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Virtual DOMs → It is just a copy of Real DOM that React has kept on its own.

- It is the lightweight version of the real DOM.
- The updating of objects or elements is comparatively faster than the Real DOM.
- Updating virtual DOM is fast but if we want the changes to be shown on the browser or the user then we will need to update the real DOM.

* If we have to update the real DOM than what is the point of having a virtual DOM?

→ So, let's understand it with an example →

 1
 2
 3

 1
 2
 5

→ document.querySelector("ul").innerHTML =
getNumberList();

What we want is →

 1
 2
 5

{ To get 5 and replace 3. }

→ So, when this is been done, the whole "ul" is been changed inside the real dom.

And as the same will done in virtual dom and would be comparatively faster.

So, when it checks it will get to know that the only last component has been changed.

and this query will be automatically written by react. In an optimized way -

{ document.querySelector("li")[2].textContent = 5; }

We just need to take care of the gap.

So, here things became faster because instead of updating the whole 'UI' only the 'li' was been updated.

* Other Competing frameworks we have other than React →

- We have Angular (framework)
- We have Vue (framework)
- We have React (library)

* Diff. b/w Framework & Library →

- Library is a set of programs kept together and it is upto the user whether he / she wants to use it or not.
- It is only concerned about the work that is to be done by it and not the whole code-base.
- User has the complete control in order to use it or not.

Whereas,

- Framework is a code that controls you.
- We are already provided with a skeleton and we are supposed to write our code acc. to that skeleton.

	Angular	React	Vue
Components	Yes	Yes	Yes
Syntax	Split HTML + TypeScript	JSX - Combine HTML + JS	Separate HTML and JS
Performance	No Virtual DOM	Uses Virtual DOM	Uses Virtual DOM.
Popularity	Second Most Popular	Most Popular	Less Popular