



React

React is an open-source JavaScript library used for building user interfaces or UI components. It was developed by Facebook and is now widely used by developers worldwide. Let's explore why React is so popular!



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STATE:

State is anything that changes. In React, a state is a built-in feature that allows you to manage and store data within a component. It represents the mutable data that can change over time and trigger a re-render of the component when it does. State is typically used to manage user input, component state, and other dynamic data within a React component.

React & monster revolve around state. In react state is everything.

Types of state:

There are two types of state:

- STATIC
- DYNAMIC

We will start with a simple example.

Write function component by name of student, it should be a class based component. Inside it make a h1 tag name it as Student module. create a submit button below it.

Code in Student.js:

```
1  import {Component} from "react";
2  class Student extends Component{
3
4      state={
5          username:'ali',
6          password:123
7      }
8
9
10
11     render() {
12         return (
13             <div>
14                 <h2>Student module</h2>
15                 <button style={{backgroundColor: "pink"}}> submit</button>
16
17             </div>
18         )
19     };
20 }
21
22 export default Student;
23
```

Code in App.js:

```
JS App.js > ...
import './App.css';
import Student from './Student.js';

function App() {
  return (
    <div>
      <Student></Student>
    </div>
  );
}

export default App;
```

Output:

Student module

submit

Now lets modify the above example
using change state method and we will
see a magic.


```
import {Component} from "react";
class Student extends Component{

  state={
    username:'ali',
    password:123
  }

  changestate()=>{
    this.setState({password:997})
  }

  render() {
    return (
      <div>
        <h1>Student module</h1>
        <h2>username{this.state.username}</h2>
        <h2>password{this.state.password}</h2>
        <button>
          submit
        </button>
        <button onClick={this.changestate} style={{backgroundColor: "pink"}}>changestate</button>
      </div>
    )
  };
}

export default Student;
```

Student module

usernameali

password123

submit

changestate

the password in the slide above is 123.

now lets click on the changestate button and lets see what happens....

Student module

usernameali

password997

submit

changestate

Password changed from 123 to 997.

magic? no, the `changestate` method that we used in our code is responsible for changing the password on one [click here](#).

That's how much powerful state is in react.

Task:

write a function component by name of car where initially the car is not moving, write a change method in your code using which the car changes its state from not moving to running at 250km/hr.

Happy coding!

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