

Agenda

- Array
- DOM

Array

- An array in JavaScript is a special variable that can hold multiple values.
- Arrays allow you to store, access, and manipulate lists of data efficiently.
- array declaration can be done in two ways:

1. Using Square Brackets (Recommended)
2. Using the Array Constructor

```
let fruits = ["Apple", "Banana", "Mango"];  
let fruits = new Array("Apple", "Banana", "Mango");
```

- Square brackets [] are preferred because they are more concise.
- Array elements are accessed using index numbers, starting from 0.

Window Object

- It represents an open window in the browser. It is browser's object(not JS object) which is created automatically
- It is a global object with lot of properties and methods

DOM (Document Object Model)

- When a webpage is loaded the browser creates DOM of the page
- It is the data representation of the objects that comprise the structure and content of a document on the web.
- DOM represents an HTML document in memory
- The DOM represents the document as nodes and objects so that programming languages can interact with the page.
- In both cases, it is the same document but the Document Object Model (DOM) representation allows it to be manipulated.
- `console.dir(document)` will display all the properties and methods from the document
- It is a tree like structure (window-> document -> html -> and all its sub nodes)

DOM Manipulation

Selection

1. Selecting with id
 - `document.getElementById("myId") (#)`
2. Selecting with class
 - `document.getElementsByClassName("myClass") (.)`

- returns HTML collection an array of objects
- 3. Selecting with tag
 - `document.getElementsByTagName("tagName")`
 - returns HTML collection an array of objects
- 4. Query Selector
 - used to select the id,name and class automatically
 - `document.querySelector("myId/myClass/tag")`
 - returns first element
 - `document.querySelectorAll("myId/myClass/tag")`
 - returns a NodeList

Properties

1. `tagName`
 - returns tag for element nodes
2. `innerText`
 - returns text content of the element and all its children
 - It represents only the text part
3. `innerHTML`
 - returns the plain text or html contents in the elements
 - It represents text as well as any element/tag inside it
4. `textContent`
 - returns textual content even for hidden elements

Attribute

1. `getAttribute("attr")`
 - to get the attribute value
2. `setAttribute("attr",value)`
 - to set the attribute value

Style

`node.style` - It helps to style the elements i.e apply css on it

Insert elements

1. `node.append(e)`
 - add at the end of the node (inside)
2. `node.prepend(e)`
 - add at the start of the node (inside)
3. `node.before(e)`
 - add before the node (outside)
4. `node.after(e)`
 - add after the node (outside)

Delete elements

- `node.delete(e)`
 - Used to delete the node

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