***Assignment 25***

**1. Count the occurrences.**

function countWords(str) {

const words = str.split(" ");

const map = new Map();

for (let word of words) {

if (map.has(word)) {

map.set(word, map.get(word) + 1);

} else {

map.set(word, 1);

}

}

return map;

}

const text = "The quick brown fox jumps over the lazy dog";

console.log(countWords(text));

// Output: Map(9) { 'The' => 1, 'quick' => 1, 'brown' => 1, 'fox' => 1, 'jumps' => 1, 'over' => 1, 'the' => 1, 'lazy' => 1, 'dog' => 1 }

**2. Only unique items are allowed.**

function removeDuplicates(arr) {

return [...new Set(arr)];

}

const numbers = [1, 2, 3, 4, 4, 5, 5];

console.log(removeDuplicates(numbers));

// Output: [1, 2, 3, 4, 5]

**3. Swap the values.**

function swapValues(x, y) {

[x, y] = [y, x];

return [x, y];

}

let a = 5;

let b = 10;

[a, b] = swapValues(a, b);

console.log(a, b);

// Output: 10 5

**4. Access random elements.**

function extractElements(arr) {

const [first, second, ...rest] = arr;

const last = rest.pop();

return [first, second, last];

}

const numbers = [1, 2, 3, 4, 5];

console.log(extractElements(numbers));

// Output: [1, 2, 5]

**5. Min and max values.**

function findMinMax(arr) {

const max = Math.max(...arr);

const min = Math.min(...arr);

return { max, min };

}

const numbers = [5, 2, 7, 1, 9];

console.log(findMinMax(numbers));

// Output: { max: 9, min: 1 }

**6. Nested Objects.**

function extractNameAndStreet(person) {

const { name, address: { street } } = person;

return { name, street };

}

const person = {

name: "Mithun",

age: 21,

address: {

street: "88, Block B, Industrial Area.",

city: "Sector 62, Noida",

state: "Uttar Pradesh",

},

};

console.log(extractNameAndStreet(person));

// Output: { name: 'Mithun', street: '88, Block B, Industrial Area.' }