



# SPREAD OPERATOR IN JAVASCRIPT



Presented By: Group 8



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# SPREAD OPERATOR(...) -SLIDE SUMMARY

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SLIDE 4: LIMITATIONS /BENEFITS OF SPREAD OPERATORS

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# INTRODUCTION

## What Is Spread Operator

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The spread operator (...) is a feature in java script ( and also in some other languages like TypeScript)that allows you to “spread out” the element of an array, object ,or iterable into individual elements.

It looks like three dots ...

Or,

spread operator is an operator that spread on demand, it expands an it-erable(like an array or string )or an object into its individual elements, making it easier to copy , combine or pass data to functions.

its used for creating new array or objects, merging existing ones and passing array elements as separate argument to functions , offering a more concise and readable alternative to older methods like apply().

## Example of spread operator

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```
Const fruits =[“apple”, “kiwi”];
```

```
Const moreFruits =[“pawpaw”, “guava”];
```

```
// using spread operator to merge
```

```
Const allFruits = [... fruits, ...moreFruits];
```

```
console.log(allFruits);
```

# Uses of spread operators

1: For Expanding Arrays

```
Const numbers =[1,2,3];
```

```
Console.log (...numbers);
```

The spread operator ... numbers expands the array [1,2,3] into its individual elements 1 2 3.

2: for copying arrays

```
Const arr1=[10,20,30];
```

```
Const arr2 = [...arr1];
```

```
Console.log (arr2);
```

The spread operator ... arr1 copies all element from arr1 into a new array arr2. So both array contain the same values ,but they are stored separately in memory

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### 3:for merging arrays

```
Const a=[1, 2];  
Const b =[3,4];  
Const merged = [  
...a,...b];  
Console. Log (merged);
```

The spread operator... a expands [1, 2]  
and ...b expands [3, 4 ].

When combined ,they form one new  
array [1,2 ,3,4].

4: for passing function argument

```
Function sum(x,y ,v){  
Return x+y +v;  
}
```

```
Const nums =[5,10,15];
```

```
Console.log (sum (...nums));
```

... nums expands [5, 10 ,15 ] into 5,10,  
15

And sum them up to get = 30

5: for copying object

```
Const person = {name : "jenn", age : 20};
```

```
Const updated = {... person , age :21 };
```

```
Console .log (updated);
```

... person spreads all properties of the person into the new object . then we overwrite age with 21

So the new object becomes { name : "jenn" ,age : 21}

6: for merging objects

```
Const obj 3 { a: 1 ,b: 2 };
```

```
Const obj 4{ c:3 };
```

```
Const mergedObj = {...obj 3,...obj 2};
```

```
Consol. Log (mergedObj) ;
```

Obj3 spread {a :1 ,b :2 } into the new object .

... obj 4 spread { c: 3} into it together the form  
{a: 1, b: 2, c: 3}.

# CONCLUSION:

## KEY BENEFITS

1. **CONCISENESS AND READABILITY:** the spread operators provides a cleaner and more intuitive syntax compared to older methods like `apply ()` or manual iteration
2. **FLEXIBILITY:** it can be used with various iterables arrays, strings, and sets, as well as objects.

## LIMITATIONS:

- . Shallow copy only
- . Works with only iterables
- . Not a replacement for deep merge

THANK YOU