# **Lab: Advanced Functions**

### 1. Add

Write a program that keeps a number **inside its context** and **returns** new function that **adds** a **given** number to the previous one.

### Input

Check the **examples below** to see how your code will be executed.

### **Output**

Your function should return the final result.

### **Examples**

Sample Input	Output
<pre>let add5 = solution(5);</pre>	7
<pre>console.log(add5(2));</pre>	8
<pre>console.log(add5(3));</pre>	
<pre>let add7 = solution(7);</pre>	9
<pre>console.log(add7(2));</pre>	10
<pre>console.log(add7(3));</pre>	

#### What to submit?

Function Signature: function main(value)

# 2. Currency Format

Write a higher-order function that fixes some of the parameters of another function. Your program will receive a function that **takes 4 parameters** and **returns a formatted string** (a monetary value with currency symbol).

Your task is to return another function that only takes one parameter and returns the same formatted string.

You will receive the following function:

```
function currencyFormatter(separator, symbol, symbolFirst, value) {
  let result = Math.trunc(value) + separator;
  result += value.toFixed(2).substr(-2,2);
  if (symbolFirst) return symbol + ' ' + result;
  else return result + ' ' + symbol;
}
```



Set the following parameters to fixed values:

separator: ","
symbol: "\$"
symbolFirst: tr

symbolFirst: true

The final parameter **value** is the one that the returned function will receive.

#### Input

You will receive a function parameter

### **Output**

You need to return a function that takes one parameter - value

## **Examples**

```
Sample Input

let dollarFormatter = result(currencyFormatter);
console.log(dollarFormatter(5345)); // $ 5345,00
console.log(dollarFormatter(3.1429)); // $ 3,14
console.log(dollarFormatter(2.709)); // $ 2,71
```

### What to submit?

Function Signature: function main(currencyFormatter)

# 3. Filter Employees

Write a program that filters the employees of your company. You should print the result in a specific format. You will receive **2** parameters (**data**, **criteria**). You should **parse** the input, find all employees that fullfil the citeria and print them.

### Input

You will receive a **string** with all the employees, and a **criteria** by witch you should sort the employees. If the criteria is **"all"** print all the employees in the given format.

### **Output**

The output should be the **printed** on the console.

For more information check the examples.



## **Examples**

```
Sample Input
                                                                  Output
}]`
                                              0. Ardine Bassam - abassam0@cnn.com
    "id": "1",
                                              1. Kizzee Jost - kjost1@forbes.com
    "first_name": "Ardine",
    "last_name": "Bassam",
    "email": "abassam0@cnn.com",
    "gender": "Female"
  }, {
    "id": "2",
    "first_name": "Kizzee",
    "last_name": "Jost",
    "email": "kjost1@forbes.com",
    "gender": "Female"
  },
{
    "id": "3",
    "first_name": "Evanne",
    "last_name": "Maldin",
    "email": "emaldin2@hostgator.com",
    "gender": "Male"
  }]`,
'gender-Female'
}]`
                                              0. Kaylee Johnson - k0@cnn.com
    "id": "1",
                                              1. Kizzee Johnson - kjost1@forbes.com
    "first_name": "Kaylee",
                                              2. Evanne Johnson - ev2@hostgator.com
    "last_name": "Johnson",
    "email": "k0@cnn.com",
    "gender": "Female"
  }, {
    "id": "2",
    "first_name": "Kizzee",
    "last_name": "Johnson",
    "email": "kjost1@forbes.com",
    "gender": "Female"
```



```
"id": "3",

"first_name": "Evanne",

"last_name": "Maldin",

"email": "emaldin2@hostgator.com",

"gender": "Male"

}, {

"id": "4",

"first_name": "Evanne",

"last_name": "Johnson",

"email": "ev2@hostgator.com",

"gender": "Male"

}]`,

'last_name-Johnson'
```

#### What to submit?

Function Signature: function main(employeesm criteria)

## 4. Command Processor

Write a program that keeps a string **inside its context** and can execute different **commands** that modify or print the string on the console.

append(string) - append the given string at the end of the internal string

removeStart(n) - remove the first n characters from the string, n is an integer

removeEnd(n) - remove the last n characters from the string, n is an integer

print - print the stored string on the console

#### Input

Check the examples below to see how your code will be executed.

### **Output**

Whenever you receive the command **print**, the output should be the **printed** on the console.

# **Examples**

Sample Input	Output
<pre>let firstZeroTest = solution();</pre>	loa



<pre>firstZeroTest.append('hello');</pre>	
<pre>firstZeroTest.append('again');</pre>	
<pre>firstZeroTest.removeStart(3);</pre>	
<pre>firstZeroTest.removeEnd(4);</pre>	
firstZeroTest.print()	
<pre>let secondZeroTest = solution();</pre>	34
<pre>secondZeroTest.append('123');</pre>	
secondZeroTest.append('45');	
<pre>secondZeroTest.append('45'); secondZeroTest.removeStart(2);</pre>	
<pre>secondZeroTest.removeStart(2);</pre>	

## What to submit?

Function Signature: function main()