DOM Traversal

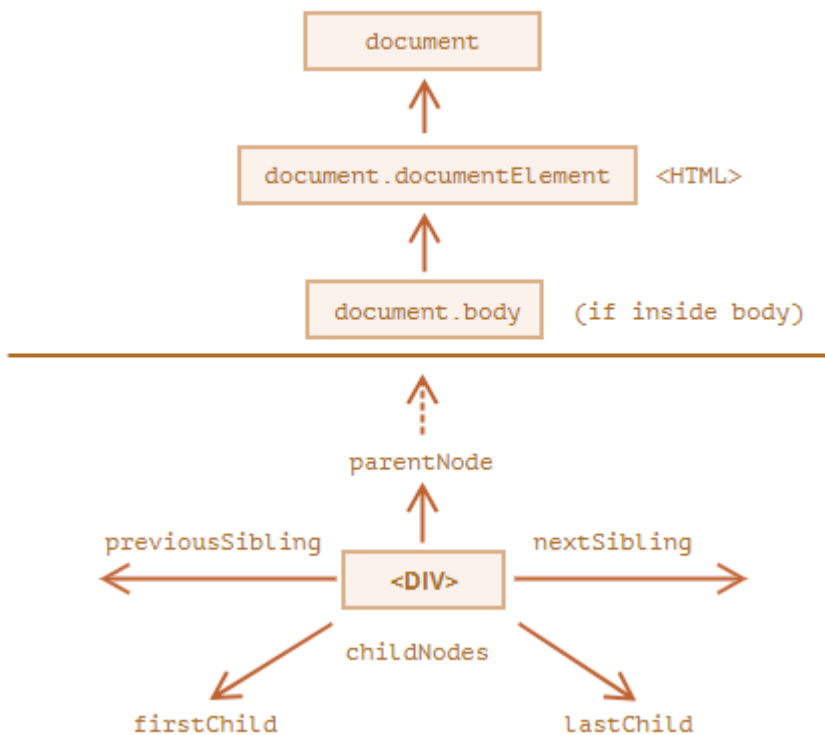## 1. Overview

- Node can be: Text, Element, Comment, ...
- Element: html and svg elements like: div, p, section, h1, ...
- Chilren: direct child
- Descendants: including children, their children and so on.

```
document; // root node
document.documentElement; // html
document.body; // body
document.head; // head
```

#	Node	Element ONLY
1	Node.parentNode	Node.parentElement
2	Node.childNodes	Element.children
3	Node.firstChild	Element.firstElementChild
4	Node.lastChild	Element.lastElementChild
5	Node.previousSibling	Element.previousElementSibling
6	Node.nextSibling	Element.nextElementSibling

2. All nodes traversal

> Source: https://javascript.info/dom-navigation

```html
<!DOCTYPE html>
<html>
 <head>
 <title>Parcel Sandbox</title>
 <meta charset="UTF-8" />
 </head>
 <body>
 <!-- Page Title -->
 <h1>Long DC</h1>
 <p>Learning DOM is so easy! :P</p>
 <script src="src/index.js"></script>
 </body>
</html>
```
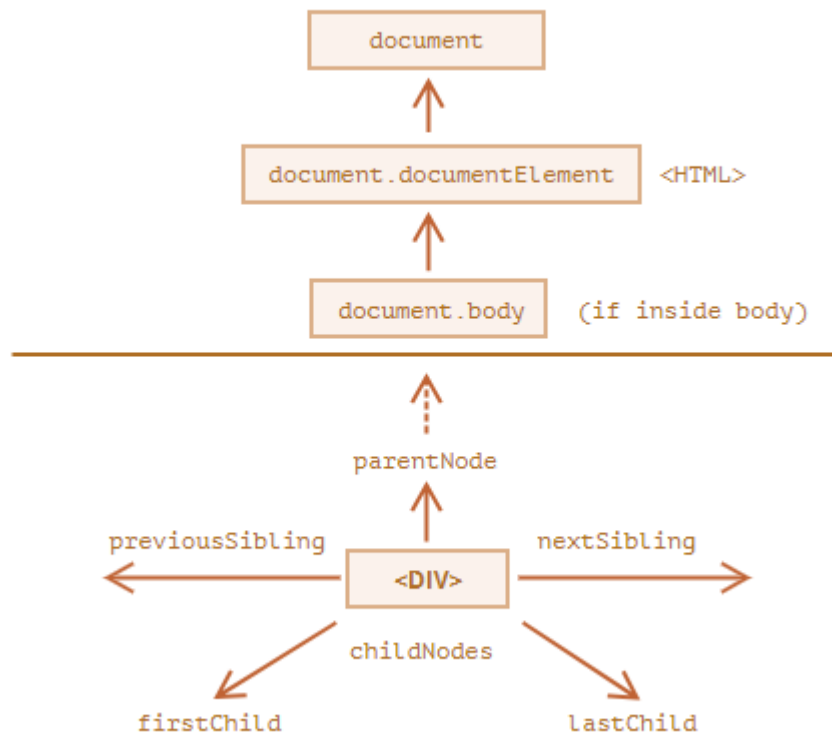
```js
console.log(document.body.parentNode); // html
console.log(document.body.childNodes);
// [text, comment, text, h1, text, p, text, script, text] (9 items 🤭 )
console.log(document.body.firstChild); // text
console.log(document.body.lastChild); // text
console.log(document.body.previousSibling); // text
console.log(document.body.nextSibling); // null
```

3. Only elements traversal

```html
<!DOCTYPE html>
<html>
<head>
<title>Parcel Sandbox</title>
<meta charset="UTF-8" />
</head>
<body>
<!-- Page Title -->
<h1>Long DC</h1>
<p>Learning DOM is so easy! :P</p>
<script src="src/index.js"></script>
</body>
```

```js
console.log(document.body.parentElement); // html
console.log(document.body.children);
// [h1, p, script] (only 3 items)
console.log(document.body.firstElementChild); // h1
console.log(document.body.lastElementChild); // script
console.log(document.body.previousElementSibling); // head
console.log(document.body.nextElementSibling); // null
```

4. parentNode and parentElement

parentNode return the parent no matter what kind of node. **parentElement** return the parent if it's an Element, otherwise return null.

```
document.documentElement.parentNode; // document
document.documentElement.parentElement; // null
```

> Source: https://javascript.info/dom-navigation#element-only-navigation

Tham khảo

- Read more Nagivation on table: https://javascript.info/dom-navigation#dom-navigation-tables
- https://qualitestgroup.com/insights/technical-hub/how-to-traverse-the-dom/
- https://javascript.info/dom-navigation