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#################################################################################
# kody Gentry, CS 2318-002, Assignment 2 Part 1 Program C
############################## data segment ###################################
                            .data
intArray:                   .word 8, 1, 3, 2
initialCons:                .asciiz "Initial Conditions for the array: "
resultCons:                 .asciiz "Conditions after changing the array: "
############################## code segment ###################################
                            .text
                            .globl main
 main:
                            #Load array into $t0
                            la $t0, intArray

                            #Load data to print
                            lw $t1, 0($t0)
                            lw $t2, 4($t0)
                            lw $t3, 8($t0)
                            lw $t4, 12($t0)

                            #print array
                            li $v0, 4
                            la $a0, initialCons
                            syscall
                            li $v0, 1
                            move $a0, $t1
                            syscall
                            move $a0, $t2
                            syscall
                            move $a0, $t3
                            syscall
                            move $a0, $t4
                            syscall

                            #print a new line
                            li $v0, 11
                            li $a0, '\n'
                            syscall

                            #swap 8 and 2
                            lw $t1, 0($t0)
                            lw $t2, 12($t0)
                            sw $t1, 12($t0)
                            sw $t2, 0($t0)

                            #Reload array into $t0
                            la $t0, intArray

                            #swap 3 and 1
```

```
lw $t1, 4($t0)
lw $t2, 8($t0)
sw $t1, 8($t0)
sw $t2, 4($t0)

#Reload array into $t0
la $t0, intArray

#Load data to print
lw $t1, 0($t0)
lw $t2, 4($t0)
lw $t3, 8($t0)
lw $t4, 12($t0)

#print array
li $v0, 4
la $a0, resultCons
syscall
li $v0, 1
move $a0, $t4
syscall
move $a0, $t3
syscall
move $a0, $t2
syscall
move $a0, $t1
syscall

# exit
li $v0, 10
syscall
```