# Solutioms-Lab: Advanced Functions

## 1.Aggregates

function aggregate(numbers){

let sum = numbers.reduce((a, b) => a + b);

let min = numbers.reduce((a, b) => Math.min(a, b));

let max = numbers.reduce((a,b) => Math.max(a, b));

let product = numbers.reduce((a, b) => a \* b);

let joined = numbers.reduce((a, b) => '' + a + b);

let resultString = `Sum = ${sum}\nMin= ${min}\nMax = ${max}\nProduct = ${product}\nJoin = ${joined}`;

console.log(resultString);

}

aggregate([2, 3, 10, 5])

aggregate([5, -3, 20, 7, 0.5])

## 2.Currency Format

function getCurrencyFormatterAndMakeDollarFormatter(currencyFormatter){

function makeDollarFormatter(value){

return currencyFormatter(',', '$', true, value);

};

return makeDollarFormatter;

}

let dollarFormatter = getCurrencyFormatterAndMakeDollarFormatter(currencyFormatter);

console.log(getCurrencyFormatterAndMakeDollarFormatter(currencyFormatter)(789));

console.log(dollarFormatter(8907))

console.log(dollarFormatter(11.8919))

console.log(dollarFormatter(1.978))

console.log(dollarFormatter(-9))

console.log(dollarFormatter(1/4))

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;

}

## 3.Command Processor

function manipulateString(inputArray){

let closure = (function () {

let outputString = '';

return {

append: (str) => outputString += str,

removeStart: (n) => outputString = outputString.substring(n),

removeEnd: (n) => outputString = outputString.substring(0, outputString.length - n),

print: () => console.log(outputString)

}

})();

for(let inputRow of inputArray){

let [command, value] = inputRow.split(' ');

closure[command](value);

}

}

manipulateString(['append hello', 'append again', 'removeStart 3', 'removeEnd 4', 'print'])

manipulateString(['append 123', 'append 45', 'removeStart 2', 'removeEnd 1', 'print'])

## 4.Max Element

function findMaxElement(numbers){

return Math.max(...numbers)

}

console.log(findMaxElement([10, 20, 5]))

console.log(findMaxElement([1, 44, 123, 33]))

## 5.Next Article

function getArticleGenerator(articles) {

let containerDiv = document.getElementById('content');

return function (){

if(articles.length > 0){

let article = document.createElement('article');

article.textContent = articles.shift();

containerDiv.appendChild(article);

}

}

}

getArticleGenerator([

"Cats are the most popular pet in the United States: There are 88 million pet cats and 74 million dogs.",

"A group of cats is called a clowder.",

"Cats have over 20 muscles that control their ears.",

"A cat has been mayor of Talkeetna, Alaska, for 15 years. His name is Stubbs.",

"The world's largest cat measured 48.5 inches long."

]

)

|  |
| --- |
| function getArticleGenerator(articles) { |
|  | let container = $('div#content'); |
|  |  |
|  | return function () { |
|  | if (articles.length > 0) { |
|  | container.append($('<article>') |
|  | .text(articles.shift())); |
|  | } |
|  | } |
|  | } |