

## Clock program in State:

```
import React from 'react';

import {render} from 'react-dom';

class Container extends React.Component {

  constructor(props) {

    super(props);

    this.state = this.getTime();

  }


  componentDidMount() {

    this.setTimer();

  }

  setTimer() {

    clearTimeout(this.timeout);

    this.timeout = setTimeout(this.updateClock.bind(this), 1000);

  }

  updateClock() {

    this.setState(this.getTime, this.setTimer);

  }

  getTime() {

    const currentTime = new Date();

    return {

      hours: currentTime.getHours(),
```

```
minutes: currentTime.getMinutes(),
seconds: currentTime.getSeconds(),
ampm: currentTime.getHours() >= 12 ? 'pm' : 'am'
}
}

render() {
  const {hours, minutes, seconds, ampm} = this.state;
  return (
    <div className="clock">
      {hours == 0 ? 12 : hours > 12 ? hours - 12 : hours}:
      {minutes > 9 ? minutes : `0${minutes}`}:
      {seconds > 9 ? seconds : `0${seconds}`} {ampm}
    </div>
  );
}
}

export default Container;
```

two:

```
class Container extends React.Component{
  doSomething(){
```

```
console.log("Parent component");  
  
}  
  
render() {  
  return <div>  
    <Child  
      text="This is the child number 1"  
      title="Title 1"  
      onClick={this.doSomething} />  
    <Child  
      text="This is the child number 2"  
      title="Title 2"  
      onClick={this.doSomething} />  
    </div>  
  }  
}  
  
class Child extends React.Component{  
  render() {  
    return <div>  
      <h1>{this.props.title}</h1>  
      <h2>{this.props.text}</h2>  
    </div>  
  }  
}
```

#### 4) Creating component:

```
import React, { Component } from 'react';  
  
import { render } from 'react-dom';  
  
class FirstComponent extends Component {  
  render() {  
    return (  
      <div>  
  
        Hello, {this.props.name}! I am a FirstComponent.  
  
      </div>  
  
    );  
  }  
}  
  
render(  
  <FirstComponent name={ 'User' } />,  
  document.getElementById('content')  
);
```

#### 5) stateless function component:

```
import React from 'react';  
  
import PropTypes from 'prop-types';  
  
const FirstComponent = props => (  
  <div>  
  
    Hello, {props.name}! I am a FirstComponent.  
  
  </div>  
)
```

```
);  
  
//arrow components also may have props validation  
  
FirstComponent.propTypes = {  
  name: PropTypes.string.isRequired,  
}  
  
export default FirstComponent;
```

5state component:

```
import React, { Component } from 'react';  
  
class FirstComponent extends Component {  
  constructor(props) {  
    super(props);  
    this.state = {  
      toggle: true  
    };  
  
    // This is to bind context when passing onClick as a callback  
    this.onClick = this.onClick.bind(this);  
  }  
  
  onClick() {  
    this.setState((prevState, props) => ({  
      toggle: !prevState.toggle  
    }));  
  }  
}
```

```
}

render() {
  return (
    <div onClick={this.onClick}>
      Hello, {this.props.name}! I am a SecondComponent.
      <br />
      Toggle is: {this.state.toggle}
    </div>
  );
}

export default FirstComponent;
```