Homework #4

In this homework, you need to write an ARM assembly program for matrix computation. The program is expected to execute on GDB ARM emulator for the verification.

Write an ARM assembly program to do the matrix computation.

- A is a 2x3 matrix and B is a 3x2 matrix
- C and D are 2x2 matrix
- $C = D + A \times B$
- Figure 1 shows the layout of C
- Each element in A, B, C, and D is a word-sized integer
- Write a ARM assembly program to compute C
- The integer values of A, B, and D are assigned by yourself
- The overflow/underflow problem is not considered during the computation
- After computation, register r1 will point to the address of C's first element
- 請勿繳交【利用編譯器所自動產生的組合語言程式】
- 請勿抄襲

You need to turn in the following files to **Ecouse system** (http://ecourse.ccu.edu.tw/):

1. "README.txt" file describes the features in your program and how to compile and run your program.
2. Your ARM assembly program, named hw4.s, with proper comments.
3. Executable code: hw4.exe
4. Makefile
5. Any other files are required in your implementation.

Due Data: November 20 (Monday), 24:00, 2017

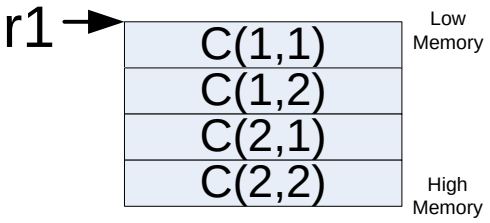

Figure 1: Layout of matrix C