**Exercises**

*Lecture 4:*

ES6 - part 3

1. **Modules**
2. **Map + Set + WeakMap + WeakSet**

Read this article:

* <https://ponyfoo.com/articles/es6-weakmaps-sets-and-weaksets-in-depth>

1. **Promises**

Read this article:

* <https://ponyfoo.com/articles/es6-promises-in-depth>

1. **Math + Number + String + Array + Object**

4.1. Write a JavaScript function to remove. 'null', '0', '""', 'false', 'undefined' and 'NaN' values from an array.

Sample array : [NaN, 0, 16, false, -21, '',undefined, 45, null]

Expected result : [16, -21, 45]

***const check = (arr) => {***

***return arr.filter( a => {***

***if(a){***

***return a;***

***}***

***});***

***};***

***console.log(check([NaN, 0, 16, false, -21, '',undefined, 45, null]***

***));***

4.2. Write a JavaScript function to remove a specific element from an array.

Test data :

console.log(remove\_array\_element([2, 5, 9, 6], 5));

[2, 9, 6]

***const remove\_one = (arr,element) => {***

***return arr.filter( a => a !== element);***

***}***

4.3. Write a JavaScript function to get a random item from an array.

***const get\_random\_arr = (arr) => {***

***let index = random\_index(arr.length);***

***return arr[index];***

***}***

***const random\_index = (max) => {***

***return Math.floor(Math.random()\*max);***

***}***

***console.log(get\_random\_arr(arr\_3));***

4.4. Given the array

[

{

id: 1,

scores: [7, 8, 3, 4]

},

{

id: 2,

scores: [5, 10, 9, 6]

},

{

id: 3,

scores: [9, 7, 4, 8]

}

]

***const reducer = (accumulator, currentValue) => accumulator + currentValue;***

***const add\_sum = (arr) => {***

***let tmp = arr.map(a => a.scores);***

***let result = 0;***

***for(let it of tmp){***

***result += it.reduce(reducer);***

***}***

***return result;***

***}***

Write a JavaScript function using **Array.reduce()** to compute the sum of all scores in the array.

4.5. Write a JavaScript function to increase all elements of an array by 10.

Sample array: [5, 10, 15, 20, 25, 30]

Expected result: [15, 20, 25, 30, 35, 40]

***const add\_10 = (arr) => {***

***return arr.map( a => a+10);***

***}***

**Console.log(add\_10([5, 10, 15, 20, 25, 30]));**