

# **BIT 16: Scripting**



**Arrays**

# Arrays

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- `var cars = ["Saab", "Volvo", "BMW"];`
- Cars holds three Strings (not just one).
- `Cars[1]` returns "Volvo"

```
> var numbers = [0, 1, 2];  
< Undefined  
> Numbers  
< (3) [0, 1, 2]  
>for (var i = 1; i < 10; i++) {  
> numbers[i] = i*25;}  
>numbers  
<(10) [0, 25, 50, 75, 100, 125, 150, 175,  
200, 225]  
> numbers[4]  
< 100
```

Arrays – Just like variables, but hold a list of values instead of one value.

# Arrays

## Java

- Length is declared at creation
- Datatype is declared at creation
- Access element 'x' with square brackets: `list[x]`

## JavaScript

- Dynamic length (is not predefined and may change)
- Datatype is not required for creation, and, arrays may hold variables of multiple types
- Access element 'x' with square brackets: `list[x]`

# Array Methods

Popping and Pushing:

When you work with arrays, it is easy to remove elements and add new elements.

This is what popping and pushing is:

Popping items **out** of an array, or pushing items **into** an array.

[https://www.w3schools.com/js/js\\_array\\_methods.asp](https://www.w3schools.com/js/js_array_methods.asp)

# Examples

- BasicNumericArrays.html →
  - Exercises #1 and #2
- ArrayTricks.html →
  - Exercises #3 and #4
- Fun Side-Trip:
  - Exercise #5