🔥 LFG! Welcome to **Day 3 of Week 1**, where we dive into the **Power Trio** of JavaScript:

map(), filter(), and reduce() — the lifelines of real-world projects, AI data pipes, and every modern React app.

**🧠 Why These Are So Important**

| **Method** | **Use For** | **Common In...** |
| --- | --- | --- |
| map() | Transforming data | UI rendering, APIs |
| filter() | Removing items that don’t match criteria | Search, validation |
| reduce() | Calculating a single result (sum, avg) | Shopping cart, scoring |

**⚡ Let’s Learn One by One with Desi Examples**

**✅ 1. map() – "Ek ek item ko badal do"**

**Syntax:**

js

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array.map((item) => {

return modifiedItem;

});

**🧪 Example:**

js

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const prices = [100, 200, 300];

const discounted = prices.map(price => price - 20);

console.log(discounted); // [80, 180, 280]

**💥 Desi Example:**

js

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const dishes = ["Dosa", "Idli", "Vada"];

const messages = dishes.map(item => `Aaj ${item} khana hai 😋`);

console.log(messages);

🟢 Output:

css

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["Aaj Dosa khana hai 😋", "Aaj Idli khana hai 😋", "Aaj Vada khana hai 😋"]

**✅ 2. filter() – "Chhant do jo kaam ke nahi"**

**Syntax:**

js

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array.filter((item) => condition);

**🧪 Example:**

js

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const prices = [100, 250, 400, 150];

const affordable = prices.filter(price => price < 200);

console.log(affordable); // [100, 150]

**💥 Desi Example:**

js

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const foods = [

{ name: "Samosa", spicy: true },

{ name: "Dhokla", spicy: false },

{ name: "Pav Bhaji", spicy: true }

];

const spicyOnly = foods.filter(item => item.spicy);

console.log(spicyOnly);

**✅ 3. reduce() – "Sab ko mila ke ek result nikalo"**

**Syntax:**

js

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array.reduce((accumulator, current) => newAcc, initialValue);

**🧪 Example: Sum of prices**

js

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const prices = [100, 150, 200];

const total = prices.reduce((sum, price) => sum + price, 0);

console.log(total); // 450

**💥 Desi Example:**

js

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const cart = [

{ item: "Paneer", price: 120 },

{ item: "Aloo", price: 40 },

{ item: "Tandoori Roti", price: 20 }

];

const totalBill = cart.reduce((sum, dish) => sum + dish.price, 0);

console.log(`Total Bill: ₹${totalBill}`); // ₹180

**🧪 Mini Challenge (Your Turn!)**

**🔧 Task:**

js

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const students = [

{ name: "Riya", marks: 85 },

{ name: "Aman", marks: 72 },

{ name: "Neha", marks: 91 },

{ name: "Ravi", marks: 60 }

];

1. Use map() to create an array of greetings like:

csharp

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Hello Riya! Your score is 85

1. Use filter() to get students with marks >= 80
2. Use reduce() to calculate total marks of the class

✅ Send your code and I’ll check it right away!

**🧠 Summary of Day 3:**

| **Method** | **Role** | **Usage** |
| --- | --- | --- |
| map() | Modify each element | Add ₹ sign, wrap in tags, convert |
| filter() | Keep some elements | Search results, form validation |
| reduce() | Combine all into one | Totals, averages, sentence |