**ES6**

**1. Let and const**

**2. Arrow functions**

**3. Destructuring**

**Destructuring** in JavaScript is a convenient way to extract values from **arrays** or **objects** into **distinct variables**.

3.1 Array Destructuring

3.2 Object Destructuring

3.3 Destructuring in Function Parameters

3.4 Nested Destructuring

**3.2.1 Rename while destructuring**

**3.1.1** **Skip values in arrays  
  
JSON.stringify()**

const user = { name: "Ali", age: 25 };

const job = { position: "Developer" };

const employee = { position: "Developer", ...user };

// employee is now: { position: "Developer", name: "Ali", age: 25 }

const a = JSON.stringify(employee)

const b = employee

## difference const a = JSON.stringify(employee);

* a is now a **string**, not an object.
* It **copies** the values from the object and converts them to a **fixed JSON string**.
* You **cannot change** properties like a.name — it’s just a string.

## const b = employee;

* b is a **reference** to the same object in memory.
* Changing b.age also changes employee.age.
* You can access and modify it: b.name = "Sara" changes employee.name.

| **Variable** | **Type** | **Modifiable?** | **Access like b.name?** | **Prints Expandable?** |
| --- | --- | --- | --- | --- |
| a | String | ❌ No | ❌ No (undefined) | ❌ No |
| b | Object | ✅ Yes | ✅ Yes | ✅ Yes (expandable) |

## What is the Spread Operator?

The **spread operator** ... is used to **expand** (or "spread out") the contents of arrays, objects, or even function arguments.

## 1. ****Spread in Arrays****

### Copy an array:

Combine arrays:

Add items:

2. **Spread in Objects**

Copy an object:

Merge objects:

Override properties:

3. **Spread in Function Calls**

4. **Spread with Strings**

## What is the ****Rest Operator****?

The **rest operator** (...) is used to **collect** multiple values into **a single array or object**.

It’s the **opposite** of the spread operator.

1. **Rest in Function Parameters**

## Use Case

This approach is useful when:

* You don’t know how many arguments will be passed.
* You want to collect all inputs into a single array.

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Profile Secure a responsible career opportunity where software development and technical skill can be utilized to make a significant contribution to the