Homework #2 (1)

- Write an ARM assembly program that sums up the content of register r1, r2, r3, and r4, and puts the result at register r0.
  - r0 = r1 + r2 + r3 + r4
- The initial values of r1, r2, r3, and r4 are assigned by yourself.

Template

```
/* ============================ */
/*         TEXT section         */
/* ============================ */
        .section .text
        .global main
        .type main,%function
main:
        mov   r1, #10          /* r1 = 10 */

        Your codes

        nop
        .end
```

- 一開始指定給r1, r2, r3,r4的數值
- 助教批改作業時, 可能會測試不同的數值
- 因為編碼的緣故，不是每個數都能表示，請直接在GUI上修改register的值

- #num : 表示10進位數字
- #0xnum : 表示16進位數字
- #0bnum: 表示2進位數字
- #0num: 表示8進位數字

Template

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/*        TEXT section          */
/* ============================ */
        .section .text
        .global main
        .type main,%function
main:
        mov   r1, #10           /* r1 = 10 */

        Your codes

        nop
        .end
```

執行到nop時，r0的值為答案。

Homework #2 (2)

- How to compile:

```
$ arm-none-eabi-gcc -g -O0 hw2.s -o \
hw2.exe
```

- How to execute
  - arm-none-eabi-insight

Homework #2 (3)

- Program should be assembled and linked by GNU cross toolchain.
- Program can be executed under **GDB ARM simulator**
- 程式中應有適當的說明（註解）
- You should turn in to **ECOURSE**
  - "**README.txt**" file: 文字檔，描述你程式的內容、如何編譯程式、程式的執行環境、如何執行你的程式
  - "**hw2.s**": Your ARM assembly program
  - "**hw2.exe**": 編譯好的執行檔
- **Deadline: October 24 (Wednesday), 2018, 24:00**