

Final Exam

Date/Time: 2024.06.18 08:10 – 09:00

(程式檔命名學號_final.py，上傳至 Moodle Final 上傳區)

Problem: Matrix Multiplication

[上機寫程式部分]

Write a Python program that allow users to input two $n \times n$ square matrices (方陣) U and V in the format of **list** (rows separated by **|**, elements separated by **,**). Then compute the resulting matrix M for the matrix multiplication: $M = U \times V$. **Your code must use dictionary and functions.** Your program needs to be able to have the following **sample input/output**. (25%)

Sample Input/Output

(以下是你程式執行後須印出的結果)

Example 1	Example 2
Enter matrix U: 1,2 3,4 Enter matrix V: 2,3 4,1 M = U x V [10, 5] [22, 13]	Enter matrix U: 1,0,1 0,1,1 1,1,0 Enter matrix V: -1,1,0 1,0,-1 0,-1,1 M = U x V [-1, 0, 1] [1, -1, 0] [0, 1, -1]

(繳交是交 final.py 檔，不是交截圖)

Need to write comments in your code.