a-) Yukaridaki programın

.data

number: .word 0xFFFFFF64

mask: .word 0x80000000

temp: .word

.text

la $10,number

lw $11,0($10)

add $12,$0,$0

lw $13,4($10)

and $10,$11,$13

beq $10,$0,finish

loop: and $10,$11,$13

bne $10,$0,git

or $12,$12,$13

git: srl $13,$13,1

bne $13,$0,loop

finish: add $12,$12,1

sw $12,temp

put temp

done

çıktısı nedir?

156

b-) Eger number = 0x8FFFFF64

ise cıktı ne olur?

7x16^7+156

c-) Eger number = 12 ise

cıkti ne olur?

**1**

**4-) MAL da 10x10 boyutunda bir matriks tanımlayarak**

**bunu “birim matriks” haline dönüştürünüz?**

**.data**

**Array : .space 0:400**

**Row : .word**

**Col: . word**

**Base .word**

**Adres: . word**

**Element\_in\_row: .word 10**

**Element\_in\_col: .word 10**

**.text**

**Li $12, 1**

**Li $3, 4**

**Li $4, 0**

**Li $5 ,0**

**Li $6 ,10**

**Li $7, 10**

**La $8 ,array**

**Loop:**

**Beq $4,$7 next**

**Mul $9, $4,$6**

**Add $9,$8,$8**

**Mul $9,$9,$3**

**Add $8,$8,$9**

**Sw $12, ( $8)**

**Add $4, $4,, $12**

**Add $5, $5,$12**

**B loop**

**Next\_end:**

**.data**

**x: .space 40**

**la $10,x**

**add $15,$10,36**

**loop3: lw $12,($10)**

**add $11,$10,4**

**loop4: lw $13,($11)**

**sub $14,$12,$13**

**bltz $14,label1**

**sw $12,($11)**

**sw $13,($10)**

**move $12,$13**

**label1: add $11,$11,4**

**ble $11,$15,loop4**

**add $10,$10,4**

**blt $10,$15,loop3**

a-) Yukarida verilen MAL da yazili program kodunun ne yaptigini belirtiniz?

**10 elemanlı diziide Diziyi kucukten buyuge sıralıyor**

**.data**

**x: .word**

**y: .word**

**x: .word**

**move z,y**

**move y,x**

**move x,z**

Yukarida SAL da yazili program kodunu MAL’a ceviriniz?

**.data**

**x: .word,**

**y: .word**

**z: .word**

**la $8,z**

**la $9,y**

**la $10,x**

**lw $11,0($8)**

**lw $12,0($9)**

**move $12,$11**

**lw $11,0($10)**

**sw $12,$10**

**sw $11,$9**

1-) C dilinde aşağıdaki veri tanımlaması veriliyor.

int dizi[10][5];

a-) Yukarıdaki veri tanımlamasını MAL da yapınız.

**dizi: .word 0:50**

b-) A[4][2]=A[4][2] + A[2][5] ine ait MAL kodunu row major

dizi yerleştirme metodunu varayarak yazınız.

**La $8,ar**

**Lw $9 ,68 ($8) // A[4][2]**

**Lw $10,36($8) // A[2][5]**

**Add $9,$9,$10**

**Sw $9,68($8) // 9.register ı A[4][2] ye yazıyor**

c-) A[4][2]=A[4][2] + A[2][5] ine ait MAL kodunu column major

dizi yerleştirme metodunu varsayarak

**La $8,ar**

**Lw $9 , 56($8) // A[4][2]**

**Lw $10, 168($8) // A[2][5]**

**Add $9,$9,$10**

**Sw $9,168 ($8)**

4)for i 1:to 20

begin

a=a+b MAL kodunu yazınız..

if(a>t) then c=a

end

Mal kodu

**Li $1,1**

**Li $20,20**

**La $8,a**

**La $9,t**

**La $10 , b**

**la $11,c**

**loop:**

**beq $1, $20,end**

**lw $12 ,0($8)**

**lw $13,0($10)**

**add $12,$12,$13**

**sw $12,0($8)**

**lw $14,0($9)**

**blt $12,$14,arttir**

**lw $15,0($11)**

**move $15,$12**

**arttir:**

**add $1,$1,$1**

**b loop**

soru:100 elemanlı dizinin

elemanlarını ters ceviren mal kodu ?

**.data**

**dizi: . word 0:100**

**.text**

**la $8,dizi**

**li $9,0**

**li $11,396**

**li $20,200**

**loop:**

**add $16,$9,$8 //bas\_adres**

**add $17,$11,$8 //son\_adres**

**lw $18,0($17) // sondan**

**lw $19,0($16) // bastan**

**sw $19,0($17)**

**sw $18,0($16)**

**add $9,$9,4**

**beq $9,$20,end**

**sub $11,$11,4**

**b loop**

**end:**

**Asaidaki kodun tal karsiligi**

**lw $15, variable**

**lui $15, 0x7F10**

**ori $15,$15,0x2948**

**lw $15,0($15)**