A-LEADS IT Cambodia Co.,Ltd.
JS Exercise

Answer:

1. Please create a JavaScript function formatDateString(string) that can be used as the following

formatDateString("30-04-2017")// output: "Sun Apr 30 2017"

formatDateString("01-05-2017")// output: "Mon May 01 2017"

Answer:

```
function formateDateString(date){
                var pattern = /(\d{2})\-(\d{2})\-(\d{4})/;
                var myDate = new Date(date.replace(pattern, '$3-$2-$1'));
                return myDate.toDateString();
            }

            var result = formateDateString("30-04-2017");
            var result1 = formateDateString("01-05-2017");
            console.log(result);
            console.log(result1);
```

2. We have a following array
var fruits = [
"Mengo", "Pineapple", "Apple", "Banana", "Pineapple", "Lemon",
"Apple", "Banana", "Mengo", "Pineapple", "Lemon", "Banana",
"Mengo", "Lemon", "Apple", "Mengo", "Pineapple", "Lemon",
"Apple", "Banana", "Mengo", "Pineapple", "Lemon", "Banana"
];

2.1. Please create a function body for **countFruit(list)** that can be used as the following
var fruitList = countFruit(fruits);
console.log(JSON.stringify(fruitList))
*/ Output Result:
{“Mango": 5, "Pineapple": 5, "Apple": 4, "Banana": 5, "Lemon": 5}
*/
Note: Please use the best algorithm possible to enhance the function speed.
(Hint: this function can be created using only one loop without if)

Answer:

```
function countFruit(myFruits){
                var counts = {};
                for (var i = 0; i < myFruits.length; i++){
                    counts[myFruits[i]] = (counts[myFruits[i]] + 1) || 1;
                }

                return counts;
            }
```

2.2. Please create a function body for sortArray(array) that can be used as the following
var randomList = ["D", "1", "33", "B", "14", "A", "56", "3", "C", "2", "6", "7", "20"];
sortArray(randomList); // output: 1,2,3,6,7,14,20,33,56,A,B,C,D

Answer:

```
function arrayCompare(a, b) {
                var ax = [], bx = [];

                a.replace(/(\d+)|(\D+)/g, function(_, $1, $2) { ax.push([$1 || Infinity, $2 || ""]) });
                b.replace(/(\d+)|(\D+)/g, function(_, $1, $2) { bx.push([$1 || Infinity, $2 || ""]) });

                while(ax.length && bx.length) {
                    var an = ax.shift();
                    var bn = bx.shift();
                    var nn = (an[0] - bn[0]) || an[1].localeCompare(bn[1]);
                    if(nn) return nn;
                }

                return ax.length - bx.length;
            }

            var randomList = ["D", "1", "33", "B", "14", "A", "56", "3", "C", "2", "6", "7",
"20"];

            function sortArray(array){
              return randomList.sort(arrayCompare);
            }

            var myArray = sortArray(randomList);
            console.log(myArray);
```