

Correction de l'Examen de module Architecture des Ordinateurs

2020-2021

Exercice 1 (10 pts) :

.data (0.25pt)
m1: .asciiz "Donnez le nombre a SVP:" (0.25pt)
m2: .asciiz "Donnez le nombre b SVP:" (0.25pt)
m3: .asciiz "Donnez le code operation SVP:" (0.25pt)
m4: .asciiz "Le résultat de l'opeartion est:" (0.25pt)
.text (0.25pt)
li \$v0,4
la \$a0, m1 (0.5pt)
syscall

li \$v0, 5
syscall (0.5pt)
move \$t1, \$v0

li \$v0,4
la \$a0, m2 (0.5pt)
syscall

li \$v0, 5
syscall (0.5pt)
move \$t2, \$v0

li \$v0,4
la \$a0, m3 (0.5pt)
syscall

li \$v0, 5
syscall (0.5pt)
move \$t3, \$v0

li \$v0,4
la \$a0, m4 (0.5pt)
syscall

beq \$t3, 1, traitement1 (0.25pt)
b saut1 (0.25pt)

traitement1: (0.25pt)
add \$t5, \$t1, \$t2 (0.25pt)
b fin (0.25pt)

saut1: (0.25pt)
beq \$t3, 2, traitement2 (0.25pt)
b saut2 (0.25pt)

traitement2:	(0.25pt)
sub \$t5, \$t1, \$t2	(0.25pt)
b fin	(0.25pt)
saut2:	(0.25pt)
beq \$t3, 3, traitement3	(0.25pt)
b fin2	(0.25pt)
traitement3:	(0.25pt)
mul \$t5, \$t1, \$t2	(0.25pt)
b fin	(0.25pt)
fin:	(0.25pt)
li \$v0, 1	
move \$a0, \$t5	(0.25pt)
syscall	
fin2:	(0.25pt)

Exercice 2 (10 pts) :

.data	(0.25pt)
tab: .space 400	(0.25pt)
m1: .asciiz "Donnez le nombre d'element de votre tableau SVP:"	(0.25pt)
m2: .asciiz "Inserer l'element SVP:"	(0.25pt)
m3: .asciiz "La somme des elements impairs est:"	(0.25pt)
.text	(0.25pt)
la \$t0, tab	(0.25pt)
addi \$t1, \$zero, 0	(0.25pt)
addi \$t4, \$zero, 0	(0.25pt)
li \$v0, 4	
la \$a0, m1	(0.25pt)
syscall	
li \$v0, 5	
syscall	(0.25pt)
move \$t2, \$v0	
remplire_tab:	(0.25pt)
beq \$t1, \$t2, reset	(0.25pt)
li \$v0, 4	
la \$a0, m2	(0.25pt)
syscall	
li \$v0, 5	
syscall	(0.25pt)
move \$t3, \$v0	
sw \$t3, (\$t0)	(0.5pt)
addi \$t0, \$t0, 4	(0.5pt)
addi \$t1, \$t1, 1	(0.5pt)
b remplire_tab	(0.25pt)

reset:(0.25pt)
la \$t0, tab(0.25pt)
li \$t1, 0(0.25pt)
calcule:(0.25pt)
bge \$t1, \$t2, afficher(0.5pt)
lw \$t3, (\$t0)(0.5pt)

add \$t4, \$t4, \$t3(0.5pt)
addi \$t0, \$t0, 8(0.5pt)
addi \$t1, \$t1, 2(0.5pt)
b calcul(0.25pt)

afficher:(0.25pt)
li \$v0, 4
la \$a0, m3(0.25pt)
syscall
li \$v0, 1
move \$a0, \$t4(0.25pt)
syscall