

Instruction for first graded exercise on OO JS

You will have **45** minutes to write code that will pass all **10** provided tests.
File in which all test are written is called **functions.test.js**.
The code for test is hashed, so You will not understand it's details.

How to create environment and run tests?

Those steps have been shown on 3th lesson of OOJS assignment.

Create empty folder.

Download provided **functions.test.js** file inside empty folder.

Install *jest* library in created folder running this command in terminal:

```
npm install --save-dev jest
```

append the

```
"scripts": {  
  "test": "jest"  
}
```

to the file *package.json* in folder where *jest* was installed.

To check if env is properly created run command:

```
npm run test
```

It should return information that test have been runned. In example:

A terminal window with a dark background and light-colored text. The prompt is '\$ npm run test'. The output shows 'Debugger attached.' followed by '> test' and '> jest'. Another 'Debugger attached.' message appears. The test result is 'PASS ./functions.obs.test.js' with a green checkmark icon. Below this, it says 'sum test (6 ms)'. A summary of test results follows: 'Test Suites: 1 passed, 1 total', 'Tests: 1 passed, 1 total', 'Snapshots: 0 total', and 'Time: 0.675 s, estimated 1 s'. The final line is 'Ran all test suites.'

```
$ npm run test  
Debugger attached.  
> test  
> jest  
Debugger attached.  
PASS ./functions.obs.test.js  
  ✓ sum test (6 ms)  
  
Test Suites: 1 passed, 1 total  
Tests: 1 passed, 1 total  
Snapshots: 0 total  
Time: 0.675 s, estimated 1 s  
Ran all test suites.
```

Figure 1: Example run

Assignment

You have to create a file called **functions.js** and in this file create and export all functions that are need by the test file **functions.test.js** (downloaded from

Assignment in MSTEams).

Both of those files have to be inside same folder, Jest and NPM force this.

This is the link to the Jest documentation. You can use it while working on code.

PLAGIARISM IS STRICTLY FORBIDDEN WILL BE TREATED AS FAILURE WITH NO POSSIBILITY TO ATTEND AT ANY RESIT FOR ALL INVOLVED .

1 test

Create function named `getEvenNumbers` which will get two parameters as range, and return a integer of even numbers for provided range.

2 test

Create function named `getOccurencesOfChar` which will get two parameters, and return a number of occurrences of given character inside a provided str.

3 test

Create function named `moveVector` which will get three parameters, x coordinate, y coordinate and scalar, and return object `{x:value, y:value}` that contain value of moved vector positions x and y by given scalar.

4 test

Create function named `arrayFunction` which will get one parameter and return a function.

If parameter passed to the function is even this function will return another function that will return a string *Is even*.

if parameter is odd the function will return a function that will return a string *Not even*

5 test

Create function named `switchFunction` which will get one parameter.

If parameter type is *string* this function will return `'str'`

If parameter type is *number* this function will return `'numb'`

If parameter type is *boolean* this function will return `'bool'`

in any other case this function will return `'undefined'`

6 test

In `switchFunction` add code that: If parameter type is *function* this function will call a function and return it's return value

7 test

Create function named **fibonacci** which will get one parameter, and return a fibonacci number of given parameter.

8 test

Create function named **factorialize** which will get one parameter, and return a factor of that number.

9 test

Create function named **returnPowerOf** which will get one parameter, and return a power of given parameter.

10 test

Create function named **convertFtoC** which will get one parameter, temperature given in Fahrenheit scale, and return a converted value of this temperature from Fahrenheit to Celsius scale.