

ES6: NEXT GEN JS

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SPREAD OPERATOR ...

Note: the spread operator is represented by ... (because dots the way it is - sorry). This works over iterable items (such as arrays, strings, maps, sets).

References: https://developer.mozilla.org/en-US/docs/Web/JavaScript/Reference/Operators/Spread_syntax

Code snippet:

```
16 const fruit = [...'Durian'];  
17                    |  
18 console.table(fruit); // because fruit belongs on a table *grin*
```

Result when viewed in the browser console is shown below.

03Spread.html:15

(index)	Value
0	"D"
1	"U"
2	"r"
3	"i"
4	"a"
5	"n"

▼ Array(6) ⓘ

- 0: "D"
- 1: "U"
- 2: "r"
- 3: "i"
- 4: "a"
- 5: "n"

length: 6

▶ __proto__: Array(0)

Note: good use case is when you want to concatenate two arrays and insert an item between the concatenated values. Sure, you can do this with a fair amount of code (and temporary variables). ES6 makes it so much cleaner.

Code snippet:

```
22 const steaks = ['ribeye', 'sirloin', 't-bone', 'chopped', 'tube'];
23 const potatoes = ['mashed', 'baked', 'hash brown', 'twice baked',
24   'au gratin'];
25 const meals = [...steaks, 'asparagus', 'beets', 'green beans',
26   'carrots', ...potatoes];
27 console.table(meals); // again, these belong on a table
```

Result when viewed in the browser console is shown below.

Concatenating arrays example

03Spread.html:27

(index)	Value
0	"ribeye"
1	"sirloin"
2	"t-bone"
3	"chopped"
4	"tube"
5	"asparagus"
6	"beets"
7	"green beans"
8	"carrots"
9	"mashed"
10	"baked"
11	"hash brown"
12	"twice baked"
13	"au gratin"

Note: this is also very useful when you copy an array. Typically, these are copied by reference (and you know what happens then). Sure, there are ways around this, but... they... involve... a... fair... amount... of... code (note my excessive use of the spread operator).

Code snippet: old approach – by reference

```
29 const meats = steaks;
30 const changedMeats = steaks;
31 console.log('meats array = ' + meats);
32 console.log('steaks array = ' + steaks);
33 console.log('changedMeats array = ' + changedMeats);
34
35 changedMeats[2] = 'prime rib';
36 console.log('changedMeats array after change = ' + changedMeats);
37 console.log('steaks array, no change = ' + steaks);
```

Result when viewed in the browser console is shown below.

```
meats array = ribeye,sirloin,t-bone,chopped,tube
steaks array = ribeye,sirloin,t-bone,chopped,tube
changedMeats array = ribeye,sirloin,t-bone,chopped,tube
changedMeats array after change = ribeye,sirloin,prime
rib,chopped,tube
steaks array, no change = ribeye,sirloin,prime rib,chopped,tube
```

Code snippet: using spread operator

```
39 const differentMeals = [...meals];
40 differentMeals[1] = 'prime rib';
41 console.log('differentMeals array after change = ' +
  differentMeals);
42
43 console.log('meals array after change = ' + meals);
```

Result when viewed in the browser console is shown below.

```
differentMeals array after change = ribeye,prime rib,t-      @3Spread.html:41
bone,chopped,tube,asparagus,beets,green beans,carrots,mashed,baked,hash
brown,twice baked,au gratin
meals array after change = ribeye,sirloin,t-                @3Spread.html:43
bone,chopped,tube,asparagus,beets,green beans,carrots,mashed,baked,hash
brown,twice baked,au gratin
```

Reference file: [07Spread.html](#)

Your turn: [07SpreadExercise.html](#)