

DUE DATE: 2/13/2012

Lab 1: Learning and experimenting with MIPS Instruction Set Architecture (5% of class grade)

- i. Study the MIPS ISA.**
- ii. Write a MIPS program to sort a given collection of numbers (only positive number).**
- iii. Here are some requirements for the program**
 - a. Prompt the user and input the number of integers in the collection. Let this be denoted by N. (5 points)**
 - b. Input the value for the N integers in the collection and make sure they are positive number and within the 32-bit range (validate). Store them in the memory. (10 points)**
 - c. Write two functions or two routines (i) selections sort (ii) insertion sort (50 points)**
 - d. Call these functions from the main routine, one at a time with the same data set. (10 points)**
 - e. Output the sorted array with a message. (10 points)**
 - f. Have a name box at the top of the code with details about your name, program name, date, lab#, file name, how to run it and also the time taken for (i) selection sort and (ii) insertion sort. (10 points)**
 - g. Add comments to explain your program. (5 points)**

One final note: You are required to work on this project on your own. You can get all the help you want from the TAs of this course.