

학번: 201704150 / 이름: 허강준

과제 1

Lab 2-1.s

;학번: 201704150 ; 이름: 허강준

```
LDR R0, =0x5           ;R0 = 0x5
LDR R1, =25            ;R1 = 25
LDR R3, =2             ;R3 = 2
ADD R1, R0, R1          ;R4 = R0 + R1
MOV R5, R4, LSR R3      ;R5 = R4 >> R3
```

B . ;Exec Done, Wait Forever

실행결과

| | |
|-----------|------------|
| Core | |
| R0 | 0x00000005 |
| R1 | 0x00000019 |
| R2 | 0x00000000 |
| R3 | 0x00000002 |
| R4 | 0x0000001E |
| R5 | 0x00000007 |
| R6 | 0x00000000 |
| R7 | 0x00000000 |
| R8 | 0x00000000 |
| R9 | 0x00000000 |
| R10 | 0x00000000 |
| R11 | 0x00000000 |
| R12 | 0x00000000 |
| R13 (SP) | 0x20000200 |
| R14 (LR) | 0xFFFFFFFF |
| R15 (PC) | 0x000000DA |
| xPSR | 0x01000000 |
| Banked | |
| System | |
| Internal | |
| Mode | Thread |
| Privilege | Privileged |
| Stack | MSP |
| States | 31 |
| Sec | 0,00000258 |

과제 2

Lab 2-2.s

```

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EOR R0, R0          ; R0 ^= R0 (Used for loop ctr)
EOR R1, R1          ; R1 ^= R1

LOOP_BEGIN          CMP R0, #10          ; Compare R0 with 10
                   BGE LOOP_END          ; Branch to LOOP_END

                   ADD R1, R0            ; Add ctr to R1

                   ADD R0, #1            ; Increase counter
                   B LOOP_BEGIN          ; Loop again

LOOP_END            B .                  ;Exec Done, Wait Forever

```

실행결과

| | |
|------------|------------|
| Core | |
| R0 | 0x0000000A |
| R1 | 0x0000002D |
| R2 | 0x00000000 |
| R3 | 0x00000000 |
| R4 | 0x00000000 |
| R5 | 0x00000000 |
| R6 | 0x00000000 |
| R7 | 0x00000000 |
| R8 | 0x00000000 |
| R9 | 0x00000000 |
| R10 | 0x00000000 |
| R11 | 0x00000000 |
| R12 | 0x00000000 |
| R13 (SP) | 0x20000200 |
| R14 (LR) | 0xFFFFFFFF |
| R15 (PC) | 0x000000D4 |
| + xPSR | 0x61000000 |
| + Banked | |
| + System | |
| - Internal | |
| Mode | Thread |
| Privilege | Privileged |
| Stack | MSP |
| States | 112 |
| Sec | 0,00000933 |

과제 3

Lab 2-3.s

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```

MOV    R1, #10    ; R1 = 10
MOV    R2, #7     ; R2 = 7
MOV    R0, #5     ; R0 = 5

MUL    R1, R2     ; R1 *= R2

CMP    R0, #5     ; compare R0 and imm 5
BEQ    PASS_ADD   ; if equals branch to PASS_ADD

ADD    R1, R0     ; R1 += R0
SUB    R1, R2     ; R1 -= R2
        ; These can be ADDNE, SUBNE
        ; Instead of using CMP-BEQ

PASS_ADD    B      .      ; Exec done, wait forever

```

실행결과

| | |
|-----------|------------|
| Core | |
| R0 | 0x00000005 |
| R1 | 0x00000046 |
| R2 | 0x00000007 |
| R3 | 0x00000000 |
| R4 | 0x00000000 |
| R5 | 0x00000000 |
| R6 | 0x00000000 |
| R7 | 0x00000000 |
| R8 | 0x00000000 |
| R9 | 0x00000000 |
| R10 | 0x00000000 |
| R11 | 0x00000000 |
| R12 | 0x00000000 |
| R13 (SP) | 0x20000200 |
| R14 (LR) | 0xFFFFFFFF |
| R15 (PC) | 0x0000000A |
| xPSR | 0x61000000 |
| Banked | |
| System | |
| Internal | |
| Mode | Thread |
| Privilege | Privileged |
| Stack | MSP |
| States | 11 |
| Sec | 0,00000092 |