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Internship Role: Web Development

1. **Introduction**:

Today we explored modern JavaScript features introduced in ES6 and beyond. These make code more concise, readable, and efficient. We covered Destructuring, Spread/Rest Operators, and Template Literals.

2**. Destructuring**

Destructuring allows us to extract values from arrays and objects easily.

Example (Array Destructuring):

```
let fruits = ["Apple", "Banana", "Mango"];
let [first, second] = fruits;
console.log(first); // Apple
```

Example (Object Destructuring):

```
let person = { name: "Sara", age: 20 };
```

```
let { name, age } = person;
console.log(name); // Sara
```

3. **Spread Operator (...)**

It spreads elements of an array or object into individual items.

```
let arr1 = [1, 2, 3];
let arr2 = [...arr1, 4, 5];
console.log(arr2); // [1, 2, 3, 4, 5]
```

4. **Rest Operator (...)**

It collects multiple values into a single variable (opposite of spread).

```
function sum(...numbers) {
  return numbers.reduce((total, num) => total + num, 0);
}
console.log(sum(1, 2, 3, 4)); // 10
```

5. **Template Literals**

They allow string formatting with **backticks ()** and ${}` for variables.

```
let name = "Ali";
let age = 22;
console.log(`My name is ${name} and I am ${age} years old.`);
```

6. Conclusion:

These ES6+ features improve code readability and make JavaScript easier to work with. As a web developer, mastering them is essential for writing clean and modern code.