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.eqv KEY\_CODE 0xFFFF0004 # ASCII code from keyboard, 1 byte

.eqv KEY\_READY 0xFFFF0000 # =1 if has a new keycode ?

# Auto clear after lw

.eqv DISPLAY\_CODE 0xFFFF000C # ASCII code to show, 1 byte

.eqv DISPLAY\_READY 0xFFFF0008 # =1 if the display has already to do

# Auto clear after sw

.text

li $k0, KEY\_CODE

li $k1, KEY\_READY

li $s0, DISPLAY\_CODE

li $s1, DISPLAY\_READY

WaitForE:

jal WaitForKey # get entered key in $t0

beq $t0, 0x65, WaitForX # 0x65 is 'e' ASCII, bracnh WaitForX if enter 'e'

b WaitForE # branch WaitForE otherwise

WaitForX:

jal WaitForKey

beq $t0, 0x78, WaitForI # 0x78 is 'x' ASCII, bracnh WaitForX if enter 'x'

b WaitForE # branch WaitForE otherwise

WaitForI:

jal WaitForKey # get entered key in $t0

beq $t0, 0x69, WaitForT # 0x69 is 'i' ASCII, bracnh WaitForT if enter 'i'

beq $t0, 0x8, WaitForX # 0x8 is backspace ASCII, bracnh WaitForX if press backspace

b WaitForE # branch WaitForE otherwise

WaitForT:

jal WaitForKey # get entered key in $t0

beq $t0, 0x74, exit # 0x74 is 't' ASCII, exit if enter 't'

beq $t0, 0x8, WaitForI # 0x8 is backspace ASCII, bracnh WaitForI if press backspace

b WaitForE # branch WaitForE otherwise

#-----------------------------------------------------

# Read input key, store input key in $t0

#-----------------------------------------------------

WaitForKey:

lw $t1, 0($k1) # $t1 = [$k1] = KEY\_READY

nop

beq $t1, $zero, WaitForKey # if $t1 == 0 then Polling

nop

#-----------------------------------------------------

ReadKey:

lw $t0, 0($k0) # $t0 = [$k0] = KEY\_CODE

nop

jr $ra

#-----------------------------------------------------

WaitForDis: lw $t2, 0($s1) # $t2 = [$s1] = DISPLAY\_READY

nop

beq $t2, $zero, WaitForDis # if $t2 == 0 then Polling

nop

#-----------------------------------------------------

Encrypt: addi $t7, $t0, 1 # change input key

#-----------------------------------------------------

ShowKey: sw $t7, 0($s0) # show key

nop

#-----------------------------------------------------

nop

exit:

li $v0, 10

syscall

Kết quả :

