



## Hello!

We are happy to ask you to make a test task for us.

Your code solution, please upload it to your GitHub in the public repository and link to it.

Please do the assignment yourself and read the terms and conditions carefully:

- **use only pure JS for execution, without libraries or frameworks.**
- create a separate JS file for each task;
- tasks must satisfy the test cases from the test task itself;
- all tasks must be implemented using our test cases;
- all code could be written in **strict mode**.

**Important!** When you run each individual file, the job is considered a success if the call to the individual file outputs the results of your function to the console.

Use our examples when logging, please!

We did our best so that the test task would not take you much time.

We are waiting for your answer within 3 days.

If you have additional questions, we will be happy to answer them in a reply.

In case of a positive answer for your candidacy, we will contact you within 3 business days.

## Practical task:

1. Create a function that will accumulate in itself and log the result of performing calculations that depend on the current accumulated value, as well as the new number and operator that were passed to the function.

### Example:

```
calc(5, "+"); // 5
calc(2, "*"); // 10
calc(3, "-"); // 7
calc(2, "*"); // 14
calc(7, "/"); // 2
```

2. Write a function that replaces all ones with zeros and vice versa for the object

### Example:

```
const d = {
  left: {
    left: {
      left: 1,
      right: {
```

```

        left: 0,
        right: 1,
      },
    },
    right: {
      left: 0,
      right: 1,
    },
  },
  right: 1,
}

```

```

foo(d)
console.log(d)
/*
{
  left: {
    left: {
      left: 0,
      right: {
        left: 1,
        right: 0,
      },
    },
    right: {
      left: 1,
      right: 0,
    },
  },
  right: 0,
}
*/

```

**3.** Make a function that takes a number  $n$ , and returns a two-dimensional array with length  $n \times n$ , with 2 on the diagonal and 1 on the top and bottom of the resulting segment

**Examples:**

```

console.log(bar(5))
/*[
  [2,1,1,1,2],
  [0,2,1,2,0],
  [0,0,2,0,0],
  [0,2,1,2,0],
  [2,1,1,1,2],
]
*/

```

```

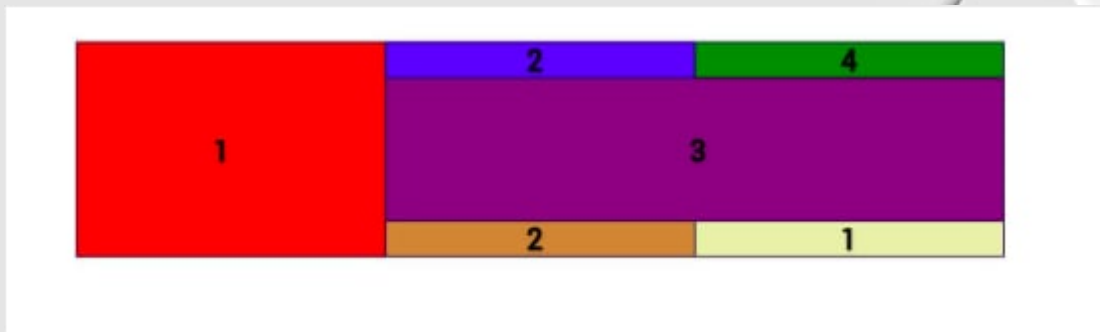
console.log(bar(4))
/*[
[2,1,1,2],
[0,2,2,0],
[0,2,2,0],
[2,1,1,2],
]
*/

```

4. Create a similar element, when you click on any of the blocks it should change its color. Also each element should display the amount of times it has been clicked on it.

#### IMPORTANT

Imagine that your DOM has only a body node in it. All elements should be added from your js file.



5. Implement a class Worker (Worker), which will have the following properties: **name**, **surname**, **rate** (rate per day of work), **days** (number of days worked). The class must also have a **getSalary()** method that will display the employee's salary. The salary is the multiplication of the rate by the number of days worked. All its properties are **private**, and make getter methods to read them. For the **rate** property and for the **days** property, also make setter methods.

#### Example:

```
const worker = new Worker('Ivan', 'Ivanov', 10, 31);
```

```
console.log(worker.getRate()); //outputs 10
```

```
console.log(worker.getDays()); //outputs 31
```

```
console.log(worker.getSalary()); //outputs 310 - what equal 10*31
```

```
// Now let's use setters:
```

```
worker.setRate(20); // let's increase rate
```

```
worker.setDays(10); // let's decrease days
```

```
console.log(worker.getSalary()); //outputs 200 - what equal 20*10
```

**Good luck!)**

