

# Array Methods

Getting more out of arrays

# Objectives

Arrays come with a few built-in methods that make our life easier. We're going to cover:

- push/pop
- shift/unshift
- indexOf
- slice

# Push and Pop

Use push to add to the end of an array:

```
var colors = ["red", "orange", "yellow"];  
colors.push("green");  
//[ "red", "orange", "yellow", "green"]
```

Use pop to remove the last item in an array

```
var colors = ["red", "orange", "yellow"];  
colors.pop();  
//[ "red", "orange"]
```

```
//pop() returns the removed element  
var col = colors.pop(); //orange
```

# Shift and Unshift

Use **unshift** to add to the front of an array:

```
var colors = ["red", "orange", "yellow"];  
colors.unshift("infrared")  
//[ "infrared", "red", "orange", "yellow"]
```

Use **shift** to remove **the first item** in an array

```
var colors = ["red", "orange", "yellow"];  
colors.shift();  
//[ "orange", "yellow"]  
  
//shift() also returns the removed element  
var col = colors.shift(); //orange
```

# IndexOf

Use `indexOf()` to find the index of an item in an array

```
var friends = ["Charlie", "Liz", "David", "Mattias", "Liz"];
```

```
//returns the first index at which a given element can be found
```

```
friends.indexOf("David"); //2
```

```
friends.indexOf("Liz"); //1, not 4
```

```
//returns -1 if the element is not present.
```

```
friends.indexOf("Hagrid"); //-1
```

# Slice

Use slice() to copy parts of an array

```
var fruits = ['Banana', 'Orange', 'Lemon', 'Apple', 'Mango'];  
//use slice to copy the 2nd and 3d fruits  
//specify index where the new array starts(1) and ends(3)  
var citrus = fruits.slice(1, 3); [1,3)  
  
//this does not alter the original fruits array  
//citrus contains ['Orange','Lemon']  
//fruits contains ['Banana', 'Orange', 'Lemon', 'Apple', 'Mango'];  
  
//you can also use slice() to copy an entire array  
var nums = [1,2,3];  
var otherNums = nums.slice();  
//both arrays are [1,2,3]
```

# Splice

Use splice to remove

```
var fruits = ['Banana', 'Orange', 'Lemon', 'Apple', 'Mango'];  
//use splice to remove 'Orange' from the array  
//specify index of the element to be removed and  
//how many elements should be removed from that index  
fruits.splice(1, 1);  
// returns: ["Orange"]  
console.log(fruits);  
// prints: ["Banana", "Lemon", "Apple", "Mango"]
```

# Array Methods

## Exercise 1

```
var fruits = ['Banana', 'Orange', 'Lemon', 'Apple', 'Mango'];  
//use slice to copy the 2nd and 3d fruits  
//specify index where the new array starts(1) and ends(3)  
var citrus = fruits.slice(1, 3);  
  
//this does not alter the original fruits array  
//citrus contains ['Orange','Lemon']  
//fruits contains ['Banana', 'Orange', 'Lemon', 'Apple', 'Mango'];  
  
//you can also use slice() to copy an entire array  
var nums = [1,2,3];  
var otherNums = nums.slice();  
//both arrays are [1,2,3]
```