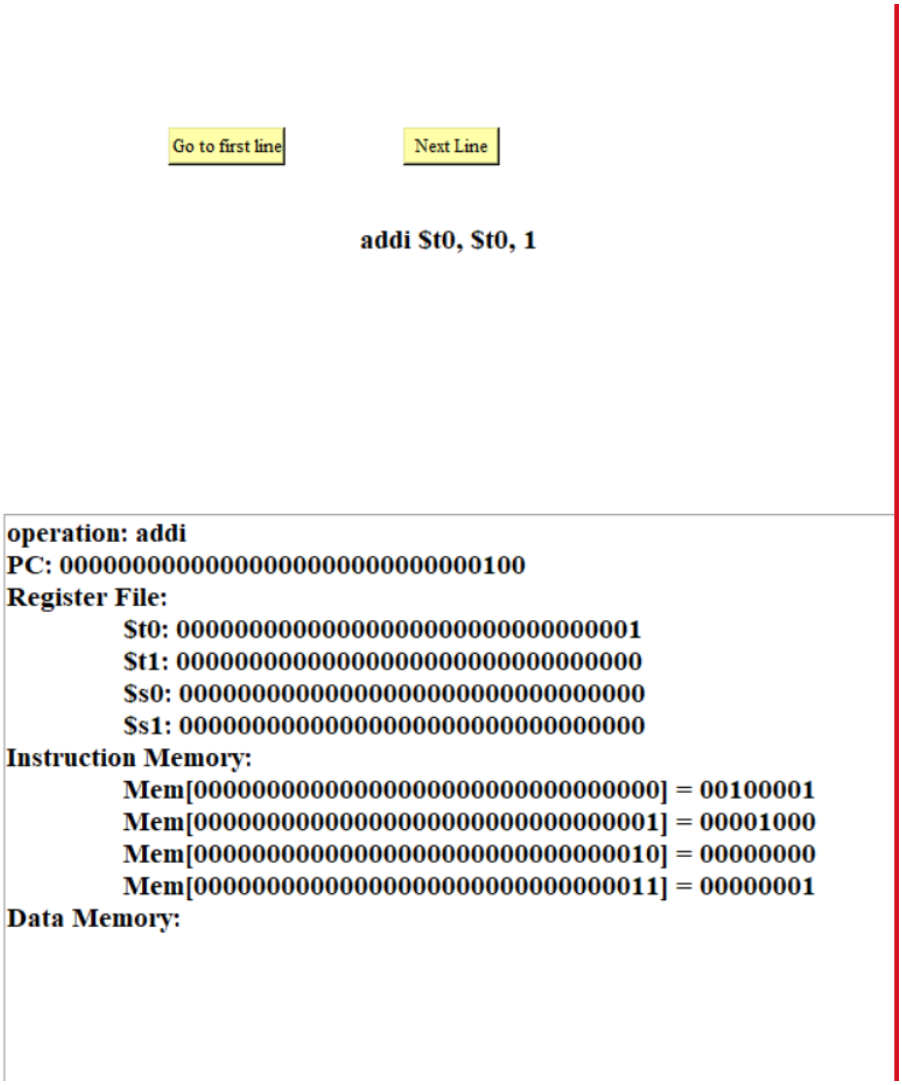
Rtype


Go to first line
Next Line
addi $t0, $t0, 1
operation: addi
PC: 00000000000000000000000000000100
Register File:
$t0: 00000000000000000000000000000001
$t1: 00000000000000000000000000000000
$s0: 00000000000000000000000000000000
$s1: 00000000000000000000000000000000
Instruction Memory:
Mem[00000000000000000000000000000000] = 00100001
Mem[00000000000000000000000000000001] = 00001000
Mem[00000000000000000000000000000010] = 00000000
Mem[00000000000000000000000000000011] = 00000001
Data Memory:

addi St1, St1, 7

operation: addi
PC: 00000000000000000000000000001000
Register File:
St0: 00000000000000000000000000000001
St1: 00000000000000000000000000000111
Ss0: 00000000000000000000000000000000
Ss1: 00000000000000000000000000000000
Instruction Memory:
Mem[00000000000000000000000000000100] = 00100001
Mem[00000000000000000000000000000101] = 00101001
Mem[00000000000000000000000000000110] = 00000000
Mem[00000000000000000000000000000111] = 00000111
Data Memory:

add $s0, $t0, $t1

```
operation: add
PC: 00000000000000000000000000001100
Register File:
        $t0: 00000000000000000000000000000001
        $t1: 00000000000000000000000000000111
        $s0: 00000000000000000000000000001000
        $s1: 00000000000000000000000000000000
Instruction Memory:
        Mem[00000000000000000000000000001000] = 00000001
        Mem[00000000000000000000000000001001] = 00001001
        Mem[00000000000000000000000000001010] = 10000000
        Mem[00000000000000000000000000001011] = 00100000
Data Memory:
```

and Ss1, Ss0, St0

operation: and
PC: 00000000000000000000000000010000
Register File:
St0: 00000000000000000000000000000001
St1: 00000000000000000000000000000111
Ss0: 00000000000000000000000000001000
Ss1: 00000000000000000000000000000000
Instruction Memory:
Mem[00000000000000000000000000001100] = 00000010
Mem[00000000000000000000000000001101] = 00010001
Mem[00000000000000000000000000001110] = 01000000
Mem[00000000000000000000000000001111] = 00100100
Data Memory:

slt $t0, $s1, $s0

operation: slt
PC: 00000000000000000000000000010100
Register File:
$t0: 00000000000000000000000000000001
$t1: 00000000000000000000000000000111
$s0: 00000000000000000000000000001000
$s1: 00000000000000000000000000000000
Instruction Memory:
Mem[00000000000000000000000000010000] = 00000010
Mem[00000000000000000000000000010001] = 00110000
Mem[00000000000000000000000000010010] = 01000000
Mem[00000000000000000000000000010011] = 00101010
Data Memory:

Itype

addi $t0, $t0, 4

```
operation: addi
PC: 00000000000000000000000000000100
Register File:
        $t0: 00000000000000000000000000000100
        $t1: 00000000000000000000000000000000
        $s0: 00000000000000000000000000000000
        $s1: 00000000000000000000000000000000
Instruction Memory:
        Mem[00000000000000000000000000000000] = 00100001
        Mem[00000000000000000000000000000001] = 00001000
        Mem[00000000000000000000000000000010] = 00000000
        Mem[00000000000000000000000000000011] = 00000100
Data Memory:
```

addi St1, St1, 3

operation: addi
PC: 00000000000000000000000000001000
Register File:
St0: 00000000000000000000000000000100
St1: 00000000000000000000000000000011
Ss0: 00000000000000000000000000000000
Ss1: 00000000000000000000000000000000
Instruction Memory:
Mem[00000000000000000000000000000100] = 00100001
Mem[00000000000000000000000000000101] = 00101001
Mem[00000000000000000000000000000110] = 00000000
Mem[00000000000000000000000000000111] = 00000011
Data Memory:

slti St1, St1, 5

operation: slti
PC: 00000000000000000000000000001100
Register File:
St0: 00000000000000000000000000000100
St1: 00000000000000000000000000000001
Ss0: 00000000000000000000000000000000
Ss1: 00000000000000000000000000000000
Instruction Memory:
Mem[00000000000000000000000000001000] = 00101001
Mem[00000000000000000000000000001001] = 00101001
Mem[00000000000000000000000000001010] = 00000000
Mem[00000000000000000000000000001011] = 00000101
Data Memory:

sw $t1, 4($t0)

operation: sw
PC: 00000000000000000000000000010000
Register File:
$t0: 00000000000000000000000000000100
$t1: 00000000000000000000000000000001
$s0: 00000000000000000000000000000000
$s1: 00000000000000000000000000000000
Instruction Memory:
Mem[00000000000000000000000000001100] = 10101101
Mem[00000000000000000000000000001101] = 00001001
Mem[00000000000000000000000000001110] = 00000000
Mem[00000000000000000000000000001111] = 00000100
Data Memory:
Mem[00000000000000000000000000000100] = 00000000
Mem[00000000000000000000000000000101] = 00000000
Mem[00000000000000000000000000000110] = 00000000
Mem[00000000000000000000000000000111] = 00000001

lw Ss1, 4(St0)

operation: lw
PC: 00000000000000000000000000010100
Register File:
St0: 00000000000000000000000000000100
St1: 00000000000000000000000000000001
Ss0: 00000000000000000000000000000000
Ss1: 00000000000000000000000000000001
Instruction Memory:
Mem[00000000000000000000000000010000] = 10001101
Mem[00000000000000000000000000010001] = 00010001
Mem[00000000000000000000000000010010] = 00000000
Mem[00000000000000000000000000010011] = 00000100
Data Memory:
Mem[00000000000000000000000000000100] = 00000000
Mem[00000000000000000000000000000101] = 00000000
Mem[00000000000000000000000000000110] = 00000000
Mem[00000000000000000000000000000111] = 00000001

Jtype

ıent: beq St1, St0, Initiali

```
operation: beq
PC: 00000000000000000000000000000100
Register File:
        St0: 00000000000000000000000000000000
        St1: 00000000000000000000000000000000
        Ss0: 00000000000000000000000000000000
        Ss1: 00000000000000000000000000000000
Instruction Memory:
        Mem[00000000000000000000000000000000] = 00010001
        Mem[00000000000000000000000000000001] = 00101000
        Mem[00000000000000000000000000000010] = 00000000
        Mem[00000000000000000000000000000011] = 00000001
Data Memory:
```

[nitialization: addi St0, St0, 4

operation: addi
PC: 00000000000000000000000000001000
Register File:
St0: 00000000000000000000000000000100
St1: 00000000000000000000000000000000
Ss0: 00000000000000000000000000000000
Ss1: 00000000000000000000000000000000
Instruction Memory:
Mem[00000000000000000000000000000100] = 00100001
Mem[00000000000000000000000000000101] = 00001000
Mem[00000000000000000000000000000110] = 00000000
Mem[00000000000000000000000000000111] = 00000100
Data Memory:

addi St1, St1, 3

operation: addi
PC: 00000000000000000000000000001100
Register File:
St0: 00000000000000000000000000000100
St1: 00000000000000000000000000000011
Ss0: 00000000000000000000000000000000
Ss1: 00000000000000000000000000000000
Instruction Memory:
Mem[00000000000000000000000000001000] = 00100001
Mem[00000000000000000000000000001001] = 00101001
Mem[00000000000000000000000000001010] = 00000000
Mem[00000000000000000000000000001011] = 00000011
Data Memory:

bne St1, St0, Judg

operation: bne
PC: 00000000000000000000000000010000
Register File:
St0: 00000000000000000000000000000100
St1: 00000000000000000000000000000011
Ss0: 00000000000000000000000000000000
Ss1: 00000000000000000000000000000000
Instruction Memory:
Mem[00000000000000000000000000001100] = 00010101
Mem[00000000000000000000000000001101] = 00101000
Mem[00000000000000000000000000001110] = 11111111
Mem[00000000000000000000000000001111] = 11111111
Data Memory:

ıent: beq St1, St0, Initiali

operation: beq
PC: 00000000000000000000000000010100
Register File:
St0: 00000000000000000000000000000100
St1: 00000000000000000000000000000011
Ss0: 00000000000000000000000000000000
Ss1: 00000000000000000000000000000000
Instruction Memory:
Mem[00000000000000000000000000010000] = 00010001
Mem[00000000000000000000000000010001] = 00101000
Mem[00000000000000000000000000010010] = 11111111
Mem[00000000000000000000000000010011] = 11111111
Data Memory:

j Exit

operation: j
opcode: 000010
address: 00000000000000000000010101
PC: 00000000000000000000000000011000
Register File:
St0: 00000000000000000000000000000100
St1: 00000000000000000000000000000011
Ss0: 00000000000000000000000000000000
Ss1: 00000000000000000000000000000000
Instruction Memory:
Mem[00000000000000000000000000010000] = 00010001
Mem[00000000000000000000000000010001] = 00101000
Mem[00000000000000000000000000010010] = 11111111
Mem[00000000000000000000000000010011] = 11111111
Data Memory:

Exit: **addi $s0, $s0, 5**

operation: addi
PC: 00000000000000000000000000011100
Register File:
$t0: 00000000000000000000000000000100
$t1: 00000000000000000000000000000011
$s0: 00000000000000000000000000000101
$s1: 00000000000000000000000000000000
Instruction Memory:
Mem[00000000000000000000000000010100] = 00100010
Mem[00000000000000000000000000010101] = 00010000
Mem[00000000000000000000000000010110] = 00000000
Mem[00000000000000000000000000010111] = 00000101
Data Memory: