

605.611 - Foundations of Computer Architecture

Assignment 06 - Branching and Jumps

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1. Translate statements 1, 2, and 5 into machine code. Assumes the program loads at 0x0040 0000.

```
1  label_1 :  
2      b label_2  
3      j label_3  
4      addi $t0 , $t1 , 100  
5      sub $t0 , $t1 , $t2  
6  label_2 :  
7      b label_1  
8  label_3 :  
9      addi $t0 , $t1 , 100
```

2. Explain, in your own words, how a 26 bit address in the `jmp` instruction can access any executable statement in a program. This must be your own words. Copying something from the internet does not count.