

## Lab Assignment 5 Part II

### 1. Implement code for the following JavaScript functions, and be sure to use "use strict";

- Write a function named, `computeSumOfSquares`, that takes as input, an array of numbers and calculates and returns the sum of the squares of each number in the input array. E.g. `computeSumOfSquares([1,2,3])` should be computed as  $1^2 + 2^2 + 3^2 = 14$ . Note: Write your Javascript code without using Imperative programming. i.e. Do NOT use any explicit looping construct; instead use functional programming style/approach.
- Write a function named, `printOddNumbersOnly`, that takes as input, an array of numbers and it finds and prints only the numbers which are odd.
- Write a function named `printFibo`, that takes as input, a given length, `n`, and any two starting numbers `a` and `b`, and it prints-out the Fibonacci sequence, e.g. (0, 1, 1, 2, 3, 5, 8, 13, 21, 34,...) of the given length, beginning with `a` and `b`. (e.g. `printFibo(n=1, a=0, b=1)`, prints-out: "0", as output; `printFibo(n=2, a=0, b=1)`, prints-out: "0, 1", as output; `printFibo(n=3, a=0, b=1)`, prints-out: "0, 1, 1", as output; `printFibo(n=6, a=0, b=1)`, prints-out: "0, 1, 1, 2, 3, 5", as output; and `printFibo(n=10, a=0, b=1)`, prints-out: "0, 1, 1, 2, 3, 5, 8, 13, 21, 34", as output).

### 2. Destructuring assignment:

We have an object:

```
let user = {  
  name: "John",  
  years: 30  
};
```

Write the destructuring assignment that reads:

`name` property into the variable `name`.

`years` property into the variable `age`.

`isAdmin` property into the variable `isAdmin` (false, if no such property)

Here's an example of the values after your assignment:

```
let user = { name: "John", years: 30 };  
// your code to the left side:  
// ... = user
```

```
alert( name ); // John  
alert( age ); // 30  
alert( isAdmin ); // false
```

```
3. let libraryBooks = [  
  { title: "The Road Ahead", author: "Bill Gates", libraryID: 1235 },  
  { title: "Walter Isaacson", author: "Steve Jobs", libraryID: 4268 },  
  { title: "The Road Ahead", author: "Bill Gates", libraryID: 4268 },  
  { title: "Mockingjay: The Final Book of The Hunger Games", author: "Suzanne Collins", libraryID: 3257 }  
];
```

Write the following JavaScript functions:

- `addBook`, which will take `title`, `author`, and `libraryID` as inputs. It will create a new book object and add it to the library. `addBook` should return the newly created book.
- `getTitles`, which will return all the book titles in `libraryBooks` in an alphabetically ordered array.
- `findBooks`, which will take the keyword of title as input. It will find books which contain the given keyword in the title and return books alphabetically ordered by the author.

Please push your solution to your GitHub repository and submit the GitHub link to Sakai.

//-- Enjoy! --//