

### Task 1. FDS

Create function **conc** which should concatenate two parameters **a** and **b** and return concatenating string using Function Declaration Statement (FDS). Call this function before its declaration.

Test Data:

a = "1", b = "1", result = "11"

a = 1, b = 1, result = "11"

### Task 2. FDE

Create function **comp** which should compare two parameters a and b and return 1 if a equal b and -1 if a not equal b using Function Definition Expression (FDE). Call this function before its declaration.

Test Data:

a = "abc", b = "abc", result = 1

a = "abC", b = "abc", result = -1

### Task 3. AF

Create anonymous function which should log message "message in console" to the console and use it as a click handler for button.

### Task 4. NFE

Create function fibo to calculate fibonacci numbers using named function expression

### Task 5. IIFE

Make the function **conc** immediately-invoked function expression

### Task 6. Arguments Object

Create function **parts** which takes several parameters. Each parameter is a group of sentences. This function should extract the substring from the sign ":"(colon) to the sign "."(period) of each parameter and return the array of this substrings

Use Function Definition Expression.

Test Data:

param1 = "This is the first sentence. This is a sentence with a list of items: cherries, oranges, apples, bananas."

param2 = "This is the second sentence. This is a sentence with a list of items: red, blue, yellow, black."

result = ["cherries, oranges, apples, bananas", "red, blue, yellow, black"]

## Task 7a. Optional Arguments

Create function `find(testString, test)` which should return the position of test string in testString. If you omit the second parameter use `test = testString`. Use Function Definition Expression.

Test Data:

`testString = "abc", test = "b", result = 1`

`testString = "abc", result = 0`

`testString = "abc", test = "d", result = -1`

`testString = "abc", test="a", test2="b", result = 0`

## Task 8. Function as an Object

Create the function `str` which takes one parameter and `alert("String is non empty")` if string is non empty and `alert("String is empty")` otherwise. Use following function to check this condition.

Create the function `isNonEmptyStr` as a property of function `str`. This function takes one parameter and returns true if its parameter is `NonEmptyStr`.

Test Data:

`str.isNonEmptyStr(), result = false`

`str.isNonEmptyStr(""), result = false`

`str.isNonEmptyStr("a"), result = true`

`str.isNonEmptyStr(1), result = false`

`str(), alert("String is empty")`

`str("a"), alert("String is non empty")`

## Task 9. Function as a Parameter

Create the function `toConsole` with one parameter, which displays the value of its parameter in `console.log`

Create the function `toAlert` with one parameter, which displays the value of its parameter using `alert()`

Create the function `splitToWords` with two parameters: `msg` and `callback`. This function splits `msg` into words and uses `callback` to display words in console or by `alert`. If the second parameter is omitted, function returns the array of words.

Test Data:

`splitToWords("My very long text msg", toConsole);`

result

My

very

long

text

msg

`splitToWords("My very long text msg", toAlert);`

result = `alert(My)`, ....

`console.log( splitToWords("My very long text msg") );`

result = `["My", "very", "long", "text", "msg"]`

### Task 10. Function as a Result

Create function copyright which returns another function with one parameter. Returned function adds sign © (“\u00A9”) at the beginning of its parameter. Declare copyright sign in outer function.

Test Data

```
console.log( copyright()("EPAM") ); result = © EPAM.
```

### Task 11. Function as a Method

Create object literal Employee with the following properties: name: “Ann”, work – function which display message "I am "+ this.name +". I am working..." in console.log.

Test Data

```
Employee.work() result in console "I am Ann. I am working..."
```