CSE-360: Assignment-2 MIPS Instructions

Due date: February 5th, 2017

Task1: lab1_1.asm is a MIPS assembly program. Understand and run the code with pcspim tool.

- You will try to figure out what does program lab1_1.asm do. Run it several times with various input data. Use both positive and negative integers. Fill out the following table:

Input	Output

- What is the formula that describes the relation between the output and the input?
- Run the code(13 instructions) step by step and fill up the following table:

PC address	Instructions	Binary 32 bits	Opcode	Function (if R type)	Used Registers and their Values

Task2: lab1_1.asm is a MIPS assembly program. Understand and run the code with pcspim tool.

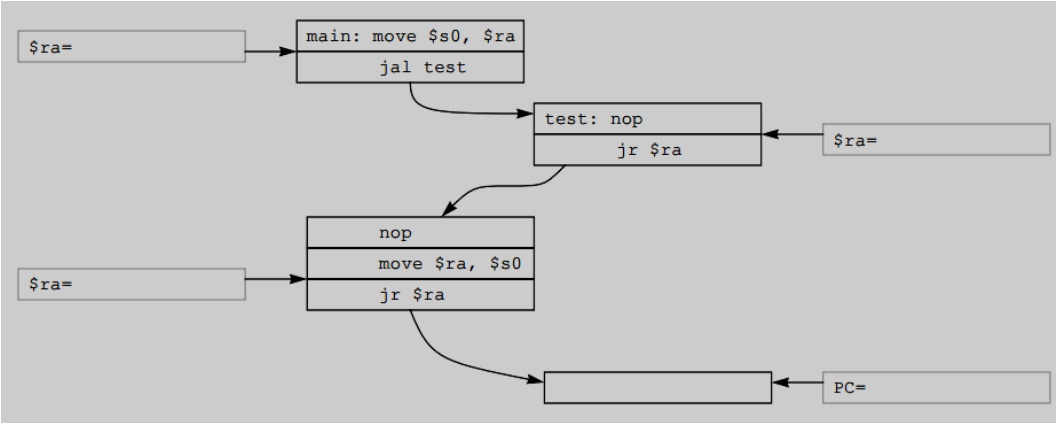
- Create a program (use lab1_1.asm as a model) that reads a float (i.e. single precision number) from the keyboard and then outputs it. You will need to look at the instruction set to find out what instruction to use for moving a float from one floating point register to another (addu $f12, $f0, $0 **will not work**).
- Present your code in report with input and output set.

Task3: lab1_2.asm is a MIPS assembly program. Understand and run the code with pcspim tool.

- What does the program do?
- Find the 32 bit address of **Loop** and **Exit** labels.

Task4: lab1_3.asm is a MIPS assembly program.

- Run the program step by step and fill up the missing information in the following figure:



- Explain what happens if you do not save $ra in $s0 in 'main' procedure.