Javascript
Lab 2

1- Create a function called ‘capitalizeWords’ that takes a string and returns the string with the first letter of each word capitalized.

2- Create a function called ‘mergeSortedArrays’ that takes two sorted arrays and returns a single sorted array by merging them.

([1, 3, 5], [2, 4, 6]) ==> [1, 2, 3, 4, 5, 6]

3- Write a function called ‘sumOfSquares’ that takes an array of numbers and returns the sum of their squares.

Hint : use reduce()

4- Create a function called ‘filterArray’ that takes an array and a callback function. The filterArray function should return a new array that contains only the elements for which the callback function returns true.

Hint : do not use built in methods

5- Create a function called ‘mapArray’ that takes an array and a callback function. The mapArray function should return a new array where each element is the result of the callback function applied to the corresponding element of the input array.

Hint : do not use built in methods

6- Create a function called ‘reduceArray’ that takes an array, a callback function, and an initial value. The reduceArray function should return a single value that is the result of applying the callback function to each element of the array, using the initial value as the starting point.

Hint : do not use built in methods

7- Create a function called forEachArray that takes an array and a callback function. The forEachArray function should apply the callback function to each element of the array.

Hint : do not use built in methods

8- Write a function called findMax that takes an array of numbers and returns the maximum number in the array.

Hint : use Math.max()

9- Write a function called mergeObjects that takes two objects and returns a new object that combines the properties of both. If a property exists in both objects, the value from the second object should be used.

10- Write a function called invertObject that takes an object and returns a new object where the keys and values are swapped.

{ a: 1, b: 2, c: 3 } ==> { 1: 'a', 2: 'b', 3: 'c' }

11- Write a function called omitKeys that takes an object and an array of keys, and returns a new object that omits the specified keys.

{ a: 1, b: 2, c: 3, d: 4 } ==> omit (b , d) ====> { a: 1, c: 3 }

12- Write a function called pickKeys that takes an object and an array of keys, and returns a new object that includes only the specified keys.

{ a: 1, b: 2, c: 3, d: 4 } ==> omit (b , d) ====> { b: 2, d: 4 }

13- Write a function called reverseArray that takes an array and returns a new array with the elements in reverse order.

14- Write a function called countOccurrences that takes an array and a value, and returns the number of times the value appears in the array.