

Matrix Multiplication

Challenge :

Problem: Write a program to perform matrix multiplication. Your program should dynamically allocate two matrices of size $M \times N$ and $N \times P$ and compute their product. The product of an $M \times N$ matrix with an $N \times P$ matrix results in an $M \times P$ matrix. You must return the result of the multiplication in a dynamically allocated matrix.

Input:

- The first line contains two integers, M and N , representing the number of rows and columns in the first matrix.
- The next M lines contain N integers each, representing the elements of the first matrix.
- The line after that contains two integers, N and P , representing the number of rows and columns in the second matrix (notice that the number of rows in the second matrix equals the number of columns in the first matrix).
- The next N lines contain P integers each, representing the elements of the second matrix.

Output:

- Output the $M \times P$ matrix resulting from the matrix multiplication. Each line should contain P integers separated by spaces.

Constraints:

- $1 \leq M, N, P \leq 100$
- Matrix elements are integers and can be negative.

Example :

Input:

```
2 2
1 2
3 4
2 1
1
2
```

Output:

```
5
11
```