

Day 3: JavaScript Arrays + map(), filter(), reduce()

1. Array Basics

```
let fruits = ["apple", "banana", "mango"];  
console.log(fruits[0]); // apple
```

2. Looping through array

```
let nums = [1, 2, 3, 4];  
for(let i = 0; i < nums.length; i++) {  
  console.log(nums[i]);  
}
```

3. map()

```
let numbers = [1, 2, 3];  
let doubled = numbers.map((n) => n * 2);  
console.log(doubled); // [2, 4, 6]
```

4. filter()

```
let nums = [1, 2, 3, 4, 5];  
let even = nums.filter((n) => n % 2 === 0);  
console.log(even); // [2, 4]
```

5. reduce()

```
let numbers = [1, 2, 3, 4];  
let sum = numbers.reduce((acc, val) => acc + val, 0);  
console.log(sum); // 10
```

6. forEach()

```
let arr = [10, 20, 30];  
arr.forEach((val) => {
```

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```
console.log(val);  
});
```

Day 3 Tasks (To Be Solved by You)

Task 1:

Create an array [1, 2, 3, 4, 5, 6] and filter only odd numbers using filter().

Task 2:

Use map() to return square of each number in [2, 3, 4].

Task 3:

Use reduce() to multiply all elements in [2, 3, 4].

Summary Table

Method	Use Case	Returns
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map()	Modify every element	New Array
filter()	Select by condition	New Array
reduce()	Combine to one value	Single Value
forEach()	Loop only, no return	Nothing