JS Assignment 1

1. Write a function that takes a string which has lower and upper case letters as a parameter and converts upper case letters to lowercase, and lowercase letters to uppercase. (using String library).

function one(str) {

strArray = str.split('')

result = strArray.map(function(value) {

if(value.toUpperCase()==value) {

return value.toLowerCase();

}

else {

return value.toUpperCase();

}

})

console.log(result.join(""));

}

one("HeLlooOo");

1. Implement a function sumOfSquares that takes an array of numbers as input and returns the sum of squares of all the numbers in the array using functional programming techniques.

function two(arr) {

initial = 0;

function sumSquares(total, current) {

return total+(current\*current);

}

result = arr.reduce(sumSquares, initial);

console.log(result);

}

two([1,2,3])

1. Write a function called countVowels that takes a string as input and returns the count of vowels (case-insensitive) present in the input string.

function three(str) {

arr = str.split('');

initial = 0;

function checkVowel(total, current) {

if(current.match(/[aeiou]/i)) {

return total+1

}

return total;

}

result = arr.reduce(checkVowel, initial);

console.log(result);

}

three("HeLlooOo")

1. Write a regex pattern to extract all valid email addresses from the text.  
   "Contact us at: john@example.com, mary@gmail.com, and info@example."

function four(str) {

result = str.match(/[a-zA-Z1-9\_]+[@][a-zA-Z]+.com/g)

console.log(result);

return result;

}

1. Predict the output for each of the console.log statements (Output: ???)
2. undefined
3. 10
4. undefined
5. 30 (but won't get executed as code breaks before getting there)