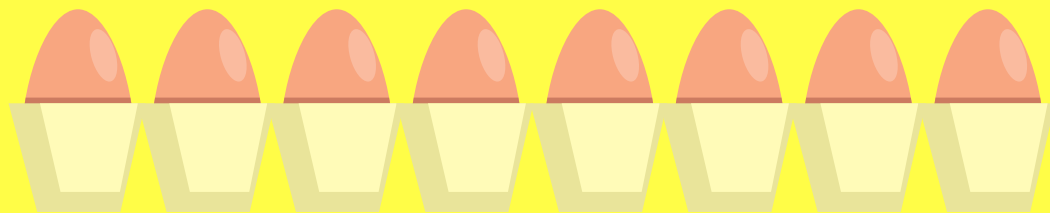


Web Developer Bootcamp

JS Arrays

OUR FIRST DATA STRUCTURE



ARRAYS

Ordered collections of values.

- List of comments on IG post
- Collection of levels in a game
- Songs in a playlist



ARRAYS ARE INDEXED

Doc	Dopey	Bashful	Grumpy	Sneezy	Sleepy	Happy
0	1	2	3	4	5	6

Each element has a corresponding index
(counting starts at 0)

Arrays Are Indexed

```
let colors = ['red', 'orange', 'yellow', 'green'];  
  
colors.length //4  
  
colors[0] //'red'  
colors[1] //'orange'  
colors[2] //'yellow'  
colors[3] //'green'  
colors[4] //'undefined'
```


Modifying Arrays

```
let colors = ['red', 'orange', 'green', 'yellow'];  
colors[0] = 'red';  
  
colors[2] = 'yellow';  
colors[3] = 'green';  
  
colors[4]; //undefined  
colors[4] = 'blue';  
//["red", "orange", "yellow", "green", "blue"]
```

ARRAY METHODS

Push - add to end

Pop - remove from end

Shift - remove from start

Unshift - add to start

YOU'LL GET USED TO THE NAMES EVENTUALLY!



MORE METHODS

concat - merge arrays

includes - look for a value

indexOf - just like `string.indexOf`

join - creates a string from an array

reverse - reverses an array

slice - copies a portion on an array

splice - removes/replaces elements

sort - sorts an array



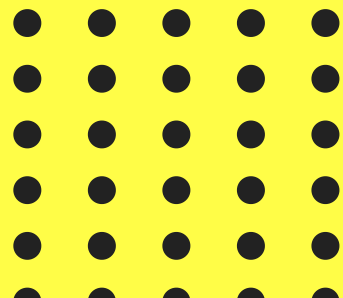
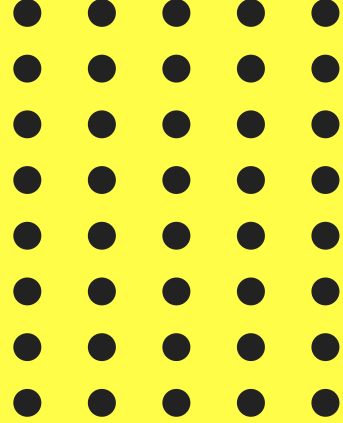
CONST

AND

ARRAYS

WHY DO PEOPLE USE CONST WITH ARRAYS??

N

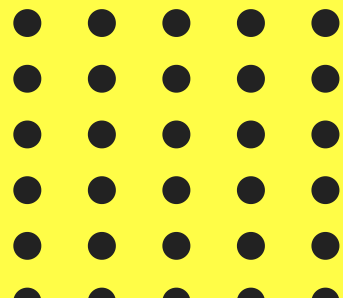
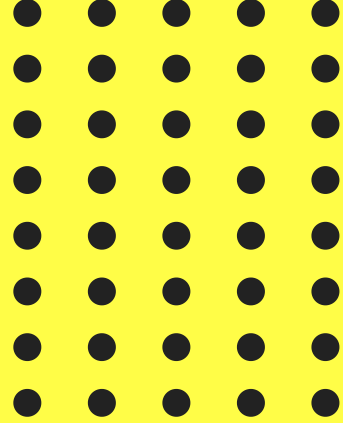
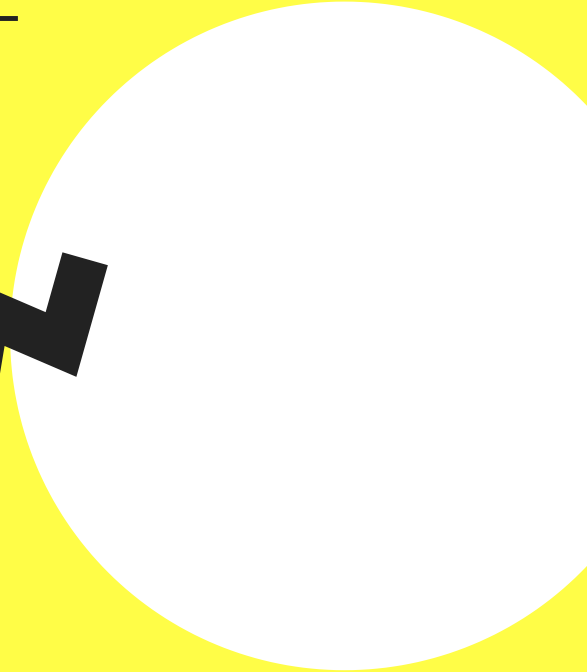


THE VALUES CAN CHANGE

AS LONG AS THE REFERENCE REMAINS THE SAME

```
const myEggs = ['brown', 'brown'];
```

myEggs

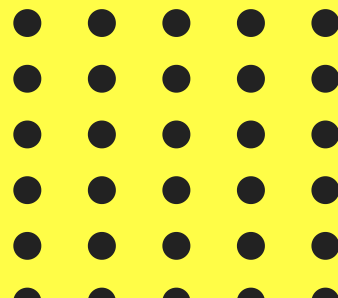
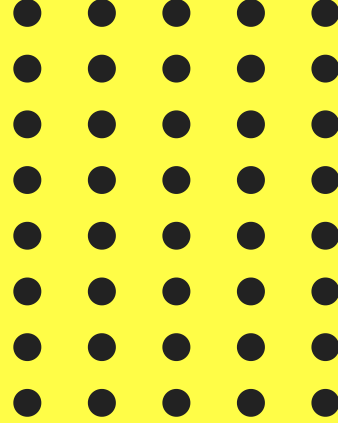


THE VALUES CAN CHANGE

AS LONG AS THE REFERENCE REMAINS THE SAME

```
const myEggs = ['brown', 'brown'];  
myEggs.push('purple');
```

myEggs

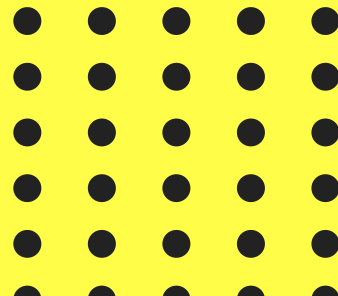
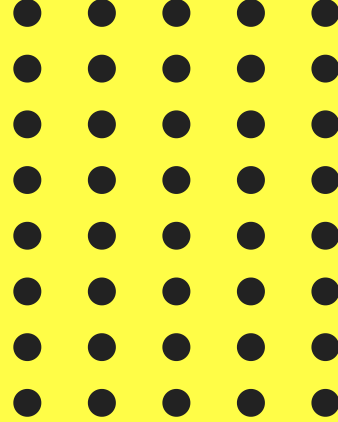


THE VALUES CAN CHANGE

AS LONG AS THE REFERENCE REMAINS THE SAME

```
const myEggs = ['brown', 'brown'];  
myEggs.push('purple');  
myEggs[0] = 'green';
```

myEggs



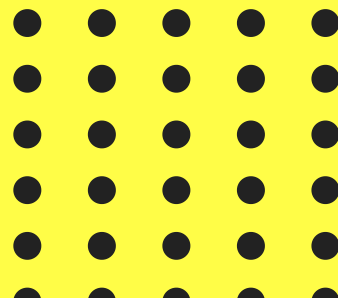
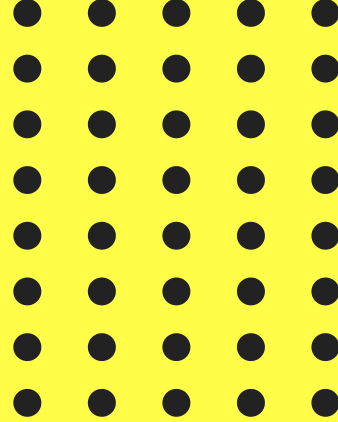
THE VALUES CAN CHANGE

AS LONG AS THE REFERENCE REMAINS THE SAME

```
const myEggs = ['brown', 'brown'];  
myEggs.push('purple');  
myEggs[0] = 'green';  
  
myEggs = ['blue', 'pink']; //NO!
```

myEggs

✘ ▶ Uncaught TypeError: Assignment to constant variable.



NESTED ARRAYS

We can store arrays inside other arrays!



```
const colors = [  
  ['red', 'crimson'],  
  ['orange', 'dark orange'],  
  ['yellow', 'golden rod'],  
  ['green', 'olive'],  
  ['blue', 'navy blue'],  
  ['purple', 'orchid']  
]
```


NESTED ARRAYS

```
const board = [  
  ['O', null, 'X'],  
  [null, 'X', 'O'],  
  ['X', 'O', null]  
]
```

