**#Lab6:1**

.data

n: .word 0

l1: .word 0

l2: .word 0

matrix: .space 128

sir1: .asciiz "Introduceti lungimea laturii matricii:\n"

sir2: .asciiz "Introduceti prima valoare a liniei:\n"

sir3: .asciiz "Introduceti a 2-a valoare a liniei:\n"

sir4: .asciiz "Introduceti valorile matricii:\n"

sir5: .asciiz " "

sir6: .asciiz "\n"

.text

function:

la $t0, matrix

li $t1, 0

sub $t5, $s1, 1

mulo $t5, $t5, $s0

loop1:

beq $t1, $t5, end\_loop1

addi $t1, 1

addi $t0, 4

b loop1

end\_loop1:

la $t2, matrix

li $t1, 0

sub $t6, $s2, 1

mulo $t6, $t6, $s0

loop2:

beq $t1, $t6, end\_loop2

addi $t1, 1

addi $t2, 4

b loop2

end\_loop2:

li $t1, 0

loop3:

beq $t1, $s0, end\_loop3

addi $t1, 1

lw $t3, ($t0)

lw $t4, ($t2)

sw $t3, ($t2)

sw $t4, ($t0)

addi $t0, 4

addi $t2, 4

b loop3

end\_loop3:

jr $ra

main:

li $v0, 4

la $a0, sir1

syscall

li $v0, 5

syscall

sw $v0, n

lw $s0, n

li $v0, 4

la $a0, sir2

syscall

li $v0, 5

syscall

sw $v0, l1

lw $s1, l1

li $v0, 4

la $a0, sir3

syscall

li $v0, 5

syscall

sw $v0, l2

lw $s2, l2

li $v0, 4

la $a0, sir4

syscall

mulo $s3, $s0, $s0

la $s4, matrix

li $s5, 0

for:

beq $s5, $s3, end\_for

addi $s5, 1

li $v0, 5

syscall

sw $v0, ($s4)

addi $s4, 4

b for

end\_for:

jal function

move $t7, $s0

la $s4, matrix

li $s5, 0

for2:

beq $s5, $s3, end\_for2

addi $s5, 1

lw $s6, ($s4)

li $v0, 1

move $a0, $s6

syscall

li $v0, 4

la $a0, sir5

syscall

addi $s4, 4

bne $s5, $s0 aici

li $v0, 4

la $a0, sir6

syscall

add $s0, $s0, $t7

aici:

b for2

end\_for2:

li $v0, 10

syscall

**#Lab6:2**

.data

n: .word 0

p: .word 0

tablou: .space 128

sir1: .asciiz "Introduceti numarul de elemente al tabloului:\n"

sir2: .asciiz "Introduceti elementele tabloului:\n"

sir3: .asciiz "Introduceti valoarea lui 'p':\n"

sir4: .asciiz "Suma puterilor este:\n"

.text

functie:

move $t0, $s4

li $t1, 1

lw $t2, p

for2:

beq $t1, $t2, end\_for2

addi $t1, 1

mulo $v0, $t0, $t0

b for2

end\_for2:

jr $ra

main:

li $v0, 4

la $a0, sir1

syscall

li $v0, 5

syscall

sw $v0, n

lw $s0, n

li $v0, 4

la $a0, sir3

syscall

li $v0, 5

syscall

sw $v0, p

lw $s1, p

li $s2, 0

li $s5, 0

la $s3, tablou

li $v0, 4

la $a0, sir2

syscall

for:

beq $s2, $s0, end\_for

addi $s2, 1

li $v0, 5

syscall

sw $v0, ($s3)

lw $s4, ($s3)

addi $s3, 4

jal functie

add $s5, $s5, $v0

b for

end\_for:

li $v0, 1

move $a0, $s5

syscall

li $v0, 10

syscall

**#Lab6:3**

.data

n: .word 0

string: .asciiz ""

sir1: .asciiz "Introduceti numarul de caractere ce urmeaza a fi citite:\n"

sir2: .asciiz "Introduceti sirul de la tastatura:\n"

sir3: .asciiz "\n"

x: .byte 'a'

y: .byte 'A'

.text

prelucrare:

lw $t0, n

li $t1, 0

for:

beq $t1, $t0, end\_for

addi $t1, 1

lb $t2, ($s1)

lb $t3, x

lb $t4, y

beq $t2, $t3, aaa

beq $t2, $t4, AAA

b here

aaa:

sb $t4, ($s1)

b here

AAA:

sb $t3, ($s1)

here:

addi $s1, 1

b for

end\_for:

jr $ra

main:

li $v0, 4

la $a0, sir1

syscall

li $v0, 5

syscall

sw $v0, n

lw $s0, n

li $v0, 4

la $a0, sir2

syscall

li $v0, 8

la $a0, string

move $a1, $s0

addi $a1, 1

syscall

la $s1, string

jal prelucrare

li $v0, 4

la $a0, sir3

syscall

li $v0, 4

la $a0, string

syscall

li $v0, 10

syscall