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React State

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React components has a built-in `state` object.

The `state` object is where you store property values that belongs to the component.

When the `state` object changes, the component re-renders.

Creating the `state` Object

The `state` object is initialized in the constructor:

Example:

Specify the **state** object in the constructor method:

```
class Car extends React.Component {  
  constructor(props) {  
    super(props);  
    this.state = {brand: "Ford"};  
  }  
  render() {  
    return (  
      <div>  
        <h1>My Car</h1>  
      </div>  
    );  
  }  
}
```

The **state** object can contain as many properties as you like:

Example:

Specify all the properties your component need:

```
class Car extends React.Component {  
  constructor(props) {  
    super(props);  
    this.state = {  
      brand: "Ford",  
      model: "Mustang",  
      color: "red",  
    };  
  }  
}
```

```
    year: 1964
  };
}
render() {
  return (
    <div>
      <h1>My Car</h1>
    </div>
  );
}
```

Using the `state` Object

Refer to the `state` object anywhere in the component by using the `this.state.propertyname` syntax:

Example:

Refer to the `state` object in the `render()` method:

```
class Car extends React.Component {
  constructor(props) {
    super(props);
    this.state = {
      brand: "Ford",
      model: "Mustang",
      color: "red",
    };
  }
  render() {
    return (
      <div>
        <h1>My Car</h1>
      </div>
    );
  }
}
```

```
    year: 1964
  };
}
render() {
  return (
    <div>
      <h1>My {this.state.brand}</h1>
      <p>
        It is a {this.state.color}
        {this.state.model}
        from {this.state.year}.
      </p>
    </div>
  );
}
```

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Changing the **state** Object

To change a value in the state object, use the `this.setState()` method.

When a value in the **state** object changes, the component will re-render, meaning that the output will change according to the new value(s).

Example:

Add a button with an `onClick` event that will change the color property:

```
class Car extends React.Component {
  constructor(props) {
    super(props);
    this.state = {
      brand: "Ford",
      model: "Mustang",
      color: "red",
      year: 1964
    };
  }

  changeColor = () => {
    this.setState({color: "blue"});
  }

  render() {
    return (
      <div>
        <h1>My {this.state.brand}</h1>
        <p>
          It is a {this.state.color}
            {this.state.model}
            from {this.state.year}.
        </p>
        <button
          type="button"
          onClick={this.changeColor}
        >Change color</button>
      </div>
    );
  }
}
```

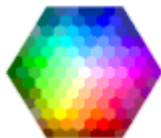
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Always use the `setState()` method to change the state object, it will ensure that the component knows its been updated and calls the `render()` method (and all the other lifecycle methods).

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