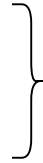


**Functional**  
Component

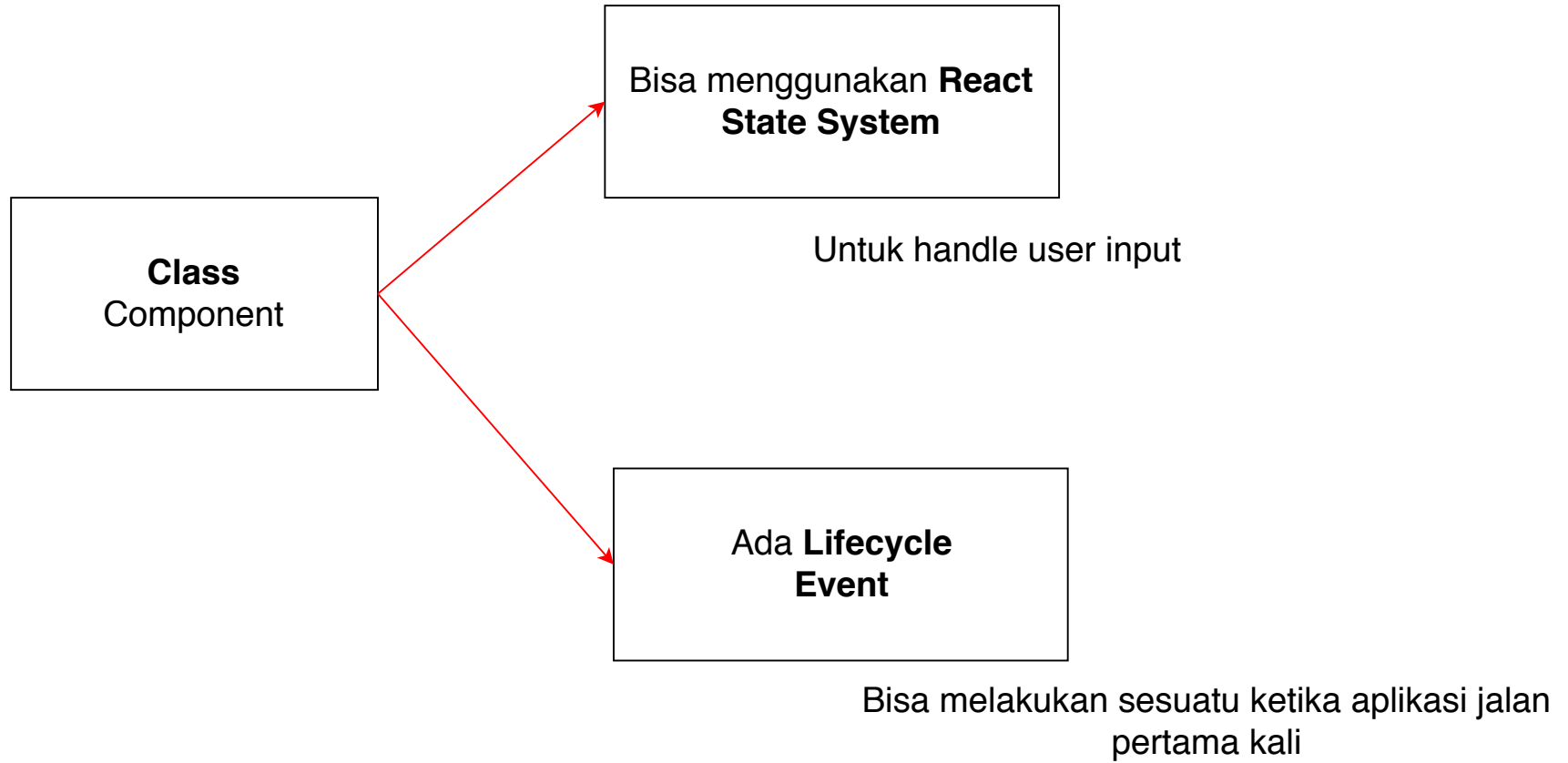


Konten yang  
sederahana

**Class**  
Component



Kebutuhan  
lainnya yang  
mungkin lebih  
kompleks



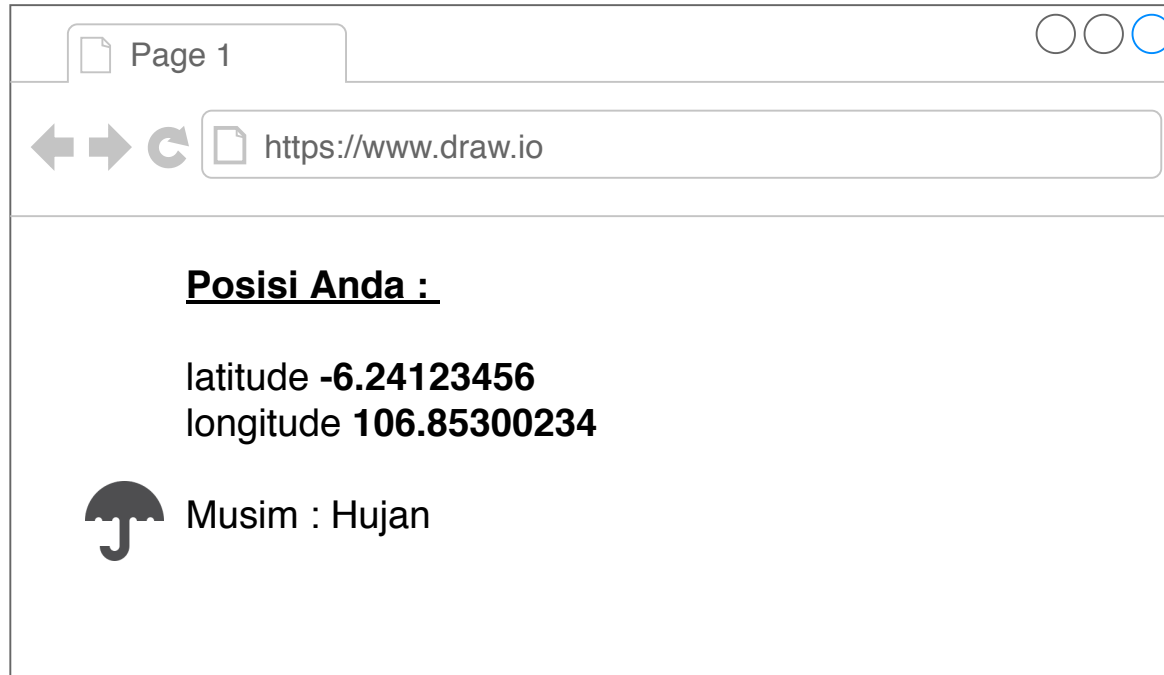
## Aturan Class Component

Harus JavaScript Class

Harus extend  
subclass **React.Component**

Harus ada **render** method yang  
mengembalikan JSX

## Hands On



create-react-app my-location

hapus semua isi src

buat file baru src > index.js

```
import React from 'react';
import ReactDOM from 'react-dom';

const App = () => {
  window.navigator.geolocation.getCurrentPosition(
    (position) => console.log(position),
    (err) => console.log(err)
  )
  return (
    <div>Posisi Anda :</div>
  );
};

ReactDOM.render(<App />, document.querySelector('#root'));
```

Return data dari geolocation  
membutuhkan waktu yang  
lebih lama daripada render  
React

Bagaimana hasil position  
bisa ditampilkan di div ???

## Aturan State

Hanya bisa digunakan di  
**Class Component**

Mungkin akan terjadi kebingungan antara  
props dan state

State adalah **JS Object** yang berisi data  
yang berhubungan dengan komponennya

Perubahan state akan mengakibatkan **re-render** component

State harus **diinisialisasi** ketika  
komponen dibuat

Isi dari state hanya bisa diubah  
menggunakan method **setState**

Ubah file src > index.js

```
import React from 'react';
import ReactDOM from 'react-dom';

class App extends React.Component {
  constructor(props) {
    super(props);
    this.state = { lt: null, lg: null, errorMessage: " " };

    window.navigator.geolocation.getCurrentPosition(
      (position) => {
        this.setState({ lt: position.coords.latitude, lg: position.coords.longitude });
      },
      (err) => {
        this.setState({ errorMessage: err.message });
      }
    );
  }

  render() {
    return (
      <div>
        Posisi Anda :
        <div> Latitude : {this.state.lt}</div>
        <div> Longitude : {this.state.lg}</div>
        <div> Error : {this.state.errorMessage}</div>
      </div>
    );
  }
};

ReactDOM.render(<App />, document.querySelector('#root'));
```

Dipanggil pertama kali  
ketika component dibentuk

Dari parent class React.Component,  
untuk memanggil React.Component

Bila tidak ada, akan terjadi error  
*Must call super constructor in  
derived class before accessing 'this'  
or returning from derived constructor*

Supaya lebih bagus,  
gunakan conditional  
rendering

Ubah file src > index.js

```
...  
  
render() {  
  if(this.state.errorMessage){  
    return (  
      <div>  
        <div> Error : {this.state.errorMessage}</div>  
      </div>  
    );  
  }  
  if(!this.state.errorMessage && this.state.lt){  
    return (  
      <div>  
        Posisi Anda :  
        <div> Latitude : {this.state.lt}</div>  
        <div> Longitude : {this.state.lg}</div>  
      </div>  
    );  
  }  
  
  return <div>Loading !!!</div>  
};  
...
```



## Component Lifecycle

Constructor	Cocok untuk one time setup
componentWillMount	
render	Hindari proses yang lain kecuali return JSX
Konten muncul di layar	
componentDidMount	Cocok untuk data loading
Menunggu update...	
componentDidUpdate	Cocok untuk data loading lagi saat state/props berubah
Menunggu sampai komponen hilang dari layar...	
componentWillUnmount	Cocok untuk clean up

Ubah file src > index.js

```
import React from 'react';
import ReactDOM from 'react-dom';

class App extends React.Component {
  constructor(props) {
    super(props);
    this.state = { lt: null, lg: null, errorMessage: " " };
  }

  componentDidMount() {
    window.navigator.geolocation.getCurrentPosition(
      (position) => {
        this.setState({ lt: position.coords.latitude, lg: position.coords.longitude });
      },
      (err) => {
        this.setState({ errorMessage: err.message });
      }
    );
  }
  ...
}
```

```
import React from 'react';
import ReactDOM from 'react-dom';

class App extends React.Component {
  constructor(props) {
    super(props);
    this.state = { lt: null, lg: null, errorMessage: " ";
  }
  ...
}
```

```
import React from 'react';
import ReactDOM from 'react-dom';

class App extends React.Component {
  state = { lt: null, lg: null, errorMessage: " "};
  ...
}
```

Sama

BABEL

[Docs](#)

[Setup](#)

[Try it out](#)

[Videos](#)

[Blog](#)

[Search](#)

[Donate](#)

[Team](#)

[GitHub](#)

```
1 class App extends React.Component {
2   state = { lt: null, lg: null, errorMessage: '' };
3 }
```

```
1 function _defineProperty(obj, key, value) { if (key in obj) { Object.defineProperty(obj, key, {
  value: value, enumerable: true, configurable: true, writable: true }); } else { obj[key] = value; }
  return obj; }
2
3 class App extends React.Component {
4   constructor(...args) {
5     super(...args);
6
7     _defineProperty(this, "state", {
8       lt: null,
9       lg: null,
10      errorMessage: ''
11    });
12   }
13
14 }
```

Buat file baru src > SeasonDisplay.js

```
import React from 'react'

const getSeason = (mm) => {
  if (mm > 2 && mm < 9) {
    return 'Kemarau';
  } else {
    return 'Hujan';
  }
}

const SeasonDisplay = (props) => {
  const season = getSeason(new Date().getMonth());
  const icon = season === 'Hujan' ? 'umbrella' : 'sun';
  const color = season === 'Hujan' ? 'bg-primary' : 'bg-warning';
  return (
    <div>
      <h2>Musim</h2>
      <div className={`p-3 mb-2 ${color} text-white`} >
        <div>{icon}</div>
        <div>{season}</div>
      </div>
    </div>
  );
}

export default SeasonDisplay;
```

Ubah file src > index.js

```
import React from 'react';
import ReactDOM from 'react-dom';

import SeasonDisplay from './SeasonDisplay';

class App extends React.Component {
  state = { lt: null, lg: null, errorMessage: " " };
  ...
  render() {
    if (this.state.errorMessage) {
      return (
        <div>
          <div> Error : {this.state.errorMessage}</div>
        </div>
      );
    }
    if (!this.state.errorMessage && this.state.lt) {
      return (
        <div>
          Posisi Anda :
          <div> Latitude : {this.state.lt}</div>
          <div> Longitude : {this.state.lg}</div>
          <SeasonDisplay/>
        </div>
      );
    }
    return <div>Loading !!!</div>
  }
};
```

Ubah file src > SeasonDisplay.js

```
import React from 'react'

const SeasonConfig = {
  Kemarau: {
    color: 'bg-warning',
    icon: 'sun'
  },
  Hujan: {
    color: 'bg-primary',
    icon: 'umbrella'
  }
};
...
const SeasonDisplay = (props) => {
  const season = getSeason(new Date().getMonth());
  const {color, icon} = SeasonConfig[season];
  return (
    <div>
      <h2>Musim</h2>
      <div className={`p-3 mb-2 ${color} text-white`} >
        <div>{icon}</div>
        <div>{season}</div>
      </div>
    </div>
  );
}

export default SeasonDisplay;
```

const icon = SeasonConfig[season].icon;  
const color = SeasonConfig[season].color;

Buat file baru src > index.css

```
.text-info{
  font-weight: bolder;
  font-size: 16px;
}
.text-title{
  text-decoration: underline;
  font-size: 20px;
  font-weight: bolder;
  margin-bottom: 20px;
}
.space-bottom{
  margin-bottom: 20px;
}
```

Ubah file src > App.js

```
...
import './index.css';

class App extends React.Component {
  state = { lt: null, lg: null, errorMessage: " " };
  ...
  render() {
    ...
    if (!this.state.errorMessage && this.state.lt) {
      return (
        <div>
          <div className='text-title'>Posisi Anda :</div>
          <div className='text-info'> Latitude : {this.state.lt}</div>
          <div className='text-info space-bottom'> Longitude :
{this.state.lg}</div>
          <SeasonDisplay />
        </div>
      );
    }

    return <div>Loading !!!</div>
  }
};
```

Buat file baru src > Spinner.js

```
import React from 'react';

const Spinner = (props) => {
  return (
    <div>
      <div className="d-flex justify-content-center">
        <div className="spinner-border" role="status"></div>
        <strong>{props.message}</strong>
      </div>
    </div>
  );
};

Spinner.defaultProps = {
  message: 'Loading...'
};

export default Spinner;
```

Ubah file src > App.js

```
import React from 'react';
import ReactDOM from 'react-dom';

import Spinner from './Spinner';

class App extends React.Component {
  ...
  render() {
    ...
    return (
      <div>
        <Spinner/>
      </div>
    );
  }
};
```



Ubah file src > App.js

```
...
import './index.css';

class App extends React.Component {
  ...
  renderContent(){
    if (this.state.errorMessage) {
      return (
        <div>
          <div> Error : {this.state.errorMessage}</div>
        </div>
      );
    }
    if (!this.state.errorMessage && this.state.lt) {
      return (
        <div>
          <div className='text-title'>Posisi Anda :</div>
          <div className='text-info'> Latitude : {this.state.lt}</div>
          <div className='text-info space-bottom'> Longitude :
{this.state.lg}</div>
          <SeasonDisplay />
        </div>
      );
    }

    return (
      <Spinner />
    );
  }
  render() {
    return(
      <div className="container">
        {this.renderContent()}
      </div>
    )
  }
};
...
```