.data

array: .word 1, 2, 3, 4, 5, 6

Spacing: .asciiz " "

Line: .asciiz "\n"

.globl main

.text

main: la $t2, array #preparing to print array

li $t3, 6

loop: lw $a0, ($t2) #looping to print out array

li $v0, 1

syscall

addi $t3, $t3, -1

addi $t2, $t2, 4

la $a0, Spacing

li $v0, 4

syscall

bgtz $t3, loop #loop ends

la $a0, Line #line break

syscall

li $a1, 6 #putting number of elements in arguments

la $a0, array #putting array in arguments

lw $t0, ($a0) #first element in place holder1

add $a0, $a0, 4

addi $a1, $a1, -1

lw $t1, ($a0) #second element in place holder2

place: beqz $a0, End #Loop until the end of the array is reached

sw $t0, ($a0) #Store element one index over

add $a0, $a0, 4

addi $a1, $a1, -1

beqz $a1, End

lw $t0, ($a0) #New element in place holder1

sw $t1, ($a0) #Store element

add $a0, $a0, 4

addi $a1, $a1, -1

beqz $a1, End

lw $t1, ($a0) #New element in place holder2

b place #loop until the end of the array is reached

End:

la $a0, array #load address of first element

sw $t1, ($a0) #Store last element in first position

li $a1, 6

la $t2, array

loopR: lw $a0, ($t2) #Print out new array

li $v0, 1

syscall

add $a1, $a1, -1

add $t2, $t2, 4

la $a0, Spacing

li $v0, 4

syscall

bgtz $a1, loopR

li $v0, 10

syscall