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1  ###############################################################################
2  # William Hunt, CS 2318-253, Assignment 2 Part 1 Program C
3  ###############################################################################
4  # This Mips Program used array, swaps, and other methods to achieve flipping
5  # 2318 into 8132 and outputting both
6  ############################## data segment ####################################
7
8
9
10 #### Array and Display ####
11             .data
12 intArray:   .word 2,3,1,8
13 displayInt: .asciiz "The order of values in the array is: "
14             .text
15             .globl main
16 main:
17
18
19             la   $t0, intArray
20             #[Print default arr. order]
21             li $v0, 4
22             la $a0, displayInt
23             syscall
24             li $v0, 1
25             lw $a0, 0($t0)
26             syscall
27             li $v0, 1
28             lw $a0, 4($t0)
29             syscall
30             li $v0, 1
31             lw $a0, 8($t0)
32             syscall
33             li $v0, 1
34             lw $a0, 12($t0)
35             syscall
36             #[Reordering the arrary]
37             lw $t1, 12($t0)
38             lw $t2,  0($t0)
39             sw $t2, 12($t0)
40             sw $t1, 0($t0)
41             lw $t1, 4($t0)
42             lw $t2, 8($t0)
43             sw $t2, 4($t0)
44             sw $t1, 8($t0)
45
46             li $v0, 11
47             li $a0, '\n'
48             syscall
49             #[Printing the new array order]
50             li $v0, 4
51             la $a0, displayInt
52             syscall
53             li $v0, 1
54             lb $a0, 0($t0)
55             syscall
56             li $v0, 1
57             lb $a0, 4($t0)
58             syscall
59             li $v0, 1
60             lb $a0, 8($t0)
61             syscall
62             li $v0, 1
63             lb $a0, 12($t0)
64             syscall
65
66
```

```
67  #Exit Here
68  li $v0, 10
69  syscall
```