23:11 | Git Ignore Source ... | 1 KB   |
| package      | 30/06/2025 00:26 | JSON Source File      | 1 KB   |
| package-lock | 30/06/2025 00:26 | JSON Source File      | 650 KB |
| README       | 29/06/2025 23:11 | Markdown Source...    | 4 KB   |

## RANGKUMAN

## TES FORMATIF

## DAFTAR PUSTAKA