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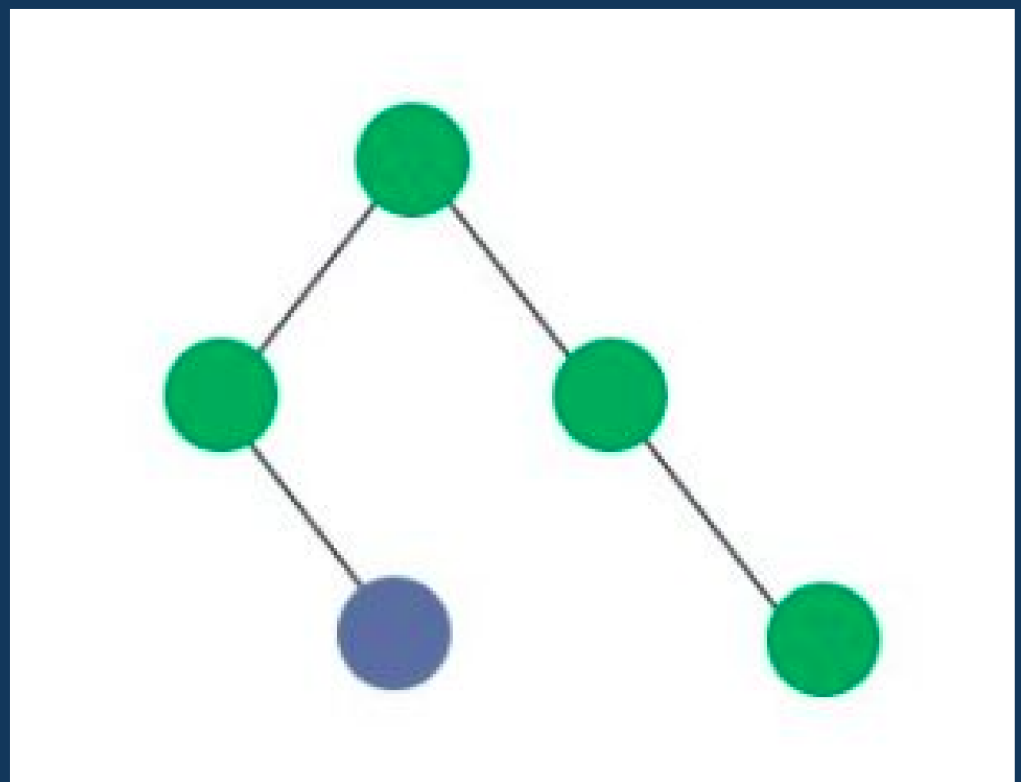
# Virtual Dom and Real Dom

SWIPE



# Real DOM:

The actual DOM is a tree-like structure that represents the structure of HTML elements in a document.

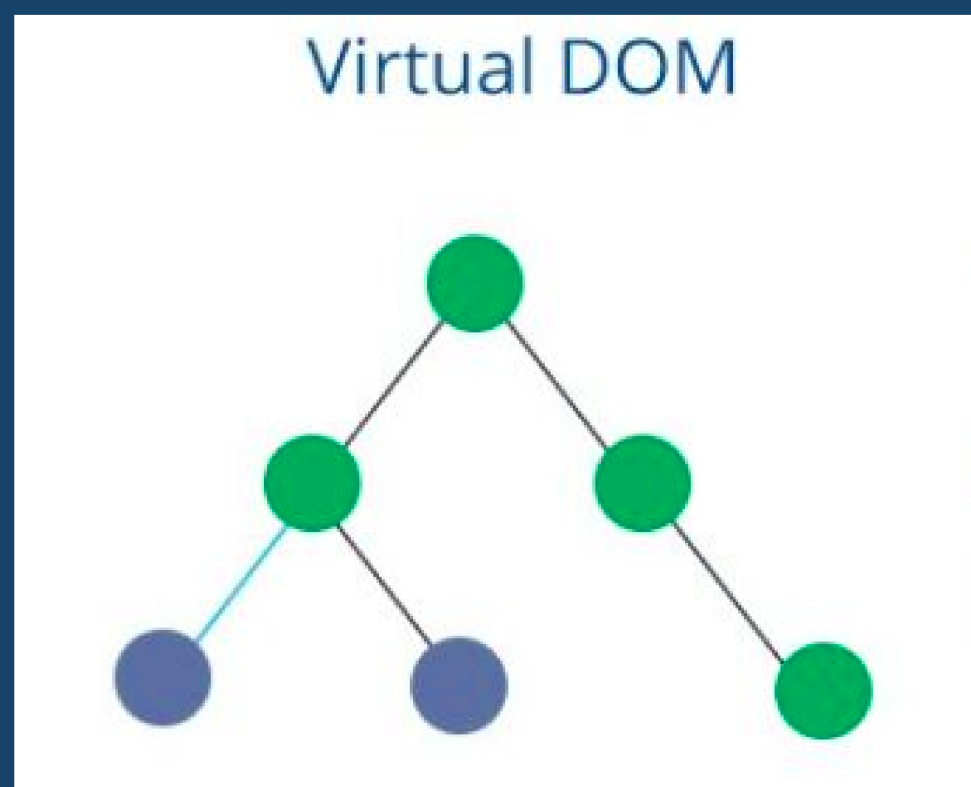


KEEP SWIPING

# Virtual DOM

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React creates a lightweight copy of the real DOM known as the Virtual DOM. It's a JavaScript representation of the actual DOM



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# Component Rendering

- When a React component renders, it doesn't directly update the real DOM.
- Instead, React generates a virtual representation of the UI using JSX (JavaScript XML) syntax.



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# Virtual DOM Reconciliation

After each render, React compares the new virtual DOM with the previous one, using a process called "reconciliation."



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# Diffing Algorithm

- React employs a reconciliation algorithm to efficiently update the real DOM. This process involves comparing the new and previous virtual DOM trees.



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# Updating the Real DOM

- React applies the changes from the diff set to the real DOM in a process known as "reconciliation".
- This process is much more efficient than directly manipulating the entire real DOM.



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# Batched Updates

- React often performs updates asynchronously and batches multiple updates into a single operation.
- This helps in avoiding unnecessary reflows and repaints, improving overall performance.



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# Summary

It minimizes the number of operations required to reflect changes in the UI, resulting in a smoother and more responsive user experience.



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below.**

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