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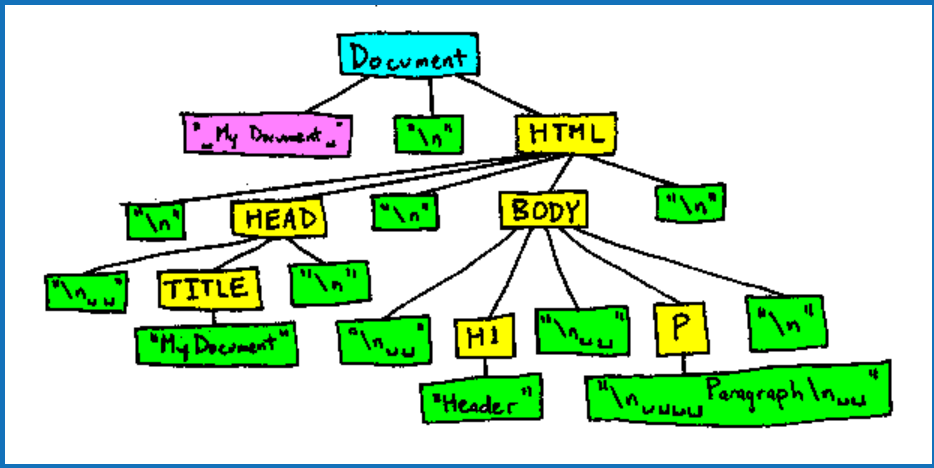
DOM Manipulation



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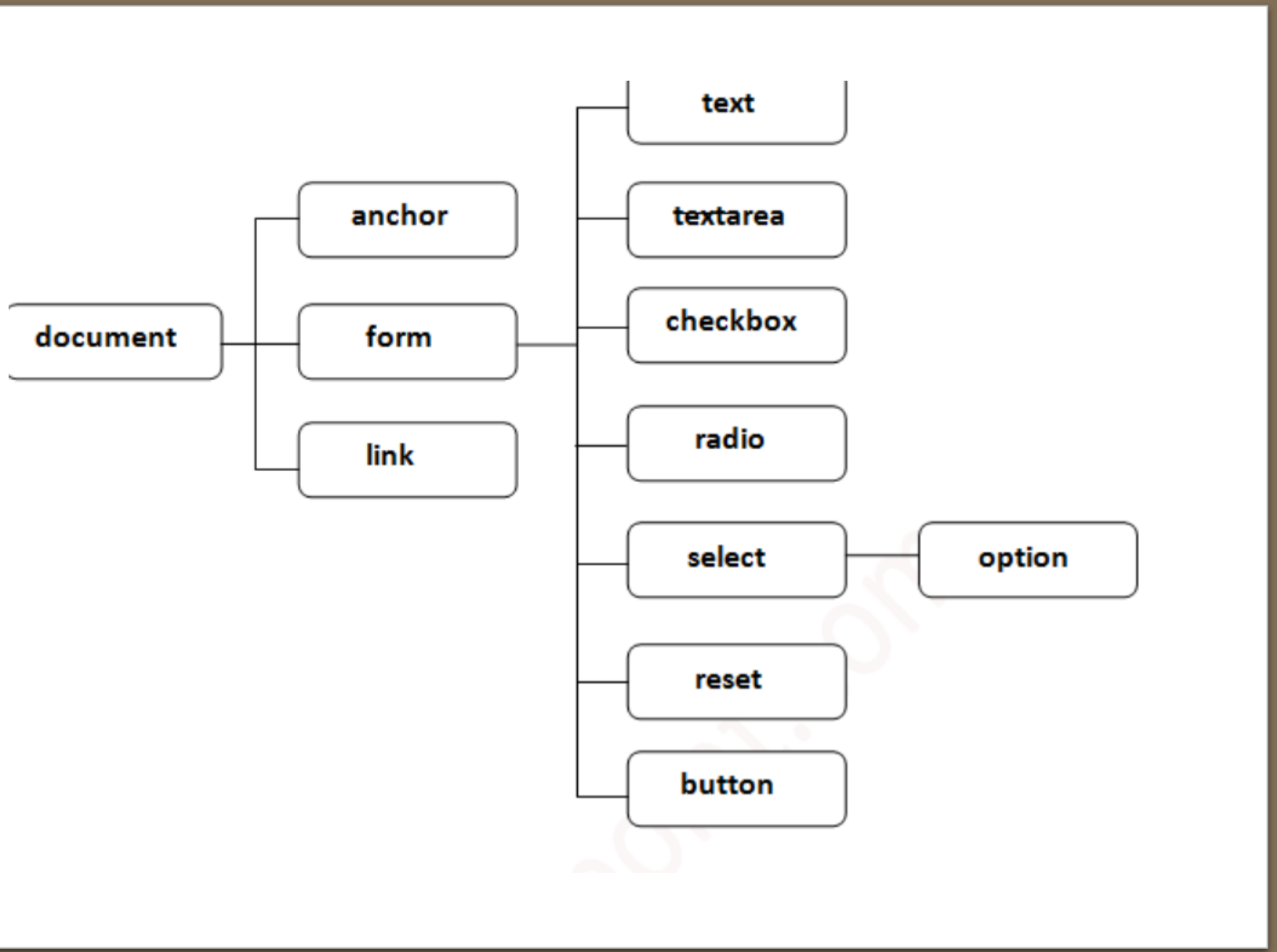
Document Object Model

- The document object represents the whole html document.
- When html document is loaded in the browser, it becomes a document object.
- It is the root element that represents the html document. It has properties and methods.
- By the help of document object, we can add dynamic content to our web page.

JavaScript :DOM

JavaScript interacts with HTML document indirectly by interacting with the **DOM**. With the document 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**



Properties of document object

(These are properties of document object that can be accessed and modified by the document object.)

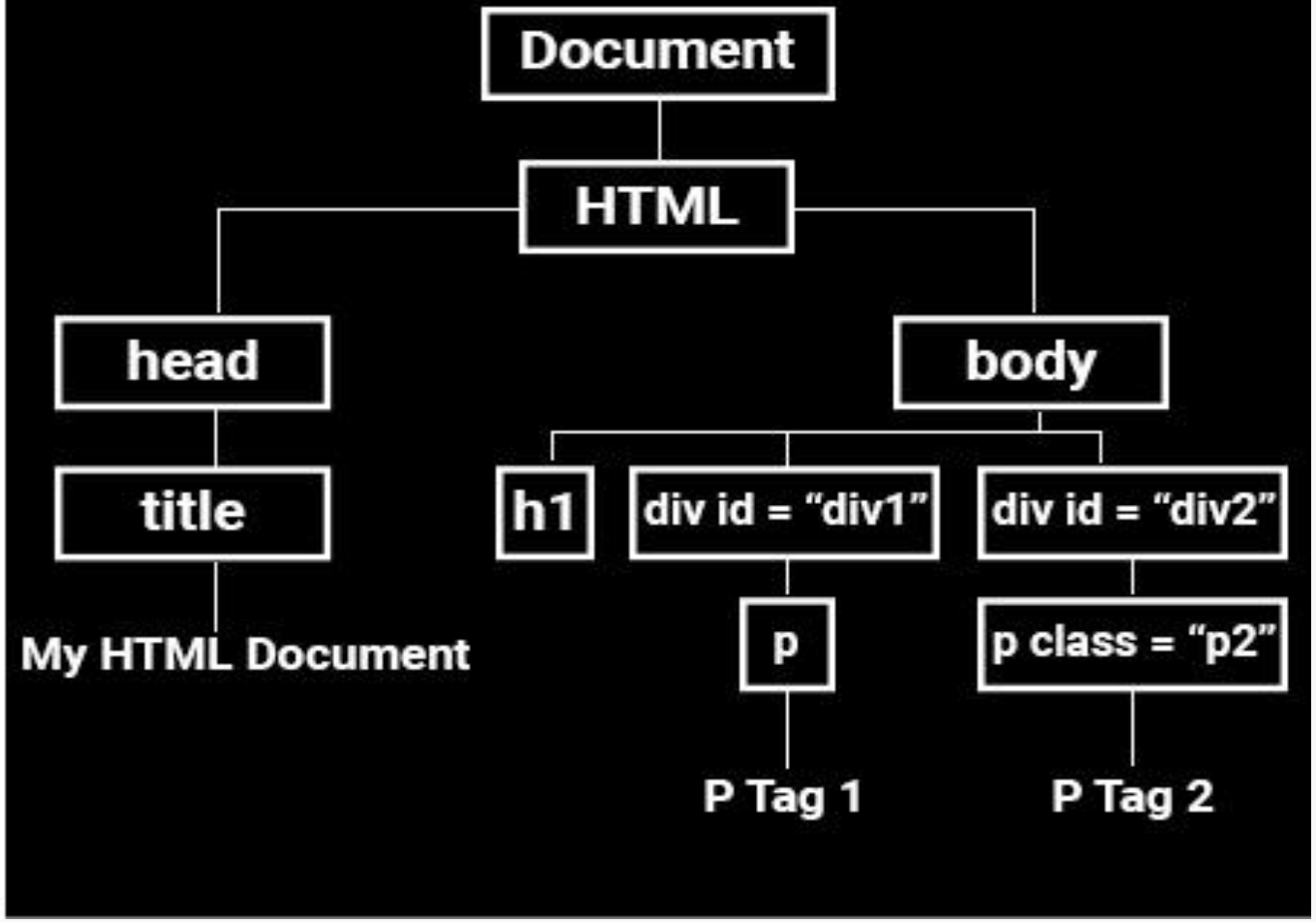
JavaScript :DOM

HTML Document

index.html

```
1   <html>
2       <head>
3           <title>My HTML Document</title>
4       </head>
5
6       <body>
7           <h1>Heading</h1>
8           <div id="div1">
9               <p>P Tag 1</p>
10          </div>
11          <div id="div2">
12              <p class="p2">P Tag 2</p>
13          </div>
14      </body>
15  </html>
```

Document Object Model (DOM)



JavaScript :DOM

We can access and change the contents of document by its methods.

Methods of Document Object:

- **write("string"):** Writes the given string on the document.
- **writeln("string")** writes the given string on the document with newline character at the end.
- **getElementById():** returns the element having the given id value.
- **getElementsByName():** returns all the elements having the given name value.
- **getElementsByTagName():** returns all the elements having the given tag name.
- **getElementsByClassName():** returns all the elements having the given class name.

- Accessing field value by document object
- document.getElementById() method
- document.getElementsByName() method
- document.getElementsByTagName("name") (Here, name is required.)
- innerHTML

innerHTML

- The innerHTML property can be used to write the dynamic html on the html document.

- It is used mostly in the web pages to generate the dynamic html such as registration form, comment form, links etc.

innerText

- The innerText property can be used to write the dynamic text on the html document.
- Here, text will not be interpreted as html text but a normal text.

- It is used mostly in the web pages to generate the dynamic content such as writing the validation message, password strength etc.

Thank you

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