

-> SPREAD OPERATOR

-> It is denoted by ...(Three dots) and a very powerful feature introduced in ES6.

-> It allows you to expand an iterable objects such as ->

-> Array

-> String

-> Objects

-> into individual objects

-> It is used commonly in -> Function Calls, Array Literals and Object Literals.

-> You can use the spread operator to expand an array into individual elements.

-> This is particularly useful when you want to combine arrays or pass array arguments to a function.

-> Syntax:

```
let variablename1 = [...value];
```

Array Concatenation

```
<body>
  <p></p>
  <script>
    const arr1 = [1, 2, 5];
    const arr2 = [4, 6, 7];
    const concat = [...arr1, ...arr2]
    let p = document.querySelector("p");
    p.innerHTML = concat;
  </script>
</body>
```

Array Copy

```
<body>
```

```
<p></p>
<script>
  const org = [1, 2, 5];
  const cop = [...org];
  let p = document.querySelector("p");
  p.innerHTML = cop;
</script>
</body>
```

Object Copy

```
<script>
  const org = {name:"John", age:25};
  const cop = {...org};
  console.log(cop);
</script>
```

Object Merge

```
<script>
  const org1 = {a:1};
  const org2 = {b:2};
  const cop = {...org1, ...org2};
  console.log(cop);
</script>
```

Function Arguments

```
<body>
  <p></p>
  <script>
    function addNumbers(a, b, c){
      return a + b + c;
    }
    const nums = [4,7,9];

    //Passing the whole array as argument to addNumbers()
    const sum = addNumbers(...nums);

    document.querySelector("p").innerHTML = sum;
  </script>
</body>
```

-> It creates a shallow copy of an object or array.

-> This means that while the top-level elements are copied, nested objects or arrays

within the spread may still be referenced instead of deeply copied.

-> If you need to create a deep copy, use other techniques

-> Recursion

-> External Libraries

-> Keep in mind that if there are duplicate properties in the objects being merged,

the property from the latter object will overwrite the one from the former.