In-Class Exercise/Demo

In-Class Exercise / Demo

- Because this week’s demo exercises are also all done on the browser console, you will be tasked to take a screenshot of your console for every exercise you finished. Below are instructions on how to take screenshots on your computer:

PC Windows:

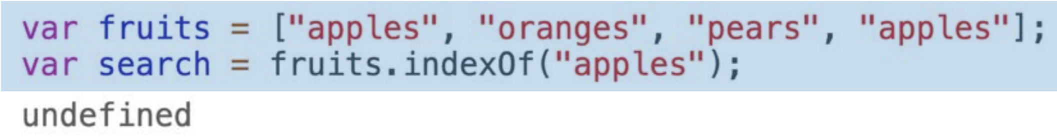
Win + Alt + Print Screen – *Captures only the active window*. This command saves an image to *C:Users<user name>Videos>Captures* by default.

MAC:

Command + Shift + 4 – Marquee the area of the screen you want to screenshot. Saves the screenshot as a PNG file on your desktop.

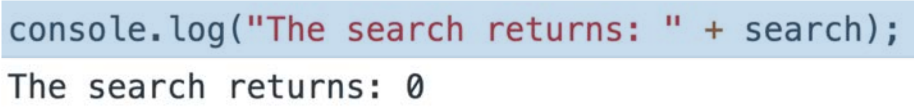
In-Class Exercise / Demo

- We will practice the examples shown in today’s lecture.
- Open a new chrome browser tab, and switch to the console window.
  - **cmd + option + j** (mac)
  - **ctrl + shift + j** (windows)
- We’ll start with the **indexOf** method. Enter the following in your console, and then hit enter/return:



```
var fruits = ["apples", "oranges", "pears", "apples"];
var search = fruits.indexOf("apples");
undefined
```

Thereafter, enter the following script and hit enter/return:



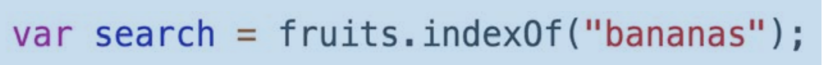
```
console.log("The search returns: " + search);
The search returns: 0
```

Returns an index of 0 since it’s in position #1 in the array

Don’t forget to take a screenshot!

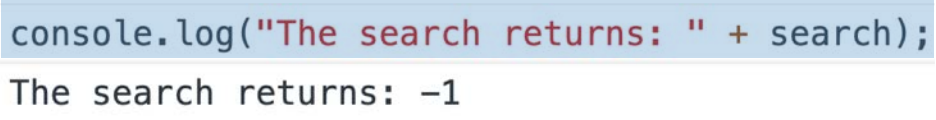
In-Class Exercise / Demo

- Let’s practice one more example of the **indexOf** method. Continuing from where you last left off in your console window, enter the following, and then hit enter/return:



```
var search = fruits.indexOf("bananas");
```

Thereafter, enter the following script and hit enter/return:



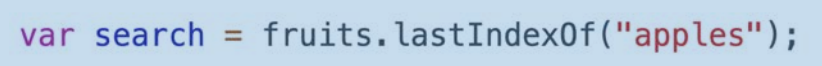
```
console.log("The search returns: " + search);
The search returns: -1
```

Returns an index of -1 because it doesn’t exist in the array.

Don’t forget to take a screenshot!

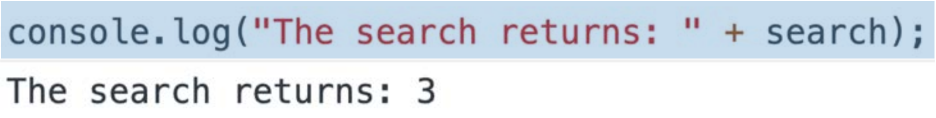
In-Class Exercise / Demo

- Next, we'll look at **lastIndexOf** method. Continuing from where you last left off in your console window, enter the following, and then hit enter/return:



```
var search = fruits.lastIndexOf("apples");
```

Thereafter, enter the following script and hit enter/return:



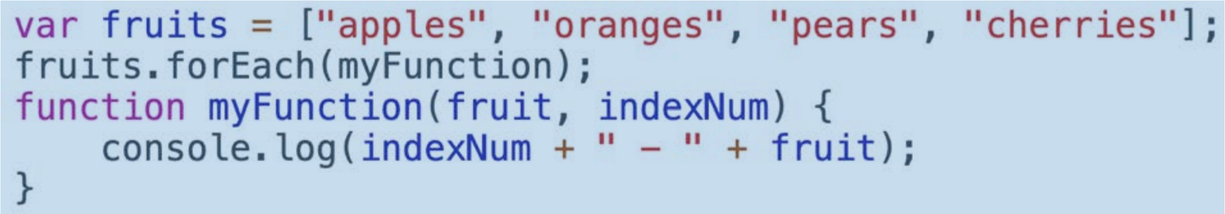
```
console.log("The search returns: " + search);
The search returns: 3
```

Returns an index of 3 because it is the last item in the array.

Don't forget to take a screenshot!

In-Class Exercise / Demo

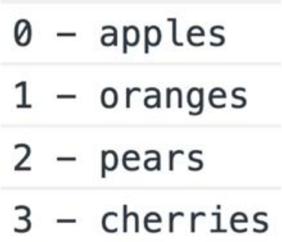
- We’ll look at **forEach** method next. Refresh/clear the console. On your console window, enter the following, and then hit enter/return:



```
var fruits = ["apples", "oranges", "pears", "cherries"];
fruits.forEach(myFunction);
function myFunction(fruit, indexNum) {
    console.log(indexNum + " - " + fruit);
}
```

The result after hitting enter/return:

Returns a list of items (fruit) along with its index number

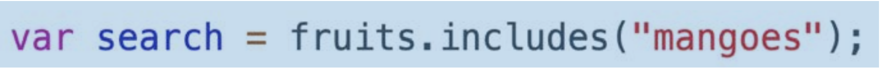


```
0 - apples
1 - oranges
2 - pears
3 - cherries
```

Don’t forget to take a screenshot!

In-Class Exercise / Demo

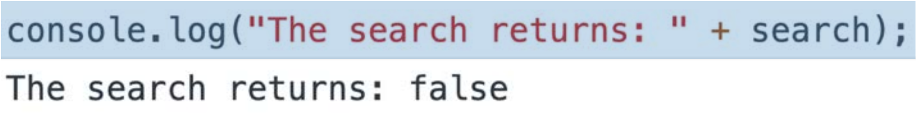
- We’ll look at **includes** method next. Continuing from where you last left off in your console window, enter the following, and then hit enter/return:



```
var search = fruits.includes("mangoes");
```

Thereafter, enter the following script and hit enter/return:

Returns a false value because item does not exist in the array

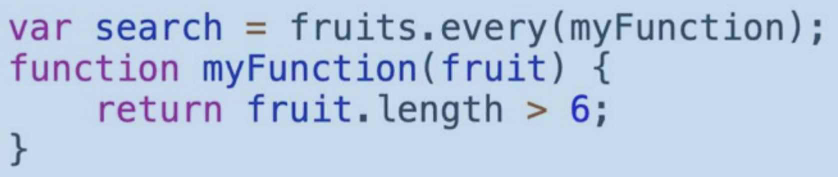


```
console.log("The search returns: " + search);
The search returns: false
```

Don’t forget to take a screenshot!

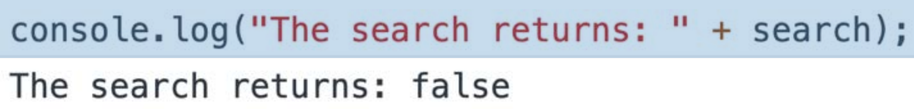
In-Class Exercise / Demo

- We’ll look at **every** method next. Continuing from where you last left off in your console window, enter the following, and then hit enter/return:



```
var search = fruits.every(myFunction);
function myFunction(fruit) {
    return fruit.length > 6;
}
```

Thereafter, enter the following script and hit enter/return:



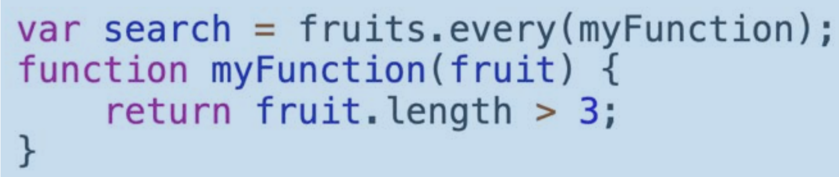
```
console.log("The search returns: " + search);
The search returns: false
```

Returns a false value because the very first item in the array is not true

Don’t forget to take a screenshot!

In-Class Exercise / Demo

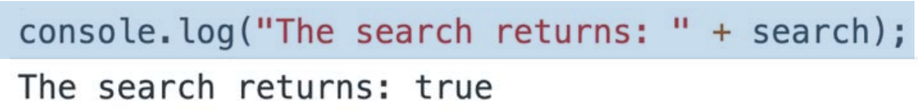
- Let’s modify our test. Continuing from where you last left off in your console window, enter the following, and then hit enter/return:



```
var search = fruits.every(myFunction);
function myFunction(fruit) {
    return fruit.length > 3;
}
```

Thereafter, enter the following script and hit enter/return:

Returns a true value because every item in the array is true

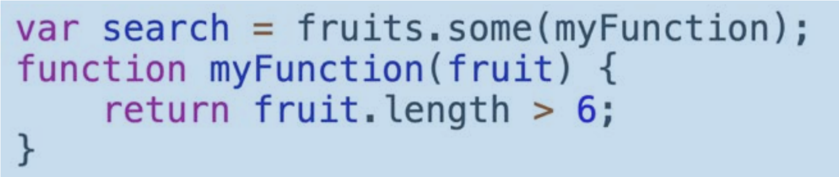


```
console.log("The search returns: " + search);
The search returns: true
```

Don’t forget to take a screenshot!

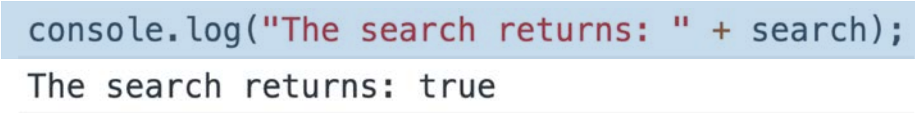
In-Class Exercise / Demo

- We’ll look at **some** method next. Continuing from where you last left off in your console window, enter the following, and then hit enter/return:



```
var search = fruits.some(myFunction);
function myFunction(fruit) {
    return fruit.length > 6;
}
```

Thereafter, enter the following script and hit enter/return:



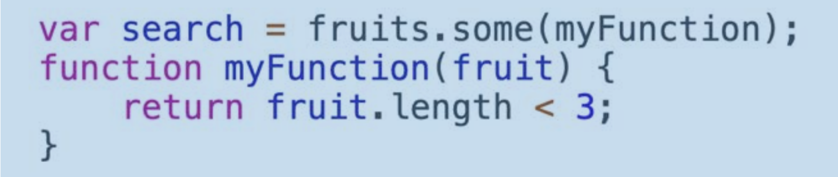
```
console.log("The search returns: " + search);
The search returns: true
```

Returns a true value because one of the item in the array is true

Don’t forget to take a screenshot!

In-Class Exercise / Demo

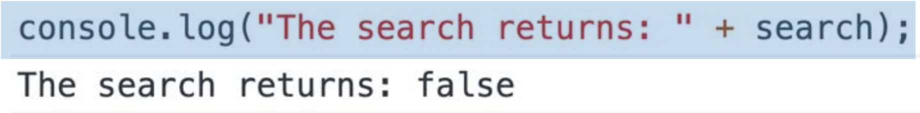
- Let’s modify our test. Continuing from where you last left off in your console window, enter the following, and then hit enter/return:



```
var search = fruits.some(myFunction);
function myFunction(fruit) {
    return fruit.length < 3;
}
```

Thereafter, enter the following script and hit enter/return:

Returns a false value because all of the items in the array is not true

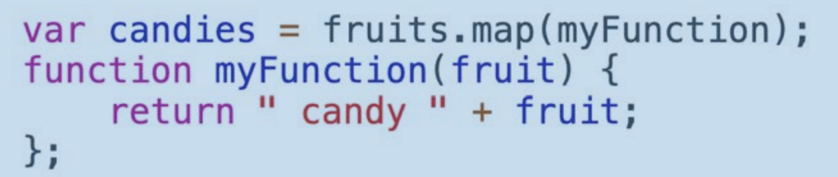


```
console.log("The search returns: " + search);
The search returns: false
```

Don’t forget to take a screenshot!

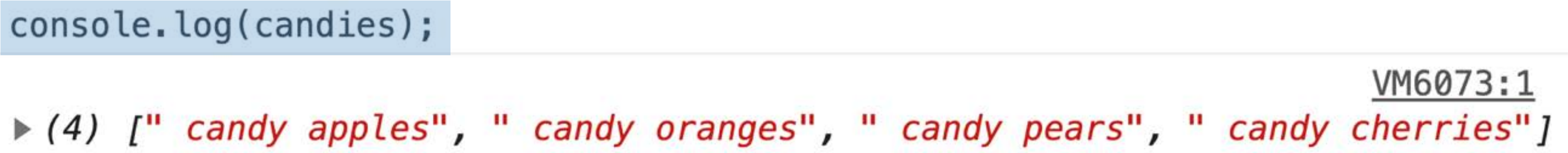
In-Class Exercise / Demo

- The **map** method next. Continuing from where you last left off in your console window, enter the following, and then hit enter/return:



```
var candies = fruits.map(myFunction);
function myFunction(fruit) {
    return " candy " + fruit;
};
```

Thereafter, enter the following script and hit enter/return:



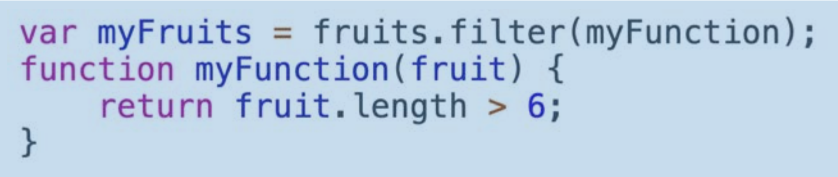
```
console.log(candies);
                                                        VM6073:1
▶ (4) [" candy apples", " candy oranges", " candy pears", " candy cherries"]
```

Return all the items in the array

Don't forget to take a screenshot!

In-Class Exercise / Demo

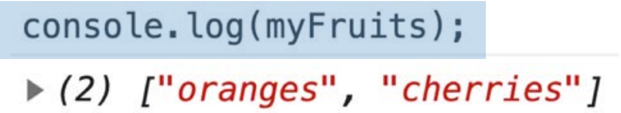
- We’ll look at **filter** method next. Continuing from where you last left off in your console window, enter the following, and then hit enter/return:



```
var myFruits = fruits.filter(myFunction);
function myFunction(fruit) {
    return fruit.length > 6;
}
```

Thereafter, enter the following script and hit enter/return:

Return items that matches the criteria

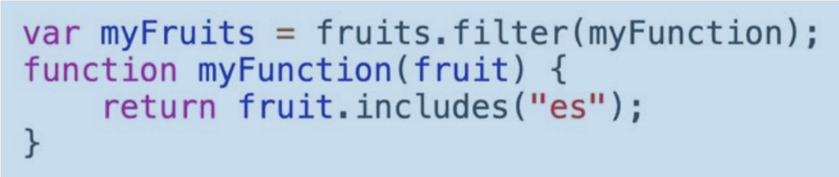


```
console.log(myFruits);
▶ (2) ["oranges", "cherries"]
```

Don’t forget to take a screenshot!

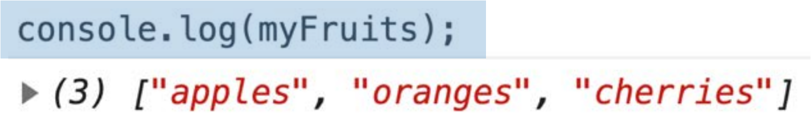
In-Class Exercise / Demo

- Let's modify our test. Continuing from where you last left off in your console window, enter the following, and then hit enter/return:



```
var myFruits = fruits.filter(myFunction);
function myFunction(fruit) {
    return fruit.includes("es");
}
```

Thereafter, enter the following script and hit enter/return:



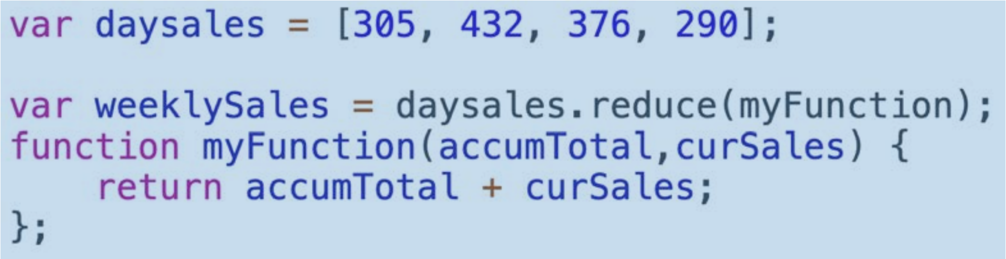
```
console.log(myFruits);
▶ (3) ["apples", "oranges", "cherries"]
```

Return items that matches the criteria

Don't forget to take a screenshot!

In-Class Exercise / Demo

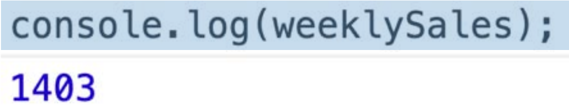
- The last method is the **reduce** method. Refresh/clear the console. On your console window, enter the following, and then hit enter/return:



```
var daysales = [305, 432, 376, 290];

var weeklySales = daysales.reduce(myFunction);
function myFunction(accumTotal,curSales) {
    return accumTotal + curSales;
};
```

Thereafter, enter the following script and hit enter/return:



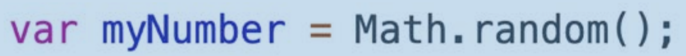
```
console.log(weeklySales);
1403
```

Returns the accumulated total

Don't forget to take a screenshot!

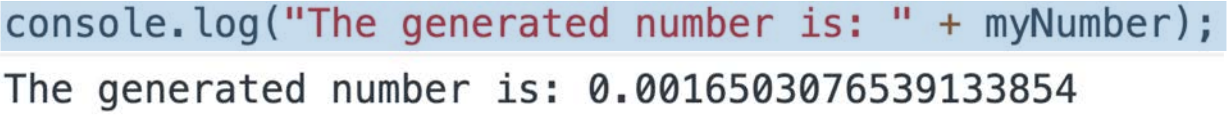
In-Class Exercise / Demo

- Our next demo is Generating Random Number. Recall that this is math method ie. **Math.random()**. To start, we will practice generating without specifying a range of numbers to generate.
- On a cleared console, enter the following scripts and then hit enter/return:



```
var myNumber = Math.random();
```

Thereafter, enter the following script and hit enter/return:



```
console.log("The generated number is: " + myNumber);
The generated number is: 0.0016503076539133854
```

Returns a random number from 0 to 1 with default decimals

Don't forget to take a screenshot!

In-Class Exercise / Demo

Submission:

- Grab all your screenshots and save into a folder.
- Name this folder: **week4-day1**.
- Zip this folder.
- Submit **week4-day1.zip** in GAP – Week 4 Day 1 dropbox at the end of this class session.