

Training Day 8

Day 8 – 30th June 2025

TOPICS COVERED – Array Methods & DOM Intro

Array Methods

JavaScript provides built-in array methods to help manipulate and process arrays easily:

1. forEach()

2. Executes a given function once for each array element.

```
[1, 2, 3].forEach(num => console.log(num));
```

3. map()

Creates a new array by applying a function to each element.

```
const squared = [1, 2, 3].map(num => num * num);
```

4. filter()

Returns a new array with elements that pass a condition.

```
const evens = [1, 2, 3, 4].filter(num => num % 2 === 0);
```

5. some()

Returns true if at least one element meets a condition.

```
[1, 2, 3].some(num => num > 2); // true
```

6. every()

Returns true if all elements meet a condition.

```
[2, 4, 6].every(num => num % 2 === 0); // true
```

7. reduce()

Reduces the array to a single value using an accumulator.

```
const sum = [1, 2, 3, 4].reduce((acc, val) => acc + val, 0);
```

Introduction to DOM (Document Object Model)

DOM is a programming interface for HTML and XML documents. It represents the page so that programs can **change the document structure, style, and content**.

- The web page is treated as a tree of objects.
- Elements like <div>, <p>, and <h1> become **nodes** in the DOM tree.

Common DOM Actions:

- Selecting elements using getElementById, querySelector, etc.
- Changing content with innerText, innerHTML.
- Modifying style using style.property.
- Adding events using addEventListener.

Example:

```
document.getElementById("demo").innerText = "Hello DOM!";
```

CODE TASKS

1. Create an array of numbers and:
 - a. Use map() to double them.
 - b. Use filter() to extract only odd numbers.
 - c. Use reduce() to get the total sum.
2. Try out some() and every() on a condition (like values > 5).
3. Practice selecting a DOM element and updating its text using innerText.

TASK FOR TOMORROW

- Deep dive into DOM manipulation (create, delete, update elements)
- Learn about **event handling**
- Understand how to work with forms using JS