# Example #33

```
.global main
.data
A: .word 0x20
B: .word 0x30
C: .word 0x40
.text
main:
    push {lr}
    // if (A > 15) then
    //    B = B+1
    // else
    //    C = C+1
    // endif
    ldr  r0, =A
    ldr  r1, [r0]
    cmp  r1, #15
    then:
        ldrgt r2, =B
        ldrgt r3, [r2]
        addgt r3, r3, #1
        strgt r3, [r2]
    else:
        ldrle r2, =C
        ldrle r3, [r2]
        addle r3, r3, #1
        strle r3, [r2]
    endif:
    // Display memory containing A, B and C
    ldr  r0, =A
    mov  r1, #3
    bl display4
    pop  {lr}
    bx  lr
```

<2 lemon:~/Examples > gcc example33.s /user/cse320/lib/memlib.o

<3 lemon:~/Examples > a.out

Memory contents from 00020818 to 00020824
00020818:  00000020
0002081c:  00000031
00020820:  00000040