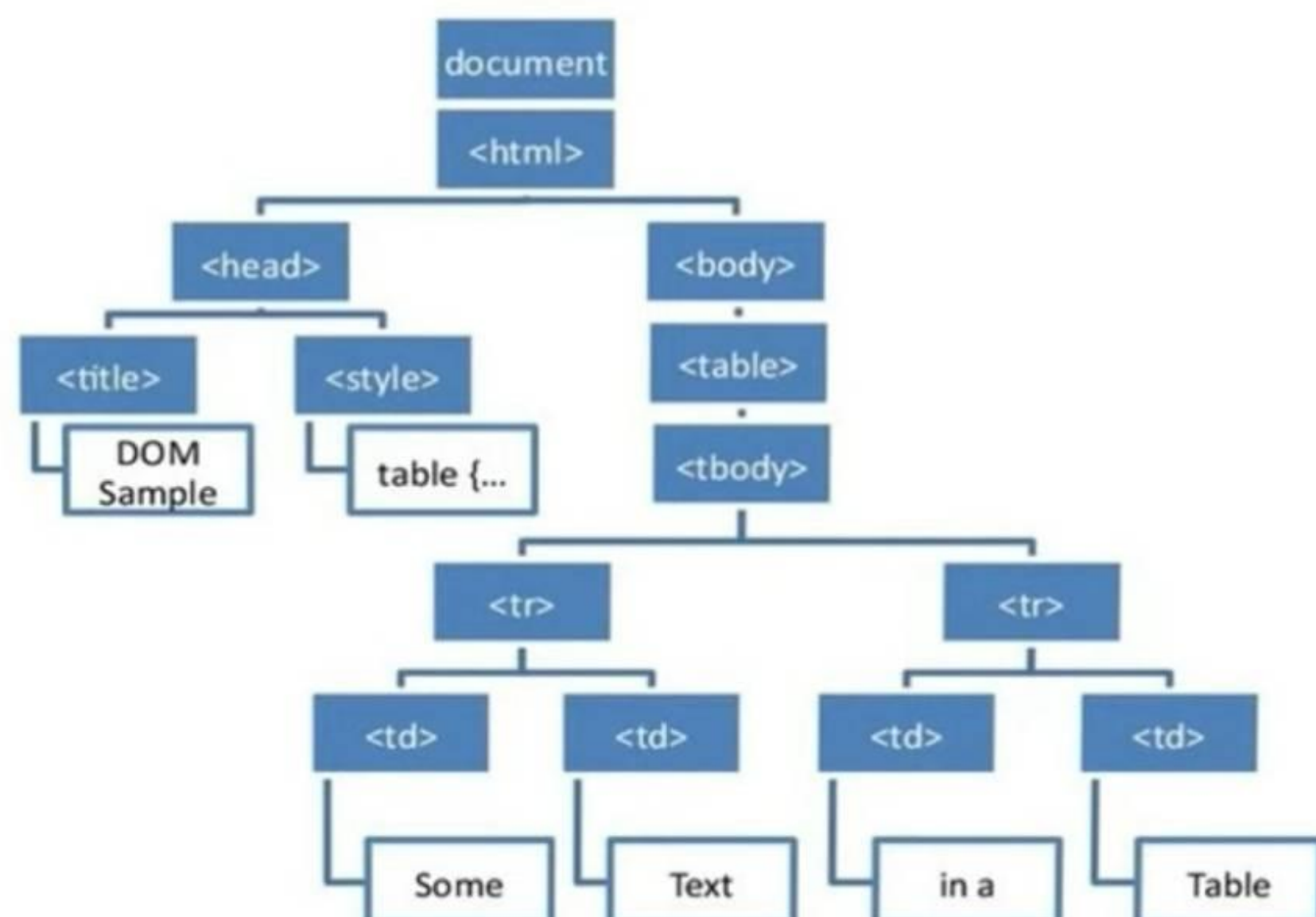# DOM

- The Document Object Model (DOM) is an application programming interface (API) for manipulating HTML and XML documents. (add, remove, and modify parts of the document/HTML)

- When a web page is loaded, the browser creates a Document Object Model of the page.
- Note: In this DOM tree, the document is the root node or object.

DOM Tree

```
<!DOCTYPE html>
<html>
    <head>
        <title>DOM Sample</title>
        <style type="text/css">
            table {
                border: 1px solid black;
            }
        </style>
    </head>
    <body>
        <table>
            <tbody>
                <tr>
                    <td>Some</td>
                    <td>Text</td>
                </tr>
                <tr>
                    <td>in a</td>
                    <td>Table</td>
                </tr>
            </tbody>
        </table>
    </body>
</html>
```

- With the object model, JavaScript gets all the power it needs to create dynamic HTML:

- JavaScript can change all the HTML elements in the page
- JavaScript can change all the HTML attributes in the page
- JavaScript can change all the CSS styles in the page
- JavaScript can remove existing HTML elements and attributes
- JavaScript can add new HTML elements and attributes
- JavaScript can react to all existing HTML events in the page
- JavaScript can create new HTML events in the page

- Note: In the DOM, all HTML elements are defined as objects. so it will have both property and method

- The document object represents your web page.

- If you want to access any element in an HTML page, you always start with accessing the document object.