ENSF381 – Lab05

**Section:** L03

**Date:** 2024-02-14

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| Created by: | | |
| First name | Last name | UCID |
| Hongwoo | Yoon | 30113779 |
| Steve(Hyunmyung) | Park | 30067689 |

# 2.4.1

https://github.com/dbsghddn21/Lab5

# 2.4.2

스크린샷, 텍스트, 소프트웨어, 멀티미디어 소프트웨어이(가) 표시된 사진

자동 생성된 설명

# 3.5.1

텍스트, 스크린샷, 소프트웨어, 멀티미디어 소프트웨어이(가) 표시된 사진

자동 생성된 설명

# 4.4.2

텍스트, 스크린샷, 폰트, 편지이(가) 표시된 사진

자동 생성된 설명

# 5.3.2

[Place for your answer]

A screenshot of a computer

Description automatically generated

# 5.3.3

[Place for your answer]

const showResult2D = (title, containerId, dataArray) => {

    let result = document.getElementById(containerId);

    document.getElementById(containerId).innerHTML = ''; // Clear previous content

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

    if (dataArray.length === 0) {

        console.error('Data array is empty');

        return;

    }

    let n = dataArray.length;

    let m = dataArray[0].length;

    //data array is a 3D array

    for (let i = 0; i < n; i++) {

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

        for (let j = 0; j < m; j++) {

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

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

            span.innerHTML = dataArray[i][j];

            td.appendChild(span);

            tr.appendChild(td);

        }

        table.appendChild(tr);

    }

    let caption = table.createCaption();

    caption.textContent = title;

    result.appendChild(table);

    // dataArray is a 2D array

    // complete this function based on the showResult function

}

function addMatrices(matrix1, matrix2){

    // provide the code

    let result = [];

    if (matrix1.length !== matrix2.length || matrix1[0].length !== matrix2[0].length) {

        console.error('Matrices are not of the same size');

        return null;

    }

    for (let i =0; i< matrix1.length; i++){

        let row = [];

        for (let j = 0; j < matrix1[i].length; j++){

            row.push(matrix1[i][j] + matrix2[i][j]);

        }

        result.push(row);

    }

    return result;

}

const subtractMatrices = function (matrix1, matrix2) {

    // provide the code

    let result = [];

    if (matrix1.length !== matrix2.length || matrix1[0].length !== matrix2[0].length) {

        console.error('Matrices are not of the same size');

        return null;

    }

    for (let i =0; i< matrix1.length; i++){

        let row = [];

        for (let j = 0; j < matrix1[i].length; j++){

            row.push(matrix1[i][j] - matrix2[i][j]);

        }

        result.push(row);

    }

    return result;

};

const multiplyMatrices = (matrix1, matrix2) => {

    // provide the code

    let result = [];

    if (matrix1[0].length !== matrix2.length) {

        console.error('Matrices are not of the correct size');

        return null;

    }

    if (matrix2[0].length !== matrix1.length) {

        console.error('Matrices are not of the correct size');

        return null;

    }

    for (let i = 0; i < matrix1.length; i++) {

        let row = [];

        for (let j = 0; j < matrix2[0].length; j++) {

            let sum = 0;

            for (let k = 0; k < matrix1[0].length; k++) {

                sum += matrix1[i][k] \* matrix2[k][j];

            }

            row.push(sum);

        }

        result.push(row);

    }

    return result;

};