

Selection Sort

.data

message: .ascii "ingrese numero"

esp: .ascii " "

.align 2

array: .space 20

.text

main:

la \$s0, array

li \$s1, 0 #i

li \$s2, 5 #n

Henar:

beq \$s1, \$s2, reset

li \$v0, 4

la \$a0, message

syscall

li \$v0, 5

syscall

sw \$v0, 0(\$s0)

addi \$s0, \$s0, 4

addi \$s1, \$s1, 1

J Henar

reset:

li \$s1, 0 #i=0

li \$s2, 4 #n-1

for_ext:

```
beq $s1, $s7, resetz  
move $t0, $s1 # min_idx = i  
addi $t1, $s1, 1 # j = i + 1
```

for_int:

```
li $t8, 5 # n  
beq $t1, $t8, swap  
mul $t2, $t1, 4  
la $s0, array  
add $s3, $s0, $t2  
lw $t4, 0($s3) # $t4 = arr[i]  
mul $t3, $t0, 4  
add $s4, $s0, $t3  
lw $t5, 0($s4) # $t5 = arr[min_idx]  
bge $t4, $t5, next_j  
move $t0, $t1
```

next_j:

```
addi $t1, $t1, 1  
j for_int
```

swap:

```
mul $t2, $s1, 4  
la $s0, array  
add $s3, $s0, $t2 # dir de arr[i]  
lw $t4, 0($s3) # valor de arr[i]
```



```

mul $t3, $t0, 4
add $s4, $s0, $t3. # Dir arr[mm-idx]
lw $t5, 0($s4) # valor arr[mm-idx]
sw $t5, 0($s3) # arr[i] <- valor min
sw $t4, 0($s4) # arr[mm-idx] <- valor i
addi $s1, $s1, 1
    } For-ep

```

reset2:

```

la $s0, array

```

```

li $s1, 0

```

```

li $s2, 5

```

imprimir:

```

beq $s1, $s2, exit

```

```

lw $a0, 0($s0)

```

```

li $v0, 1

```

```

syscall

```

```

li $v0, 4

```

```

la $a0, esp

```

```

syscall

```

```

addi $s0, $s0, 4

```

```

addi $s1, $s1, 1

```

```

    } imprimir

```

exit:

```

li $v0, 10

```

```

syscall

```