

Tarea 3

Arquitectura de Computadores.

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1 Big & Little Endian

1. Francisco:

ASCII	F	r	a	n	c	i	s	c	o
Hex	46	72	61	6e	63	69	73	63	6f

Almacenamiento en Big Endian:

Word/Byte	0	1	2	3
0	46	72	61	6e
4	63	69	73	63
8	6f	00	00	00

Y en Little Endian:

Word/Byte	0	1	2	3
0	6e	61	72	46
4	63	73	69	63
8	00	00	00	6f

2. Cristian:

ASCII	C	r	i	s	t	i	a	n
Hex	43	72	69	73	74	69	61	6e

Almacenamiento en Big Endian:

Word/Byte	0	1	2	3
0	43	72	69	73
4	74	69	61	6e

Y en Little Endian:

Word/Byte	0	1	2	3
0	73	69	72	43
4	6e	61	69	74

3. Juan Pablo:

ASCII	J	u	a	n		P	a	b	l	o
Hex	4a	75	61	6e	20	50	61	62	6c	6f

Almacenamiento en Big Endian:

Word/Byte	0	1	2	3
0	4a	75	61	6e
4	20	50	61	62
8	6c	6f	00	00

Y en Little Endian:

Word/Byte	0	1	2	3
0	6e	61	75	4a
4	62	61	50	20
8	00	00	6f	6c

2 Código Assembly

Código traspasado:

```

1
2 .data
3 .text
4     main:
5         li $v0, 5
6         syscall
7         move $t0, $v0    # $t0 = a
8
9         li $v0, 5
10        syscall
11        move $t1, $v0    # $t1 = b
12
13        li $t0, 3
14        li $t3, 2
15
16    while: beq $t0, 1, pb    # while(a > 1)
17            div $t0, $t3
18            mfhi $t4
19            beq $t4, 0, mod1    # if(a % 2 == 0)
20
21            addi $t1, $t0, 5    # b = a + 5
22            j mod2
23    mod1:  mult $t0, $t3
24            mfhi $t1            # b = 2 * a
25            j mod2
26
27    mod2:  addi $t0, $t0, -1    # a = a - 1
28            j while
29
30    pb:    li $v0, 1
31            move $a0, $t1
32            syscall            # print b
33            li $v0, 10
34            syscall            # return 0
35

```