

## Practice Task 3

### Matrix Multiplication:

Write a matrix multiplication program. Matrices' dimensions and values are taken as an input. Multiply the two matrices together then print the result. You need to implement this program in two modes. First mode reads the input from the console, and the second one reads the input from a file.

**Note: Must use dynamic allocation.**

- Example:

Welcome to vector Matrix multiplication program!

To read dimensions and values from file press 1

To read dimensions and values from console press 2

2

Please enter dimensions of the first matrix: 3 2

Please enter its elements:

1 2

5 8

1 5

Please enter dimensions of the second matrix: 2 2

Please enter its elements:

6 8

10 30

Result Matrix is (3x2):

26 68 110

180 56 158

**You will develop a parallel program of "The matrix Multiplication".**

- ✓ Use scatter and gather.
- ✓ Handle there remainder through send and receive.
- ✓ Matrix input can be taken from file or console.
- ✓ Check if the two matrices can be multiplied.