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#Chuong trinh: switch-case
#-----
#Data segment
    .data
#Cac dinh nghia bien
int_a:    .word    0
int_b:    .word    101
int_c:    .word    2
int_in:    .word    0
#Cac cau nhac nhap du lieu
Nhac_in:  .asciiz   "Nhap input: "
Nhac_kq1: .asciiz   "Case("
Nhac_kq2: .asciiz   "): a = "
Ngan:     .asciiz   "\n-----\n"
#-----
#Code segment
    .text
    .globl    main
#-----
# Chuong trinh chinh
#-----
main:
#Nhap (syscall)
    #Nhap input
        la      $a0,Nhac_in
        addi    $v0,$zero,4
        syscall
        addi    $v0,$zero,5
        syscall
        sw      $v0,int_in
#Xu ly
    # a=0
        sw      $zero,int_a
    # t0=a/kq , t1=input, t2=case_values, t3=b, t4=c
        #lw      $t0,int_a
        lw      $t1,int_in
        lw      $t3,int_b
        lw      $t4,int_c
    #switch (input)
        addi    $t2,$zero,1
        beq     $t1,$t2,case1
        addi    $t2,$zero,2
        beq     $t1,$t2,case2
        addi    $t2,$zero,3
        beq     $t1,$t2,case3
        addi    $t2,$zero,4
        beq     $t1,$t2,case4
        j       default
    #case1: val=1 a=b+c
case1:    add     $t0,$t3,$t4
        sw      $t0,int_a
        j       end_sw    #break
    #case2: val=2 a=b-c
case2:    sub     $t0,$t3,$t4

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        sw    $t0,int_a
        j     end_sw
#case3: val=3 a=b*c
case3:   mul   $t0,$t3,$t4
        sw    $t0,int_a
        j     end_sw
#case4: val=4 a=b/c
case4:   div   $t3,$t4
        mflo  $t0
        sw    $t0,int_a
        j     end_sw
#default:
default: nop
end_sw:
#Xuat ket qua (syscall)
        la    $a0,Nhac_kq1
        addi  $v0,$zero,4
        syscall
        lw    $a0,int_in
        addi  $v0,$zero,1
        syscall
        la    $a0,Nhac_kq2
        addi  $v0,$zero,4
        syscall
        lw    $a0,int_a
        addi  $v0,$zero,1
        syscall
# do-while(1)
lamlai:
        la    $a0,Ngan
        addi  $v0,$zero,4
        syscall
        j     main
#ket thuc chuong trinh (syscall)
Kthuc:   addi  $v0,$zero,10
        syscall
#-----

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