



DOM MANIPULATION

DOM = Document Object Model

Window :- window is an object (global object in browser)

- that contain a web page.
- All global variables, function & object are properties of window.

⇒ `console.log(window);` // logs the entire window object.

Note:- In node.js there is no window object, because it's not running in browser.

Document :-

- document is the property of window.
- document or window.document ⇒ same
- provides all methods to access & manipulate HTML element.
- it represent HTML document loaded in element.

Note:- In Node.js

there is no window or document, as there's no browser.

- `console.dir(object);` - it is a method used to display an interactive list of properties of js object. ~~increased~~

- Particularly used for exploring DOM element & deeply nested objects.

eg:- `console.dir(document);`



Node:- - In DOM, everything in HTML is represented as node.

- Nodes for tree like structure
- each piece of content (tags, text, comment) is a node.

DOM Nodes type:-

- | | | |
|----------------------|------------------------------------|------------|
| - Element Node | : HTML tags | : Value: 1 |
| - Text Node | : text inside element | : value: 3 |
| - Comment Node | : HTML comment | : <u>8</u> |
| - Document Node | : entire document | : 9 |
| - Document Type Node | : <code><!DOCTYPE --></code> | : 10 |

Declaration

- `document.baseURI` \Rightarrow gives base URL of website
- `document.links` \Rightarrow gives all links in document
 - links are not array its HTML Collection
 - can act as array (only indexing)`document.links(2)`
- `document.getElementById('Id')` \Rightarrow gives tag of that id.
- `document.getElementById('Id').innerHTML = "<tag> <tag>`
`---- content ---- <tag>"`



document.

- `getElementById('title')` - gives the ~~who~~ element with id attribute
- `document.getElementById('title').className`
 - returns value of class attribute
- ~~document.getE~~
- `setAttribute("class", 'test');`
 - set class to test
 - it overwrite ~~the~~ if class is present earlier.
- Storing element into a constant variable.
`const title = document.getElementById('title');`
- Styling the element.
 - `title.style.backgroundColor = "Orange"`
 - `title.style.borderRadius = "15px"`
- To get text content of element.
 - ~~document~~ • `title.innerText` - gives visible text only
 - ignore hidden text (`display: none`)
 - ~~document~~ , `textContent` - returns all text inside the element
 - `innerHTML` - Returns HTML code inside the element with tags.



* Query Selector :-

are modern way to select element in DOM.

1. `querySelector()` - Return the first element that matches the given CSS selector.

Eg:- `document.querySelector('id')`

- `#title` → select element with id
- `.msg` → select element with class = "msg"
- `p` → select 1st `<p>` element.

2. `querySelectorAll()` - Returns all element that match the selector

- Returns in nodeList

nodeList :- array like list of DOM elements.

- for each loop can be used.
- nodeList should be accessed using index.

* `getElementsByClassName('ListItem');`

⇒ returns HTML collection.

Eg:- `const tempList = document.getElementsByClassName('ListItem');`

* converts HTML collection to Array

⇒ `Array.from(Name)`

Eg:- `const convertedList = Array.from(tempList)`

Now we can use it as a array