



MISSION READY

DARE TO **DEVELOP**

Data Types - Arrays

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Arrays

- An array is a data structure which can hold more than one value at a time in an ordered fashion, like a list of items
- Used to store multiple values in a single variable.

```
const arrayName = [item1, item2, ...];
```

```
const fruits = ["apples", "oranges", "peaches", "grapes", "lemons", "mango", "banana"];
```



Exercise 1

1. Create an array of your favourite food
2. Log the array to the console



Access the Elements (values) of an Array

- JavaScript arrays are zero-based indexed.
 - The first element of an array starts at index 0, the second element starts at index 1, and so on.

To access an element in an array, you specify an index in the square brackets `[]`

`arrayName[index]`

Array:	Indexes	0	1	2	3	4
	Values	1	3	8	23	99



```
let mountains = ["Everest", "Fuji", "Nanga Parbat"];  
console.log(mountains[0]); // 'Everest'  
console.log(mountains[1]); // 'Fuji'  
console.log(mountains[2]); // 'Nanga Parbat'
```

To change the value of an element, you *assign* that new value to the element.

```
const mountains = ["Everest", "Fuji", "Nanga Parbat"];  
mountains[2] = "Aconcagua";  
console.log(mountains);
```



Array properties

- The length property of an array returns the length of an array (the number of array elements).

```
const names = ["Grace", "Ollie", "Lee"];  
names.length; // the length of names is 3
```

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Exercise 2

1. Create an **array** of numbers, say 5 to 10.
2. Find the average of the numbers.
Average = Total Sum of All Numbers / Number of Item in the Set
3. Log the average to the console
4. Share your solution + output when done !



JavaScript Array push() Method

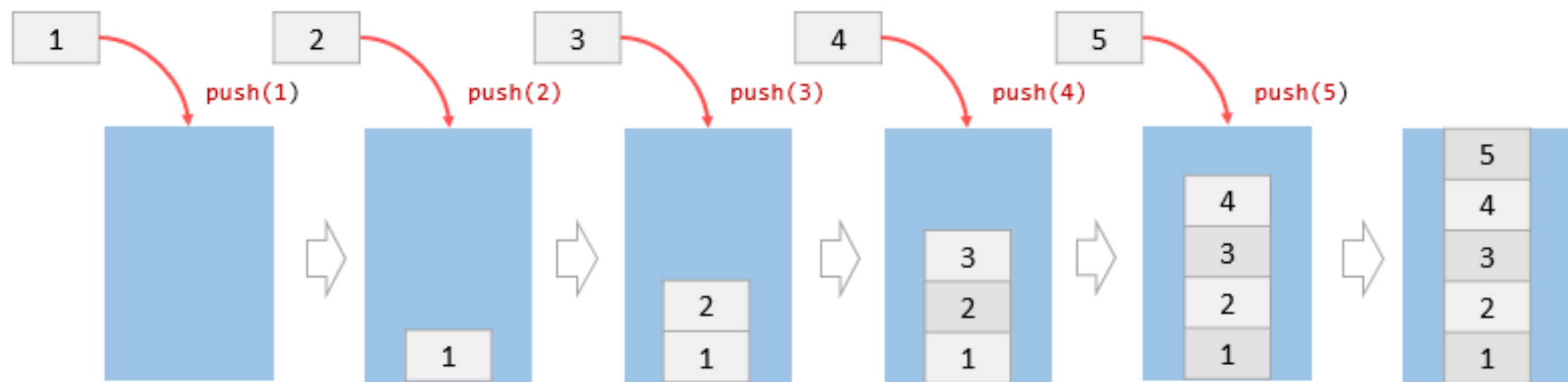
- If you want to add a new value/elements into your array you can use the `.push()` method.

```
const hats = ["trilby", "panama", "top hat", "bowler"];  
hats.push("fedora"); // Adds fedora at the end of the array
```

- Now the hats array becomes:

```
["trilby", "panama", "top hat", "bowler", "fedora"];
```





Array of other data types

```
const arrayOfNumbersBooleansStrings = [3, 3, true, 6, false, true, "1", 6];
const arrayOfObjects = [
  {
    name: "Buddy",
    favColour: "blue",
  },
  {
    name: "Sally",
    favColour: "purple",
  },
];
```



Exercise 9

1. Create an object to hold information on your favorite recipe. It should have properties for a
 - title (a string),
 - servings (a number),
 - and ingredients (an *array* of strings).
2. Console log the *object* and the number of the ingredients in the recipe.
3. Add an extra ingredient 'water' to your recipe. Hint: use *array.push()*
4. *Log the object to the console.*





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Thank you

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