

ReactJS : Props and State

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ReactJS popularly known as React, is a **declarative, efficient**, and flexible **JavaScript library** for building reusable UI components. It is designed by facebook. React is used to make single page applications (a Web application that loads one time and all other work is done by JavaScript, like navigating from one page to another without reloading pages). React is based on components, which is process of breaking a website into chunks and then making it. We can use one component more than once in same website, This makes ReactJS very popular because it properly invokes the rules of write once use everywhere. It is also known as raw or bare boned language.



Overall, React has become one of the most popular choices for building user interfaces due to its efficiency, flexibility, and developer-friendly features.

- **State Vs. Props in React**

State

The state is an updatable structure that is used to contain data or information about the component and can change over time. The change in state can happen as a response to user action or system event. It is the heart of the react component which determines the behavior of the component and how it will render. A state must be kept as simple as possible. It represents the component's local state or information. It can only be accessed or modified inside the component or by the component directly.

Props

Props are read-only components. It is an object which stores the value of attributes of a tag and work similar to the HTML attributes. It allows passing data from one component to other components. It is similar to function arguments and can be passed to the component the same way as arguments passed in a function. Props are immutable so we cannot modify the props from inside the component.

Example:

If we are creating one form, the heading and body in that form will refer to state. And component will refer to template of the form. Whereas, the props will refer to the details of the form. If I fill my details in that form so I can claim that form as my personal form.

Points to remember:

1. Props are read-only where state are asynchronous.
2. Props allow you to pass data from one component to other components as an argument, State holds information about the components.
3. Props are used to communicate between component, States can be used for rendering dynamic changes with the component.

