

## **Task#1:**

You are tasked with implementing a dynamic matrix class in C++ that supports the following operations:

Dynamic Matrix Creation: Create a dynamic 2D array (matrix) with rows and columns specified by the user.

Matrix Resizing: Implement a method to resize the matrix. The new size should be provided as input (new rows and columns). If the new size is larger, initialize the new elements with a given value. If the new size is smaller, truncate the matrix.

Matrix Transposition: Implement a method to transpose the matrix (rows become columns and vice versa).

Matrix Printing: Implement a method to print the matrix. After add 2 to each odd index then print the array. Memory Deallocation: Ensure proper memory management, including deallocation of the dynamic matrix when no longer needed.

## **Task#2:**

A university is managing the marks of students in multiple subjects. Each department has a different number of students. Each student has marks for a fixed number of 5 subjects.

You need to store this data in an appropriate dynamic array where rows = number of departments and columns = number of students in each department. Then, calculate the highest, lowest and average marks of each department and display them.

Note: Submit the code and output window ss in word file before due time.