ITP JS: Week 6

Practice Problems

1. Write a function named `addAll()` that takes an indefinite amount of arguments and returns the total sum. For example:
   `addAll(1, 2) = 3`
   `addAll(10, 10, 30, 40) = 90`
   NOTE: Must use ES6 methods/features

2. Write a function named `addMultiply()` which takes an indefinite number of arguments. All the arguments except the first one are summed up and multiplied with the first argument. Example
   `addMultiply(2, 3, 5) = 16`, Explanation: 3 + 5 = 8, 8 * 2 = 16
   `addMultiply(2, 2, 3, 3) = 16`, Explanation: 2 + 3 + 3 = 8, 8 * 2 = 16
   NOTE: Must use ES6 methods/features

3. Look at the following code and explain the output:

```
console.log(x);
console.log(a);
console.log(b);

var x = 0;
function a() {
    console.log(x);
}

var b = function() {
    console.log(x);
}
```

4. Given an array, show 3 methods to create an exact copy of the array

5. You're given a list of students as a JavaScript object as shown below:

```
let students = [
    { name: 'A', age: 20, grades: [50, 60, 70], attendance: [1,
0, 1] },
    { name: 'B', age: 25, grades: [35, 35, 50], attendance: [1,
1, 1] },
    { name: 'C', age: 21, grades: [90, 60, 70], attendance: [1,
1, 0] },
    { name: 'D', age: 22, grades: [50, 60, 70], attendance: [1,
0, 1] },
];
```

Based on this, you want to create a new Object array named `filteredStudents` which would contain only the `name` and `age` property. The filtering would be done based on these conditions:

- All received grades are greater than or equal to 50
- The student was absent in at least one class (1 means present and 0 means absent)

NOTE: You are **strictly** required to use ES6 methods only and nothing else, not even traditional loops

Prepared By
Ahmed Sadman Muhib
Full-Stack Instructor