individualAssign1.txt

Proc2.s
Line # 7
MIPs Instruction: addi $s0, $zero, -15
'I' type instruction
Opcode: 0x8 = 01000
rs = $zero = 00000
rt = $s0 = 16 = 10000
inter. = -15 = 0111 + 1 = 10000 → 0000000000010000

Binary Rep. (Full): 01000 00000 10000 0000000000010000
Machine Code: 0x40200010
Opcode: 01000 = 0x8
rs = 00000 = $zero
rt = 10000 = $s0
inter. = 0000000000010000 = -15

MIPS Rep. (Full): addi $s0, $zero, -15

Line # 14
MIPs Instruction: slt $t0, $s0, $s1
'R' type instruction
Opcode: 0x00000; Function: 0x2a = 0010 1010 ⇒ 101010
rs = $s0 = 16 = 10000
rt = $s1 = 17 = 10001
rd = $t0 = 8 = 01000
Shamt = NIL = 00000

Binary Rep (Full): 00000 10000 10001 01000 00000 101010
Machine Code: 0x0211402a
Opcode: 00000 ('R')
rs = 10000 = $s0
rt = 10001 = $s1
rd = 01000 = $t0
Shamt = 00000 = NIL
Function = 101010 = 2a

MIPs Instruction: slt $t0, $s0, $s1

Line# 17
MIPs Instruction: BEQ $60, $zero, LEEQ
Opcode = 4 = 00100 Instruction type 'I'
rs = $60 = 8 = 01000
rt = $zero = 0 = 00000
Immediate = LEEQ = 0x00000006 = 0000000000000110

Binary Rep (FULL): 00100001000000000000000000000110
Machine Code: 0x11000006

Opcode = 00100 = 04
rs = 01000 = 8 = $60
rt = 00000 = 0 = $zero
Im. = 0000000000000110 = 0x00000006 = LEEQ

MIPs Instruction: Beq, $60, $zero, LEEQ

Line# 20
MIPs Instruction: j GRT
Opcode = 0x2 = 000010
JumpAdd = 0x004000lc = 00000000 0100 0000 0000 0000 0001 1100

Binary Rep. (FULL): 00001000 0001 0000 0000 0000 0000 0111
Machine Code: 0x 08100007

Opcode = 000010 = 0x2
Jump Add = 00000100 0000 0000 0000 0000 0111 → 0000 0000 0100 0000 0000 0000 0001 1100
= 0x004001C → GRT

MIPs Instruction: j GRT