**UNIVERSITY OF GHANA**

**DCIT 202**

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**ASSIGNMENT 1**

**TASK 1**

**// arrayManipulation.js**

**function processArray(arr) {**

**return arr.map(num => {**

**if (num % 2 === 0) {**

**return num \* num;**

**} else {**

**return num \* 3;**

**}**

**});**

**}**

**// Example usage:**

**const inputArray = [1, 2, 3, 4, 5];**

**const resultArray = processArray(inputArray);**

**console.log(resultArray); // Output: [3, 4, 9, 16, 15]**

**TASK 2**

**// arrayManipulation.js**

**// Function to process the array of numbers**

**function processArray(arr) {**

**return arr.map(num => {**

**if (num % 2 === 0) {**

**return num \* num;**

**} else {**

**return num \* 3;**

**}**

**});**

**}**

**// Function to format the array of strings based on the processed numbers**

**function formatArrayStrings(strings, numbers) {**

**if (strings.length !== numbers.length) {**

**throw new Error('The lengths of the two arrays must be equal.');**

**}**

**return strings.map((str, index) => {**

**if (numbers[index] % 2 === 0) {**

**return str.toUpperCase();**

**} else {**

**return str.toLowerCase();**

**}**

**});**

**}**

**// Example usage:**

**const inputNumbers = [1, 2, 3, 4, 5];**

**const processedNumbers = processArray(inputNumbers);**

**console.log(processedNumbers); // Output: [3, 4, 9, 16, 15]**

**const inputStrings = ["hello", "world", "foo", "bar", "baz"];**

**const formattedStrings = formatArrayStrings(inputStrings, processedNumbers);**

**console.log(formattedStrings); // Output: ["hello", "WORLD", "foo", "BAR", "baz"]**

TASK 3

// userInfo.js

// Function to create user profiles

function createUserProfiles(originalNames, modifiedNames) {

if (originalNames.length !== modifiedNames.length) {

throw new Error('The lengths of the two arrays must be equal.');

}

return originalNames.map((name, index) => {

return {

id: index + 1,

originalName: name,

modifiedName: modifiedNames[index]

};

});

}

// Example usage:

const originalNames = ["hello", "world", "foo", "bar", "baz"];

const modifiedNames = ["hello", "WORLD", "foo", "BAR", "baz"];

const userProfiles = createUserProfiles(originalNames, modifiedNames);

console.log(userProfiles);

// Output:

// [

// { id: 1, originalName: "hello", modifiedName: "hello" },

// { id: 2, originalName: "world", modifiedName: "WORLD" },

// { id: 3, originalName: "foo", modifiedName: "foo" },

// { id: 4, originalName: "bar", modifiedName: "BAR" },

// { id: 5, originalName: "baz", modifiedName: "baz" }

// ]