

Excellence Technologies Mobile

Dev Logical Test

22 JAN 2020

READ INSTRUCTION submit
code via github.com.

Make sure your code is formatted and readable

Attempt all questions in javascript. **Make sure to attempt all questions.**

Question 1

Define an array of numbers (use any random numbers). Write a program to print only the even numbers of the array. Do not use any library functions, need to do via for loops only.

ANSWER

```
function getEvenNumbers() {
    for (var a=[],i=0;i<40;++i) a[i]=i;

function shuffle(array) {
    var tmp, current, top = array.length;
    if(top) while(--top) {
        current = Math.floor(Math.random() * (top + 1));
        tmp = array[current];
        array[current] = array[top];
        array[top] = tmp;
    }
    return array;
}

a = shuffle(a);

    for (var i = 0; i < a.length; i++) {
        if (a[i] % 2 === 0) {
            document.writeln(a[i] + "<br />");
        }
    }
}
```

```
getEvenNumbers();
```

Question 2

Find the maximum consecutive 1's in an array of 0's and 1's.

Example:

a) 001100010011110 - Output :3 [Max num of consecutive 1's is 3]

b) 1000010001 - Output :1 [Max num of consecutive 1's is 1]

Answer

```
var findMaxConsecutiveOnes = function(nums) {  
    var maxCount = 0;  
  
    var count = 0;  
    for (var i in nums) {  
        count = nums[i] === 1 ? count + 1 : 0;  
        if (count > maxCount) {  
            maxCount = count;  
        }  
    }  
  
    return maxCount;  
};
```

Question 3

Suppose you have an array of 101 integers. This array is already sorted and all numbers in this array are consecutive. Each number only occurs once in the array except one number which occurs twice. Write a js code to find the repeated number.

e.g \$arr = array(0,1,2,3,4,5,6,7,7,8,9,10.....);

Answer

```
function find_duplicate_in_array(arr1) {  
    var object = {};  
    var result = [];  
  
    arr1.forEach(function (item) {  
        if(!object[item])  
            object[item] = 0;  
        object[item] += 1;  
    })  
}
```

```

        for (var prop in object) {
            if(object[prop] >= 2) {
                result.push(prop);
            }
        }

        return result;
    }
}

```

```

console.log(find_duplicate_in_array([0,1,2,3,4,5,6,7,7,8,9,10,11,12,13,
14,]));

```

Question 4

Let's see we an api url www.example.com/api/get/1

Write a sample code to call this rest api and display the result.

Answer

```

const request = new XMLHttpRequest();

const url = 'http://localhost:5000/movies';

request.open("GET", url);

request.send();

request.onload = (e) => {
    alert(request.response);
}

```

Question 5

Assume there is a object of this format var

```

obj = {
    "id" : 4, "name" : "abc",
    "id" : 10, "name" : "ab2",
    "id" : 5, "name" : "abc3",
    "id" : 6, "name" : "abc5"
}

```

```
}
```

It can be a dictionary or java object, as per your language of choice. But its key/value pair dictionary simply.

Write a code to sort the object by id

I.e final output should have objected sort by id's

Answer

```
function sortKeys(obj_1) {  
    var key = Object.keys(obj_1)  
    .sort(function order(key1, key2) {  
        if (key1 < key2) return -1;  
        else if (key1 > key2) return +1;  
        else return 0;  
    });  
  
    var temp = {};  
  
    for (var i = 0; i < key.length; i++) {  
        temp[key[i]] = obj_1[key[i]];  
        delete obj_1[key[i]];  
    }  
  
    for (var i = 0; i < key.length; i++) {  
        obj_1[key[i]] = temp[key[i]];  
    }  
    return obj_1;  
}
```