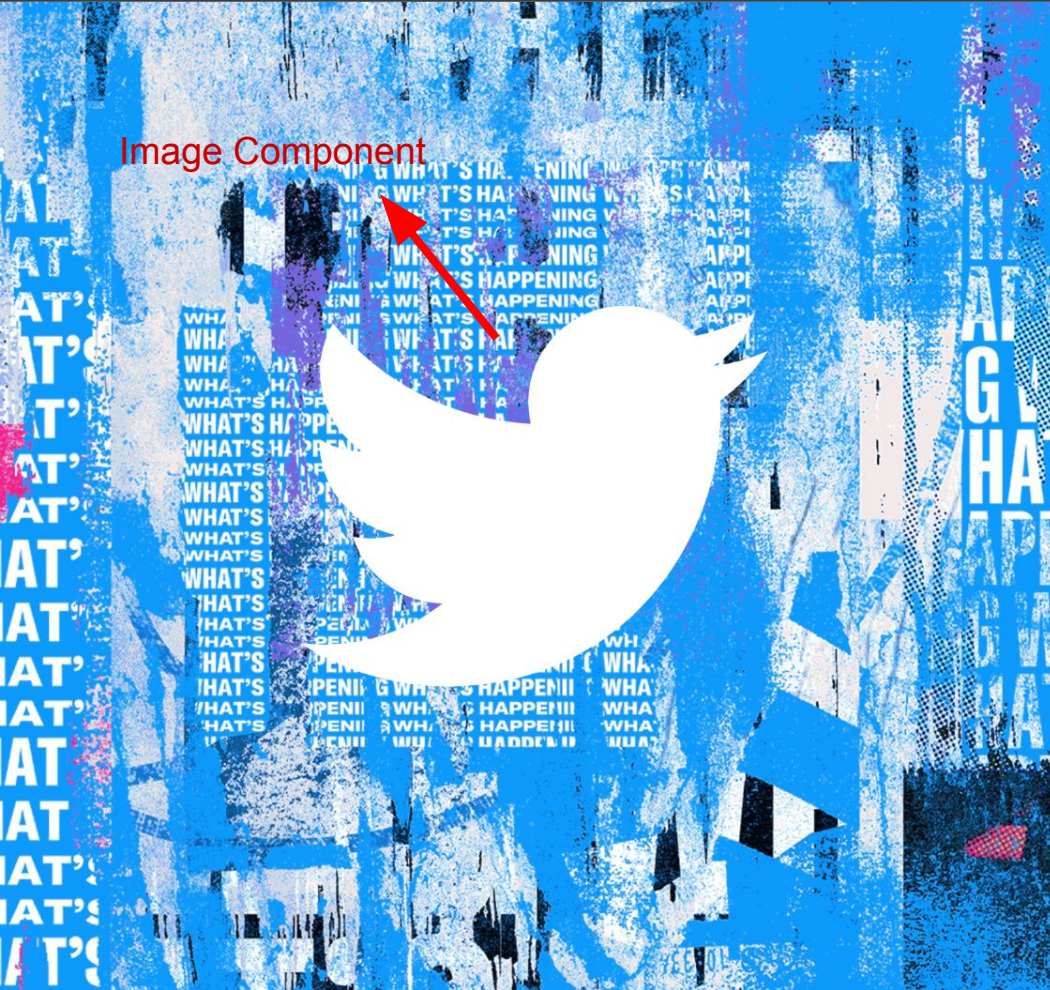


React Component Lifecycle

Pavan Ramapragada

What are components?

- Building blocks of an application that represent a part of the user interface.



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Component



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Characteristics

- Reusability

A component used in one area of the application can be reused in another area. This helps speed up the development process.

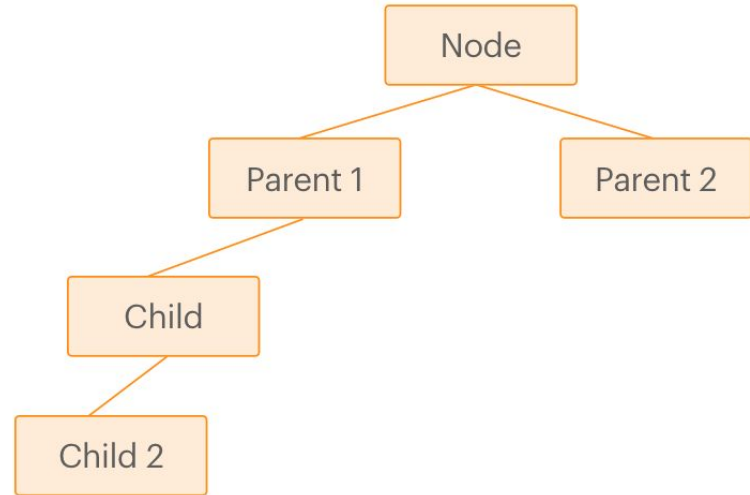


Characteristics

- Nested Components

A component contain several other components

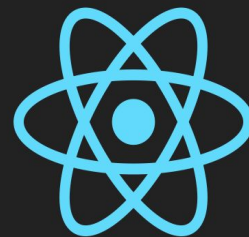
React component hierarchy



Characteristics

- Render Method

Rendering is a process that is triggered by a change of state in some component of your application.

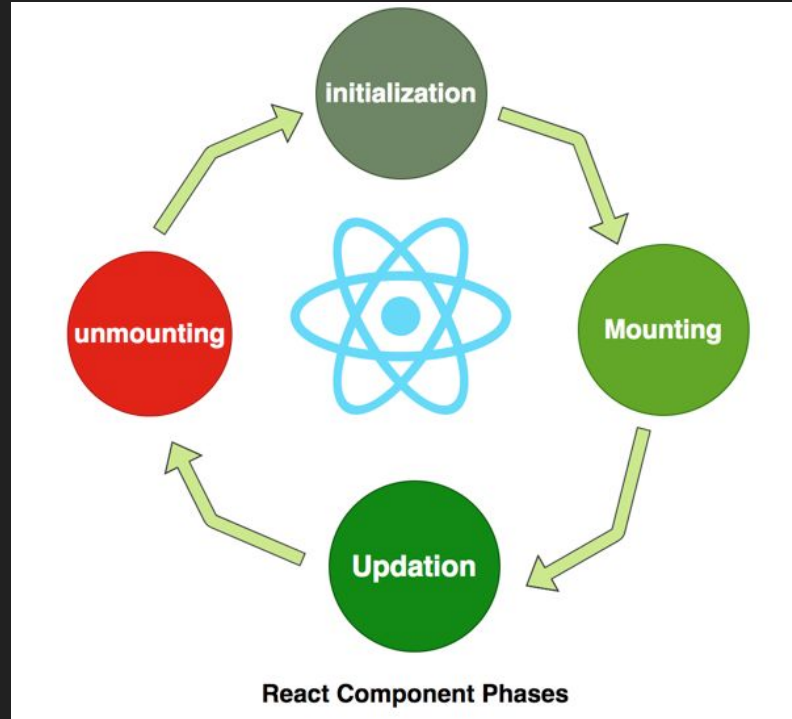


Characteristics

- Props

A component can also receive 'props'.
These are properties passed by its parent
to specify values.

Component Lifecycle



Component Lifecycle

- The lifecycle methods are various methods which are invoked at different phases of the lifecycle of a component.
- Can be classified into 4 phases:
 - Initialisation
 - Mounting
 - render()
 - Update
 - Unmounting

Initialization

setup props and state

Mounting

componentWillMount

render

componentDidMount

Updation

props

componentWillReceiveProps

shouldComponentUpdate

componentWillUpdate

render

componentDidUpdate

states

shouldComponentUpdate

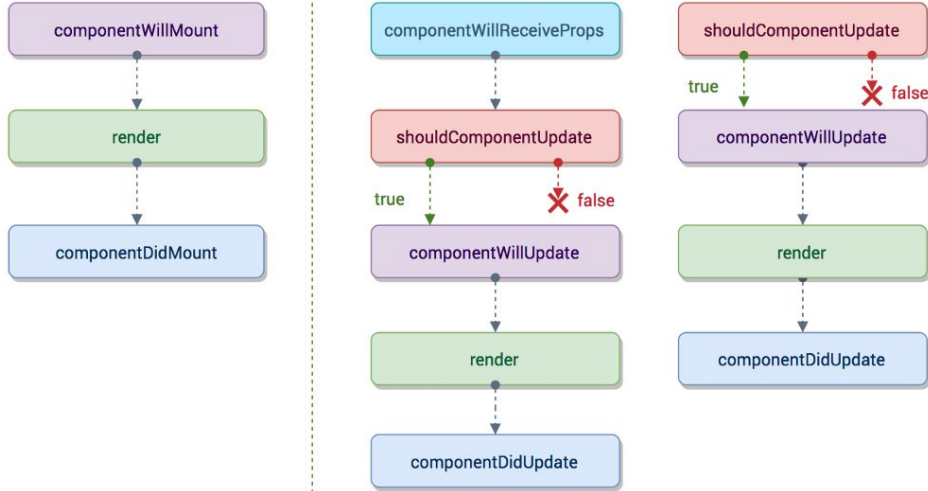
componentWillUpdate

render

componentDidUpdate

Unmounting

componentWillUnmount



Initialization

- Component prepares itself for the journey, by setting up the initial states and defaults props, if any.
- The component is setting up the initial state in the constructor, which can be changed later by using the 'setState' method.

Mounting

- Our React component is ready to mount in the browserDOM.
- The methods that are called in this phase are:
 - `componentWillMount()`
 - `render()`
 - `componentDidMount()`

- `componentWillMount()`
 - Executed just before the component is about to mount on the DOM
 - It is executed once in a lifecycle of a component (before the first render)
 - Discontinued in the current version of React.

- `render()`
 - Mounts the component onto the browser
 - This is a pure method, it renders the same output for the same state and props(i.e, same input)

- `componentDidMount()`
 - invoked immediately after a component is mounted
 - Executed once in a lifecycle
 - Right method to integrate your APIs

- Update

- This phase starts once the react component is created on the browser and grows by receiving new updates
- The component can be updated by two ways:
 - Sending new props
 - Updating the state

- Methods that get called in this phase are:

- `componentDidUpdate()`
- `render()`

componentDidUpdate()

- Is executed when the component has been updated in the DOM.

Unmounting

- In this phase, the components that aren't needed will get unmounted from the DOM
- The method that's called in this phase:
 - `componentWillUnmount()`
 - Last method in lifecycle
 - Executed just before the component gets removed from the DOM
 - Generally used to do all the cleanups related to the component

References

- <https://projects.wojtekmaj.pl/react-lifecycle-methods-diagram/>
- https://www.youtube.com/watch?v=m_mtV4Yal8c

Disclaimer